SHIVAJI UNIVERISTY, KOLHAPUR-416 004. MAHARASHTRA
PHONE : EPABX-2609000 website- www.unishivaji.ac.in
FAX 0091-0231-2691533 & 0091-0231-2692333 – BOS - 2609094
शिवाजी विद्यापीठ, कोल्हापूर – 416004.
दुरध्वनी (ईपीएबीएक्स) २६०९००० (अभ्यास मंडळे विभाग– २६०९०९४)
फॅक्स : ००९१-०२३१-२६९१५३३ व २६९२३३३.e-mail:bos@unishivaji.ac.in

Estd. 1962
NAAC 'A' Grade

Ref./SU/BOS/Science/4749 **Date:-** 01/06/2018

The Principal
All Affiliated Science (B.Sc.) Colleges,
Shivaji University,
Kolhapur.

Subject: Regarding Guidelines, Rules, Regulation, Structure and Standard of Passing of B.Sc. Part –I, II, III (Sem I & VI) Choice Based Credit System (CBCS) under the Faculty of Science and Technology.

Sir/Madam,

With reference to the subject mentioned above, I am directed to inform you that University authorities have accepted and granted approval to Guidelines, Rules, Regulation, Structure and Standard of Passing of B.Sc. Part- I , II, III (Sem. I & VI) Choice Based Credit System (CBCS) under the Faculty of Science and Technology.

This Guidelines, Rules, Regulation, Structure and Standard of Passing shall be implemented from academic year 2018-2019 (i.e. from June 2018 onwards). A soft copy containing Guidelines, Rules, Regulation, Structure and Standard of Passing is attached herewith and it is also available on university website www.unishivaji.ac.in. (Online Syllabus)

You are therefore, requested to bring this to the notice of all Students and Teachers concerned.

Thanking you,

Yours faithfully,

Dy. Registrar

Encl: As above
Copy to;

1 Dean, Faculty of Science and Technology
2 Chairman, BOS & Ad-hoc Bords under Faculty of Science and Technology

3 Appointment Section
4 P.G. Admission Section
5 B.Sc. Section
6 Affiliation Section (U.G.)
7 Computer Centre
8 Eligibility Section
9 Distan Education

} for information and necessary action.

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फॅक्स : ००९१-०२३१-२६९१५३३ व २६९२३३३.e-mail:bos@unishivaji.ac.in

Estd. 1962
NAAC 'A' Grade

SU/BOS/Science/6254 **Date: 21-06-2018**

To,

The Principal,
All Affiliated (Science) Colleges/Institutions,
Shivaji University, Kolhapur.

Subject: Regarding syllabi of B. Sc. Part-I (CBCS) degree programme under the Faculty of Science and Technology

Sir/Madam,

With reference to the subject mentioned above, I am directed to inform you that the university authorities have accepted and granted approval to the revised syllabi, Nature of question paper and equivalence of B. Sc. Part-I (Sem. I & II) Choice Based Credit System (CBCS) under the Faculty of Science and Technology.

B.Sc.-I (Sem. I & II) (CBCS)			
1)	English (Com.)	2)	Chemistry
3)	Physics	4)	Zoology
5)	Botany	6)	Statistics
7)	Mathematics	8)	Microbiology
9)	Geography	10)	Geology
11)	Electronics	12)	Biotechnology (Optional/Vocational)
13)	Computer Science	14)	Biochemistry
15)	Food Science & Quality Control	16)	Astro Physics & Speace Science
17)	Nanotechnology	18)	Industrial Microbiology

This syllabi and equivalence shall be implemented from the academic year 2018-2019 (i.e. from June 2018) onwards. A soft copy containing the syllabus is attached herewith and it is also available on university website www.unishivaji.ac.in (Online Syllabus)

The question papers on the pre-revised syllabi of above mentioned course will be set for the examinations to be held in October /November 2018 & March/April 2019. These chances are available for repeater students, if any.

You are, therefore, requested to bring this to the notice of all students and teachers concerned.

Thanking you,

Yours faithfully,

Dy Registrar

Copy to:

1	The Dean, Faculty of Arts & Fine Arts	7	Appointment Section
2	Director, Board of Examinations and Evaluation	8	P.G.Seminar Section
3	The Chairman, Respective Board of Studies	9	Computer Centre
4	B.Sc. Exam	10	Affiliation Section (U.G.)
5	Eligibility Section	11	Affiliation Section (P.G.)
6	O.E. I Section	12	P.G.Admission Section

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फॅक्स : ००९१-०२३१-२६९१५३३ व २६९२३३३.e-mail:bos@unishivaji.ac.in

Estd. 1962
NAAC 'A' Grade

Ref./SU/BOS/Comm/ 6312 **Date:-** 22/06/2018

The Principal
All Affiliated (Commerce) Colleges/ Institutions,
Shivaji University, Kolhapur.

Subject: Regarding syllabi and equivalence of B.Com. Part- I (Sem. I & II) Choice Based Credit System (CBCS), degree programme under the Faculty of Commerce & Management.

Sir/Madam,

With reference to the subject mentioned above, I am directed to inform you that the university authorities have accepted and granted approval to the revised syllabi and equivalence of B.Com. Part-I (Sem. I & II) Choice Based Credit System (CBCS) under the Faculty of Commerce & Management.

1	Business Communication	9	Hindi
2	Micro Economics	10	Urdu
3	Management Principles & Applications	11	Kannada
4	Financial Accounting	12	Business Mathematics
5	Principles of Marketing	13	Insurance
6	History of Civilization	14	Geography
7	Marathi	15	Foreign Trade
8	Global Finance		

This revised syllabi and equivalence shall be implemented from the academic year 2018-2019 (i.e. from June 2018) onwards. A soft copy containing the syllabus is attached herewith and it is also available on university website www.unishivaji.ac.in. (Online Syllabus).

The question papers on the pre-revised syllabi of above mentioned course will be set for the examinations to be held in October /November 2018 & March/April 2019. These chances are available for repeater students, if any.

You are therefore, requested to bring this to the notice of all Students and Teachers concerned.

Thanking you,

Yours faithfully,

Dy. Registrar

Encl: As above

Copy to;

1 Dean, Faculty of Commerce & Management
2 Chairman, BOS under Faculty of Commerce & Management
} for information

3 Appointment Section
4 P.G. Admission Section
5 B.Com. Section
6 Affiliation Section (U.G./P.G)
7 Computer Centre
8 Eligibility Section
9 Distan Education
10 P.G.Seminer Section
} for information and necessary action.

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Estd. 1962
NAAC 'A' Grade

Ref./SU/BOS/Arts/6385 **Date:- 25/06/2018**

The Principal
All Affiliated Arts (B.A.) Colleges,
Shivaji University,
Kolhapur.

Subject: Regarding syllabi and equivalence of B.A. Part- I (Sem. I & II) Choice Based Credit System (CBCS) degree programme under the Faculty of Humanities.

Sir/Madam,

With reference to the subject mentioned above, I am directed to inform you that the university authorities have accepted and granted approval to the syllabi and equivalence of B.A. Part-I (Sem. I & II) Choice Based Credit System (CBCS) under the Faculty of Humanities.

This syllabi and equivalence shall be implemented from the academic year 2018-2019 (i.e. from June 2018) onwards. A soft copy containing the syllabus is attached herewith and it is also available on university website www.unishivaji.ac.in. (Online Syllabus).

The question papers on the pre-revised syllabi of above mentioned course will be set for the examinations to be held in October /November 2018 & March/April 2019. These chances are available for repeater students, if any.

You are therefore, requested to bring this to the notice of all Students and Teachers concerned.

Thanking you,

Yours faithfully,

Dy. Registrar

Encl: As above

Copy to;

1 Dean, Faculty of Humanities
2 Chairman, BOS under Faculty of Humanities
} for information

3 Appointment Section
4 P.G. Admission Section
5 B.A. Section
6 Affiliation Section (U.G./P.G)
7 Computer Centre
8 Eligibility Section
9 Distan Education
10 P.G.Seminer Section
} for information and necessary action.

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Estd. 1962
NAAC 'A' Grade

Ref./SU/BOS/ HUM/ 4750 **Date:-** 01/06/2018

The Principal
All Affiliated Arts (B.A.) Colleges,
Shivaji University,
Kolhapur.

Subject: Regarding Guidelines, Rules, Regulation, Structure and Standard of Passing of B.A. Part –I ,II,III (Sem I & VI) Choice Based Credit System (CBCS) under the Faculty of Humanities.

Sir/Madam,

With reference to the subject mentioned above, I am directed to inform you that University authorities have accepted and granted approval to Guidelines, Rules, Regulation, Structure and Standard of Passing of B.A. Part- I,II, III (Sem. I & VI) Choice Based Credit System (CBCS) under the Faculty of Humanities.

This Guidelines, Rules, Regulation, Structure and Standard of Passing shall be implemented from academic year 2018-2019 (i.e. from June 2018 onwards). A soft copy containing Guidelines, Rules, Regulation, Structure and Standard of Passing is attached herewith and it is also available on university website www.unishivaji.ac.in. (Online Syllabus)

You are therefore, requested to bring this to the notice of all Students and Teachers concerned.

Thanking you,

Yours faithfully,

Dy. Registrar

Encl: As above
Copy to;

1 Dean, Faculty of Humanities
2 Chairman, BOS & Ad-hoc Bords under Faculty of Humanities

3 Appointment Section
4 P.G. Admission Section
5 B.A. Section
6 Affiliation Section (U.G.)
7 Computer Centre
8 Eligibility Section
9 Distan Education

for information and necessary action.

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फॅक्स : ००९१-०२३१-२६९१५३३ व २६९२३३३.e-mail:bos@unishivaji.ac.in

Ref./SU/BOS/Comm/4751 **Date:01/06/2018**

The Principal
All Affiliated Commerce (B.Com.) Colleges,
Shivaji University,
Kolhapur.

Subject: Regarding Guidelines, Rules, Regulation, Structure and Standard of Passing of B.Com. Part –I, II, III (Sem I & VI) Choice Based Credit System (CBCS) under the Faculty of Commerce & Management.

Sir/Madam,

With reference to the subject mentioned above, I am directed to inform you that University authorities have accepted and granted approval to Guidelines, Rules, Regulation, Structure and Standard of Passing of B.Com. Part- I ,II,III (Sem. I & VI) Choice Based Credit System (CBCS) under the Faculty of Commerce & Management.

This Guidelines, Rules, Regulation, Structure and Standard of Passing shall be implemented from academic year 2018-2019 (i.e. from June 2018 onwards). A soft copy containing Guidelines, Rules, Regulation, Structure and Standard of Passing is attached herewith and it is also available on university website www.unishivaji.ac.in. (Online Syllabus)

You are therefore, requested to bring this to the notice of all Students and Teachers concerned.

Thanking you,

Yours faithfully,

Dy. Registrar

Encl: As above
Copy to;

1 Dean, Faculty of Commerce & Management
2 Chairman, BOS & Ad-hoc Bords under Faculty of Commerce & Management

3 Appointment Section
4 P.G. Admission Section
5 B.Com. Section
6 Affiliation Section (U.G.)
7 Computer Centre
8 Eligibility Section
9 Distan Education

} for information and necessary action.

SHIVAJI UNIVERSITY, KOLHAPUR.

Accredited By NAAC with 'A' Grade

Revised Syllabus For

B.A. Part-III

English

Syllabus to be implemented from

June, 2020 onwards.

Shivaji University, Kolhapur
B. A.III
Compulsory English
Ability Enhancement Compulsory Course (CBCS)
ENGLISH FOR COMMUNICATION
From June 2020 Onwards

Course Objectives:

- To enhance students' communication skills
- To impart employability skills to students
- To prepare students for competitive examinations
- To enable students to acquire professional skills such as media writing
- To enable students to learn manners and etiquettes required at workplace
- To enhance students' reading comprehension skills
- To create interest in English literature among students
- To inculcate human values and ethics in order to enable students' to become good citizens of the country

Course Outcomes: After the completion of the course, the students will be able to:

- Communicate in English, in oral and written modes, in their day-to-day lives as well as at workplaces.
- Face job interviews confidently and efficiently.
- Acquire soft skills required at workplaces and in real life.
- Learn group behavior and team work.
- Learn to value and respect others' opinions and views and develop democratic attitude.
- Face competitive examinations confidently and efficiently with adequate linguistic confidence.
- Acquire professional skills required in media writing such as writing editorials.
- Learn to appreciate and enjoy reading poetry and prose passages.
- Acquire human values and develop cultured outlook.

SEMESTER V AECC 5

MODULE I

A. Interview Skills
B. The Interview -V.V. John

MODULE II

A. Grammar for Competitive Examinations
B. The Lottery - Shirley Jackson

MODULE III

A. Writing Skills for Competitive Examinations
B. After Twenty Years - O' Henry

MODULE IV

A. I Shall Return To This Bengal - Jibananda Das
B.(i) Song of Youth - A. P. J. Abdul Kalam
(ii) The Orphan Girl - Henry Derezio

***Note: Semester V: 10 Marks for Internal Evaluation: STUDENTS' SEMINAR**

SEMESTER VI **AECC 6**

MODULE V

A. Group Discussion

B. The Lighthouse Keeper of Aspinwall - Henry Sienkiewicz

MODULE VI

A. Note Making and Note Taking

B. Three Questions - Leo Tolstoy

MODULE VII

A. Media Writing

B. Eight Rupees - Murli Das Melwani

MODULE VII

A. The Mystic Drum - Gabriel Okara

B. (i) Two Dead Soldiers- Jean Arasanayagam

(ii) Bora Ring - Judith Wright

***Note: Semester VI: 10 Marks for Internal Evaluation: STUDENTS' GROUP PROJECT**

Division of Teaching Hours 8 Modules x 15 Hours = 120 Hours

Shivaji University, Kolhapur
B. A.III
Compulsory English
Ability Enhancement Compulsory Course (CBCS)
ENGLISH FOR COMMUNICATION

***PATTERN OF QUESTION PAPER* (June 2020 Onwards)**

Semester V (Paper E) **Total Marks: 40**

Q. No	Sub Q.	Type of Question	Based on	Marks
Q. 1	A.	Four multiple choice questions with four alternatives to be set	Prose and Poetry	03
	B.	Answer in one word/phrase/sentence each.	Prose and Poetry	03
	C.	Two different **Vocabulary Exercises** to be set for 1 mark each	Prose and Poetry	02
Q.2	A.	Answer the following questions in 3-4 sentences each. (2 out of 3)	2 on Prose and 1 on Poetry	04
	B.	Write **Short Note** on the following in about 7-8 sentences each. (1 out of 2)	1 on Prose and 1 on Poetry	04
Q.3	--	Questions to be set on **Interview Skills (A or B)**	Module I A	08
Q.4	--	Question to be set on **Grammar for Competitive Examinations (A or B)**	Module II A	08
Q.5	--	Question to set on **Writing Skills for Competitive Examinations(A or B)**	Module III A	08

Semester VI (Paper F) **Total Marks: 40**

Q. No	Sub Q.	Type of Question	Based on	Marks
Q. 1	A.	Four multiple choice questions with four alternatives to be set	Prose and Poetry	03
	B.	Answer in one word/phrase/sentence each.	Prose and Poetry	03
	C.	Two different **Vocabulary Exercises** to be set for 1 mark each.	Prose and Poetry	02
Q.2	A.	Answer the following questions in 3-4 sentences each. (2 out of 3)	2 on Prose and 1 on Poetry	04
	B.	Write **Short Note** on the following in about 7-8 sentences each. (1 out of 2)	1 on Prose and 1 on Poetry	04
Q.3	--	Question to be set on **Group Discussion(A or B)**	Module V A	08
Q.4	--	Question to be set on **Note Making and Note Taking(A or B)**	Module VI A	08
Q.5	--	Question to set on **Media Writing(A or B)**	Module VII A	08

Shivaji University, Kolhapur
B. A. Part III
Special English
INTRODUCTION TO LITERARY CRITICISM (CBCS)
Discipline Specific Elective
Semester V (Paper VII) (DSE- E11) & Semester VI (Paper XII) (DSE- E136)
From June 2020 onwards

Course Objectives:

- To introduce students to the major trends in literary criticism.
- To familiarize students with the major critical concepts.
- To help students to study the original contributions made in the field of literary criticism.
- To acquaint students with the various literary and critical movements.
- To train students to write critical appreciation of poetry.

Course Outcomes:

- Students are able to understand the major trends in criticism.
- Students are able to interpret critical concepts.
- Students are able to study the original contributions to literary criticism.
- Students are acquainted with literary and critical movements.
- Students are able to understand the meaning and appreciate the poems critically.

Semester V(Paper VII) (DSE- E11)	
Module I	**Introduction to Literary Criticism:** 1. Nature of Criticism 2. Function of Criticism
Module II	**Classical Criticism:** 1. The Concept of Tragedy 2. The Ideal Tragic Hero (From **Aristotle's *Poetics***)
Module III	**Neo-classical Criticism:** Dr. Samuel Johnson's *Preface to Shakespeare* (1765)
Module IV	**Literary Terms:** 1. Symbolism 2. Realism 3. Humour 4. Paradox
Note: Semester V: 10 Marks for Internal Evaluation: STUDENTS' SEMINAR	
Semester VI (Paper XII) (DSE- E136)	
Module V	**Romantic Criticism:** William Wordsworth's Theory of Poetic Diction (From **William Wordsworth's *Preface to Lyrical Ballads***)
Module VI	**Victorian Criticism:** Matthew Arnold's Touchstone Method (From **Matthew Arnold's *The Study of Poetry***)
Module VII	**Modern Criticism:**

	T S Eliot's *Tradition and Individual Talent* (1919)
Module VIII	**Practical Criticism:** Poetry
Note: Semester VI: 10 Marks for Internal Evaluation: STUDENTS' GROUP PROJECT	

Division of Teaching Hours 8 Modules x 15 Hours = 120 Hours

Recommended Reading: Semester V and Semester VI

Abrams, M. H. *A Glossary of Literary Terms* (8th Edition). New Delhi: Akash Press, 2007.

Alexander, L. G. *Prose and Poetry Appreciation for Overseas Students*. London: Longman Green and Comp. Ltd., 1966.

Allex,Latter & Rachel, Teubner. *William Wordsworth's Preface to the Lyrical Ballads*. London: Macat Library, 2018.

Bliss, Perry. *A Study of Poetry*. Kindle Edition, 22 Feb., 2018.

Butcher, S. C. *Poetics*. New Delhi: Kalyani Publishers, 1978.

Bywater, Ingram. *Aristotle's Poetics*. Oxford: Atthe Clarendon Press, 1976.

Cuddon, J. A. *The Penguin Dictionary of Literary Terms and Literary Theory* (4th Edition). London and New York: Penguin, 2000.

Davis, Joseph, K. Pathea, R Broughton and Michael Wood. *Literature*. Illinois: Scott. Foresman and Comp. Glenviews, 1977.

Eliot, T.S. *The Sacred Wood – Essays on Poetry and Criticism*. (Seventh edition),1950.

Enright, D.J. & Ernst De Chickera. *English Critical Texts: 16th Century to 20th Century*.OUP, 1968.

Fyfe, Hamilton. *Aristotle's Art of Poetry*. London: OUP, 1940.

Gray, Martin. *A Dictionary of Literary Terms* (York Handbooks). Pearson Education, 2009.

Hudson, W. H. *An Introduction to the Study of Literature*. New Delhi: Atlantic, 2007.

Richards, I. A. *Practical Criticism: A Study of Literary Judgment*. New Delhi: UBS Publishers, 2002.

Scott James, R. A. *The Making of Literature*. Mumbai: Allied Publishers Pvt. Ltd., 1963.

Sherbo, Arthur(ed.). *The Yale edition of the works of Samuel Johnson*.Vol.7. New haven: Yale University Press,1968.

S. Ramaswami & V. S. Seturaman (ed.) *The English Critical Tradition: An Anthology of English Literary Criticism*, Volume 1,. New Delhi: Macmillan Publishers India Ltd. 1977/2009.

Seturaman, V. S., C. T. Indra and T. Siraman. *Practical Criticism*. Madras: Macmillan India Ltd., 1995.

Waugh, Patricia (ed.) *Literary Theory and Criticism: An Oxford Guide*. New York: Oxford University Press, 2006.

Wimsatt, W. K. and Cleanth Brooks. *Literary Criticism: A Short History*. New Delhi: Oxford and IBH Publishing Company Pvt. Ltd., 1957.

Wellek, Rene and Austin Warren. *Theory of Literature*. London: Jonathan Cape. 1949.

Shivaji University, Kolhapur
B. A. Part III
Special English
INTRODUCTION TO LITERARY CRITICISM (CBCS)
Discipline Specific Elective
Semester V (Paper VII) (DSE- E11)
PATTERN OF QUESTION PAPER
From June 2020 onwards

Total Marks: 40

Q1. Objective type Question
A) Multiple choice questions with four alternatives. 4
B) Answer the following questions in one word/phrase/sentence each. 4
(Q1 A and B to be set on topics covering **Module I to IV**)
(At least one item to be set on each Module)
Q2. Answer the questions in about 250-300 words each.
(A or B to be set on **Module I, II, and III**) 10
Q3. Answer the questions in about 250-300 words each.
(A or B to be set on **Module I, II, and III**) 10
Q3 A. Write short notes on the following: (Any 3 out of 5) 12
(3 to be set on **Module IV** and 2 on **Module I, II, III** not covered in question 2 and 3)

INTRODUCTION TO LITERARY CRITICISM (CBCS)
Semester VI (Paper XII) (DSE- E136)
PATTERN OF QUESTION PAPER
From June 2020 onwards

Total Marks: 40

Q1. Objective type Question
A) Multiple choice questions with four alternatives. 4
B) Answer the following questions in one word/phrase/sentence each. 4
(Q1. A and B to be set on topics covering **Module V to VII**)
(At least one item to be set on each Module)
. Q2. Answer in the questions 250-300 words each. 10
(A or B to be set on **Module V, VI, and VII**)
Q3. Answer the questions in about 250-300 words each. 10
(A or B to be set on **Module V, VI, and VII**)
Q4. Write critical appreciation of the given poem. 12
(with the help of points such as title, theme, content, devices, message, style, rhyme-scheme, diction, type of poem, tone, stanza-pattern, metre, etc. (**Based on Module VIII**)

EQUIVALENCE

Old Title	New Title
LITERARY CRITICISM AND LITERARY APPRECIATION	INTRODUCTION TO LITERARY CRITICISM

Shivaji University, Kolhapur

B. A.III

English Special

ENGLISH POETRY (CBCS)

Discipline Specific Elective

Semester V (Paper VIII) (DSE – E12) and Semester VI (Paper XIII) (DSE – E137)

(From June 2020 Onwards)

Course Objectives:

- To make students engaged and curious readers of poetry
- To introduce students to poetry from various cultures and traditions
- To make students understand that poetry gives intellectual, moral and linguistic pleasures
- To make students hear and read poems aloud and to memorize lines

Course Outcomes:

- Students will be able to trace the development of the poetry in English from the days of Shakespeare to the contemporary India.
- Students will be able to appreciate and analyze the poems properly.
- Students will have a fairly comprehensive view of the Western and Eastern poetic tradition and they will be able to relate it to various literary movements.
- Students will have an insight into poetry and they will be able to make a lively and interesting reading.

SEMESTER V (Paper VIII) (DSE – E12)			
MODULE NO.		TITLE OF THE MODULE	NAME OF THE POET
I.		**Topics For Background Readings:**	
	1.	Elizabethan Poetry	
	2.	Metaphysical Poetry	
	3.	Romantic Poetry	
II. Selections from Elizabethan Poetry:			
	1.	Sweet Warrior (Sonnet 57)	Edmund Spenser
	2.	Sonnet To The Moon	Sir Philip Sydney
	3.	Full Many A Glorious Morning… (Sonnet 33)	William Shakespeare
III. Selections from Metaphysical Poetry:			
	1.	The Sun Rising	John Donne
	2.	The Retreat	Henry Vaugham
	3.	The Collar	George Herbert
IV. Selections from Romantic Poetry:			
	1.	My Heart Leaps Up	William Wordsworth
	2.	The Rime of the Ancient Mariner	S. T. Coleridge
	3.	Ozymandias	P. B. Shelley
	4.	When We Two Parted	Lord Byron
***Note: Semester V: 10 Marks for Internal Evaluation: STUDENTS' SEMINAR**			

SEMESTER VI (Paper XIII) (DSE – E137)			
MODULE NO.		TITLE OF THE MODULE	NAME OF THE POET
V. Topics For Background Readings:			
	1.	Victorian Poetry	
	2.	Modern English Poetry	
	3.	Modern Indian English Poetry	
VI. Selections from Victorian Poetry:			
	1.	The Lady Of Shallot	Alfred Lord Tennyson
	2.	My Last Duchess	Robert Browning
	3.	Love Came Down At Christmas	Christiana Rossetti
VII. Selections from Modern English Poetry:			
	1.	No Second Troy	W. B. Yeats
	2.	The Hollow Men	T. S. Eliot
	3.	Tonight I Can Write	Pablo Neruda
VIII. Selections from Modern Indian English Poetry:			
	1.	The Professor	Nissim Ezekiel
	2.	A Hot Noon in Malabar	Kamala Das
	3.	A River	A. K. Ramanujan
	4.	A Kind of Happiness	Jayanta Mahapatra
***Note: Semester VI: 10 Marks for internal Evaluation: STUDENTS' GROUP PROJECT**			

Division of Teaching Hours: 8 Modules x 15 Hours each= 120 Hours

Recommended Reading: Semester V and Semester VI

Appelbaum, Stanley. *English Romantic Poetry: An anthology*. Dover Publications Inc. 1996.
Burrow, Colin. *Metaphysical Poetry.* Penguin Classics. 2006.
Chaudhuri, Roshinka. *A History of Indian Poetry in English.* Cambridge University press. 2016.
Chaudhuri, Sukanta. *Modern Indian Literature*, New Delhi: OUP, 2004.
Courthope, W.J. *A History of English Poetry*. Vol.I Macmillan, 1995.
Craig, W.J. (ed.). *The Complete works of William Shakespeare*. Oxford: OUP., 1905.
Fenton,James. *An Introduction to English Poetry*. New York: Farrar, Strauss and Giroux, 2004.
Gardner, Martin, *The Annotated Ancient Mariner*, New York:Clarkson Potter,1965.
Harold Bloom and Lionel Trilling. (ed.) *Romantic Prose and Poetry*, New York: OUP, 1973.
Mitra, Zinia(ed.). Indian *Poetry in English:Critical Essays*. New Delhi: PHI Learning Pvt Ltd.,2012.
Naik, M.K. *A History of Indian English Literature*. Delhi, 1982.
Narasimhaiah, C.D., (ed.) *An Anthology of Commonwealth Poetry*,Delhi: Macmillan, 1990.
Negri,Paul. *English Victorian poetry.* Dover Publications Inc. 1998
Ramanan, M.G. *Modern English Poetry: A Selection*. New Delhi:Orient Blackswan,2013.
Samuel Taylor Coleridge, *Biographia Literaria,* ed. George Watson. London: Everyman, 1993.

Shivaji University, Kolhapur

B. A.III

English Special

ENGLISH POETRY (CBCS)

Discipline Specific Elective

Semester V (Paper VIII) (DSE – E12)

PATTERN OF QUESTION PAPER

From June 2020 Onwards

Marks: 40

Q1. A) Four multiple choice questions with four alternatives (4)

B) Answer the following questions in one word/ phrase/sentence each. (4)

(Q. 1 A and B to be set on **Module II, III and IV**)

Q.2. Answer the following questions in about 250-300 words. (10)

(A or B to be set on **Module I**)

Q.3. Answer the following questions in about 250-300 words. (10)

(A or B to be set on **Module II, III or IV**)

Q.4. Write Short Notes in about 100-150 words each (3out of 4) (12)

(Two be set on **Module I** and two be on **Module II, III or IV**)

ENGLISH POETRY (CBCS)

Discipline Specific Elective

Semester VI (Paper XIII) (DSE – E137)

Marks: 40

Q1. A) Four multiple choice questions with four alternatives (4)

B) Answer the following questions in one word/ phrase/sentence each. (4)

(Q. 1 A and B to be set on **Module VI, VII and VIII**)

Q.2. Answer the following questions in about 250-300 words. (10)

(A or B to be set on **Module V**)

Q.3. Answer the following questions in about 250-300 words. (10)

(A or B to be set on **VI, VII or VIII**)

Q.4. Write Short Notes in about 100-150 words each (3out of 4) (12)

(Two be set on **Module V** and two be on **Module VI, VII or VIII**)

EQUIVALENCE

Old Title	New Title
Understanding Poetry	**English Poetry**

Shivaji University, Kolhapur
B. A. Part III
Special English

ENGLISH DRAMA (CBCS)

Discipline Specific Elective
Semester V (Paper IX) ((DSE – E13) & Semester VI (Paper XIV) (DSE – E138)
From June 2020 onwards

Course Objectives:

- To make students understand different forms of drama
- To enable students to relate drama to their ideological or socio-political contexts
- To help students improve their creative and imaginative faculties through the reading of drama
- To enable students to know about various aspects of the drama

Course Outcomes:

- Students are able to understand different forms of drama.
- Students are able to relate drama to their ideological or socio-political contexts.
- Students are able to improve their creative and imaginative faculties through the reading of drama.
- Students are able to know about various aspects of the drama.

Semester V (Paper IX) ((DSE – E13)

MODULE I
Definition and Elements of Drama
MODULE II
Tragedy as a Form
MODULE III
The Importance of Being Earnest - Oscar Wilde
MODULE IV
Hamlet – William Shakespeare

Division of Teaching Hours: 4 Modules X 15 Periods = 60 Periods

Prescribed Texts:

Wilde, Oscar. *The Importance of Being Earnest.* New Delhi: General Press, 2018.
Shakespeare, William. *Hamlet*. Penguin Books, 1980.

***Note: Semester V: 10 Marks for Internal Evaluation: STUDENTS' SEMINAR**

Semester VI (Paper XIV) (DSE – E138)

MODULE V
Types of Drama
MODULE VI
Comedy as a Form
MODULE VII
Nagmandala – Girish Karnad
MODULE VIII
Harvest – Manjula Padmanabhan

Division of Teaching Hours: 4 Modules X 15 Periods = 60 Periods
Prescribed Texts:
Karnad, Girish. *Nagmandala.* Oxford University Press, 1990.
Padmanabhan, Manjula. *Harvest.* Delhi: Penguin, 1997.

***Note: Semester VI: 10 Marks for Internal Evaluation: STUDENTS' GROUP PROJECT**

Recommended Reading: Semester V and Semester VI

Aasand, Hardin L. *Stage Directions in Hamlet: New Essays and New Directions*. NJ: Fairleigh Dickinson University Press, 2003.
Babu, Munchi Sarat. *Indian Drama.* New delhi: Prestige Books, 1997.
Bhatt, S.K. *Indian English Drama: A Critical Study.* New Delhi: Sterling Publishers Pvt. Ltd., 1987.
Bloom, Harold. *The Importance of Being Earnest: Modern Critical Interpretations.* Chelsea House Pub., 1988.
Driver, T.F. *Drama and History*. New York: Columbia University Press, 1967.
Ddiya, Jaydipsinh. (ed.) *The Plays of Girish Karnad: Critical Perspectives*. New Delhi: Prestige Books, 1999.
Gargy, Balwant. *Folk Theatre of India*. Culcutta: Rupa & Co., 1991.
Gillespie, Michael Patrick. *The Importance of Being Earnest.*(Norton Critical Editions). W.W.Norton and Co., 2006.
Hibbard, G.R. (ed.) *Hamlet*. OUP: 1988.
Hirsh, James. Shakespeare and the History of Soliloquies. NJ: Farleigh Dickinson University Press, 2003.
Joshi, R.G. *Myth in Indian Drama.* Delhi: B.R. Publishing Corporation, 1984.
Kumar, Nand. *Indian English Drama: A Study in Myths*. New Delhi: Sarup and sons, 2003.
MacCary, Thomas. *Hamlet: A Guide to the Play*. London: Greenwood Press, 1988.
Martin, James. *The Meaning of the 21st Century.* New York: Riverhead Penguin, 2007.
Priestley, J.B. *The Art of the Dramatist*. London: Heinemann, 1957.
Rajkumar, K. *Socio-Political Realities in Harvest*. Purna:RHI,Mahmul, 2012.
Robertson, Ronald. *Globalization: Social Theory and Global Culture*. London: Sage, 1992.
Sen,B. *The Importance of Being Earnest.* Unique Publishers,2015.
Styan, J.L. *The Elements of Drama*. Cambridge: Cambridge University Press, 1967.
Vaidyanathan, G. *The Importance of Being Earnest.* New Delhi: Narain Publications, 2018.
Worthen, W.B. (ed.). *Anthology of Drama* (Fourth edition). London: Cengage Learning EMEA, 2004.

Shivaji University, Kolhapur
B. A. Part III
Special English

ENGLISH DRAMA (CBCS)

Discipline Specific Elective
Semester V (Paper IX) ((DSE – E13)

PATTERN OF QUESTION PAPER **(From June 2020 onwards)**

Marks: 40

Q1. A) Four multiple choice questions with four alternatives (4)
B) Answer the following questions in one word/ phrase/sentence each. (4)
(Q. 1 A and B to be set on **Module III and IV**)
Q.2. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **Module I and II**)
Q.3. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **Module III and IV**)
Q.4. Write Short Notes in about 100-150 words each (3out of 4) (12)
(Two be set on **Module I and II** and two be on **Module III and IV**)

ENGLISH DRAMA (CBCS)

Discipline Specific Elective
Semester VI (Paper XIV) (DSE – E138)

PATTERN OF QUESTION PAPER **(From June 2020 onwards)**

Marks: 40

Q1. A) Four multiple choice questions with four alternatives (4)
B) Answer the following questions in one word/ phrase/sentence each. (4)
(Q. 1 A and B to be set on **Module VII and VIII**)
Q.2. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **Module V and VI**)
Q.3. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **VII and VIII**)
Q.4. Write Short Notes in about 100-150 words each (3out of 4) (12)
(Two be set on **Module V and VI** and two be on **Module VII and VIII**)

EQUIVALENCE

Old Title	New Title
Understanding Drama	**English Drama**

Shivaji University, Kolhapur
B. A. Part III Special English
ENGLISH NOVEL (CBCS)
Discipline Specific Elective
Semester V (Paper X) ((DSE – E14) & Semester VI (Paper XV) (DSE – E139)
From June 2020 onwards

Course Objectives:

- To make students understand different forms of novel.
- To enable students to relate novels to their ideological or socio-political contexts.
- To help students to improve their creative and imaginative faculties through the reading of novels.
- To enable students to know about various aspects of the novel.

Course Outcomes:

- Students are able to understand different forms of novel.
- Students are able to relate novels to their ideological or socio-political contexts.
- Students are able to improve their creative and imaginative faculties through the reading of novels.
- Students are able to know about various aspects of the novel.

SEMESTER V (Paper X) (DSE – E14)

MODULE I
Rise and Development of the Novel
MODULE II
Aspects of the Novel
MODULE III
The Old Man and the Sea – Ernest Hemingway
MODULE IV
The Power and the Glory – Graham Greene

Division of Teaching Hours: 4 Modules X 15 Periods = 60 Periods

Prescribed Texts:

Hemingway, Ernest. *The Old Man and the Sea.* New York: Simon & Schuster, 1952.
Greene, Graham. *The Power and the Glory.* New York: Time Reading Special Edition. 1940. 1962.

***Note: Semester V: 10 Marks for Internal Evaluation: STUDENTS' SEMINAR**

SEMESTER VI (Paper XV) (DSE – E139)

MODULE V
Historical and Psychological Novel
MODULE VI
Satirical Novel and Epistolary novel
MODULE VII
Animal Farm: A Fairy Tale - George Orwell
MODULE VIII
The Guide - R. K. Narayan
Division of Teaching Hours: 4 Modules X 15 Periods = 60 Periods

Prescribed Texts:

Orwell, George. *Animal Farm: A Fairy Tale*. New York: Signet Classic, 1996.

Narayan, R. K. *The Guide*. US: Viking Press, 1958.

***Note: Semester VI: 10 Marks for internal Evaluation: STUDENTS' GROUP PROJECT**

Suggested Reading: for Semester V and Semester VI

Auden,W.H. *The Enchafed Flood: The Romantic Econography of the Sea*. New York: Random, 1950.

Abrams, M. H. *A Glossary of Literary Terms* (8th Edition) New Delhi, Akash Press – 2007

Bender, Bert. *Sea Brothers: The Tradition of American Sea Fiction from Moby-Dick to the Present*. Philadelphia: University of Pennsylvania Press, 1988.

Bloom, Harold. *Ernest Hemingway's The Old Man and the Sea: Modern Critical Interpretations*.Cheasea House Publications, 2008.

Bradbury, Malcolm. *The Novel Today*. Glasgow: F. C. Paperbacks, 1982.

Brooks and Warren. *Understanding Fiction*. Prentice Hall, 1959.

Dedria, Bryfonski & Hall, Sharon. *Twentieth Century Literary Criticism: George Orwell*. Michigan: Book Tower, 1979.

Edel, Leon. *The Psychological Novel: 1900-1950*. Ludhiana: Kalyani, 1997.

Forster, E. M. *Aspects of Novel*. London. 1949.

Hynes, Samuel, ed. *Graham Greene: A Collection of Critical Essays*. New Jersy: Prentice Hall.Inc. 1973.

Jones, David P. *Graham Greene*. Edinburgh: Oliver and Boyd. 1963.

Kerala, Calling. *From Eric Blair to George Orwell, Biography*. London: Sage, 2003.

Kermode, Frank. *Sense of an Ending*. OUP, 1967.

Lall, Pamji. *Graham Greene: The Power and the Glory: A Critical Study*. New Delhi: Roma Brothers India Pvt. Ltd. 2005.

Lewis,R.w.B. & Conn, Petr J.ed. *Graham Greene: The Power and the Glory: Text and Criticism*. New York: The Viking Press, 1970.

Lubbock, Percy. *The Craft of Fiction*. London: Jonahan Cape, 1965.

Matz, Jesse. *The Modern Novel*: A Short Introduction. Oxford Blackwell, 2004.

Meyers, Jeffery. *George Orwell: The Critical Heritage*. Routledge, 1997.

Rimmon-Kennan, Shlomith. *Narrative Fiction*. London and New York: Routledge, 2005.

Roy, Ruby. *A Critical Study of R.K. Narayan's Swami and Friends and The Guide*. Delhi: Kalpaz Publications, 2015.

Rees, R. J. *Introduction to English Literature*. London: Macmillan, 1966/1968.

Singh, P.K. *The Novels of R. K. Narayan :A Critical Study*. New Delhi: Atlantic Publishers.

Stade, George, ed. *Six Contemporary British Novelists*. New York: Colombia University Press, 1976.

Subramaniam, K.S. *Graham Greene: A Study of Graham Greene's Works*. Bareilly: Prakash Book Depot, 1978.

Vinson, James, ed. *Contemporary Novelists*. London: St. James Press, 1972.

Watt, Ian.. *Rise of the Novel*. London: Penguin, 1957.

Woodcock, George. *20th Century Fiction*. London: The Macmillan Press Ltd., 1983.

Shivaji University, Kolhapur
B. A. Part III
Special English

ENGLISH NOVEL (CBCS)

From June 2020 onwards

PATTERN OF QUESTION PAPER FOR
(Semester V Paper X DSE – E14)

Marks: 40

Q1. A) Four multiple choice questions with four alternatives (4)
B) Answer the following questions in one word/ phrase/sentence each. (4)
(Q. 1 A and B to be set on **Module III and IV**)
Q.2. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **Module I and II**)
Q.3. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **Module III and IV**)
Q.4. Write Short Notes in about 100-150 words each (3out of 4) (12)
(Two be set on **Module I and II** and two be on **Module III and IV**)

PATTERN OF QUESTION PAPER FOR
(Semester VI Paper XV DSE – E139)

Marks: 40

Q1. A) Four multiple choice questions with four alternatives (4)
B) Answer the following questions in one word/ phrase/sentence each. (4)
(Q. 1 A and B to be set on **Module VII and VIII**)
Q.2. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **Module V and VI**)
Q.3. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **VII and VIII**)
Q.4. Write Short Notes in about 100-150 words each (3out of 4) (12)
(Two be set on **Module V and VI** and two be on **Module VII and VIII**)

EQUIVALENCE

Old Title	New Title
Understanding Novel	**English Novel**

Shivaji University, Kolhapur
B.A. III
English Special
LANGUAGE AND LINGUISTICS (CBCS)
Discipline Specific Elective
Semester V –Paper XI (DSE - E15) & Semester VI – Paper XVI (DSE - E140)
From June 2020 onwards

LANGUAGE AND LINGUISTICS
Semester V –Paper XI (DSE -E 15)

Course Objectives:

- To orient students to the concept of communication.
- To make the students familiar with varieties of the English language.
- To acquaint students with different levels of the study of language.
- To study the basic units of grammar.

Course Outcomes:

- Students know the concept of communication.
- Students are familiar with varieties of the English language.
- Students know different levels of study of the English language.
- Students know basic units of grammar.

Semester V –Paper XI DSE - E 15

MODULE I

Language and Communication

i. Definitions and characteristics of language

ii. Human and Animal communication systems (Special reference to Hockett's 7 characteristics of language)

MODULE II

Phonology

MODULE III

Morphology

MODULE IV

Words

***Note: Semester V: 10 Marks for Internal Evaluation: STUDENTS' SEMINAR**

Division of Teaching Hours: 4 Modules X 15 Periods = 60 Periods

Reference Books :

Balasubramaniam, T. *A Textbook of English Phonetics for Indian Students*. Delhi: McMillan, 1981.

Bansal, R.K. & Harrison, J.B., *Spoken English,* Hyderabad: Orient Longman. 2000.

Hockett, C.F., *A Course in Modern Linguistics*, MacMillan, . 1963.

Hudson, Richard, *Sociolinguistics,* Cambridge: Cambridge University Press. 1996.

Jones, Daniel, *English Pronouncing Dictionary,* ELBS Edition.

Leech et al, *English Grammar Today: a New Introduction*. Hyderabad: McMillan. 2010.

Lyons, John, *Language and Linguistics: An Introduction,* Cambridge: Cambridge University Press, 1981.

Quirk, R., Greenbaum, S., Leech, G. &Svartvik, J., *A Comprehensive Grammar of English*, New Delhi: Pearson, 2010.

Quirk, Randolph &Greenbaum, Sidney, *A University Grammar of English*. New Delhi: Pearson, 2015.

Radford, A., Atkinson, M., Britain, D., Clahsen, H. & Spencer, A., *Linguistics: An Introduction*, Cambridge: Cambridge University Press, 1999.

Trask, R. L, *Key Concepts in Language and Linguistics*. London: Routledge. 1999.

Verma, S.K. &Krishnaswamy, N., *Modern Linguistics,* Hyderabad: Oxford University Press, 1989.

Velayudhan, S. &Mohanan, K. P., *An Introduction to the Phonetics and Structure of English*, New Delhi: Somaiya Pub. Pvt. Ltd., 1977

QUESTION PAPER PATTERN

From June 2020 onwards

LANGUAGE AND LINGUISTICS (CBCS)

Discipline Specific Elective

Semester V –Paper XI (DSE - E15)

Q. 1	Objective type	
	a) Three term labels	(3)
	b) Transcription of words with primary stress	(3)
	c) Conversion of the given transcriptions into the conventional spellings	(2)
Q.2	a) Write short notes (2/3) (to be set on **Module I**)	(10)
	b) Morphological Analysis giving labels (2/4)	(4)
Q.3	a) Identification of word formation/morphological processes	(4)
	d) Identification of word classes	(4)
Q.4.	Write short notes (2/4) (2 each to be set on **Module II & IV)**	(10)

Shivaji University, Kolhapur
B.A. III
English Special
LANGUAGE AND LINGUISTICS (CBCS)
Discipline Specific Elective
Semester VI – Paper XVI (DSE - E140)
From June 2020 onwards

Course Objectives:

- To acquaint students with structures and functions of words and phrases.
- To enable students to know and identify elements and types of clauses.
- To study Subordination and Coordination.
- To study different ways of structuring clauses.

Course Outcomes:

- Students know words and phrases.
- Students know and identify elements and types of clauses.
- Students know types of sentences.
- Students know the different ways of structuring clauses

Semester VI – Paper XVI (DSE - E140)

MODULE V

Phrases

MODULE VI

Clauses

MODULE VII

Subordination and Coordination

MODULE VIII

Basic and Derived Structures

i) Inversion / Fronting
ii. Negation
iii. Interrogation
iv. Exclamation
v. Omission of Certain Elements
(Relative Pronouns, Comparative Clauses, Tag Questions)
vi. Passivisation
vii. Subject Raising
viii. Style Transformation

Note: Semester VI: 10 Marks for Internal Evaluation: STUDENTS' GROUP PROJECT

Division of Teaching Hours: 4 Modules X 15 Periods = 60 Periods

Reference Books :

Crystal, David, *Linguistics*, London: Penguin Books Ltd., 1974.

Hockett, C.F., *A Course in Modern Linguistics*, MacMillan, 1963.

Hudson, Richard, *Sociolinguistics,*Cambridge: Cambridge University Press. 1996.

Leech et al, *English Grammar Today: A New Introduction*. Hyderabad: McMillan. 2010.

Lyons, John, *Language and Linguistics: An Introduction,* Cambridge: Cambridge University Press, 1981.

Palmer, F. G., *Grammar*, London: Penguin Books Ltd., 1973.

Quirk, R., Greenbaum, S., Leech, G. &Svartvik, J., *A Comprehensive Grammar of English*, New Delhi: Pearson, 2010.

Quirk, Randolph &Greenbaum, Sidney, *A University Grammar of English*. New Delhi: Pearson, 2015.

Radford, A., Atkinson, M., Britain, D., Clahsen, H. & Spencer, A., *Linguistics: An Introduction*, Cambridge: Cambridge University Press,1999.

Verma, S.K. &Krishnaswamy, N., *Modern Linguistics,* Hyderabad: Oxford University Press, 1989.

QUESTION PAPER PATTERN

From June 2020 onwards

LANGUAGE AND LINGUISTICS (CBCS)

Discipline Specific Elective

Semester VI – Paper XVI (DSE - E140)

Q. 1	a) Identify elements of clause (S, P, O, C, A)	(4/6)	(4)
	b)Transformation of sentence (to be set on **Module VIII**)	(4/6)	(4)
Q.2	a) Write short notes. (2 each to be set on **Module V & VI**)	(2/4)	(10)
	b) Give form and function labels to the underlined phrases.	(4/6)	(4)
Q.3	a) Write short notes (To be set on **Module VII**)	(2/3)	(10)
	b) Identify the subordinate clauses and state their form and function.	(4/6)	(4)
Q. 4.	Do as directed. (to be set on **Module VIII**)	(4/6)	(4)

EQUIVALENCE

OLD TITLE	NEW TITLE
THE STRUCTURE AND FUNCTION OF MODERN ENGLISH	LANGUAGE AND LINGUISTICS

SHIVAJI UNIVERSITY, KOLHAPUR

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Accredided by NAAC 'A' Grade

Revised Syllabus for

Bachelor of Arts

B.A. Part-III - MARATHI

CHOICE BASED CREDIT SYSTEM

(Syllabus will be implemented from June, 2020)

शिवाजी विद्यापीठ, कोल्हापूर
SHIVAJI UNIVERSITY, KOLHAPUR

मराठी अभ्यास मंडळ
Board of Studies in Marathi

पसंतीवर आधारित श्रेयांक पद्धती

Choice Based Credit System

बी.ए. भाग-३ (मराठी) : B.A. Part-III (Marathi)

अभ्यासक्रम : Syllabus

Introduced from June 2020 onwards

समकक्षता / Equivalence

		जुना अभ्यासक्रम		नवा अभ्यासक्रम
सत्र क्र. Sem.	अभ्यास-पत्रिका क्र. Paper No.	अभ्यासपत्रिकेचे नाव	अभ्यास-पत्रिका क्र. Paper No.	अभ्यासपत्रिकेचे नाव
V	VII	काव्यशास्त्र	VII	साहित्यविचार
V	VIII	भाषाविज्ञान आणि मराठी भाषा	VIII	मराठी भाषा व भाषाविज्ञान
V	IX	मराठी वाङ्मयाचा इतिहास	IX	मध्ययुगीन मराठी वाङ्मयाचा इतिहास (प्रारंभ ते इ.स.१५००)
V	X	मराठी भाषा : उपयोजन आणि सर्जन	X	मराठी भाषा व अर्थार्जनाच्या संधी
V	XI	वाङ्मयप्रवाहांचे अध्ययन (ग्रामीण साहित्य)	XI	वाङ्मयप्रवाहाचे अध्ययन : मध्ययुगीन
VI	XII	काव्यशास्त्र	XII	साहित्यविचार
VI	XIII	भाषाविज्ञान आणि मराठी भाषा	XIII	मराठी भाषा व भाषाविज्ञान
VI	XIV	मराठी वाङ्मयाचा इतिहास	XIV	मध्ययुगीन मराठी वाङ्मयाचा इतिहास (इ.स.१५०० ते १८००)
VI	XV	मराठी भाषा : उपयोजन आणि सर्जन	XV	मराठी भाषा व अर्थार्जनाच्या संधी
VI	XVI	वाङ्मयप्रवाहांचे अध्ययन (दलित साहित्य)	XVI	वाङ्मयप्रकाराचे अध्ययन : ललित गद्य (व्यक्तिचित्रे)

सूचना : १. सत्र पाच (V) साठी विद्यापीठाने प्रत्येक अभ्यासपत्रिकेनुरूप अंतर्गत मूल्यमापनासाठी १० गुणांसाठी सेमिनार सुचविला आहे. सदर सेमिनारसाठी त्या त्या अभ्यासपत्रिकेच्या अभ्यासक्रमानंतर सेमिनार विषय दिले आहेत. त्यापैकी एका विषयावर प्रत्येक विद्यार्थ्याने सादरीकरण करणे आवश्यक आहे. त्यामध्ये विषयानुसार उद्दिष्टे, प्रास्ताविक, विषयविवेचन, निष्कर्ष आणि संदर्भ या सूत्रानुरूप सादरीकरण गरजेचे आहे. ज्या विषयावर सेमिनार दिला आहे त्याची टिपणे विद्यार्थी व संबंधित विषय शिकविणाऱ्या शिक्षकाच्या स्वाक्षरीसह महाविद्यालयाच्या विभागात जतन करून ठेवणे आवश्यक आहे.

२. सत्र सहा (VI) साठी विद्यापीठाने प्रत्येक अभ्यासपत्रिकेनुरूप अंतर्गत मूल्यमापनासाठी १० गुणांचा गटप्रकल्प (Group Project) सूचविला आहे. सदर गटप्रकल्पासाठी त्या त्या अभ्यासपत्रिकेच्या अभ्यासक्रमानंतर गटप्रकल्प विषय सुचविले आहेत. त्यापैकी एका विषयावर गटप्रकल्प सादर करणे आवश्यक. गटप्रकल्प तयार करताना शीर्षक, उद्दिष्टे, प्रास्ताविक, गृहीतके, विषयाचे महत्त्व, विषयविवेचन, निष्कर्ष आणि संदर्भ या क्रमाने गटप्रकल्प तयार करावा. एका गटप्रकल्पासाठी कमाल ५ विद्यार्थी मर्यादा असावी. ज्या विषयावर गटप्रकल्प तयार केला आहे; त्यावर गटप्रकल्पकांची व संबंधित विषय शिकविणाऱ्या शिक्षकांची स्वाक्षरी घेऊन सदर प्रकल्प विभागात जतन करून ठेवावेत.

३. सेमिनार व गटप्रकल्पसंदर्भात विषयाची निवड करताना विद्यापीठाने सूचित केलेल्या विषयाबरोबर त्या त्या अभ्यासपत्रिकेनुरूप आणखी काही नावीन्यपूर्ण विषयांची निवड करण्यास स्वातंत्र्य दिले आहे.

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पसंतीवर आधारित श्रेयांक पद्धती

Choice Based Credit System

Structure of Programme

Revised syllabus B. A. Part III (MARATHI)

Introduced from June 2020 onwards

Sr.No.	सत्र क्र. Sem.	अभ्यासपत्रिकेचे नाव	अभ्यास-पत्रिका क्र. Paper No.	Worklaod	Credits	Total Credits	Theory Marks	Term work/ Seminar
1	V	साहित्यविचार	VII	4 lectures/ week	4	20	40	10
2	V	मराठी भाषा व भाषाविज्ञान	VIII	4 lectures/ week	4		40	10
3	V	मध्ययुगीन मराठी वाङ्मयाचा इतिहास (प्रारंभ ते इ.स.१५००)	IX	4 lectures/ week	4		40	10
4	V	मराठी भाषा व अर्थार्जनाच्या संधी	X	4 lectures/ week	4		40	10
5	V	वाङ्मयप्रवाहाचे अध्ययन : मध्ययुगीन	XI	4 lectures/ week	4		40	10
Sr.No.	सत्र क्र. Sem.	अभ्यासपत्रिकेचे नाव	अभ्यास-पत्रिका क्र. Paper No.	Worklaod	Credits	Total Credits	Theory Marks	Term work/ Group project
6	VI	साहित्यविचार	XII	4 lectures/ week	4	20	40	10
7	VI	मराठी भाषा व भाषाविज्ञान	XIII	4 lectures/ week	4		40	10
8	VI	मध्ययुगीन मराठी वाङ्मयाचा इतिहास (इ.स.१५०० ते १८००)	XIV	4 lectures/ week	4		40	10
9	VI	मराठी भाषा व अर्थार्जनाच्या संधी	XV	4 lectures/ week	4		40	10
10	VI	वाङ्मयप्रकाराचे अध्ययन : ललितगद्य (व्यक्तिचित्रे)	XVI	4 lectures/ week	4		40	10

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अभ्यासक्रम : Syllabus

June, 2020 onward

सत्र-५ : Semister No. V : अभ्यासपत्रिका क्र. VII

Discipline Specific Elective (DSE-E1)

विद्याशाखीय विशेष निवड (DSE-E1)

साहित्यविचार

उद्दिष्टे :

१. पौर्वात्य, पाश्चात्त्य व आधुनिक भारतीय साहित्यशास्त्राचे स्वरूप समजून घेणे.

२. ललित व ललितेतर साहित्याचे स्वरूप समजून घेणे.

३. साहित्य प्रयोजनांचे आकलन करून घेणे.

४. साहित्याची निर्मितिप्रक्रिया आणि त्याचे स्वरूप आकलन करून घेणे.

५. भाषेतील अलंकार समजून घेणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	साहित्याचे स्वरूप ■ साहित्याच्या व्याख्या ● **पौर्वात्य** – भामह, मम्मट, आनंदवर्धन, विश्वनाथ **पाश्चात्त्य** – वर्डस्वर्थ,कोर्ट्होप,मॅथ्यू अर्नोल्ड, कार्लाइल ● **आधुनिक** – विनोबा भावे, अ. वा. कुलकर्णी, गंगाधर गाडगीळ, वि. ना. ढवळे, ■ ललित व ललितेतर साहित्य ■ ललित साहित्यातून व्यक्त होणाऱ्या अनुभवांचे विशेष– संवेदनात्मकता, भावनात्मकता, वैचारिकता, सेंद्रियता, सूचकता, विशिष्टता, विश्वात्मकता	१५	१

विभाग २ Module 2	**साहित्याचे प्रयोजन** ● प्रयोजन म्हणजे काय ? ● प्रयोजन आणि परिणाम यातील फरक ■ साहित्याची प्रयोजने : १) यश किंवा कीर्ती २) व्यवहारज्ञान ३) आनंद ४) उद्‌बोधन ५) आत्माविष्कार ६) जिज्ञासापूर्ती ७) जीवनानुभूती ८) इच्छापूर्ती अथवा स्वप्नरंजन ९) पलायनवाद (Escapism)	१५	१
घटक ३ Module 3	**साहित्यनिर्मितीची कारणे** ● साहित्यनिर्मितीचे स्वरूप ● साहित्यनिर्मितीची कारणे १) प्रतिभा – स्वरूप व वैशिष्ट्ये (प्रतिभाव्यापार, प्रतिभेचे अलौकिकत्व, अपूर्वनिर्मितिक्षम प्रतिभा, प्रतिभा ही वेडाची बहीण) २) बहुश्रुतता ३) अभ्यास ४) भावनात्मकता ५) संवेदनशीलता ६) उत्प्रेक्षा ७) चमत्कृती ८) स्वास्थ्य (शारीरिक, मानसिक) ९) साहित्यिकाचा जीवनविषयक दृष्टिकोण	१५	१
घटक ४ Module 4	**अलंकार** १) अतिशयोक्ती २) स्वभावोक्ती ३) दृष्टान्त ४) उपमा ५) अनुप्रास ६) रूपक (व्याख्या, स्वरूप आणि उदाहरणे अपेक्षित)	१५	१

* प्रश्नपत्रिकेचे स्वरूप व गुणविभागणी *

Pattern of Question Paper

एकूण गुण – ४० : Total Marks-40

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	अलंकार (चार पैकी दोन)	१० गुण

सूचना :

१. विभाग चार वर वस्तुनिष्ठ प्रश्न असणार नाहीत.

२. अंतर्गत मूल्यमापनाकरिता सेमिनारसाठी दहा गुण आहेत.

सेमिनार विषय :

- विविध साहित्य प्रवाहातील कोणत्याही एका साहित्यकृतीचे किंवा अनुवादित साहित्यकृतीचे परीक्षण करून सादरीकरण करणे.
- कोणत्याही भाषेतील एका चित्रपट वा नाटकाचे परीक्षण करून सादरीकरण करणे.

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June, 2020 onward

सत्र-५ : Semister No. 5 : अभ्यासपत्रिका क्र. VIII

Discipline Specific Elective (DSE-E2)

विद्याशाखीय विशेष निवड (DSE-E2)

मराठी भाषा व भाषाविज्ञान

उद्दिष्टे :

१. भाषोत्पत्तीचा अभ्यास करणे.

२. भाषाविज्ञानाचा परिचय करून घेणे.

३. भाषाविज्ञान आणि मराठी भाषा यांचा सहसंबंध जाणून घेणे.

४. स्वनविचार, रूपविचार व वाक्यविचारांचा परिचय करून घेणे.

५. मराठी भाषेविषयी विद्यार्थ्यांची आवड विकसित करणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	भाषोत्पत्ती विचार ● भाषेची उत्पत्ती – ईश्वरनिर्मित, राजनिर्मित, समाजनिर्मित ● भाषेच्या उत्पत्तीच्या उपपत्ती/सिद्धांत १. इंगित (Gesture) २. मुखाभिनय (Oral Gesture) ३. अनुकरण (Bow-Bow) ४. रणन (Ding Dong) ५. भावनाभिव्यक्ती (Pooh-Pooh) ६. श्रमपरिहार (Yo-he-Yo) ७. प्रेमगानमूलक (Sing-Song) ८. संपर्क (Contact) ९. क्रीडासक्ती (Play-Way) १०. समन्वय उपपत्ती/सिद्धांत	१५	१
विभाग २ Module II	भाषेचे स्वरूप, व्याख्या आणि वैशिष्ट्ये ● भाषा म्हणजे काय ? ● भाषेच्या व्याख्या : कृ. पां. कुलकर्णी, ना. गो. कालेलकर, श्री. न. गजेंद्रगडकर ● भाषेचे स्वरूप : समाजव्यवहाराचे साधन, ध्वनिमाध्यमता, प्रतीकात्मकता, संकेतबद्धता, भाषा – एक पद्धती, भाषा मानवी आहे. ● सी. एफ. हॉकेटने सांगितलेली भाषेची सात वैशिष्ट्ये दुहेरीपण, निर्मितिक्षमता, कार्यकारण संबंधाचा अभाव, यादृच्छिकता, अदलाबदलीची शक्यता, विशिष्टीकरण, स्थलकालातीतता, सांस्कृतिक संक्रमण या शिवाय – सामाजिक संस्था, अर्जित भाषा, परिवर्तनशीलता, रैखिकता इ. वैशिष्ट्यांचा विचार	१५	१

विभाग ३ Module III	स्वनिम व रूपिम विचार (स्थूल परिचय) अ. स्वनिम विचार १. स्वन २. स्वनिम ३. स्वनांतर (संकल्पना,स्वरूप,प्रकार) ब. रूपिम विचार १. रूप २. रूपिम ३. रूपिकांतर (संकल्पना,स्वरूप,प्रकार)	१५	१
विभाग ४ Module IV	वाक्यविचार ● पदबंध व वाक्याचे स्वरूप ● वाक्याचे प्रकार केवलवाक्य व त्याचे प्रकार, मिश्रवाक्य व त्याचे प्रकार, संयुक्त वाक्य व त्याचे प्रकार, वाक्याचे पृथक्करण	१५	१

एकूण गुण – ४० : Total Marks-40

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	टिपा लिहा (चार पैकी दोन)	१० गुण

सूचना :

१. अंतर्गत मूल्यमापनाकरिता सेमिनारसाठी दहा गुण आहेत.

सेमिनार विषय :

१. स्वन–स्वनिम, रूप–रूपिम पैकी कोणत्याही एका घटकाच्या अनुषंगाने प्रात्यक्षिकांसह सादरीकरण अपेक्षित.

२. कोणत्याही एका साहित्यकृतीच्या निवडक भागातील वाक्यांचे प्रकार, पृथक्करण, विश्लेषणासह सादरीकरण अपेक्षित.

मूलभूत वाचन :

१. जोग, रा. श्री. — *अभिनव काव्यप्रकाश,* व्हीनस प्रकाशन, पुणे, आवृत्ती ७ वी, १९७५

२. गाडगीळ, स. रा. — *काव्यशास्त्रप्रदीप,* व्हीनस प्रकाशन, पुणे, आवृत्ती ४ थी, जानेवारी, १९९३

३. गोविलकर, लीला — *भारतीय साहित्यविचार,* स्नेहवर्धन, पुणे, २००३

४. वाळंबे, मो. रा. — *सुगम मराठी व्याकरण,* नितीन प्रकाशन, पुणे

५. देशपांडे, अ. ना. (संपा.) — *विनोबांची साहित्यदृष्टी,* परमधाम प्रकाशन, पवनार, वर्धा, १९७५

६. कुलकर्णी, अ. वा. — *साहित्यविचार,* प्रतिमा प्रकाशन, पुणे, आ.दु. १९९७

७. गाडगीळ, गंगाधर — *खडक आणि पाणी,* पॉप्युलर प्रकाशन, मुंबई, १९६०.

८. ढवळे, वि. ना. — *साहित्याचे तत्त्वज्ञान,* कॉन्टिनेन्टल प्रकाशन, पुणे

पूरक वाचन :

१. उपासे, शिवशंकर — *काव्यशास्त्र परिचय,* फडके प्रकाशन, कोल्हापूर, २०१३

२. कंगले, र. पं. — *प्राचीन काव्यशास्त्र,* मौज प्रकाशन, मुंबई, १९७४

३. देशमुख, मा. गो. — *मराठीचे साहित्यशास्त्र,* (ज्ञानेश्वर ते रामदास)

४. डॉ. नगेंद्र (अनुवादक : शैलजा करंदीकर) — *भारतीय काव्यशास्त्राचे मूळ प्रश्न,* सुविचार, नागपूर, पुणे, १९६७

संदर्भ ग्रंथ :

१. जाधव, उदय — *काव्यशास्त्र : आकलन आणि आस्वाद,* लोकपाल पब्लिकेशन, औरंगाबाद प्रथमावृत्ती, ५ सप्टेंबर, २०१३

२. पुंडे, दत्तात्रय व तावरे, स्नेहल (संपा.) — *साहित्य विचार,* स्नेहवर्धन प्रकाशन, पुणे, प्रथमावृत्ती, फेब्रुवारी, १९९५

३. पाटील, म. सु. — *भारतीयांचा साहित्यविचार,* चेतश्री प्रकाशन, अमळनेर

४. वासमकर, वि. दा. — *मराठीतील कलावादी समीक्षा,* अक्षरदीप प्रकाशन, कोल्हापूर, आ. प. २०१८

५. करंदीकर, गो. वि. — *ॲरिस्टॉटलचे काव्यशास्त्र,* पॉप्युलर प्रकाशन, मुंबई

६. जाधव, मा. मा. — अक्षरगाथा (मराठी साहित्यविचार विशेषांक) मासिक, नांदेड, एप्रिल, २०१४

मूलभूत वाचन :

१. जोशी, प्र. न. — *सुबोध भाषाशास्त्र,* स्नेहवर्धन प्रकाशन, पुणे

२. गवळी, अनिल — *भाषाविज्ञान आणि मराठी भाषा,* हिरण्यकेशी प्रकाशन, कोल्हापूर

३. धोंगडे, रमेश — *भाषा आणि भाषाविज्ञान,* दिलीपराज प्रकाशन, पुणे

४. कानडे, मु. श्री. (संपा.) — *मराठीचा भाषिक अभ्यास,* स्नेहवर्धन प्रकाशन, पुणे

५. गजेंद्रगडकर, श्री. न. — *भाषा आणि भाषाशास्त्र,* व्हीनस प्रकाशन, पुणे

६. हिरेमठ, राजशेखर — *मराठी व्याकरण परिचय,* मेहता पब्लिशिंग हाऊस, पुणे

७. Hocket C.F. — A course in Modern Linguistics, Oxford, New York. 1958

पूरक वाचन :

१. कुलकर्णी, कृ. पां. — *मराठी भाषा : उद्‌गम आणि विकास,* मेहता पब्लिशिंग हाऊस, पुणे

२. मालशे, मिलिंद — *आधुनिक भाषाविज्ञान : सिद्धांत आणि उपयोजन,* लोकवाङ्मयगृह,मुंबई

३. कुलकर्णी, सुलक्षणा व कुबेर, वसंत — *भाषाविज्ञान परिचय,* फडके प्रकाशन, कोल्हापूर

४. दामले, मो. के. — *शास्त्रीय मराठी व्याकरण,* दामोदर सावळाराम आणि मंडळी, पुणे

संदर्भ ग्रंथ :

१. मालशे, पुंडे, सोमण (संपा.) — *भाषाविज्ञानपरिचय,* पद्मगंधा प्रकाशन, पुणे

२. पुंडे, द. दि. — *सुलभ भाषाविज्ञान,* स्नेहवर्धन प्रकाशन, पुणे

३. कदम, महेंद्र — *मराठीचे वर्णनात्मक भाषाविज्ञान,* स्नेहवर्धन प्रकाशन, पुणे

४. काळे, कल्याण/सोमण, अंजली (संपा.) — *आधुनिक भाषाविज्ञान,* प्रतिमा प्रकाशन, पुणे

५. पाटील, व्ही. एन. — *सुलभ भाषाविज्ञान व मराठी व्याकरण,* प्रशांत पब्लिकेशन्स, जळगाव, आ.दु. २, २०१६

६. भांड, बाबा व मगर, राजेंद्र — *भाषा आणि साहित्य, माझी भूमिका : सयाजीराव गायकवाड,* महाराजा सयाजीराव गायकवाड संशोधन व प्रशिक्षण संस्था, औरंगाबाद,२०२०

७. लामतुरे, प्रज्ञा — *ग्रामीण बोलीभाषेचे वैभव,* संस्कृती प्रकाशन, पुणे, २०१२

८. जाधव, मा. मा. (संपा.) — *अक्षरगाथा* (मराठी भाषा विशेषांक), मासिक, नांदेड, ऑक्टोबर, २०१३

शिवाजी विद्यापीठ, कोल्हापूर

SHIVAJI UNIVERSITY, KOLHAPUR

मराठी अभ्यास मंडळ

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अभ्यासक्रम : Syllabus

June, 2020 onward

सत्र-५ : Semister No. 5 : अभ्यासपत्रिका क्र. IX

Discipline Specific Elective (DSE-E3)

विद्याशाखीय विशेष निवड (DSE-E3)

मध्ययुगीन मराठी वाङ्मयाचा इतिहास (प्रारंभ ते इ.स.१५००)

उद्दिष्टे :

१. मध्ययुगीन मराठी वाङ्मयाचा कालिक अभ्यास करणे.

२. मध्ययुगीन मराठी वाङ्मयाचा स्थूल परिचय करून घेणे.

३. मध्ययुगीन मराठी वाङ्मयाचे स्वरूप, वैशिष्ट्ये अभ्यासणे.

४. मध्ययुगीन मराठी वाङ्मयातील महत्त्वाचे ग्रंथकार आणि ग्रंथ यांचा स्थूल परिचय करून घेणे.

५. मध्ययुगीन मराठी वाङ्मयाच्या गद्य, पद्य रचनेचे विशेष अभ्यासणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	■ **मराठी वाङ्मयाचा प्रारंभकाळ ते इ.स. १२०० पर्यंत** अ) विवेकसिंधूपूर्वकालीन रचना कुवलयमाला, मानसोल्लास, राजमतिप्रबोध, अमरनाथ संवाद, गोरक्षगीता इ. ब) मराठीतील आद्य ग्रंथकार मुकुंदराज यांची रचना विवेकसिंधू, पवनविजय, परमामृत क) मराठीतील आद्य कवयित्री महदंबा यांची रचना धवळे (पूर्वार्ध व उत्तरार्ध), मातृकी रुक्मिणीस्वयंवर	१५	१
विभाग २ Module II	■ **इ. स. १२०० ते १३०० (स्थूल कालखंड)** अ) महानुभावीय गद्य वाङ्मय म्हाइंभट – लीळाचरित्र, श्री. गोविंदप्रभूचरित्र व इतर रचना केसोबास – सूत्रपाठ, दृष्टांतपाठ, स्मृतिस्थळ	१५	१

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग २ Module II	ब) महानुभावीय पद्य वाङ्मय **सातीग्रंथ** (ग्रंथ व ग्रंथकार स्थूल परिचय) नरेंद्र – रुक्मिणी स्वयंवर भास्करभट्ट बोरीकर – शिशुपालवध, उद्धवगीता किंवा एकादशस्कंध दामोदर पंडित – वछाहरण पंडित विश्वनाथ – ज्ञानप्रबोध रवळोव्यास – सह्याद्रिवर्णन नारायणपंडित – श्री ऋद्धिपूरवर्णन	१५	१
विभाग ३ Module III	इ. स. १३०० ते १४०० (स्थूल कालखंड) अ) ज्ञानेश्वरांचे वाङ्मयीन कार्य ज्ञानेश्वरी, अमृतानुभव, चांगदेवपासष्टी, हरिपाठाचे अभंग व इतर रचना ब) नामदेवांची अभंगरचना क) सावता माळी, गोरोबा कुंभार, मुक्ताबाई, सेना महाराज, नरहरी सोनार, चोखामेळा, जनाबाई, कान्होपात्रा यांच्या रचना	१५	१
विभाग ४ Module IV	इ. स. १४०० ते १५०० (स्थूल कालखंड) अ) अन्य संप्रदायातील प्रमुख ग्रंथकार आणि त्यांची ग्रंथरचना सत्यमालनाथ, चोंभा (नाथ संप्रदाय) शांतलिंग आणि मन्मथशिवलिंग (लिंगायत संप्रदाय) गुणकीर्ती व जिनदासनामा (जैन मराठी कवी) नृसिंह सरस्वती आणि दासोपंत (दत्त संप्रदाय) अज्ञानसिद्ध व बहिराजातवेद (नागेश संप्रदाय) शेख महंमद आणि हुसेन अंबरखान (मुस्लीम मराठी कवी) फादर स्टिफन्स, फादर क्रुवा (ख्रिस्ती मराठी कवी)	१५	१

* प्रश्नपत्रिकेचे स्वरूप व गुणविभागणी *

Pattern of Question Paper

एकूण गुण – ४० : Total Marks-40

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	टिपा लिहा (चार पैकी दोन)	१० गुण

सूचना :

१. अंतर्गत मूल्यमापनाकरिता सेमिनारसाठी दहा गुण आहेत.

सेमिनार विषय :

१) मध्ययुगीन मराठी वाङ्मयातील कोणत्याही एका ग्रंथकाराच्या रचना विशेषावर सादरीकरण.

२) कोणत्याही एका संत कवीच्या काव्यातील सामाजिकतेवर सादरीकरण.

३) कोणत्याही एका संत कवयित्रीच्या कवितेतील आत्मनिष्ठा यावर आधारित सादरीकरण.

मूलभूत वाचन :

१. नसिराबादकर, ल. रा. — *प्राचीन मराठी वाङ्मयाचा इतिहास*, फडके प्रकाशन, कोल्हापूर
२. पठाण, यू. म. — *महानुभाव साहित्य संशोधन खंड १*, मराठवाडा विद्यापीठ प्रकाशन, औरंगाबाद
३. देशपांडे, अ. ना. — *प्राचीन मराठी वाङ्मयाचा इतिहास खंड १ ते ४*
४. पांगारकर, ल. रा. — *प्राचीन मराठी वाङ्मयाचा इतिहास खंड १ ते ३*, महाराष्ट्र साहित्य परिषद प्रकाशन, पुणे
५. पसारकर, शे. दे. — *वेलू गेला गगनावरी*, सुविद्या प्रकाशन, सोलापूर

पूरक वाचन :

१. शेणोलीकर, ह. श्री. — *प्राचीन मराठी वाङ्मयाचे स्वरूप*, व्हीनस प्रकाशन, पुणे
२. पांगारकर, ल. रा. — *मराठी वाङ्मयाचा इतिहास खंड १ व २*,
३. तुळपुळे, शं. गो. — *मराठी वाङ्मयाचा इतिहास*, महाराष्ट्र साहित्य परिषद, पुणे
४. मांडवकर, भाऊ — *संत नामदेव दर्शन*, सेवा प्रकाशन, अमरावती
५. इनामदार, हे. वि. (संपा.) — *संत नामदेव काव्यसंभार आणि संत परिवार*
६. उपासे, शिवशंकर — *महाराष्ट्र भूषण सहा संत साहित्यिक*, फडके प्रकाशन, कोल्हापूर, २०१२
७. उपासे, शिवशंकर (संपा.) — *शांतलिंगकृत कर्णहंस*, प्रका. शरण संस्कृती अध्ययन केंद्र, सिद्ध संस्थान मठ, निडसोसी, ता. हुक्केरी, जि. बेळगाव
८. पसारकर, शे. दे. (संपा.) — *श्री मन्मथशिवलिंगकृत परमरहस्य*, शैवभारती शोध प्रतिष्ठान, वाराणसी, २००१
९. केळुसकर, कृष्णराव — *संत तुकाराम*, साकेत प्रकाशन, औरंगाबाद
१०. फाटक, न. र. — *श्री एकनाथ : वाङ्मय आणि कार्य*, मौज प्रकाशन गृह, मुंबई
११. परमार्ग सेवक श्री बाळकृष्णशास्त्री महानुभाव — *महानुभावपंथ*, प. पू. मधुकरशास्त्री कवीश्वर, पंचकमिटी संस्थान, श्री देवदेवेश्वर, माहूर, आ. आठवी, २०१४

संदर्भ ग्रंथ :

१. देऊळगावकर, चंद्रकांत (संपा.) — मन्मथस्वामी व्यक्ती आणि वाङ्मय, प्रका. शैवभारती शोध प्रतिष्ठान, जंगमवाडी मठ, वाराणसी
१. पाटील, तानाजी — *संत साहित्यातील सामाजिकता*, विश्वकर्मा पब्लिकेशन, पुणे
२. सुंठणकर, बा. र. — *महाराष्ट्रीय संतमंडळीचे ऐतिहासिक कार्य*, बेळगाव
३. सरदार, गं. बा. — *संत वाङ्मयाची सामाजिक फलश्रुती*, म. सा. प. पुणे
४. जाधव, रा. ग. — *आनंदाचा डोह*, प्राज्ञ पाठशाळा मंडळ, वाई
५. जाधव, रा. ग. — *वागर्थ*, प्रतिमा प्रकाशन, पुणे
६. कामत, अशोक व बडवे, सतीश (संपा.) — *संत नामदेवविषयक अभ्यास*, आळंदी
७. देशमुख, उषा — *मांदियाळी*, माया प्रकाशन, नागपूर
८. पाटील, सदाशिव — *तुकाराम आणि कबीर*, दर्या प्रकाशन, पुणे
९. घोणसे, शामा — *वीरशैवांचे मराठी-हिंदी वाङ्मय : एक अभ्यास*, शैवभारती शोध प्रतिष्ठान, जंगमवाडी मठ, वाराणसी
१०. प्रियोळकर, अ. का. — *मुसलमानांची जुनी मराठी कविता*
११. ढेरे, रा. चिं. — *मुसलमान मराठी संतकवी*, पद्मगंधा प्रकाशन, पुणे
१२. पठाण, यू. म. — *मुसलमान (सुफी) संतांचे मराठी साहित्य*
१३. मोरजे, गंगाधर — *मराठी ख्रिस्ती वाङ्मय, फादर स्टिफन्स ते १९६०*, अहमदनगर
१४. उपाध्ये, बाबुराव — *संत गोरा कुंभार : वाङ्मय दर्शन*, स्नेहवर्धन प्रकाशन, पुणे
१५. इर्लेकर, सुहासिनी — *संत कवी आणि कवयित्री : एक अनुबंध*, स्नेहवर्धन प्रकाशन, पुणे
१६. अक्कोळे, सुभाषचंद्र — *प्राचीन मराठी जैन साहित्य*, सुविचार प्रकाशन, नागपूर
१७. पाटंगणकर, विद्यासागर — *मराठी संत कवयित्रींचा इतिहास*, साहित्य अकादमी, नवी दिल्ली
१८. होनमाने, धनंजय — *तंजावरची मराठी कीर्तनपरंपरा*, स्नेहवर्धन, पुणे, २०१७

शिवाजी विद्यापीठ, कोल्हापूर

SHIVAJI UNIVERSITY, KOLHAPUR

मराठी अभ्यास मंडळ

Board of Studies in Marathi

पसंतीवर आधारित श्रेयांक पद्धती

Choice Based Credit System

बी.ए. भाग-३ : B.A. Part-III

अभ्यासक्रम : Syllabus

June, 2020 onward

सत्र-५ : Semister No. V : अभ्यासपत्रिका क्र. X

Discipline Specific Elective (DSE-E4)

विद्याशाखीय विशेष निवड (DSE-E4)

मराठी भाषा व अर्थार्जनाच्या संधी

पाठ्यपुस्तक : मराठी भाषा व अर्थार्जनाच्या संधी (संपादन)

शिवाजी विद्यापीठ प्रकाशन, कोल्हापूर

उद्दिष्टे :

१. सर्जनशील लेखनप्रक्रिया समजून घेणे.

२. वैचारिक लेखनाचे स्वरूप अभ्यासणे.

३. शोधनिबंध व प्रकल्पलेखन कौशल्य समजून घेणे.

४. आंतरजालावरील मराठी लेखनपद्धती अभ्यासणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	सर्जनशील लेखन ■ सर्जनशील लेखन – संकल्पना व स्वरूप ● कथा – संकल्पना, स्वरूप ● कथेचे घटक ● प्रात्यक्षिकासह कथालेखन	१५	१
विभाग २ Module II	वैचारिक लेखन ● वैचारिक लेखन : संकल्पना व स्वरूप ● वैचारिक लेखनाची पद्धत ● वैचारिक लेखनाचे प्रकार ● प्रात्यक्षिकासह वैचारिक लेखन	१५	१

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग ३ Module III	शोधनिबंध व प्रकल्पलेखन (स्थूल परिचय) ● संशोधन : संकल्पना, स्वरूप, महत्त्व ● संशोधनपर लेखनप्रकार परिचय १. शोधनिबंध – स्वरूप व पद्धती २. संशोधन प्रकल्प – स्वरूप व पद्धती ३. प्रबंधिका ४. प्रबंध ● संशोधनपर लेखनाची पथ्ये व भाषा	१५	१
विभाग ४ Module IV	आंतरजालावरील (Internet) मराठी ● आंतरजालावरील मराठीविषयक लेखनाचे स्वरूप ● नोंदी लेखन, विश्वकोश, विकिपीडिया इ. ● आंतरजालावरील मराठी संकेतस्थळांचा परिचय १. राज्य मराठी विकास संस्था २. महाराष्ट्र राज्य साहित्य आणि संस्कृती मंडळ ३. भाषा संचालनालय ४. मराठी भाषा विभाग, महाराष्ट्र शासन ५. मराठी साहित्य परिषद, पुणे ६. विश्वकोश मंडळ ७. इतर संकेतस्थळे – साहित्य अकादमी, नॅशनल बुक ट्रस्ट, भारतीय भाषा संस्थान, म्हैसूर इ. ● प्रात्यक्षिकासह आंतरजालावर मराठीविषयक लेखन	१५	१

* प्रश्नपत्रिकेचे स्वरूप व गुणविभागणी *

Pattern of Question Paper

एकूण गुण – ४० : Total Marks-40

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	टिपा लिहा (चार पैकी दोन)	१० गुण

सूचना : १. प्रश्न क्र. ४ मध्ये ४ पैकी २ प्रश्न उपयोजनावर आधारित असतील.

२. अंतर्गत मूल्यमापनाकरिता सेमिनारसाठी दहा गुण आहेत.

सेमिनार विषय :

१. भाषा, साहित्य, संस्कृती व माध्यमविषयक कोणत्याही एका विषयावर शोधनिबंधाचे सादरीकरण करणे.

मूलभूत वाचन :

१. जोशी, सुधा — *कथा संकल्पना आणि समीक्षा*, मौज प्रकाशन, मुंबई, २००२

२. सारंग, विलास — *सर्जनशोध आणि लिहिता लेखक*, मौज प्रकाशन, मुंबई

३. मालशे, मिलिंद (संपा.) — *शोधनिबंधाची लेखनपद्धती* (सुधारित आवृत्ती) लोकवाङ्मय गृह, मुंबई

४. पाटील, आनंद — *सृजनात्मक लेखन*, पद्मगंधा प्रकाशन, पुणे, २००९

५. काळे, कल्याण, पुंडे, द. दि. — *व्यावहारिक मराठी*, निराली प्रकाशन, पुणे, २००७

६. वेलणकर, जयंत — *प्रबंध कसा लिहावा*, साहित्य प्रसारक केंद्र, नागपूर

७. कऱ्हाडे, सदा — *संशोधन : सिद्धांत आणि पद्धती*, लोकवाङ्मय गृह, मुंबई

८. चुनेकर, सु. रा. व पठारे, रंगनाथ (संपा.) — *संशोधन स्वरूप आणि पद्धती*, शि. प्र. संस्था, संगमनेर

९. वरखेडे, रमेश नारायण व वरखेडे, मंगला रमेश — *संशोधनाचे पद्धतिशास्त्र*, उॅग्रामण्ये इन्स्टिट्यूट ऑफ एज्युकेशन, एक्सलन्स, पुणे

१०.रोकडे, सुहास — *संगणक व माहिती तंत्रज्ञान*, नाथे प्रकाशन, पुणे

पूरक वाचन :

१. नसिराबादकर, ल. रा. — *व्यावहारिक मराठी*, फडके प्रकाशन, कोल्हापूर

२. रेगे, मे. पुं. (संपा.) — *नवभारत* (मासिक), व्यावहारिक मराठी विशेषांक, प्राज्ञ पाठशाळा मंडळ, वाई, ऑगस्ट–सप्टेंबर, १९८१

३. गवस, राजन; शिंदे, अरुण व पाटील, गोमटेश्वर — *भाषिक सर्जन आणि उपयोजन*, दर्या प्रकाशन, पुणे, २०१२

४. गोविलकर, लीला पाटणकर, जयश्री — *व्यावहारिक मराठी*, स्नेहवर्धन पब्लिशिंग हाऊस, पुणे, २००७

५. शेख, यास्मिन — *मराठी लेखन मार्गदर्शिका*, राज्य मराठी विकास संस्था व शुभदा सारस्वत प्रकाशन, पुणे, १९९९/सुधारित तिसरी आवृत्ती, राज्य मराठी विकास संस्था, मुंबई, डिसें.२०१७

६. शिकारपूरकर, दीपक — *दिव्यांगमित्र संगणक*, उत्कर्ष प्रकाशन, पुणे

७. शेख, यास्मिन — मराठी हस्तलेखन कोश, दुसरी आवृत्ती, हर्मिस प्रकाशन, पुणे, २०१५

संदर्भ ग्रंथ :

१. तौर, पृथ्वीराज — *मराठी भाषिक कौशल्ये विकास*, अथर्व पब्लिकेशन्स, धुळे, २०१८

२. जोशी, प्रभाकर व वले, वासुदेव — *उपयोजित मराठी भाग १*, प्रशांत पब्लिकेशन्स, जळगाव, २०१७

३. सारंग, विलास — *सर्जनशोध आणि लिहिता लेखक*, मौज प्रकाशन, मुंबई

४. पाटील, आनंद — *सृजनात्मक लेखन*, पद्मगंधा प्रकाशन, पुणे

५. लोखंडे, शशिकांत — *नवी जाणीव*, लोकवाङ्मय गृह, मुंबई, २०१२

६. गवळी, अनिल — *मराठी भाषा : आज आणि उद्या*, दर्या प्रकाशन, पुणे, २०१८

७. गवळी, अनिल व मोरे, नंदकुमार — *भाषासंवाद*, सायन पब्लिकेशन, पुणे, २०१३

८. कांबळे, विनोद — *सर्जननोंदी*, वाचनकट्टा प्रकाशन, प्रा. लि., कोल्हापूर, २०१९

९. वरखेडे, मंगला — प्रकल्प अभ्यास, नाशिक

शिवाजी विद्यापीठ, कोल्हापूर

SHIVAJI UNIVERSITY, KOLHAPUR

मराठी अभ्यास मंडळ

Board of Studies in Marathi

पसंतीवर आधारित श्रेयांक पद्धती

Choice Based Credit System

बी.ए. भाग-३ : B.A. Part-III

अभ्यासक्रम : Syllabus

June, 2020 onward

सत्र-५ : Semister No. V : अभ्यासपत्रिका क्र. XI

Discipline Specific Elective (DSE-E5)

विद्याशाखीय विशेष निवड (DSE-E5)

वाङ्मय प्रवाहाचे अध्ययन : मध्ययुगीन

पाठ्यपुस्तक : दृष्टांतपाठ-निवडक दृष्टांत (संपादन)
शिवाजी विद्यापीठ प्रकाशन, कोल्हापूर

उद्दिष्टे :

१. मध्ययुगीन महाराष्ट्र व महानुभाव पंथ यांचा परिचय करून घेणे.
२. महानुभाव वाङ्मयाच्या प्रेरणा व स्वरूप समजून घेणे.
३. महानुभावीय ग्रंथकार केसोबास यांचा परिचय करून घेणे.
४. दृष्टांतपाठातील आशयस्वरूप व अभिव्यक्ती विशेष अभ्यासणे.
५. दृष्टांतपाठातील भाषिक वैभवाचा परिचय करून घेणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	● मध्ययुगीन महाराष्ट्र आणि महानुभावीय गद्याच्या प्रेरणा व स्वरूप ● महानुभाव गद्य ग्रंथकार केसोबास यांचा परिचय ● दृष्टांतपाठाचे स्वरूप	१५	१
विभाग २ Module II	■ दृष्टांतपाठातील आशयसूत्रे ● सामाजिकता ● सांस्कृतिकता ● प्रादेशिकता ● पंथीय निष्ठा ● तत्त्वज्ञान व मूल्यविचार	१५	१
विभाग ३ Module III	■ दृष्टांतपाठातील अभिव्यक्ती विशेष ● निवेदन/कथनशैली ● व्यक्तिचित्रणे ● घटना, प्रसंगवर्णने ● प्रतिमा व प्रतीके ● रचनाविशेष	१५	१
विभाग ४ Module IV	■ दृष्टांतपाठातील भाषावैभव ● शब्दसौष्ठव ● अल्पाक्षरत्व ● सुलभ रचनाविशेष ● म्हणी,वाक्प्रचार,उखाणे ● अलंकार वैभव ● व्याकरणिक विशेष	१५	१

* प्रश्नपत्रिकेचे स्वरूप व गुणविभागणी *

Pattern of Question Paper

एकूण गुण – ४० : Total Marks-40

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	टिपा लिहा (चार पैकी दोन)	१० गुण

सूचना : १. विभाग एकवर वस्तुनिष्ठ प्रश्न असणार नाहीत.

२. अंतर्गत मूल्यमापनाकरिता सेमिनारसाठी दहा गुण आहेत.

सेमिनार विषय :

मध्ययुगीन मराठी वाङ्मयातील कोणत्याही एका साहित्यकृतिआधारे सामाजिक, सांस्कृतिक, मूल्यविचार, भाषाविशेष इत्यादींपैकी कोणत्याही एका विषयानुषंगाने सादरीकरण करणे.

मूलभूत वाचन :

१. तुळपुळे, शं. गो. (संपा.) *दृष्टांतपाठ, केशिराज संकलित,* व्हीनस प्रकाशन, पुणे

२. कोलते, वि. भि. *महानुभाव तत्त्वज्ञान,* अरुण प्रकाशन, मलकापूर

३. कोलते, वि. भि. *महानुभाव आचारधर्म,* अरुण प्रकाशन, मलकापूर

४. राजनकर, सुहास *दृष्टांतपाठ : अन्वय आणि चिकित्सा,* ऋचा प्रकाशन, नागपूर

५. कुंदप, कोमल कन्हैया *चक्रधर निरुपन दृष्टांतपाठ विवेचन,* सातारा

पूरक वाचन :

१. पठाण, यू. म. *महानुभाव साहित्य संशोधन खंड १,* मराठवाडा विद्यापीठ प्रकाशन, औरंगाबाद

२. पंजाबी, माधव (संपा.) *श्री. च. पाणी व्यासकृत दृष्टांत अन्वय व्याख्यान*

३. आवलगावकर, रमेश *महानुभावांची अन्वयस्थळे,* चंद्रकांत प्रकाशन, पुणे

४. ढेरे, रा. चिं. *प्राचीन मराठीच्या नवधारा,* मोघे प्रकाशन, कोल्हापूर

संदर्भ ग्रंथ :

१. पानसे, मु. ग. *यादवकालीन महाराष्ट्र,* मुंबई मराठी ग्रंथ संग्रहालय, मुंबई

२. बोरगांवकर, वसंत *प्राचीन मराठी चरित्रलेखन,* कॉन्टिनेन्टल प्रकाशन, पुणे

३. तुळपुळे, शं. गो. *यादवकालीन मराठी भाषा,* व्हीनस प्रकाशन, पुणे

४. देशमुख, उषा *मराठी साहित्याचे आदिबंध,* लोकवाङ्मयगृह, मुंबई

५. ढेरे, रा. चिं. *महाराष्ट्राचा देव्हारा,* विश्वकर्मा साहित्यालय, पुणे

६. पाठक, अरुणचंद्र *स्थानपोथी : एक पुरातत्वीय अभ्यास,* म.रा.साहित्य संस्कृती मंडळ, मुंबई

शिवाजी विद्यापीठ, कोल्हापूर

SHIVAJI UNIVERSITY, KOLHAPUR

मराठी अभ्यास मंडळ

Board of Studies in Marathi

पसंतीवर आधारित श्रेयांक पद्धती

Choice Based Credit System

बी.ए. भाग-३ : B.A. Part-III

अभ्यासक्रम : Syllabus

June, 2020 onward

सत्र-६ : Semister No. 6 : अभ्यासपत्रिका क्र. XII

Discipline Specific Elective (DSE-E126)

विद्याशाखीय विशेष निवड (DSE-E126)

साहित्यविचार

उद्दिष्टे :

१. शब्दशक्तींचे आकलन करून घेणे.

२. साहित्यातील रसाचे स्वरूप व रसप्रक्रिया समजून घेणे.

३. निर्मितीच्या आनंदाची मीमांसा करणे.

४. व्यवहार भाषा, शास्त्रभाषा आणि साहित्यभाषा यांतील भेद समजून घेणे.

५. साहित्यभाषेचे आकलन करून घेणे.

६. भाषेतील छंद व वृत्ते यांचा अभ्यास करणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	शब्दशक्ती ■ शब्दशक्ती म्हणजे काय ? १) **अभिधा**–व्याख्या, स्वरूप व प्रकार (योग, रूढी, योगरूढी) २) **लक्षणा** – व्याख्या, स्वरूप ● लक्षणेस आवश्यक गोष्टी अ) मुख्यार्थबाध ब) मुख्यार्थ–लक्ष्यार्थ संबंध क) रूढी व प्रयोजन ● लक्षणेचे महत्त्व ३) **व्यंजना** – व्याख्या, स्वरूप ● व्यंजनेचे मुख्य दोन प्रकार अ) शाब्दी व्यंजना ब) आर्थी व्यंजना ● व्यंजनेचे साहित्यातील महत्त्व	१५	१

विभाग २ Module 2	अ) रसविचार ● रस म्हणजे काय ? ● स्थायिभाव व रस ● भरताचे रससूत्र ब) काव्यानंदमीमांसा ● काव्यानंदमीमांसा म्हणजे काय ? ● कवीचा आनंद १) क्रीडानंद २) निर्मितीचा आनंद ३) आत्माविष्कारानंद ● रसिकाचा आनंद १) ज्ञानानंद २) जिज्ञासापूर्ती ३) पुन:प्रत्ययाचा आनंद ● करुणरसानंद १) केवलानंदवाद २) विरेचन (कॅथार्सिस)	१५	१
घटक ३ Module 3	साहित्याची भाषा १) व्यवहारभाषा, शास्त्रभाषा व साहित्यभाषा : साम्यभेद २) साहित्याचे माध्यम भाषा ३) साहित्य भाषेचे सौंदर्य ४) साहित्य भाषेची विविधता	१५	१
घटक ४ Module IV	छंद व वृत्ते अ) छंद – १) ओवी २) अभंग ३) मुक्तच्छंद ब) वृत्ते – १) भुजंगप्रयात २) वसंततिलका ३) दिंडी (व्याख्या, स्वरूप व उदाहरणे अपेक्षित)	१५	१

* प्रश्नपत्रिकेचे स्वरूप व गुणविभागणी *

Pattern of Question Paper

एकूण गुण – ४० : Total Marks-40

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	छंद व वृत्ते (चार पैकी दोन)	१० गुण

सूचना :

१. विभाग चार वर वस्तुनिष्ठ प्रश्न असणार नाहीत.

२. गटप्रकल्पासाठी अंतर्गत मूल्यमापनाकरिता प्रती विद्यार्थ्यास दहा गुण आहेत.

गटप्रकल्प विषय : साहित्यनिर्मितिप्रक्रिया संदर्भात कोणत्याही एका साहित्यिकाची मुलाखत घेणे.

मूलभूत वाचन :

१. जोग, रा. श्री. — *अभिनव काव्यप्रकाश,* व्हीनस प्रकाशन, पुणे, आवृत्ती ७ वी, जानेवारी, १९७५

२. गाडगीळ, स. रा. — *काव्यशास्त्रप्रदीप,* व्हीनस प्रकाशन, पुणे, आवृत्ती ४ थी, जानेवारी, १९९३

३. वाटवे, के. ना. — *रसविमर्श,* नवीन किताबखाना, पुणे, १९४२

४. वाळंबे, मो. रा. — *सुगम मराठी व्याकरण लेखन,* नितीन प्रकाशन, पुणे

५. नेमाडे, भालचंद्र — *साहित्याची भाषा,* साकेत प्रकाशन, औरंगाबाद, आ. दु. १९९८

पूरक वाचन :

१. जोशी, पं. महादेवशास्त्री — *सुलभ काव्याशास्त्र,* एस. जगन्नाथ आणि कं., पुणे

२. उपासे, शिवशंकर — *काव्यशास्त्र परिचय,* फडके प्रकाशन, कोल्हापूर, २०१३

३. जाधव, उदय — *काव्यशास्त्र : आकलन आणि आस्वाद,* लोकपाल पब्लिकेशन, औरंगाबाद, प्रथमावृत्ती, ५ सप्टेंबर २०१३

४. शिरवाडकर, के. रं. — *साहित्यवेध,* मेहता पब्लिशिंग हाऊस, पुणे, प्रथमावृत्ती, जानेवारी, १९९८

संदर्भ ग्रंथ :

१. कुरुंदकर, नरहर — *रससूत्र,* इंद्रायणी साहित्य, पुणे.

२. सोनार, ब. लु. — *भारतीय साहित्य विचार,* प्रज्ञा, अमळनेर, १९८८

३. मोरे, मोरेश्वर सखाराम — *मराठी व्याकरण,* चित्रशाळा, पुणे, १९७०

४. वासमकर, वि. दा. — *मराठीतील कलावादी समीक्षा,* अक्षरदीप प्रकाशन, कोल्हापूर, आ. प. २०१८

५. तुकदेव, रोहिणी — *ओवी छंद : रूप आणि आविष्कार,* प्रतिमा प्रकाशन, पुणे

६. हिरेमठ, राजशेखर — *मराठी व्याकरण परिचय,* मेहता पब्लिशिंग हाऊस, पुणे, १९८८

७. जाधव, मा. मा. — *अक्षरगाथा* (मराठी साहित्यविचार विशेषांक), मासिक, नांदडे, एप्रिल, २०१४

शिवाजी विद्यापीठ, कोल्हापूर

SHIVAJI UNIVERSITY, KOLHAPUR

मराठी अभ्यास मंडळ

Board of Studies in Marathi

पसंतीवर आधारित श्रेयांक पद्धती

Choice Based Credit System

बी.ए. भाग-३ : B.A. Part-III

अभ्यासक्रम : Syllabus

June, 2020 onward

सत्र-६ : Semister No. 6 : अभ्यासपत्रिका क्र. XIII

Discipline Specific Elective (DSE-E127)

विद्याशाखीय विशेष निवड (DSE-E127)

मराठी भाषा व भाषाविज्ञान

उद्दिष्टे :

१. मराठी भाषेची वर्णव्यवस्था समजून घेणे.

२. ध्वनी व अर्थपरिवर्तनाची कारणे व प्रकार यांची माहिती करून घेणे.

३. प्रमाणभाषेचे स्वरूप व विशेष अभ्यासणे.

४. बोलींचे स्वरूप व विशेष समजून घेणे.

५. मराठी भाषेबद्दलची विद्यार्थ्यांची आवड विकसित करणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	मराठीची वर्णमाला ● ध्वनी व वर्ण, मराठीची वर्णमाला, पारंपरिक स्वर व त्यांचे वर्गीकरण ● स्वरांचे ध्वनिशास्त्रदृष्ट्या व उच्चारण स्थानानुसार विश्लेषण ● स्वरांचे प्रकार ह्रस्व, दीर्घ, सिद्ध, साधित, सजातीय, विजातीय ● मराठीची स्वर संख्या (पारंपरिक व नवीन) ● मराठीतील व्यंजन विचार ● व्यंजनांचे प्रकार १. स्पर्श व्यंजने २. कठोर व मृदू व्यंजने ३. अल्पप्राण व महाप्राण ४. अनुनासिके ५. तालव्य व्यंजने ६. अंतःस्थ व्यंजने ७. उष्म व्यंजने ८. संयुक्त व्यंजने ९. मूर्धन्य ● मराठीची व्यंजन संख्या (पारंपरिक व नवीन) ● मराठीची वर्ण संख्या निश्चितीकरण	१५	१

विभाग २ Module II	मराठीचे ध्वनिपरिवर्तन ● भाषेची उच्चारप्रक्रिया ● ध्वनिपरिवर्तन म्हणजे काय? ● व्याख्या आणि विशेष निरपवाद, नियमित, अज्ञेय, सार्वत्रिक ध्वनिपरिवर्तन ● कारणे जित – जेते संबंध, भिन्न भाषिक संबंध, आळस, अनुकरणाची अपूर्णता, वागेंद्रियातील दोष, श्रवणेंद्रियातील दोष, उच्चारशीघ्रता, अज्ञान, आघात, उच्चारसौकर्य, आहार, भौगोलिकता, वर्गसिद्धान्त, लोकभ्रम, सादृश्यता ● प्रकार अंत्यस्वनलोप, एकस्वनीकरण, आद्यस्वनागम, मध्यस्वनागम, अंत्यस्वनागम, सान्निध परिणाम, समानस्वनलोप, विसदृशीकरण, घोषीकरण, अघोषीकरण, मात्राभेद, सदृशता, अतिशुद्धी, दुष्प्रयोग, स्वनविपर्यय ● ध्वनिपांरेवर्तनाचा मराठी भाषेवरील परिणाम	१५	१
विभाग ३ Module III	मराठीचे अर्थपरिवर्तन ● अर्थपरिवर्तन म्हणजे काय ? ● व्याख्या आणि स्वरूप अर्थ म्हणजे निर्देश, प्रतिमा, संकल्पना व विचार ● अर्थपरिवर्तनाची कारणे साम्यतत्त्व, रूपक – लक्षणाजन्य शब्द, बदलते समाजजीवन, अशुभतापरिहार, ग्राम्यतापरिहार, अतिशयोक्ती, शब्दसिद्धी, अतिपरिचयातून सभ्यता, अत्यादरदर्शन, सांस्कृतिक आदान ● अर्थपरिवर्तनाचे प्रकार – अर्थविस्तार, अर्थसंकोच, अर्थप्रशस्ती, अर्थच्युती, अर्थापकर्ष, अर्थान्तर, अर्थभ्रंश, अर्थादेश, अर्थभेद, अर्थसार ● अर्थपरिवर्तनाचा मराठी भाषेवरील परिणाम	१५	१
विभाग ४ Module IV	प्रमाण मराठी भाषा आणि तिच्या बोली ● प्रमाण मराठी : संकल्पना, स्वरूप, विशेष ● बोली : संकल्पना, स्वरूप, विशेष ● मराठीच्या बोली : अहिराणी, वऱ्हाडी, चंदगडी, मालवणी या निवडक बोलींचे स्वरूप व विशेष	१५	१

एकूण गुण – ४० : Total Marks-40

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	टिपा लिहा (चार पैकी दोन)	१० गुण

सूचना : १. विभाग एकवर वस्तुनिष्ठ प्रश्न असणार नाही.

२. अंतर्गत मूल्यमापनाकरिता सेमिनारसाठी दहा गुण आहेत.

गटप्रकल्प विषय :

१. आपल्या परिसरातील कौटुंबिक, सांस्कृतिक, कृषिविषयक, औद्योगिक क्षेत्रात जी बोलीभाषा बोलली जाते त्या बोलीभाषेतील शब्द, वाक्य, वाक्प्रचार, म्हणी, उखाणे यांचे संकलन आणि विश्लेषणासह गटप्रकल्प अपेक्षित.

२. आपल्या परिसरातील लोककथा, लोकगीते यांचे संकलन करून त्यातील भाषिक विशेषांच्या विश्लेषणावर आधारित गटप्रकल्प अपेक्षित.

मूलभूत वाचन :

१. कुलकर्णी, कृ. पां. — *मराठी भाषा : उद्‌गम आणि विकास*, मेहता पब्लिशिंग हाऊस, पुणे

२. कानडे, मु. श्री. (संपा.) — *मराठीचा भाषिक अभ्यास*, स्नेहवर्धन प्रकाशन, पुणे

३. गजेंद्रगडकर श्री. न. — *भाषा आणि भाषाशास्त्र*, व्हीनस प्रकाशन, पुणे

४. कुलकर्णी कृ. पां. — *शब्द : उद्‌गम आणि विकास*

५. जोगळेकर गं. ना. — *अभिनव भाषाविज्ञान*, सुविचार प्रकाशन, पुणे

६. जोशी, प्र. न. — *सुबोध भाषाशास्त्र*, स्नेहवर्धन प्रकाशन, पुणे

७. दामले, मो. के. — *शास्त्रीय मराठी व्याकरण*, दामोदर सावळाराम आणि मंडळी, पुणे

८. कालेलकर, ना. गो. — *ध्वनिविचार*, मौज प्रकाशन, मुंबई

९. पोतदार, अनुराधा — *मराठीचा अर्थविचार*, पुणे विद्यापीठ प्रकाशन, पुणे

१०. कालेलकर, ना. गो. — *भाषा आणि संस्कृती*, मौज प्रकाशनगृह, मुंबई

११. देवी, गणेश व जाखडे, अरुण (संपा.) — *भारतीय भाषेचे लोकसर्वेक्षण*, पद्मगंधा प्रकाशन, पुणे

पूरक वाचन :

१. हिरेमठ, राजशेखर — *मराठी व्याकरण परिचय*, मेहता पब्लिशिंग हाऊस, पुणे

२. गवळी, अनिल — *भाषाविज्ञान आणि मराठी भाषा*, हिरण्यकेशी प्रकाशन, कोल्हापूर

३. कुलकर्णी, सुलक्षणा व कुबेर, वसंत — *भाषाविज्ञान परिचय*, फडके प्रकाशन, कोल्हापूर

संदर्भ ग्रंथ :

१. पुंडे, द. दि. — *सुलभ भाषाविज्ञान*, स्नेहवर्धन प्रकाशन, पुणे

२. कदम, महेंद्र — *मराठीचे वर्णनात्मक भाषाविज्ञान*, स्नेहवर्धन प्रकाशन, पुणे

३. कालेलकर, ना. गो. — *भाषा, इतिहास आणि भूगोल*, मौज मुंबई

४. शेख, यास्मिन — *मराठी लेखन मार्गदर्शिका*, राज्य मराठी विकास संस्था, मुंबई

५. हिरेमठ, राजशेखर — *मराठी व्याकरण परिचय*, मेहता पब्लिशिंग हाऊस, पुणे

६. लामतुरे, प्रज्ञा — *ग्रामीण बोलीभाषेचे वैभव*, संस्कृती प्रकाशन, पुणे

७. जंबाले, विठ्ठल — *ग्रामीण कादंबरी : मराठवाडी बोलीचे स्वरूप*, चिन्मय प्रकाशन, औरंगाबाद

८. पाटील, व्ही. एन. — *सुलभ भाषाविज्ञान*, प्रशांत पब्लिकेशन्स, जळगाव, २०१६

९. भांड, बाबा व मगर, राजेंद्र — *भाषा आणि साहित्य : माझी भूमिका : सयाजीराव गायकवाड*, महाराजा सयाजीराव गायकवाड संशोधन व प्रशिक्षण संस्था, औरंगाबाद

१०. केळकर, तन्मय (अनु.) — *पंजाबच्या भाषा आणि लिपीची समस्या : शहीद भगतसिंग*, प्रका. भाषाविकास संशोधन संस्था, कोल्हापूर

शिवाजी विद्यापीठ, कोल्हापूर
SHIVAJI UNIVERSITY, KOLHAPUR

मराठी अभ्यास मंडळ

Board of Studies in Marathi

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Choice Based Credit System

बी.ए. भाग-३ : B.A. Part-III

अभ्यासक्रम : Syllabus

June, 2020 onward

सत्र-६ : Semister No. 6 : अभ्यासपत्रिका क्र. XIV

Discipline Specific Elective (DSE-E128)

विद्याशाखीय विशेष निवड (DSE-E128)

मध्ययुगीन मराठी वाङ्मयाचा इतिहास (इ.स.१५०० ते इ.स.१८००)

उद्दिष्टे :

१. मध्ययुगीन मराठी वाङ्मयाचा कालिक अभ्यास करणे.

२. मध्ययुगीन मराठी वाङ्मयाचा स्थूल परिचय करून घेणे.

३. पंडित कवी व त्यांची रचना यांचा परिचय करून घेणे.

४. बखर वाङ्मय आणि शाहिरी वाङ्मय यांचे स्वरूप, विशेष अभ्यासणे.

५. मध्ययुगीन मराठी गद्य, पद्य रचनेचे विशेष अभ्यासणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	इ. स. १५०० ते इ.स. १६०० एकनाथांची साहित्य संपदा चतुःश्लोकी भागवत, एकनाथी भागवत, भावार्थ रामायण, गवळणी, भारुडे इत्यादी रचना	१५	१
विभाग २ Module II	इ. स. १६०० ते इ. स. १७०० (स्थूल कालखंड) अ) तुकारामांची अभंगरचना ब) रामदासांची ग्रंथरचना करुणाष्टके, रामायणे, मनाचे श्लोक, दासबोध, स्फुट प्रकरणे	१५	१
विभाग ३ Module III	इ. स. १६०० ते इ. स. १८०० (स्थूल कालखंड) निवडक पंडित कवींच्या काव्याचा अभ्यास १) मुक्तेश्वर २) वामन पंडित ३) रघुनाथ पंडित ४) श्रीधर ५) मोरोपंत	१५	१
विभाग ४ Module IV	इ. स. १५०० ते इ.स. १८०० (स्थूल कालखंड) अ) बखर वाङ्मय शिवपूर्वकालीन बखरी, शिवकालीन बखरी, पेशवेकालीन बखरी–स्वरूप, विशेष ब) शाहिरी वाङ्मय (लावणी व पोवाडा) १) अनंत फंदी २) परशराम ३) राम जोशी ४) प्रभाकर ५) होनाजी बाळा	१५	१

* प्रश्नपत्रिकेचे स्वरूप व गुणविभागणी *

Pattern of Question Paper

एकूण गुण – ४० : Total Marks-40

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	टिपा लिहा (चार पैकी दोन)	१० गुण

सूचना : १. गटप्रकल्पासाठी अंतर्गत मूल्यमापनाकरिता प्रती विद्यार्थ्यास दहा गुण आहेत.

गटप्रकल्प विषय :

* आपल्या परिसरातील कोणत्याही ग्रंथालयातील किंवा ग्रंथालयाबाहेरील मध्ययुगीन मराठी ग्रंथकार आणि ग्रंथ यांची सूची तयार करावी.
* मध्ययुगीन मराठी वाङ्मयातील निवडक शब्दांचा शब्दसंग्रह करणे आणि त्यांचे वर्गीकरण व विश्लेषण करणे.

मूलभूत वाचन :

१. नसिराबादकर, ल. रा. — *प्राचीन मराठी वाङ्मयाचा इतिहास*, फडके प्रकाशन, कोल्हापूर
२. देशपांडे, अ. ना. — *प्राचीन मराठी वाङ्मयाचा इतिहास खंड १ ते ४*, व्हीनस प्रकाशन, पुणे
३. पांगारकर, ल. रा. — *प्राचीन मराठी वाङ्मयाचा इतिहास खंड १ ते ३*,महाराष्ट्र साहित्य परिषद,पुणे
४. मंचरकर, र. बा. — *धर्म संप्रदाय आणि मध्ययुगीन मराठी वाङ्मय*, प्रतिमा प्रकाशन, पुणे
५. गवळी, अनिल — *सर्वात्मभावी तुकाराम*, सायन पब्लिकेशन प्रा. लि. पुणे
६. सपकाळे, प्रकाश — *संत तुकाराम*, प्रशांत पब्लिकेशन्स, जळगाव
७. वाटवे, के. ना. (संपा.) — *प्राचीन मराठी पंडिती काव्य.*
८. फाटक, न. र. — *श्री एकनाथ वाङ्मय दर्शन आणि कार्य*, मौज प्रकाशन गृह, मुंबई
९. सरदेशमुख, त्र्यं. वि. — *रामदास : प्रतिमा आणि बोध*, अस्मिता प्रकाशन, पुणे
१०. हेरवाडकर, र. वि. — *मराठी बखर*, व्हीनस प्रकाशन, पुणे
११. अदवंत, म. ना. — *पैंजण*, साहित्य प्रसार केंद्र, नागपूर
१२. सहस्त्रबुद्धे, म. ना. — *मराठी शाहिरी वाङ्मय*, ठोकळ प्रकाशन, पुणे
१३. खरात, महेश (संपा.) — *लोकसाहित्य : जीवन आणि संस्कृती*,(प्रा.विश्वनाथ शिंदे गौरवग्रंथ), सायन पब्लिकेशन, पुणे

पूरक वाचन :

१. तुळपुळे, शं. गो. (संपा.) — *मध्ययुगीन मराठी वाङ्मयाचा इतिहास*, म. सा. प., पुणे
२. तुळपुळे , शं. गो. (संपा.) — *मराठी वाङ्मयाचा इतिहास*, महाराष्ट्र साहित्य परिषद, पुणे
३. उपासे, शिवशंकर — *मराठी काव्यातील शिवदैवत दर्शन, आख्यानकाव्य व स्फुटकाव्य : १३ ते १८ वे शतक*, शैवभारती शोध प्रतिष्ठान, जंगमवाडी मठ, वाराणसी
४. पाटील, तानाजी — *संत साहित्यातील सामाजिकता*, विश्वकर्मा प्रकाशन, पुणे
५. हेरवाडकर, र. वि. — *मराठी बखर*

संदर्भ ग्रंथ :

१. बडवे, सतीश — *मध्ययुगीन साहित्याविषयी*, मीरा, औरंगाबाद
२. फाटक, न. र. — *श्री. रामदास, वाङ्मय आणि कार्य*
३. माटे, श्री. म. — *संत, पंत आणि तंत*, ठोकळ प्रकाशन, पुणे
४. होनमाने, धनंजय — *तंजावरची मराठी कीर्तनपरंपरा*, स्नेहवर्धन, पुणे
५. होनमाने, धनंजय — *पंत प्रतिनिधींची कीर्तनाख्याने*, दर्या प्रकाशन, पुणे
६. ग्रामोपाध्ये, गं. ब. — *मराठी बखर गद्य*, व्हीनस बुक स्टॉल, पुणे
७. शिंदे, विश्वनाथ — *शाहिरी वाङ्मयाच्या धारा*, प्रतिमा प्रकाशन, पुणे
७. केळकर, य. न. — *मराठी शाहीर आणि शाहिरी वाङ्मय*, पुणे विद्यापीठ, पुणे
९. मोरजे, गंगाधर — *मऱ्हाटी लावणी वाङ्मय*, मोघे प्रकाशन, कोल्हापूर
१०. वर्दे, श्री. म. — *मराठी कवितेचा उष:काल किंवा मराठी शाहीर*,मुंबई मराठी साहित्य संघ,मुंबई

शिवाजी विद्यापीठ, कोल्हापूर

SHIVAJI UNIVERSITY, KOLHAPUR

मराठी अभ्यास मंडळ

Board of Studies in Marathi

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बी.ए. भाग-३ : B.A. Part-III

अभ्यासक्रम : Syllabus

June, 2020 onward

सत्र-६ : Semister No. 6 : अभ्यासपत्रिका क्र. XV

Discipline Specific Elective (DSE-E129)

विद्याशाखीय विशेष निवड (DSE-E129)

मराठी भाषा व अर्थार्जनाच्या संधी

पाठ्यपुस्तक : मराठी भाषा व अर्थार्जनाच्या संधी (संपादन)

शिवाजी विद्यापीठ प्रकाशन, कोल्हापूर

उद्दिष्टे :

१. प्रसारमाध्यमांतील अर्थार्जनाच्या संधी आणि भाषिक कौशल्ये यांचा परिचय करून घेणे.

२. स्पर्धा परीक्षांमध्ये मराठी भाषा विषयाचे महत्त्व समजून घेणे.

३. उद्योग व सेवा क्षेत्रात मराठी भाषेद्वारे अर्थार्जनप्राप्ती संदर्भात ज्ञान संपादन करणे.

४. मुद्रित शोधनाची पद्धत अभ्यासणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	प्रसारमाध्यमांतील अर्थार्जनाच्या संधी व भाषिक कौशल्ये ■ मुद्रित माध्यमे (Print Media) १. संपादन २. स्तंभलेखन ३. जाहिरात लेखन ४. शब्दांकन (नावीण्यपूर्ण उपक्रम, व्यक्तींचे अनुभव व मानपत्र) ■ आकाशवाणी १. निवेदन २. संहिता लेखन (कृषी, महिला व शैक्षणिक विषयक) ३. बातमी लेखन ■ चित्रवाणी १. निवेदन २. संहिता लेखन (साहित्य, युवा व मनोरंजन विषयक) ३. बातमी लेखन	१५	१

विभाग २ Module II	उद्योग व सेवाक्षेत्रातील अर्थार्जनाच्या संधी व भाषिक कौशल्ये ■ उद्योग व सेवाक्षेत्र आणि मराठी भाषा ■ उद्योग व सेवाक्षेत्रातील अर्थार्जन संधी – १. विपणन (Marketing) साठी संवाद कौशल्ये २. ग्राहक सेवा केंद्र (Call Centers) ३. अनुवाद ४. मराठी टंकलेखन, युनिकोड व पीपीटी (Power Point Presentation) परिचय	१५	१
विभाग ३ Module III	मुद्रितशोधन १. मुद्रितशोधन : संकल्पना, स्वरूप, प्रकार व महत्त्व २. महाराष्ट्र शासनाचे प्रमाणलेखनविषयक १८ नियम, अपवाद, उदाहरणे, विरामचिन्हे ३. मुद्रित शोधनाची पद्धत : सांकेतिक खुणा, त्याचे स्पष्टीकरण, पहिले वाचन व पुढील मुद्रितशोधन, संगणकीय मुद्रितशोधन ४. मुद्रितशोधनाचे प्रात्यक्षिक कार्य :वर्तमानपत्र, नियतकालिक, ग्रंथ, छापील मजकूर, लेख इ.	१५	१
विभाग ४ Module IV	स्पर्धा परीक्षांसाठी मराठी १. स्पर्धा परीक्षांचे स्वरूप : सरळसेवा, कम्बाईन, राज्यसेवा, संघ लोकसेवा आयोग २. स्पर्धा परीक्षांमधील मराठीचे स्वरूप : अभ्यासक्रम परिचय ३. स्पर्धा परीक्षेसाठी कौशल्ये : वाचन, नोट्स (टिपणे), लेखन, हस्ताक्षर, वेळेचे व्यवस्थापन, गटचर्चा,संदर्भ साहित्य ४. मुलाखतीची पूर्वतयारी व तंत्रे (मुलाखत कशी द्यावी)	१५	१

* प्रश्नपत्रिकेचे स्वरूप व गुणविभागणी *

Pattern of Question Paper

एकूण गुण – ४० : Total Marks-40

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	टिपा लिहा (चार पैकी दोन)	१० गुण

सूचना : १. गटप्रकल्पासाठी अंतर्गत मूल्यमापनाकरिता प्रती विद्यार्थ्यास दहा गुण आहेत.

गटप्रकल्प विषय :

१. राष्ट्रीय, शैक्षणिक, सांस्कृतिक, सामाजिक, कृषी, आरोग्य, भाषा व साहित्य क्षेत्रातील ताज्या घडामोडी यांपैकी एका विषयावर आकाशवाणी किंवा चित्रवाणीसाठी संहितालेखन.

२. उद्योग व सेवाक्षेत्रे आणि प्रसारमाध्यमे यांना भेटी देऊन तेथील भाषिक उपयोजनावर आधारित प्रकल्प तयार करणे.

मूलभूत वाचन :

१. काणे, पुष्पा — *नभोवाणी कार्यक्रम : तंत्र आणि मंत्र*, इंडिया बुक कंपनी, पुणे

२. भागवत, यशोदा — *बोलका कॅमेरा*, मौज प्रकाशन, पुणे

३. राजाध्यक्ष, विजया (संपा.) — *मराठी वाङ्मय कोश*, साहित्य आणि संस्कृती मंडळ, मुंबई

४. मोरे, सदानंद व लिंबाळे, शरणकुमार — *प्रबोधनपर वैचारिक वाङ्मय*, य. च. म. मु. विद्यापीठ, नाशिक

५. रेगे, मे. पुं. व इतर — *मराठी विचारवंत आणि आपण*, मौज प्रकाशन गृह, मुंबई

६. शेख, यास्मिन — *मराठी लेखन मार्गदर्शिका*, राज्य मराठी विकास संस्था, मुंबई

७. फडके, अरुण — *मराठी लेखन–कोश*, अंकुर प्रकाशन, ठाणे

८. धायगुडे, य. ए. — *मुद्रितशोधन*, दि पूना प्रेस ओनर्स असो. लि. पुणे

९. खोपकर, अरुण — *चित्रव्यूह*, लोकवाङ्मय गृह, प्रकाशन, मुंबई

१०. वरखेडे, रमेश — *सायबर संस्कृती*, इन्स्टिट्यूट ऑफ नॉलेज इंजिनिअरिंग, नाशिक

११. कांबळे, अमर — *स्पर्धा परीक्षेला सामोरे जाताना*, निर्मिती संवाद प्रकाशन, कोल्हापूर

१२. कांबळे, अमर — *मुलाखत कौशल्य*, निर्मिती संवाद प्रकाशन, कोल्हापूर

पूरक वाचन :

१. कुंभार, प्रकाश — *उपयोजित भाषाविज्ञान आणि प्रसारमाध्यमे*, अक्षरदालन, कोल्हापूर

२. जोशी, प्रभाकर — *उपयोजित मराठी*, प्रशांत पब्लिकेशन्स, जळगाव

३. तौर, पृथ्वीराज — *मराठी भाषिक कौशल्ये विकास*, अथर्व पब्लिकेशन्स, धुळे

४. फडके, अरुण — *शुद्धलेखन मार्गप्रदीप*, अंकुर प्रकाशन, ठाणे

५. दीक्षित, विजय — *चित्रपट : एक कला*, रेणुका प्रकाशन, नाशिक

६. इनामदार, एस. डी. — *माध्यम*, एस. डी. प्रकाशन, पुणे

संदर्भ ग्रंथ :

१. देशपांडे, वि. भा. व जोगळेकर, सुषमा (संपा.) — *मराठी कलाभिरुची*, कॉन्टिनेन्टल प्रकाशन, पुणे

२. पचिंद्रे, श्रीराम — *मुलाखत आणि शब्दांकन*, अनुबंध प्रकाशन, पुणे

३. ढोले, विश्राम — *प्रसारमाध्यमे आणि प्रयोगकला*, लोकवाङ्मय गृह, मुंबई

४. शिंदे, अरुण — *सत्यशोधकीय नियतकालिके*, कृष्णा संशोधन व विकास अकादमी, मंगळवेढा

५. जोशी, प्रभाकर व वले, वासुदेव — *उपयोजित मराठी*, प्रशांत पब्लिकेशन्स, जळगाव

६. रेगे, मे. पुं. (संपा.) — *नवभारत (मासिक)*, व्यावहारिक मराठी विशेषांक, प्राज्ञ पाठशाळा मंडळ, वाई (ऑगस्ट–सप्टेंबर १९८१)

७. भालके, रामचंद्र व इतर — *प्रबोधनपर साहित्य : स्वरूप आणि संकल्पना*, य.च.म.मु. विद्यापीठ, नाशिक

८. चपळगावकर, नरेंद्र — *मराठीतील वैचारिक साहित्य : लेखक आणि समाज*, नवभारत, जून २०१६ वर्ष २९, अंक ९

९. चौसाळकर, अशोक — *विचारवंत आणि समाज*, युनिक अॅकॅडमी, पुणे

१०. गावडे, गोपाळ — *मामा वरेरकर : प्रयोगाची नांदी*, मनोकामना प्रकाशन, इस्लामपूर, २०१७

११. कांबळे, विनोद — *सर्जननोंदी*, वाचनकट्टा प्रकाशन, प्रा. लि., कोल्हापूर, २०१९

शिवाजी विद्यापीठ, कोल्हापूर

SHIVAJI UNIVERSITY, KOLHAPUR

मराठी अभ्यास मंडळ

Board of Studies in Marathi

पसंतीवर आधारित श्रेयांक पद्धती

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बी.ए. भाग-३ : B.A. Part-III

अभ्यासक्रम : Syllabus

June, 2020 onward

सत्र-६ : Semister No. 6 : अभ्यासपत्रिका क्र. XVI

Discipline Specific Elective (DSE-E-130)

विद्याशाखीय विशेष निवड (DSE-E-130)

वाङ्मय प्रकाराचे अध्ययन : ललित गद्य (व्यक्तिचित्रे)

पाठ्यपुस्तक : मुलखावेगळी माणसं (संपादन)

शिवाजी विद्यापीठ प्रकाशन, कोल्हापूर

उद्दिष्टे :

१. ललित गद्य वाङ्मयप्रकाराचे स्वरूप अभ्यासणे.

२. व्यक्तिचित्र संकल्पना व स्वरूप समजून घेणे.

३. प्रवाहानुरूप मराठीतील व्यक्तिचित्रांचे स्वरूप अभ्यासणे.

४. 'मुलखावेगळी माणसं'मधील व्यक्तिविशेषांचे आकलन करून घेणे.

५. 'मुलखावेगळी माणसं'मधील शैक्षणिक,सामाजिक,सांस्कृतिक,राजकीय पर्यावरण आणि कौटुंबिक भावविश्व अभ्यासणे.

६. 'मुलखावेगळी माणसं'मधील ग्रामीण व उपेक्षितांच्या जीवनाचे आकलन करून घेणे.

७. 'मुलखावेगळी माणसं'मधील अभिव्यक्ती, निवेदनशैली व भाषाविशेष अभ्यासणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	ललित गद्य : संकल्पना व स्वरूप व्यक्तिचित्रे : संकल्पना, स्वरूप/वैशिष्ट्ये आणि वाटचाल व्यक्तिचित्र लेखनासाठी आवश्यक गुण	१५	१
विभाग २ Module II	१. रामा मैलकुली – व्यंकटेश माडगूळकर २. मृत्यूचे चुंबन घेणारा महाकवी – प्र. के. अत्रे ३. निळू मांग – अण्णाभाऊ साठे ४. मोरणी – विभावरी शिरूरकर	१५	१
विभाग ३ Module III	५. जमीला जावद – हमीद दलवाई ६. यंकटअण्णा – व. वा. बोधे ७. दगडूमामा – उत्तम कांबळे ८. मुंबईचा चित्रकार – अरुण खोपकर	१५	१
विभाग ४ Module IV	९. हीरा – इंद्रजित भालेराव १०. बाबा मास्तर – दि. बा. पाटील ११. दादासाहेब वस्ताद – सयाजीराजे मोकाशी १२. डोकेवाला संशोधक : दादाजी रामजी खोब्रागडे – व्ही.एन.शिंदे	१५	१

* प्रश्नपत्रिकेचे स्वरूप व गुणविभागणी *

Pattern of Question Paper

एकूण गुण – ४० : Total Marks-40

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	टिपा लिहा (चार पैकी दोन)	१० गुण

सूचना :

१. विभाग एक वर वस्तुनिष्ठ प्रश्न असणार नाहीत.

२. गटप्रकल्पासाठी अंतर्गत मूल्यमापनाकरिता प्रती विद्यार्थ्यास दहा गुण आहेत.

गटप्रकल्प विषय :

आपल्या परिसरातील शैक्षणिक, सामाजिक, सांस्कृतिक, कला, क्रीडा, आरोग्य, राजकीय इत्यादी समाजजीवनाच्या कोणत्याही क्षेत्रातील व्यक्तींची व्यक्तिचित्रे लिखित स्वरूपात प्रती प्रकल्पनुरूप ५ (किमान एका प्रकल्पकास एक नुसार) तयार करून ती एकत्रित जमा करावीत.

मूलभूत वाचन :

१. वास्कर, आनंद (संपा.) — *वाङ्मयप्रकार संकल्पना (डॉ.विजय निंबाळकर गौरवग्रंथ)*, अन्वय प्रकाशन,पुणे

२. चौघुले, वि. शं. — *मुक्तगद्य : संकल्पना आणि उपयोजन*, मॅजेस्टिक प्रकाशन, मुंबई, २००८

३. शिंदे, रणधीर — *ललित गद्य ते मुक्तगद्य (लेख)*, दै. महाराष्ट्र टाईम्स, २९-१२-२०१३

४. मालशे, मिलिंद — *साहित्य प्रकाराची संकल्पना (लेख)*, साहित्य : अध्यापन आणि प्रकार, (संपा.) श्री. पु. भागवत, सुधीर रसाळ, मौज प्रकाशन, मुंबई, १९८७

५. हातकणंगलेकर, जहागीरदार, पवार, गो. मा. — *मराठी साहित्य : प्रेरणा आणि स्वरूप*, पॉप्युलर प्रकाशन, मुंबई, १९८६

६. पुरोहित, के. ज. — *लघुनिबंध*, साहित्य अकादमी, नवी दिल्ली

पूरक वाचन :

१. माडगूळकर, व्यंकटेश — *माणदेशी माणसं*, मेहता पब्लिशिंग हाऊस, पुणे, पुनर्मुद्रण, २०१८

२. अत्रे, प्र. के. — *मृत्यूचे चुंबन घेणारा महाकवी : साने गुरूजी*, पार्श्व पब्लिकेशन, कोल्हापूर,१९६२

३. साठे, अण्णाभाऊ — *बरबाद्या कंजारी*, श्रमिक प्रतिष्ठान, कोल्हापूर, लोकावृत्ती, २०१०

४. शिरूरकर, विभावरी — *दोघांचे विश्व आणि इतर काही कथा*, कॉन्टिनेन्टल प्रकाशन, पुणे, १९५७

५. दलवाई, हमीद — *जमीला जावद आणि इतर कथा*, साधना प्रकाशन, पुणे, २०१६

६. बोधे, व. वा. — *गावाकडची माणसं*, अक्षरबंध प्रकाशन, पुणे, २००७

७. कांबळे, उत्तम — *कावळे आणि माणसं*, मनोविकास प्रकाशन, पुणे, आ.दु., २०१०

८. खोपकर, अरुण — *चित्रव्यूह*, लोकवाङ्मय गृह, मुंबई

९. भालेराव, इंद्रजित — *गाई घरा आल्या*, प्रतिभास प्रकाशन, परभणी

१०. पाटील, दि. बा. — *भली माणसं*, मनोकामना प्रकाशन, इस्लामपूर, २०१३

११. मोकाशी, सयाजीराजे — *पंधरा ऑगस्ट*, मुक्तरंग प्रकाशन, लातूर, २०१६

१२. शिंदे, व्ही. एन. — *हिरव्या बोटांचे किमयागार*, तेजस प्रकाशन, कोल्हापूर, २०१९

संदर्भ ग्रंथ :

१. जोशी, प्र. न. — *मराठी वाङ्मयाचा विवेचक इतिहास*, अर्वाचीन काळ (१८०० ते १९८०), स्नेहवर्धन प्रकाशन, पुणे

२. भागवत, श्री. पु. — *साहित्य अध्यापन आणि प्रकार (प्रा. वा. ल. कुलकर्णी गौरवग्रंथ)*, मौज प्रकाशन गृह, मुंबई

SHIVAJI UNIVERSITY, KOLHAPUR.

Estd. 1962

NAAC 'A' Grade

Faculty of Commerce and Management

Syllabus For

B. Com. Part – III (Sem V & VI) (CBCS)

(To be implemented from June 2020 onwards)

(Subject to the modifications that will be made from time to time)

Shivaji University, Kolhapur

B.Com (CBCS Pattern) Part – III (Semester-V)

Modern Management Practice- Paper-I

Core Course

Introduced From June- 2020

Credit - 4

Objectives:

1. To impart knowledge of modern management
2. To understand concepts of CRM
3. To know the concepts of emotional and social intelligence
4. To understand the concept of lean and talent management

Unit-I	**Contribution to Modern Management Practice** a. Concept of Modern Management b. Contribution of Vijay Govindarajan: Three Box Solution and Reverse Innovation c. Contribution of C.K. Pralhad : The Fortune at the Bottom of the Pyramid. d. Michael Porter : competitive advantage.	15 periods
Unit-II	**Emotional and Social Intelligence in Management** a. Emotional Intelligence: Concept, Components, Importance of emotional intelligence in leadership. Advantages and Disadvantages of emotional intelligence, emotional intelligence skills b. Social intelligence: Concept, Importance, Advantages and Disadvantages of social intelligence, Models of emotional and social intelligence:	15 periods
Unit-III	**Customer Relationship Management (CRM) and Supply Chain Management (SCM)** a. Customer Relationship Management (CRM) : Concept, Importance, Elements, Process, e-CRM b. Supply Chain Management (SCM): Concept, Importance, Components, Process, Benefits of SCM	15 periods
Unit-IV	**Lean Management and Talent Management** a. Lean Management: Concept, Principles, Benefits and disadvantages, tools of lean Management, lean management best practices b. Talent Management: Concept, Importance, Process, Components, benefits	15 periods

Shivaji University, Kolhapur

B.Com (CBCS Pattern) Part – III (Semester-VI)

Modern Management Practice- Paper-II

Core Course

Introduced From June- 2020

Credit - 4

Objectives:

1. To impart knowledge of total quality management
2. To understand the Japanese and Chinese Management Practices
3. To know the concept of Event and Performance Management
4. To understand the concept of time and stress management

Unit-I	**Total Quality Management (TQM) and Quality Standards** a. Total Quality Management (TQM) : Concept, Principles, Elements of TQM, Benefits and Disadvantages of TQM b. Quality Standards: Benchmarking(concept and types) Six Sigma,(concept and levels) ISO: 9000, (Importance and elements)	15 periods
Unit-II	**Japanese and Chinese Management Practice** a. Japanese Management: Concept, Characteristics and 8 Key Japanese Quality Management techniques b. Chinese management: Concept, Characteristics, Chinese Leadership Style, Difference between Chinese and Western Management	15 periods
Unit-III	**Event and Performance Management** a. Event Management: Concept, Importance, Procedure, Types of events, benefits of event Management b. Performance Management : Concept, Evolution, Need, Process of Performance Management	15 periods
Unit-IV	**Time and Stress Management** a. Time Management: Concept, Importance, Techniques b. Stress Management: Meaning of Stress, Causes, Effects, Techniques of stress management	15 periods

Shivaji University, Kolhapur

B.Com (CBCS Pattern) Part – III (Semester-VI)

Modern Management Practice- Paper-II

Core Course

Introduced From June- 2020

Credit - 4

Objectives:

1. To impart knowledge of total quality management
2. To understand the Japanese and Chinese Management Practices
3. To know the concept of Event and Performance Management
4. To understand the concept of time and stress management

Unit-I	**Total Quality Management (TQM) and Quality Standards** a. Total Quality Management (TQM) : Concept, Principles, Elements of TQM, Benefits and Disadvantages of TQM b. Quality Standards: Benchmarking(concept and types) Six Sigma,(concept and levels) ISO: 9000, (Importance and elements)	15 periods
Unit-II	**Japanese and Chinese Management Practice** a. Japanese Management: Concept, Characteristics and 8 Key Japanese Quality Management techniques b. Chinese management: Concept, Characteristics, Chinese Leadership Style, Difference between Chinese and Western Management	15 periods
Unit-III	**Event and Performance Management** a. Event Management: Concept, Importance, Procedure, Types of events, benefits of event Management b. Performance Management : Concept, Evolution, Need, Process of Performance Management	15 periods
Unit-IV	**Time and Stress Management** a. Time Management: Concept, Importance, Techniques b. Stress Management: Meaning of Stress, Causes, Effects, Techniques of stress management	15 periods

B.Com III (Semester- V) Under CBCS

Paper I : CC-C3 : Business Regulatory Framework

Credit –I	**Law of Contract- 1872**	Hours
	Definition of Business Law and its sources Definition of contract, Essential element and Kinds of Contract Offer and Acceptance, Capacity of Parties, Consideration, Free Consent and Legality of objectives, Void Contracts Discharge of Contract, Remedies for breach of contract	15 Hrs
Credit-II	**Labour Laws**	15 Hrs
	A) Employees Provident Fund Act- 1952- Meaning and its applicability criteria, Rates of Contribution , Periodicity of Payment and Return, Mandatory Records, Consequences of Non compliances	5 Hrs
	B) Employees State Insurance Act-1948- Meaning and its applicability criteria, Rates of Contribution , Periodicity of Payment and Return, Mandatory Records, Consequences of Non compliances	5 Hrs
	C) Payment of Gratuity (Amendment)Act-2018- Meaning and its applicability criteria, Rates of Contribution , Payment calculation, Mandatory Records, Consequences of Non compliances	5 Hrs
Credit-III	**Sale of Goods Act,1932 and Goods and Services Tax(GST)**	15 Hrs
	A) Sale of Goods Act- Contract of Sale of goods concept and essentials, Sale and Agreement to sell, Conditions and Warranties, Performance of Contract of Sale	10 Hrs
	B) Goods and Services Tax- Basic framework of GST, Applicability criteria, General understandings of legal provisions regarding invoices, GST Returns , Consequences of Non compliances	5 Hrs
Credit- IV	**Indian Partnership Act-1932 and Limited Liability Partnership Act-2008**	15 Hrs
	A) Indian Partnership Act-1932- Partnership Deed meaning and general terms and conditions, Role and Responsibilities of Partners.	5 Hrs
	B) Limited Liability Partnership Act- 2008- Nature and Silent features of LLP, Incorporation of LLP, Limitations of liability of LLP and Partners, Difference between Partnership and LLP.	10 Hrs

Reference-

1) Business Law- Kavita Krishnamurthi
2) Essentials of Business and Industrial Laws- B.S. Moshal
3) Business Law- M.C. Kuchhal
4) Elements of Mercantile Law- N.D. Kapoor
5) Mercantile Law- Arun Kumar
6) Mercantile Law- S.S.Gulshan
7) The Principles of Mercantile Law- Avtarsingh
8) Commercial and Industrial Law-A.K. Sen and J.K. Mitra
9) Textbook on Indian Partnership Act with Limited Liability Partnership Act- by Madhusudan Saharay
10) GST – Law and Procedure by Anananday Mishra – Taxman

B.Com III (Semester- VI) Under CBCS

Paper II : CC-C4 : Business Regulatory Framework

Credit- I	**Company Act- 2013** Meaning, Features and Types of Company, Process of Incorporation of Company, Role, Responsibilities and Powers of Directors, Auditors and Company Secretary. Rights of Share holders, Company meetings and Resolutions Winding up of Company	**15 Hrs**
Credit-II	**Security Exchange Board of India Act-1992, Consumer Protection Act-1986 and Competition Act-2002**	**15 Hrs**
	A) Security Exchange Board of India Act-1992(SEBI)- Role , Powers and Functions of SEBI, Listing and Trading of Securities	**5 Hrs**
	B) Consumer Protection Act-1986- Definitions- Consumer, Complaint, Complainant, Unfair Trade Practices, Restrictive Trade Practices, Rights of Consumer, Consumer Redressal Agencies- Composition and Jurisdiction.	**5 Hrs**
	C) Competition Act-2002- Objectives, Powers and duties of Competition Commission	**5 Hrs**
Credit-III	**Business Transactions and Cyber Laws**	**15 Hrs**
	a) E-commerce: Nature, formation, legality and recognition b) Intellectual Property Rights: Patent, Copy Right, Trademark and Industrial Design (only concepts) c) Digital Signature: Need, formation, functions, Digital Significance Certificate and Revocation of Digital Signature d) Cyber crimes and offences e) Penalties for cyber crimes	
Credit-IV	**Negotiable Instrument (Amendment) Act-2015**	**15 Hrs**
	Meaning and Features of Negotiable instrument, Kinds of Negotiable instrument, Promissory Note, Bill of Exchange and Cheque, Crossing of Cheque and Its kinds- Dishonour of Negotiable instrument and its consequences and Remedies thereon	

Reference Books:

1) Business Law- M.C. Kuchhal
2) Business Law- KavitaKrishanmurthi
3) Cyber Laws- Dr. Farooq Ahmed
4) Elements of Company Law- V.S. Datey
5) The Consumer Protection Act- ArshadSubzawari
6) The Consumer Protection Act- C.M. Dhopare
7) Cyber Laws- Krishna Kumar
8) Consumer Protection Act- Niraj Kumar
9) SEBI Act- Agarwal and Baby- Taxman
10) Competition Act- Dr.Rattan- Bharat Publication

Concerned Bare Act should be referred

Nature of Question Paper

Total Marks-40

Instructions – 1) All questions carry equal marks.

2) Attempt any FIVE Questions out of seven

Q.1	Short Notes (Any Two)	4 Marks Each
Q.2	Long Answers	8 Marks

B.Com. Part-III; SEM-V - Under CBCS

Paper-I : CC-C5 : Cooperative Development

Course Outcomes:

1. To study the meaning and principles of Co-operation.
2. To study the agricultural and Non-agricultural Credit Co-operative institutions.
3. To study the Co-operative credit system
4. To Study the important cooperative organizations

Expected Skills Impartation

1. Ability to explain cooperatives principles
2. Ability to applications of cooperative principles
3. Interpretation and comparison of different cooperative organizations

Marks : 40	Total Lectures of Teaching : 60	Credits : 4

Unit-1:	**Introduction to Co-operative movement in India** 1.1. Meaning, definition and features of Co-operation. 1.2. Principles of Co-operation - ICA and Manchester Principles 1.3. Role of Co-operation in economic development. 1.4. Review of Committees on Cooperative Development since 1991 (Vaidhyanathan Committee, Shivajirao Patil Committee and Kuraian and Alagh Committee)	15 Periods
Unit-2:	**Agricultural Co-operatives in India** 2.1. Co-operative Marketing- Types, functions, problems and remedies 2.2. NAFED- Objectives, Management, Functions and Progress 2.3. Co-operative Farming - Types, problems and remedies 2.4. Role of Dairy Cooperatives - National Dairy Development Board.	15 Periods
Unit-3:	**Co-operative Banking & Credit Societies in India** 3.1. Review of Co-operative credit movement - Three Tier and Two Tier Structure 3.2. Primary Agricultural Cooperative Societies -Functions, Problems and Remedies 3.3. DCC Banks - Administrative Structure, Progress, Problems and Remedies 3.4. State Cooperative Banks - Administrative Structure, Progress, Problems and Remedies	15 Periods
Unit-4:	**Important Cooperative Organizations in India** 4.1. Urban Cooperative Banks - Types, Management, Progress and Problems 4.2. Non-Agriculture Credit Cooperatives - Functions and Problems 4.3. Consumer Cooperatives - Types, Role and Problems 4.4. Sugar Co-operatives - Role, Progress, problems and remedies	15 Periods

References :

1. Dwivedi Ramesh Chandra, (2005), 'Hundred Years of Cooperative Movement in India'-Centre for Promotion of Cooperativism
2. Garg M. C. And Joshi N. N., (2009), 'Cooperative Credit And Banking –Strategies For Development', Deep And Deep Publication, New Dehli-110027
3. Hajela T.N., (1994) Cooperation: Principles, Problems and Practice, Konark Publishers, New Delhi.
4. Krishnaswamy O.R. and Kulandhiswamy V., (2000) Cooperation: Concept and Theory, Arudra Academy,
5. Kulkarni P. R. (2007) Laws of Co-operative Banking', Macmillan Publisher India Ltd. pp. 24-25 (2007)
6. Maharashtra Rajya Sahakari Dudh Mahasangh Maryadit http://www.mahanand.in/
7. NAFED http://www.nafed-india.com
8. Nakkiran S (2006) Cooperative Management : Principles and Techniques, Deep and Deep, New Delhi, 2006
9. National Dairy Development Board- https://www.nddb.coop/
10. Review of Co-operative Movement in India's Agricultural Credit Department, RBI. pp. 59-60, (1955)
11. Strickland C.F., (2010) 'An Introduction To Cooperation In India' Humphery Milford Oxford University Press.
12. The Maharashtra Co-operative Quarterly, The Maharashtra Rajya Shahakar Sanghah

B.Com. Part-III; SEM-VI - Under CBCS

Paper-II : CC-C6 : Cooperative Development

Course Outcomes:

1. To study the cooperative legislations and fund management
2. To understand the institutional arrangement for cooperative education and training
3. To understand the nature, registration, legislation and audit of housing cooperatives
4. To understand the cooperative audit system and provisions

Expected Skills Impartation

1. Legal understanding and interpretation skills
2. Ability to explain legal and technical provisions about cooperatives

Marks : 40	Total Lectures of Teaching : 60	Credits : 4

Unit-1:	**Cooperative Laws and Legislation In India** 1.1. Important Provisions under Maharashtra Co-operative Societies Act, 1960 1.2. Salient Features of Multi-State Co-operative Societies Act 2002 1.3. Liquidation Process- Appointment, Rights and Duties of Liquidator 1.4. Legal Provisions regarding Assets and Fund Management of Cooperatives - (Classification of Funds, Profit, Reserve Fund, Dividend, Expenses on social Activities, Investment of Funds etc)	15 Periods
Unit-2:	**Cooperative Education and Training In India** 2.1. Need and Importance of Cooperative Education and Training 2.2. National Council for Cooperative Training- Organizational Structure & Functions 2.3. VAMNICOM -Objectives, Centers, Training Programmes 2.4. Career Opportunities in Cooperative Sector - GDC&A Certification	15 Periods
Unit-3:	**Cooperative Housing Societies In India** 3.1. Meaning, Types and Registration Process of Housing Cooperatives 3.2. Maharashtra Co-operative Housing Society Model Bye Laws 3.3. Importance and Problems of Housing Societies 3.4. Audit of Co-operative Housing Societies- Nature and Elements	15 Periods
Unit-4:	**Cooperative Registrar & Audit In India** 4.1. Powers and responsibilities of registrar 4.2. Cooperative Audit - Concept, Scope, Types of Audits 4.3. Internal Audit-Nature- Duties of Internal Auditor 4.4. Responsibilities and powers of cooperative auditor	15 Periods

References :

1. Hajela T.N., (1994) Cooperation: Principles, Problems and Practice, Konark Publishers, New Delhi.
2. Indian Institute of Banking And Finance, (First Pub. 2007), 'Law of Cooperative Banking', Macmillan India Ltd. New Delhi
3. Kulkarni P. R. (2007) Laws of Co-operative Banking', Macmillan Publisher India Ltd. pp. 24-25 (2007)
4. Maharashtra Rajya Sahakari Dudh Mahasangh Maryadit http://www.mahanand.in/
5. Review of Co-operative Movement in India's Agricultural Credit Department, RBI. pp. 59-60, (1955)
6. Maharashtra Co-operative Societies Act, 1960
7. Maharashtra Co-operative Societies Act, 1960 by G. M.Divekar (Vol-I and II)
8. National Cooperative Development Corporation (NCDC) - http://www.ncdc.in
9. National Cooperative Housing Federation of India- https://www.nchfindia.net/
10. National Federation of State Cooperative Banks Ltd -http://nafscob.org/about_f.htm
11. National Cooperative Consumers' Federation Of India Limited- http://nccf-india.com/
12. National Council for Cooperative Training- http://ncct.ac.in
13. Dhananjayrao Gadgil Institute of Cooperative Management -http://www.dgicmnagpur.com

EQUIVALENCE OF THE PAPERS / COURSES

Sr	Existing title of the Paper	Revised Title of the paper
1	Co-operative Development Paper – I	Co-operative Development Paper – I
2	Co-operative Development Paper – II	Co-operative Development Paper – II

Nature of question paper for B.Com -III Co-operative Development

Semester V & VI (Paper No. I to II)

Attempt any five questions.

Total marks 40

B.Com Part III Semester – V (CBCS)

Paper I : CC-C7 : Business Environment

(Indian Economic Environment)
(Compulsory Paper)
Credits : 4

COURSE OUTCOMES:

1 Student should able to understand the significance and position of Indian economy at the world level.

2 Students should study the scenario of agricultural and industrial sectors.

3 Student should aware regarding Indian economy is facing some of the fundamental economic problems. They should able to make plans and solutions to these being as a citizen.

4 Student should understand the correlations between economical and social problems.

Unit No.	Unit Name	Periods
1	**Business Environment** 1.1 Concept 1.2 Components 1.3 Importance 1.4 Business environment and sustainable development	15
2	**Agricultural Development** 2.1Present status of Indian Agriculture and Agricultural crisis 2.2 Agricultural Marketing-Problems, Agricultural price policy 2.3 Food security in India 2.4 National Commission on farmers- Agricultural Renewal Action Plan	15
3	**Industrial Development** 3.1 Industrial policy -1991 3.2 Concepts of Micro, Small and Medium Enterprises (MSMEs) 3.3 Progress of industrial sector in globalization era 3.4 Trade union movement – Problems and measures.	15
4	**Problems of Indian Economy** 4.1 Features of Indian population 4.2 Unemployment and poverty – causes and remedies 4.3 Inequality of Income and wealth, Black Money - Causes and remedies 4.4 Problems of rural and urban economy	15

References –

1. Mead R. (2004) International Management: Cross Cultural Dimensions,3rd ed. New York Wily
2. Vyuptakesh Sharan, (2004) International Business: Concept, Environment and Strategy, Pearson education, Singapore
3. Yarbraugh B V (2005) The World Economy: Trade and Finance, 7th Ed Thomas south western USA
4. Manab Adhikari,Global (2006) Business Management(An International economic environment), Macmillan India Ltd
5. Hill C.W. L. and jain A. K.(2007) International Business Competing in Global market Place.

12. Dutt and Sundaram K P M, Indian Economy S. Chand Delhi
13.Dutt Ruddar Economic Reforms in India –A Critique, S Chand , New Delhi.

14.Mishara S K and PuriV K - Indian Economy, Himalaya Publishing House

15. Namboodripad E M S, Indian Planning and Crises, National book Center New Delhi.

16.Sundaram and Black The International Business Environment Prentices New Delhi

Equivalence of the paper

Existing Title of the Paper	Revised Title of the Paper
Business Environment Paper I	Business Environment Paper I

B.Com Part III Semester - VI– (CBCS)

Paper II : CC-C8 : Business Environment

(Indian Economic Environment)

(Compulsory Paper)

Credits : 4

COURSE OUTCOMES:

1. Students will understand the Indian and global economic environment.

2. Students will equip with proper knowledge of Indian economic planning.

3. Students will enable with the knowledge of the plans and strategies toward foreign capital and multinational corporations.

4. Students will get acquainted with the functions, mechanism and performance of international financial, trade and regional cooperation institutions.

Unit No.	Unit Name	Periods
1	**Liberalization, Privatization and Globalization** 1.1 Concepts 1.2 Implementation and impact on Indian Economy. 1.3 Composition and direction of foreign trade in the Globalization era 1.4 Balance of payments crisis	15
2	**Economic Planning and Service Sector** 2.1 Economic planning – Broad objectives 2.2 NITI Aayog – Structure and functions 2.3 Planning process through NITI Aayog 2.4 Service Sector – Importance and progress of service sector in Indian economy.	15
3	**Foreign Capital and Multinational Corporations** 3.1 Need of foreign capital in India, 3.2 Policy of Government of India. 3.3 Multinational corporations- Definition, merits and demerits. 3.4 Exchange rates and Indian Rupee	15
4	**International Institutions** (Objectives and performance) 4.1 IMF 4.2 IBRD 4.3 WTO 3.3 SAARC	15

References

1. Mead R. (2004) International Management: Cross Cultural Dimensions, 3rd ed. New York Wily
2. Vyuptakesh Sharan, (2004) International Business: Concept, Environment and Strategy, Pearson

9. Keegan Warren J. and Green Mark C. Global Marketing, 4th Ed.(2009) Prentice Hall India, Pvt. Ltd.
10. Bhalla V. K. and Ramu S.S.(2009) International Business Environment, Anmol Prakashan, New Delhi.
11. Varshney R.L. and Bhatacharya B, (2012) International Marketing Management -An Indian Perspective; 24th Ed S. Chand, New Delhi.
12. Dutt and Sundaram K P M, Indian Economy, S. Chand, New Delhi.
13. Dutt Ruddar, Economic Reforms in India –A Critique, S Chand , New Delhi.
14. Mishara S K and Puri V K - Indian Economy, Himalaya Publishing House.
15. Namboodripad E M S, Indian Planning and Crises, National Book Center, New Delhi.
16. Sundaram and Black The International Business Environment, Prentices, New Delhi

Equivalence of the papers

Existing Title of the Paper	Revised Title of the Paper
Business Environment Paper II	Business Environment Paper II

Nature of question paper for B.Com - III
Semester V and VI (Paper No. I to II)

Attempt any five questions.
Total Marks 40

Q1. Write short answers (any two out of three)	08
Q2. Broad question	08
Q3. Broad question	08
Q4. Broad question	08
Q5. Broad question	08
Q6. Broad question	08
Q7. Write short notes (any two out of three)	08

B.Com (CBCS) Part-III (Semester-V)
Paper – I : DSE-A1 : Advanced Accountancy
Discipline Specific Course

4 Credits

Course Outcomes:

1. Practice the preparation of financial statements of banks.
2. Demonstrate accounting for farms and hire purchase system.
3. Simulate accounting situations of insurance claim.
4. Explain the accounting process on Tally with GST.

Syllabus Content

Unit- I Bank Final Accounts (Vertical Format Only) — 20 Lectures

Unit- II a) Farm Accounting — 10 Lectures

b) Hire purchase system-Excluding Hire purchase Trading Account — 10 Lectures

Unit- III Insurance Claim- Loss of stock and Loss of profit policy — 10 Lectures

Unit- IV GST Accounting with practical's using Tally part – I — 10 Lectures

Theory

Introduction to GST on Goods, Introduction, Indirect Taxation prior GST, GST Implementation in India, Why GST was introduced in India? Understanding GST Taxation System, Dual GST, Structure of GST, Determination of Tax, Registration, GSTIN Structure, Businesses Liable to Register under GST, Tax Invoice, Bill of Supply, Supplementary Invoice, Input Tax Credit Set Off, GST Returns, Payment of Tax.

Practical:

a) Getting Started with GST (GOODS) in Tally ERP 9, Basic Concepts in GST, Configuring GST in TalIy. ERP 9, Company Setup, Enabling Goods & Services Tax (GST),
b) GST Classifications, Creating Masters, Creating Purchase Ledger, Creating Sales Ledger, Creating GST Ledger, Creating Party Ledger, Creating Stock Items
c) Entering Transactions, Creating Purchase Invoice with GST, Creating Sales Invoice with GST, Printing Sales invoice
d) GST Reports, GST Tax Payment

Reference Books:

6) Jain, S. P.; Narang, K. L.; Agrawal, Simmi and Sehgal, Monik (2018). Advanced Accountancy Vol. I & II, Kalyani Publishers, New Delhi.
7) Hanif, M. and Mukharjee, A (2018). Modern Accountancy Vol. II, McGraw Hill Education India (Private) Ltd., Noida.
8) Chakraborty, Hrishikesh, Advanced Accountancy, Oxford University Press
9) Chougule, Rajan (2011). Computerized Accounting, Kolhapur.

Journals:

1) Indian Journal of Accounting
2) Chartered Accountant
3) Management Accountant

Nature of Question Paper

B.Com (CBCS) Part-III (Semester-V)
Advanced Accountancy Paper-I
Discipline Specific Course
(Introduced from June-2020)

Instructions:	i)	All the questions are compulsory.	Total : 40 Marks
	ii)	Figures to the right indicate full marks.	
	iii)	Use of calculator is allowed.	
Question 1	Problem on Bank Final Accounts (This problem should be on Profit & Loss Account, Balance Sheet alongwith required schedules)		16 Marks
Question 2	Attempt any two questions (out of three): (These questions will be practical problems on Unit-II & III)		16 Marks
Question 3	Write short notes (Attempt any two out of four)		08 Marks

Notes:

1) Practical examination for 10 marks will be conducted on Unit-IV of Paper-I.
2) External examiner will be appointed by the university to conduct this practical examination.
3) There will be 40 marks for University Written examination and 10 marks for practical examination. Thus Total marks will be 50.

B.Com (CBCS) Part-III (Semester-V)

Paper – II : DSE-A2 : Advanced Accountancy (Auditing)

Discipline Specific Course

4 Credits

Course Outcomes:

1. To understand the concept and types of audit
2. To identify the residential status and its implication on tax liability
3. To understand the concept of exemption from income
4. To know the computation of income from various sources as well as total income

Syllabus Content

Unit- I **Nature and Scope of Audit:** 15 Lectures

Audit – Meaning and Nature, Scope of Audit, Objectives of Audit, Relationship of Audit with other disciplines, Difference between Audit and Investigation, Basic Principles Governing Audit, Statutory Audit, Internal Audit, Cost Audit, Tax Audit, Management Audit, Concept of Vouching, Verification and Valuation.

Unit- II **Audit of Specific Items in Financial Statements:** 15 Lectures

A) Audit of sale of Products and Services; Audit of Interest Income, Rental Income, Dividend Income, Net gain/loss on sale of Investments; Audit of Purchases, Depreciation, Interest expense, Rent, Repair to building, Repair to Machinery, Insurance, Taxes, Travelling Expenses, Miscellaneous Expenses

B) Audit of Share Capital, Reserve & Surplus, Long Term Borrowings, Trade Payables (creditors), Provisions, Short Term Borrowings and Other Current Liabilities, Audit of Land, Buildings, Plant and Equipment, Furniture and Fixtures, Goodwill, Brand/Trademarks, Computer Software, Audit of Loans and Advances, Trade Receivables, Inventories, Cash and Cash Equivalents, Other Current Assets, Audit of Contingent Liabilities.

Unit- III **Company Audit:** 15 Lectures

Eligibility, Qualifications and Disqualifications of Auditors; Appointment of auditors; Removal of auditors; Remuneration of Auditors; Powers and duties of auditors; Branch audit; Joint audit; Reporting requirements under the Companies Act, 2013 including CARO.

Unit- IV **Special Audit and Audit Report:** 15 Lectures

Audit of special entities like Bank, Insurance Companies, Charitable Trust, Hotel and Hospital, Elements of Audit Report; Types of Reports – Clean, Qualified, Adverse, Disclaimer of Opinion;

Reference Books:

1) Tandon B.N., : Practial Auditing, S.Chand, New Delhi
2) Kumar, A., Sharma, R.; : Auditing Theory and Practice, Atlantic Publishers, New Delhi
3) Johnson S., Wiley L. : : Auditing – A Practical Approach, Wiley Publishing House
4) Garg Pankaj : Auditing and Assurance, Taxmann Publications, New Delhi
5) Bansal, Surabhi : Auditing and Assurance, Wolters Kluwel Publicattion
6) Sekhar G, Prasath B. : Auditing and Assurance, Taxmann, New Delhi
7) Dinkar Pagare :

Nature of Question Paper

B.Com (CBCS) Part-III (Semester-V)
Advanced Accountancy Paper-II
(Auditing)
Discipline Specific Course
(Introduced from June-2020)

Instructions:	i)	All the questions are compulsory.	Total : 40 Marks
	ii)	Figures to the right indicate full marks.	
Question 1	Long Answer Questions A) 8 Marks B) 8 Marks		16 Marks
Question 2	Attempt Any Two (out of three)		16 Marks
Question 3	Write short notes (Attempt any two out of four)		08 Marks

B.Com (CBCS) Part-III (Semester-VI)
Paper- III : DSE-A3 : Advanced Accountancy

Discipline Specific Course

4 Credits

Course Outcomes:

1. Practice the preparation of financial statements of banks.
2. Demonstrate accounting for farms and hire purchase system.
3. Simulate accounting situations of insurance claim.
4. Explain the accounting process on Tally with GST.

Syllabus Content

Unit- I Elements of Cost - Material, Labour, & Overheads, Preparation of Cost Sheet, Quotation — 10 Lectures

Unit- II **Financial Statement Analysis:** — 20 Lectures

a) Financial Statement Analysis- Meaning, types, Limitations of financial statements, Meaning and Need of financial statement analysis and Techniques of financial statement analysis.

(b) Ratio Analysis– Meaning, Advantages and Limitations, Classification of Ratios- Profitability Ratios, Turnover Ratios, Solvency Ratios and Liquidity Ratios.

Unit- III **Cash Flow Analysis:** — 15 Lectures

Meaning of Cash Flow Analysis, Classification of Cash flows- Cash flow from Operating Activities, Cash flow from Investing Activities and Cash flow from Financing Activities, Cash and Cash equivalents, Extra-ordinary items, Preparation of Cash Flow Statement (As per AS-3)

Return of Goods, Sales Returns, Purchase Returns, Credit Note, Debit Note, GST on Services, GST Reports & GST Returns

Practical:

a) Getting Started with GST in Tally ERP 9, Basic Concepts in GST, Configuring GST in Tally.ERP 9, Company Setup, Enabling Goods & Services Tax (GST), GST Classifications
b) Creating Masters, Creating Purchase Ledger, Creating Sales Ledger, Creating GST Ledger, Creating Party Ledger, Creating Stock Items
c) Entering Transactions, Creating Purchase Invoice with GST, Creating Sales Invoice with GST, Printing Sales invoice, Accounting for Return of Goods, Sales Returns, Purchase Returns
d) Accounting for GST on Services
e) GST Reports, Generating GSTR-1 Report in Tally.ERP 9, Generating GSTR-2 Report in Tally.ERP 9, GST Tax Payment, Time line for payment of GST tax, Modes of Payment, Challan Reconciliation, Exporting returns and uploading To GSTIN

Notes:

1) Practical problems in the university examinations will be asked on Unit-I, II & III (however, problems on Unit-II shall be asked on Ratio Analysis only).
2) College should make a provision of necessary computers and accounting software for commerce department to train the students in Tally with GST as prescribed in the syllabus.
3) A visit should be arranged for increasing awareness of students regarding Tally with GSTeither in any business unit, Company Office or the Office of any Chartered Accountant/ Professional Accountant.

Reference Books:

1) Advanced Cost Accounting - N K Prasad
2) Cost Accounting - Jain & Narang
3) Cost Accounting – Ravi M Kishore Taxman
4) Principles of Management Accounting - Manmohan Goyal
5) Management Accounting - I. M. Pandey
6) Cost & Management Accounting - Jain & Narang
7) Advanced Accountancy - R. R. Gupta
8) Cost and Management Accounting M N Arora Vikas Publication
9) Cost and Management Accounting T Thukaram Rao
10) Fundamentals of Management Accounting- I M Pandey
11) Cost and Management Accounting- Horngreen and Datar and others

Journals:

4) Indian Journal of Accounting
5) Chartered Accountant
6) Management Accountant

Nature of Question Paper

B.Com (CBCS) Part-III (Semester-VI)
Advanced Accountancy Paper-III
Discipline Specific Course
(Introduced from June-2020)

Instructions:	i)	All the questions are compulsory.	Total : 40 Marks
	ii)	Figures to the right indicate full marks.	
	iii)	Use of calculator is allowed.	
Question 1	Problem		16 Marks
Question 2	Attempt any one problem (out of two)		16 Marks
Question 3	Write short notes (Attempt any two out of four)		08 Marks

Notes:

1) Practical examination for 10 marks will be conducted on Unit-IV of Paper-III.
2) External examiner will be appointed by the university to conduct this practical examination.
3) There will be 40 marks for University Written examination and 10 marks for practical examination. Thus Total marks will be 50.

B.Com (CBCS) Part-III (Semester-VI)
Paper – IV : DSE-A4 : Advanced Accountancy (Taxation)

Discipline Specific Course

4 Credits

Course Outcomes:

1. To understand the basic concepts of income tax and basis of charge
2. To identify the residential status and its implication on tax liability
3. To understand the manner of computation of total income
4. To know the basic concepts about GST

Unit- I **Basic Concepts:** 15 Lectures

A) Meaning of Income Tax, Basis of Charge, Rates of Tax, Concepts of Previous Year, Assessment Year, Person, Income, Assessee.

B) Residential Status and Taxability - Meaning of Residential Status, Provisions for determination of Residential status and tax liability in respect of individual and HUF, Determination of Residential Status of Firms and Companies.

Unit- II **Exemptions and Deductions from total income** (in respect of individual only) 10 Lectures

Unit- III **Heads of Income, Computation of total income and tax liability:** 25 Lectures

Income from Salary, Income from House Property, Income from Business/Profession, Income from Capital Gain, Income from Other Sources, Computation of Gross Total Income and Tax Liability in respect of Individuals only.

Unit- IV **Basics of GST:** 10 Lectures

Meaning and Features of GST, Benefits of GST, Need of GST, Constitutional Provisions of GST, Levy and Collection of GST

8) Kadkol M.B., Income Tax : Law and Practice,
9) Mehta : Income Tax Ready Reckoner
10) The Institute of Chartered Accountants of India, Study Material for CA Inter/Final for Taxation

Nature of Question Paper
B.Com (CBCS) Part-III (Semester-VI)
Advanced Accountancy Paper-IV
(Taxation)
Discipline Specific Course
(Introduced from June-2020)

Instructions:	i)	All the questions are compulsory.	Total : 40 Marks
	ii)	Figures to the right indicate full marks.	
Question 1	Practical Problem (Computation of Taxable Income and Tax Liability)		16 Marks
Question 2	Practical Problems -Attempt Any Two (out of three)		16 Marks
Question 3	Write short notes (Attempt any two out of four)		08 Marks

B.Com (CBCS) Part-III (Semester-V)
Paper - I : DSE-C1 : Advanced Costing
Discipline Specific Course

4 Credits

Course Outcomes:
1) To understand the basic concepts of cost accounting.
2) To classify the cost and apply the same for cost determination.
3) To understand the cost accounting procedure in respect of materials.
4) To know the application of cost accounting in determination of labour cost.

Syllabus Content

Unit- I **Basics of Cost Accounting:** 10 Lectures
Meaning:- Concepts of Cost, Costing, Cost Accounting, Cost Accountancy; Nature, Scope, objectives and importance of Cost Accounting; Difference between Cost Accounting, Financial Accounting and Management Accounting.

Unit- II **Elements of Cost:** 15 Lectures
Elements of Cost- Concepts of Material Cost, Labour Cost and Overheads; Classification of Cost, Cost Centre and Cost Unit, Cost Sheet, Tender and Quotation, Preparation of Cost Sheet.

Unit- III **Material Cost:** 15 Lectures
Storage of Material, Objectives of Store Keeping, Fixation of Stock Levels and Economic Order Quantity; Pricing of Issue of Material – FIFO, LIFO, Simple Average Method, Weighted Average Method.

Unit- IV **Labour Cost:** 20 Lectures
Labour Cost- Meaning and Importance, Time Keeping and

SHIVAJI UNIVERISTY, KOLHAPUR-416 004. MAHARASHTRA
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FAX 0091-0231-2691533 & 0091-0231-2692333 – BOS - 2609094
शिवाजी विद्यापीठ, कोल्हापूर – 416004.
दुरध्वनी (ईपीएबीएक्स) २६०९००० (अभ्यास मंडळे विभाग– २६०९०९४)
फॅक्स : ००९१-०२३१-२६९१५३३ व २६९२३३३.e-mail:bos@unishivaji.ac.in

Estd. 1962
'A++' Accredited by NAAC (2021)
With CGPA 3.52

Ref../SU/BOS/Com & Mgmt./ **Date :** 02 JUL 2022
No 0 0 0 3 2

To,

The Principal
All Affiliated (Commerce & Management) Colleges/Institutions,
Shivaji University, Kolhapur

Subject : Regarding Syllabi of BCA Part-III (Sem-V/VI) Choice Based Credit System (CBCS) degree programme under the Faculty of Commerce & Management.

Sir/Madam,

With reference to the subject mentioned above, I am directed to inform you that the university authorities have accepted and granted approval to the revised syllabi of **BCA Part-III (Sem-V/VI) Choice Based Credit System (CBCS)** under the Faculty of Commerce & Management.

This syllabi shall be implemented from the academic **year 2022-2023** onwards. A soft copy containing the syllabus is attached herewith and it is also available on university website www.unishivaji.ac.in (Student - Online Syllabus).

The question papers on the pre-revised syllabi of above mentioned course will be set for two examination These chances are available for repeater students, if any.

You are therefore, requested to bring this to the notice of all students and teachers concerned.

Thanking you,

Yours faithfully,

Dy. Registrar

Encl : As above

Copy to,

1. Dean, Faculty of Commerce & Management
2. Chairman, Board of Studies
3. Director, BOEE

} for information

4. Appointment Section
5. P. G. Admission Section
6. B.Com and O. E. 1 Section
7. Affiliation Section (U.G./P.G.)
8. Computer Center/I.T.
9. Eligibility Section
10. Distance Education
11. P.G. Seminer Section

} for information and necessary action.

SHIVAJI UNIVERSITY, KOLHAPUR

Revised syllabus for
Bachelor of Arts (Part – III)

SEMESTERV & VI

ECONOMICS

Syllabus to be implemented from June 2020 onwards

Equivalance B.A.III Economics Sem- V

Sem No.	Paper No.	Title of Old Paper	Sem No.	Discipline	Title of New Paper
V	VII	Micro Economics	V	Economics Course - 7	Principles of Micro Economics- I
V	VIII	Research Methodology in Economics (Part I)	V	Economics Course- 10	Research Methodology in Economics- I
V	IX	History of Economic Thoughts (Part I)	V	Economics Course - 11	History of Economic Thoughts- I
V	X	Economics of Development	V	Economics Course - 8	Economics of Development
V	XI	International Economics (Part I)	V	Economics Course - 9	International Economics- I

Equivalance B.A.III Economics Sem- VI

Sem No.	Paper No.	Title of Old Paper	Sem No.	Economics Course	Title of New Paper
VI	XII	Market and Pricing	VI	Economics Course- 12	Principles of Micro Economics- II
VI	XIII	Research Methodology in Economics (Part II)	VI	Economics Course- 15	Research Methodology in Economics- II
VI	XIV	History of Economic Thoughts (Part II)	VI	Economics Course- 16	History of Economic Thoughts- II
VI	XV	Economics of Planning	VI	Economics Course- 13	Economics of Planning
VI	XVI	International Economics (Part II)	VI	Economics Course- 14	International Economics- II

Structure of Course
Revised syllabus of B.A. Part III (Economics)

Sr. No.	Semester	Title of the Paper	Discipline	Distribution of Credit	Workload	Total Credits	Theory Marks	Term work seminar
1	V	Principles of Micro Economics- I	Economics Course- 7	4	4 Lectures / week	20	40	10
2	V	Economics of Development	Economics Course- 8	4	4 Lectures / week		40	10
3	V	International Economics- I	Economics Course- 9	4	4 Lectures / week		40	10
4	V	Research Methodology in Economics- I	Economics Course- 10	4	4 Lectures / week		40	10
5	V	History of Economic Thoughts- I	Economics Course- 11	4	4 Lectures / week		40	10
Sr. No.	**Semester**	**Title of the Paper**	**Discipline**	**Distribution of Credit**	**Workload**	**Total Credits**	**Theory Marks**	**Term work Group Project**
6	VI	Principles of Micro Economics- II	Economics Course- 12	4	4 Lectures / week	20	40	10
7	VI	Economics of Planning	Economics Course- 13	4	4 Lectures / week		40	10
8	VI	International Economics- II	Economics Course- 14	4	4 Lectures / week		40	10
9	VI	Research Methodology in Economics- II	Economics Course- 15	4	4 Lectures / week		40	10
10	VI	History of Economic Thoughts- II	Economics Course- 16	4	4 Lectures / week		40	10

B. A. III Economics (Semester V) (CBCS Pattern)

Principles of Micro Economics- I

(Elective Course- 7) DSE E-71

Course Outcomes: After successful completion of this course, the students will be able to:

- Explain what economics is and explain why it is important
- Understand consumer decision making and consumer behaviour
- Define the concept of utility and satisfaction
- Derive revenue and cost figures as well as curves
- Understand producer decision making and producer behaviour

Module- I Introduction to Micro Economics **(Teaching Hours- 15, Credits- 01)**

1.1 Meaning, nature and scope
1.2 Importance and limitations
1.3 The Economic Problem- Scarcity and Choice; concept of opportunity cost
1.4 Framework of economic analysis- Concept, module, parameters

Module- II Consumer's Behaviour **(Teaching Hours- 15, Credits- 01)**

2.1 Utility- concept, total and marginal utility
2.2 Cardinal utility approach: law of diminishing marginal utility
2.3 Ordinal utility approach: meaning and properties of indifference curve
2.4 Consumer's equilibrium and consumer's surplus

Module- III Demand and Supply Analysis **(Teaching Hours- 15, Credits- 01)**

3.1 Law of demand, demand function, determinants of demand
3.2 Elasticity of demand: price, income, cross and substitution
3.3 Measurement and importance
3.4 Law of supply, supply function and elasticity

Module- IV Theory of Production **(Teaching Hours- 15, Credits- 01)**

4.1 Law of variable proportions and law of returns to scale
4.2 Economies and diseconomies of scale
4.3 Revenue- total, marginal and average revenue
4.4 Cost concepts and their relationship, cost curves- short run and long run

BASIC READING LIST:

1. Dominic Salvator (2012) – Principles of Micro Economics, 5th edition, Oxford University Press, Oxford.
2. John B. Taylor & Akila Weerapana, (2011) 'Principles of Economics', 7th Edition, Cengage Learning, India, New Delhi.

3. Koutsoyiannis, A. (1979), Modern Microeconomics, 2nd Edition, Macmillan Press, London.
4. Lipsey Richard G., (latest edition), An Introduction to Positive Economics, Weidenfeld & Nicolson, London.
5. Lipsey, R.G. and K.A. Chrystal (latest edition), Principles of Economics (IX Ed.), Oxford University Press, Oxford.
6. Mankiw, N. Gregory (2008),Principles of Microeconomics, 5th Edition, Cengage Learning India, New Delhi.
7. Mansfield, E (latest edition), Microeconomics (9th Ed) W.W. Norton and Company, New York.
8. Pindyek and Rubinfield (latest edition)- Micro Economics, Pearson Education, New Delhi.
9. Ray, N.C. (latest edition), An introduction to Microeconomics, Macmillan company of India Ltd.
10. Samuelson, P.A. and W.D. Nordaus (latest edition), Economics, Tata McGraw Hill, New Delhi.
11. Stonier, A.W. and D.C. Hague (latest edition), A Textbook of Economic Theory, ELBS and Logman Group, London.
12. Varian, Hall (1992): Microeconomic Analysis, Third Edition, W. W. Norton & Company, Inc, New York.

B. A. III Economics (Semester V) (CBCS Pattern)

Economics of Development

(Elective Course- 8) DSE – E - 72

Course Outcomes: After successful completion of this course, the students will be able to:

- Identify the dimensions of development
- Distinguish the fundamental and contemporary development debate
- Know the theories of economic development
- Realise the role of state in economic development

Module- I: Basic concepts of economic development **(Teaching Hours- 15, Credits- 01)**

1.1 Meaning of economic development- Distinction between economic development and growth
1.2 Indicators of economic development
1.3 Obstacles to economic development
1.4 Sustainable and green development

Module- II: Developing and developed countries **(Teaching Hours- 15, Credits- 01)**

2.1 Underdevelopment and characteristics
2.2 Factors affecting economic development
2.3 Features of economic growth
2.4 Developmental status of Indian economy

Module- III: Theories of economic development **(Teaching Hours- 15, Credits- 01)**

3.1 Classical approach to development- Ricardian Theory
3.2 Myrdal's theory of economic development
3.3 Rostow's stages of economic growth
3.4 Theory of balanced and unbalanced growth

Module- IV: Resources for economic development **(Teaching Hours- 15, Credits- 01)**

4.1 Capital formation, Technology and economic development
4.2 Human capital and economic development
4.3 FDI, FIIs, Portfolio and Aid
4.4 Role of state in economic development

BASIC READING LIST:

1. Adelman, Irma (1962), *Theories of Economic Growth and Development*, Stanford University Press, Stanford.
2. Behrman, S. and T.N. Srinivasan (1995), *Handbook of Development Economics*, Vol. 1to 3, Elsevire, Amsterdam. Economics 31
3. Ghatak, Subrata (1986), *Introduction to Development Economics*, Allen and Unwin, London.
4. Hayami, Yujiro and Yoshihisa Godo (1997), *Development Economics*, Oxford University Press, New York.
5. Higgins, Benjamin (1980), *Economic Development*, Norton, New York.

6. Kindleberger, C.P. (1965), *Economic Development*, 3e, McGraw Hill, New York.
7. Meier, Gerald M. and James E. Rauch (2005), *Leading Issues in Economic Development*, 6e, Oxford University Press, New Delhi.
8. Myint, Hla (1965), *The Economics of Underdeveloped Countries*, Preager, New York.
9. Myint, Hla (1971), *Economic Theory and Under Developed Countries*, Oxford University Press, New York.
10. Thirlwal, A.P. (1999), (6th Edition), *Growth and Development*, Macmillan, London.
11. Bhagwati, J. and P. Desai (1970), *India : Planning for Industrialization*, Oxford University Press, London.
12. Boserup, Ester (1981), *Population and Technological Change : A Study of Long Term Change*, Chicago University Press, Chicago.
13. Brahmananda, P.R. and C.N. Vakil (1956), *Planning for an Expanding Economy*, Vora and Co., Bombay.
14. Puri V. K. And S. K. Misra (2016), *Economics of Development and Planning*, Himalaya Publishing House.
15. Datta Gaurav and Ashwini Mahajan (2016), *Indian Economy*, S. Chand Publishing, New Delhi
16. Todaro Michael P. And Stephen C. Smith (2017), *Economic Development*, Pearson Education.
17. Chakravarti, Sukhamoy (1982), *Alternative Approaches to the Theory of Economic Growth*, Oxford University Press, Delhi.
18. Chakravarty, Sukhamoy (1987), *Development Planning : The Indian Experience*, Clarendon Press, Oxford.
19. Jhingan, M.L. (2005) *The Economics of Development and Planning* , Vrinda Publications Ltd. Delhi
20. Lekhi, R.K. (2005) *Economics of Development and Planning*, Kalyani Publishers, Delhi.
21. Patil, J. F. (et al) (2005) *Economics of Growth and Development* (Marathi) , Phadake Publishers, Kolhapur.
22. Patil, J.F. & Tamhankar, P.J. (1990) *Economics of Development and Planning* (Marathi), Continental Publishers, Pune.
23. Kavimandan (1975), *Economics of Development and Planning* (Marathi), Mangesh Prakashan , Nagpur

B. A. III Economics (Semester V) (CBCS Pattern)
International Economics- I
(Elective Course- 9) DSE – E 73

Course Outcomes: After successful completion of this course, the students will be able to:

- Explain international trade
- Understand the measurement of gains from international trade
- Distinguish different rates of exchange
- Measure the terms of trade

Module- I: Trade and Trade Theories **(Teaching Hours- 15, Credits- 01)**

1.1 Importance of the study of International Economics

1.2 Inter-regional and international trade: similarities and dissimilarities.

1.3 Ricardian theory of international trade

1.4 Hecksher – Ohlin Theory

Module- II: Gains from International Trade **(Teaching Hours- 15, Credits- 01)**

2.1 Gains from international trade and their measurement

2.2 Trade as an engine of economic growth.

2.3 Terms of trade: meaning, concepts and application

2.4 Factors affecting terms of trade

Module- III: Exchange Rate **(Teaching Hours- 15, Credits- 01)**

3.1 Meaning of exchange rate, Purchasing Power Parity theory

3.2 Fixed Exchange Rate – meaning, merits and demerits

3.3 Flexible Exchange Rate – meaning, merits and demerits

3.4 Floating Exchange Rate – meaning, merits and demerits

Module- IV: Tariffs and Quotas **(Teaching Hours- 15, Credits- 01)**

4.1 Free Trade: meaning, arguments for and against

4.2 Trade Protection Policy: meaning, arguments for and against.

4.3 Tariffs:meaning, types and effects

4.4 Quotas:meaning, types and effects.

BASIC READING LIST:

1 Aggarwal, M. R. (1979), Regional Economic Cooperation in South Asia, S. Chand and Co., New Delhi.

2 Bhagwati, J. (Ed.) (1981), International Trade, Selected Readings, Cambridge University Press, Mass.

3 Crockett. A. (1982), International Money: Issue and Analysis, ELBS and Nelson, London.

4 Greenaway, D. (1983), International Trade Policy, MacMillan Publishers Ltd., London.

5 Heller, H. R. (1968), International Monetary Economics, Prentice Hall. India.

6 Joshi V. and I.M.D. Little (1998), India's Economic Reforms, 1999-2001, Oxford

7 Kenan, P.B. (1994), The International Economy, Cambridge University Press, London.

8 Kindlberger, C. P. (1973), International Economics, R.D. Irwin, Homewood.

9 Krugman, P. R. and M. Obstgeld (1994), International Economics: Theory and Policy, Glenview, Foresman.

10 Mithani D.M. (Reprint-2009) International Economics, Himalaya Publishing House, New Delhi.

11 Nayyar,D. (1976) : India's Exports and Export Policies in the 1960s, Cambridge University Press, Cambridge.

12 Panchmukhi, V. R. (1978), Trade Policies of India: A Quantitative Analysis, Concept University Press, Delhi.

13 Patel, S. J. (1995), Indian Economy Towards the 21st Century, University Press Ltd., India.

14 RuddarDatt& K.P.M. Sundaram, (2018), Indian Economy, S. Chand & Co. Ltd., New Delhi

15 Salvatore, D. L. (1997), International Economics, Prentice- Hall, Upper Saddle River, N. J.

16 Singh, M. (1964), India Export Trends and the Prospects for Self-sustained Growth, Oxford University Press, Oxford.

17 Sodersten, Bo (1991), International Economics, MacMillan Press Ltd. London

B. A. III Economics (Semester V) (CBCS Pattern)

Research Methodology in Economics- I

(Elective Course- 10) DSE – E 74

Course Outcomes: After successful completion of this course, the students will be able to:

- Get acquainted with the basic concepts of research and its methodologies.
- Select and define appropriate research problem and parameters.

Module- I: Introduction to research in economics (Teaching Hours- 15, Credits- 01)

1.1 Meaning, definitions and objectives of research

1.2 Types of research

1.3 Significance of research

1.4 Areas of economic research

Module- II: Literature review and research design (Teaching Hours- 15, Credits- 01)

2.1 Literature review- meaning, need, how to carry out a literature review?

2.2 Research design- steps in research design

2.3 Features of good research design

2.4 Importance of research design

Module- III: Hypothesis and concept (Teaching Hours- 15, Credits- 01)

3.1 Meaning and definition, kinds of hypothesis

3.2 Features of hypothesis

3.3 Importance of hypothesis

3.4 Concept- meaning, conceptualization, formal and operational definition of concept

Module- IV: Data collection (Teaching Hours- 15, Credits- 01)

4.1 Primary and secondary data

4.2 Primary data collection methods- observation, questionnaire, interview

4.3 Sources of secondary data

4.4Importance of data collection

BASIC READING LIST:

1. Goode and Hatt(1981), Methods in Social Research, McGraw Hill International Book Company, New Delhi.
2. Kerliger F.N.(1983), Foundation of Behavioural Research, Surjeet Publication,Delhi.
3. Young P. V. (1960), Scientific Social Survey and Research, Asia Publication House,Mumbai.

4. Kothari C.R. (1993), Research Methodology-Methods and Techniques, Wiley Eastern Ltd.,New Delhi.
5. Lundbrg G.A.(1960), Social Research, Longmans Green and Company, New York.
6. Herekar P .M.(2019), Research Methodology and Project Work, Phadake Prakashan,Kolhapur.
7. Settiz Claire,Jahoda Marie and Others(1959), Research Methods in SocialResearch,Dryden New York.
8. Takur Dvendra(1997), Research Methodology in Social Sciences, Deep and Deep Publication,New Delhi.
9. Gupta S.P.and Gupta M.P.(2005), Business Statistics, Sultan Chand & Sons, New Delhi
10. Gupta C.B.(1996), An Introduction to Methods, Vikas Publication House.New Delhi.
11. देशमुख राम (जून 2005) : 'मूलभूत सांख्यिकी', विद्या प्रकाशन, नागपूर.
12. पाटील ज.फा., पठाण के.जी., ताम्हणकर पी.जे., संतोष यादव (2012) : 'अर्थशास्त्रीय संशोधनाची तोंडओळख', (सुधारित आवृत्ती), कॉन्टिनेंटल प्रकाशन, पुणे.
13. आगलावे प्रदीप (जानेवारी 2000) : 'संशोधन पध्दतीशास्त्र व तंत्रे', विद्या प्रकाशन, नागपूर.
14. खैरनार दिलीप (फेब्रुवारी 2009) : 'प्रगत सामाजिक संशोधन पध्दती व सांख्यिकी', डायमंडपब्लिकेशन्स, पुणे.
15. भांडारकर पु.ल. (1987) : 'सामाजिक संशोधन पध्दती', महाराष्ट्र विद्यापीठ ग्रंथनिर्मिती मंडळ, नागपूर.

B. A. III Economics (Semester V) (CBCS Pattern)

History of Economic Thoughts- I

(Elective Course- 11) DSE – E 75

Course Outcomes: After successful completion of this course, the students will be able to:

- Understand the basic economic ideas of various economic thinkers of the world
- Understand the development of economic thoughts

Module-I: Origin of Economic Thoughts (Teaching Hours- 15, Credits- 01)

1.1 Early economic thought, rise of mercantilism, features of Mercantilism
1.2 Meaning and causes of emergence of Physiocracy
1.3 The concept of natural order and primacy of agriculture
1.4 Tableau economique

Module- II: Classical Economic Thoughts (Teaching Hours- 15, Credits- 01)

2.1 Adam Smith: Division of labour, theory of value and canons of taxation
2.2 David Ricardo: Theory of Value and views on distribution
2.3 Thomas Malthus: Theory of Population
2.4 Theory of Gluts

Module- III: Economic Thoughts of Fredrick List (Teaching Hours- 15, Credits- 01)

3.1 Criticism on Classical School
3.2 Stages of Economic growth
3.3 Concept of Nationalism
3.4 Theory of Protectionism

Module- IV: Economic Thoughts of Karl Marx (Teaching Hours- 15, Credits- 01)

4.1 The Concept of Scientific Socialism and Meterialist approach
4.2 The Theory of Value
4.3 Theory of Surplus Value
4.4 Concept of Falling rate of profit

BASIC READING LIST:

1. Dandekar V.M.and N.Nath (1971), Poverty in India, Indian school of political Economy. Pune.
2. Ganguli B. N. (1977): Indian Economic Thought - A 19th Century Perspectives.Tata Mc Grow Hill, New Delhi.
3. Rath Nilkanth(1995) V.M.Dandekar Social Scientist with a Difference : Journal of Indian School of Political Economy.Oct-Dec.1995, Vol-7 No-4.
4. Seshadri G.B.(1997): Economic Doctrines, Publishing Corporation, New Delhi.
5. चा.भ.खैरमोडे (१९७८) – डॉ.भीमराव रामजी आंबेडकर, खंड १ ला , खंड २ रा खंड ७ वा, प्रताप प्रकाशन.

6. गांधी मो.क.(१९९७) -मराठी अनुवाद सीताराम पुरोषोत्तम पटवर्धन'सत्याचे प्रयोग अथवा आत्मकथा पाचवी आवृत्ती.
7. डॉ.जे.एफ.पाटील (२०१५)– आर्थिक विचारांचा इतिहास, फडके प्रकाशन, कोल्हापूर.
8. इंगळे बी.डी. (२०११) आर्थिक विचारांचा इतिहास, अरुणा प्रकाशन, लातूर.
9. प्रा.रायखेलकर,डॉ.दामजी (२०११) – आर्थिक विचारांचा इतिहास, विद्या बुक पब्लिशर्स,औरंगाबाद.
10. प्रा.डॉ.अनिलकुमार वावरे, प्रा.संजय धोंडे, व डॉ.अनिल सत्रे (२०१४)– आर्थिक विचारांचा इतिहास, एज्युकेशनल पब्लिशर्स अॅन्ड डिस्ट्रिब्युटर्स,औरंगाबाद.
11. प्रा.रा.म.गोखले - आर्थिक विचारांचा इतिहास
12. डॉ.विजय कविमंडन - आर्थिक विचारांचा इतिहास

B. A. III Economics (Semester VI) (CBCS Pattern)

Principles of Micro Economics- II

(Elective Course- 12) DSE E 196

Course Outcomes: After successful completion of this course, the students will be able to:

- Identify the market structure
- Analyse the economic behaviour of individual firms and markets
- Analyse a firm's profit maximising strategies under different market conditions
- Understand the factor pricing

Module- I Perfect Competition **(Teaching Hours- 15, Credits- 01)**

1.1 Meaning and characteristics
1.2 price and outputdetermination under perfect competition
1.3 Equilibrium of the firm and industry in the short run
1.4 Equilibrium of the firm and industry in the long run

Module- II Monopoly **(Teaching Hours- 15, Credits- 01)**

2.1 Meaning and characteristics
2.2 Price discrimination and degrees
2.3 Equilibrium of a monopoly firm in the short run and long run
2.4 Monopoly and capacity loss

Module- III Imperfect Competition **(Teaching Hours- 15, Credits- 01)**

3.1 Meaning and characteristics
3.2 Price- output determination
3.3 Product differentiation
3.4 Oligopoly and duopoly- meaning and characteristics

Module- IV Factor Pricing **(Teaching Hours- 15, Credits- 01)**

4.1 Marginal productivity theory
4.2 Modern theory of rent
4.3 Classical and Keynesian theory of interest
4.4 Risk and uncertainty theory of profit

BASIC READING LIST:

1. Dominic Salvator (2012) – Principles of Micro Economics, 5th edition, Oxford University Press, Oxford.
2. John B. Taylor & Akila Weerapana, (2011) 'Principles of Economics', 7th Edition, Cengage Learning, India, New Delhi.

3. Koutsoyiannis, A. (1979), Modern Microeconomics, 2nd Edition, Macmillan Press, London.
4. Lipsey Richard G., (latest edition), An Introduction to Positive Economics, Weidenfeld & Nicolson, London.
5. Lipsey, R.G. and K.A. Chrystal (latest edition), Principles of Economics (IX Ed.), Oxford University Press, Oxford.
6. Mankiw, N. Gregory (2008),Principles of Microeconomics, 5th Edition, Cengage Learning India, New Delhi.
7. Mansfield, E (latest edition), Microeconomics (9th Ed) W.W. Norton and Company, New York.
8. Pindyek and Rubinfield (latest edition)- Micro Economics, Pearson Education, New Delhi.
9. Ray, N.C. (latest edition), An introduction to Microeconomics, Macmillan company of India Ltd.
10. Samuelson, P.A. and W.D. Nordaus (latest edition), Economics, Tata McGraw Hill, New Delhi.
11. Stonier, A.W. and D.C. Hague (latest edition), A Textbook of Economic Theory, ELBS and Logman Group, London.
12. Varian, Hall (1992): Microeconomic Analysis, Third Edition, W. W. Norton & Company, Inc, New York.

B. A. III Economics (Semester VI) (CBCS Pattern)

Economics of Planning

(Elective Course- 13) DSE – E 197

Course Outcomes: After successful completion of this course, the students will be able to:

- Get acquainted with economic planning and its importance in development
- Get acquianted with development of planning and planning machinery in India
- Evaluate sectoral performance of the Indian economy
- Compare and analyse Indian models of economic development

Module- I: Introduction to economic planning (Teaching Hours- 15, Credits- 01)

1.1 Meaning, Case for and against economic planning
1.2 Genesis of planning
1.3 Types of planning
1.4 Conditions of success of planning

Module- II: Issues in economic planning (Teaching Hours- 15, Credits- 01)

2.1 The choice of techniques: labour and capital intensive
2.2 Capital output ratio: Importance and factors affecting COR
2.3 Input output analysis
2.4 Project evaluation

Module- III: Planning in India- I (Teaching Hours- 15, Credits- 01)

3.1 Evolution of planning in India
3.2 Objectives and evaluation of planning
3.3 Planning Commission and National Development Council
3.4 NITI Ayog- Need for establishment, organization, objectives and work

Module- IV: Planning in India- II (Teaching Hours- 15, Credits- 01)

4.1 Plan models in Indian plans
4.2 Agricultural development under plans
4.3 Industrial development under plans
4.4 Services sector development under plans

BASIC READING LIST:

1. Behrman, S. and T.N. Srinivasan (1995), *Handbook of Development Economics*, Vol. 1to 3, Elsevire, Amsterdam. Economics 31
2. Hayami, Yujiro and Yoshihisa Godo (1997), *Development Economics*, Oxford University Press, New York.
3. Kindleberger, C.P. (1965), *Economic Development*, 3e, McGraw Hill, New York.
4. Meier, Gerald M. and James E. Rauch (2005), *Leading Issues in Economic Development*, 6e, Oxford University Press, New Delhi.
5. Myint, Hla (1971), *Economic Theory and Under Developed Countries*, Oxford University Press, New York.
6. Thirlwal, A.P. (1999), (6th Edition), *Growth and Development*, Macmillan, London.

7. Bhagwati, J. and P. Desai (1970), *India : Planning for Industrialization*, Oxford University Press, London.
8. Brahmananda, P.R. and C.N. Vakil (1956), *Planning for an Expanding Economy*, Vora and Co., Bombay.
9. Puri V. K. And S. K. Misra (2016), *Economics of Development and Planning*, Himalaya Publishing House.
10. Datta Gaurav and Ashwini Mahajan (2016), *Indian Economy*, S. Chand Publishing, New Delhi
11. Chakravarty, Sukhamoy (1987), *Development Planning : The Indian Experience*, Clarendon Press, Oxford.
12. Jhingan, M.L. (2005) *The Economics of Development and Planning* , Vrinda Publications Ltd. Delhi
13. Lekhi, R.K. (2005) *Economics of Development and Planning*, Kalyani Publishers, Delhi.
14. Patil, J. F. (et al) (2005) *Economics of Growth and Development* (Marathi) , Phadake Publishers, Kolhapur.
15. Patil, J.F. & Tamhankar, P.J. (1990) *Economics of Development and Planning* (Marathi), Continental Publishers, Pune.

B. A. III Economics (Semester VI) (CBCS Pattern)

International Economics- II

(Elective Course- 14) DSE – E 198

Course Outcomes: After successful completion of this course, the students will be able to:

- Distinguish between balance of trade and balance of payments
- Analyse the balance of payments
- Understand the various types of foreign capital
- Analyse the impact of international institutions on Indian economy

Module- I: Balance of Trade and Balance of Payments(Teaching Hours- 15, Credits- 01)

1.1 Balance of Trade and Balance of Payments

1.2 Importance of Balance of Payments

1.3 Disequilibrium in Balance of Payments: Causes and Consequences

1.4 Measures to correct disequilibrium in Balance of Payments

Module- II: Foreign Trade of India since 1991 (Teaching Hours- 15, Credits- 01)

2.1 Volume, composition and direction

2.2 Exim Policy of 2014-19

2.3 Trade administration of India

2.4 Convertibility of Rupee: Meaning and types.

Module- III: Foreign Capital in India (Teaching Hours- 15, Credits- 01)

3.1 Need for Foreign Capital

3.2 Types of Foreign Capital

3.3 Foreign Capital Policy of Government of India

3.4 Trends in Foreign Direct Investment in India

Module- IV: International Institutions and India (Teaching Hours- 15, Credits- 01)

4.1 IMF: Objectives and Functions

4.2 IBRD: Objectives,Functions

4.3 ADB: Objectives, Functions

4.4 WTO: Objectives, Functions

BASIC READING LIST:

1 Aggarwal, M. R. (1979), Regional Economic Cooperation in South Asia, S. Chand and Co., New Delhi.

2 Bhagwati, J. (Ed.) (1981), International Trade, Selected Readings, Cambridge University Press, Mass.

3 Crockett. A. (1982), International Money: Issue and Analysis, ELBS and Nelson, London.

4 Greenaway. D. (1983), International Trade Policy, MacMillan Publishers Ltd., London.

5 Heller, H. R. (1968), International Monetary Economics, Prentice Hall. India.

6 Joshi V. and I.M.D. Little (1998), India's Economic Reforms, 1999-2001, Oxford

7 Kenan, P.B. (1994), The International Economy, Cambridge University Press. London.

8 Kindlberger, C. P. (1973), International Economics, R.D. Irwin, Homewood.

9 Krugman, P. R. and M. Obstgeld (1994), International Economics: Theory and Policy, Glenview, Foresman.

10 Mithani D.M. (Reprint-2009) International Economics, Himalaya Publishing House. New Delhi.

11 Nayyar,D. (1976) : India's Exports and Export Policies in the 1960s, Cambridge University Press, Cambridge.

12 Panchmukhi, V. R. (1978), Trade Policies of India: A Quantitative Analysis, Concept University Press, Delhi.

13 Patel, S. J. (1995), Indian Economy Towards the 21st Century, University Press Ltd., India.

14 RuddarDatt& K.P.M. Sundaram, (2018), Indian Economy, S. Chand & Co. Ltd., New Delhi

15 Salvatore, D. L. (1997), International Economics, Prentice- Hall, Upper Saddle River. N. J.

16 Singh, M. (1964), India Export Trends and the Prospects for Self-sustained Growth. Oxford University Press, Oxford.

17 Sodersten, Bo (1991), International Economics, MacMillan Press Ltd. London

B. A. III Economics (Semester VI) (CBCS Pattern)

Research Methodology in Economics- II

(Elective Course- 15) DSE – E - 199

Course Outcomes: After successful completion of this course, the students will be able to:

- Understand the sampling techniques as a method of data collection
- Use techniques of data analysis in research
- Write a research report and thesis
- Write a research proposal (grants)

Module- I: Sampling (Teaching Hours- 15, Credits- 01)

1.1 Meaning and nature

1.2 Types of sampling

1.3 Criteria of good sampling

1.4 Optimum size of sampling

Module- II: Processing and representation of data (Teaching Hours- 15, Credits- 01)

2.1 Classification of data

2.2 Tabulation of data

2.3 Percentage

2.4 Graphs and diagrams

Module- III: Techniques of data analysis (Teaching Hours- 15, Credits- 01)

3.1 Need and importance of data analysis

3.2 Measures of central tendency: mean, mode, median (direct method)

3.3 Measures of variation: range, standard deviation (direct method)

3.4 Correlation- meaning and importance, Karl Pearson's coefficient of correlation

Module- IV: Interpretation of data and report writing(Teaching Hours- 15, Credits- 01)

4.1 Interpretation of data: meaning

4.4 Report writing: meaning, steps, precautions

4.5 Properties of good report writing

4.4 Writinga good research proposal

BASIC READING LIST:

1. Goode and Hatt (1981), Methods in Social Research, McGraw Hill International Book Company, New Delhi.
2. Kerliger F.N.(1983), Foundation of Behavioural Research. Surjeet Publication.Delhi.
3. Young P. V.(1960), Scientific Social Survey and Research, Asia Publication House,Mumbai.
4. Kothari C.R. (1993), Research Methodology-Methods and Techniques. Wiley Eastern Ltd.,New Delhi.
5. Lundbrg G.A.(1960), Social Research, Longmans Green and Company, New York.
6. Herekar P .M.(2019), Research Methodology and Project Work, Phadake Prakashan,Kolhapur.
7. Settiz Claire,Jahoda Marie and Others(1959), Research Methods in SocialResearch,Dryden New York.
8. Takur Dvendra (1997), Research Methodology in Social Sciences. Deep and Deep Publication,New Delhi.
9. Gupta S.P.and Gupta M.P.(2005), Business Statistics, Sultan Chand & Sons. New Delhi
10. Gupta C.B. (1996), An Introduction to Methods, Vikas Publication House,New Delhi.
11. देशमुख राम (जून 2005) : 'मूलभूत सांख्यिकी', विद्या प्रकाशन, नागपूर.
12. पाटील ज.फा., पठाण के.जी., ताम्हणकर पी.जे., संतोष यादव (2012) : 'अर्थशास्त्रीय संशोधनाची तोंडओळख', (सुधारित आवृत्ती), कॉन्टिनेंटल प्रकाशन, पुणे.
13. आगलावे प्रदीप (जानेवारी 2000) : 'संशोधन पध्दतीशास्त्र व तंत्रे', विद्या प्रकाशन, नागपूर.
14. खैरनार दिलीप (फेब्रुवारी 2009) : 'प्रगत सामाजिक संशोधन पध्दती व सांख्यिकी', डायमंड पब्लिकेशन्स, पुणे.
15. भांडारकर पु.ल. (1987) : 'सामाजिक संशोधन पध्दती', महाराष्ट्र विद्यापीठ ग्रंथनिर्मिती मंडळ, नागपूर.

B. A. III Economics (Semester VI) (CBCS Pattern)

History of Economic Thoughts- II

(Elective Course- 16) DSE – E 200

Course Outcomes: After successful completion of this course, the students will be able to:

- Understand the economic concepts and theories of Neo-Classical and Indian thinkers.
- Understand the development of economic thoughts

Module- I: Neo- Classical Economic Thought – Alfred Marshall
(Teaching Hours- 15, Credits- 01)

1.1 Theory of Value
1.2 The concept of representative firm
1.3 Consumer's surplus, elasticity of demand
1.4 Quasi rent

Module- II: Indian Economic Thought **(Teaching Hours- 15, Credits- 01)**

2.1 Mahatma Phule: Views on agriculture and education
2.2 Rajarshi Shahu Maharaj: Policy for agriculture development and co-Operation
2.3 Dr. Babasaheb Ambedkar: Views on money, agriculture and development policy
2.4 Dadabhai Nauroji: Drain theory

Module- III: Mahatma Gandhi **(Teaching Hours- 15, Credits- 01)**

3.1 Concept of village development
3.2 Importance of decentralization
3.3 Basic principle of development: swadeshi
3.4 Concept of Gram Swarajya

Module- IV: Economic Thoughts of Modern Indian Economist
(Teaching Hours- 15, Credits- 01)

4.1 Gopal Krishna Gokhale's views on public finance
4.2 D. R. Gadgil: Views on co-operative development and decentralization of power, co-operative commonwealth
4.3 V. M. Dandekar: Views on poverty
4.4 Amartya Sen: Concept of social choice, choice of techniques, Sen's views on poverty and public action

BASIC READING LIST:

1. Dandekar V.M.and N.Nath (1971), Poverty in India, Indian school of political Economy. Pune.

2. Ganguli B. N. (1977): Indian Economic Thought - A 19th Century Perspectives.Tata Mc Grow Hill, New Delhi.

3. Rath Nilkanth(1995) V.M.Dandekar Social Scientist with a Difference : Journal of Indian School of Political Economy.Oct-Dec.1995, Vol-7 No-4.
4. Seshadri G.B.(1997): Economic Doctrines, Publishing Corporation, New Delhi.
5. चा.भ.खैरमोडे (१९७८) – डॉ.भीमराव रामजी आंबेडकर, खंड १ ला , खंड २ रा खंड ७ वा, प्रताप प्रकाशन.
6. गांधी मो.क.(१९९७) -मराठी अनुवाद सीताराम पुरोपोत्तम पटवर्धन'सत्याचे प्रयोग अथवा आत्मकथा पाचवी आवृत्ती.
7. डॉ.जे.एफ.पाटील (२०१५)– आर्थिक विचारांचा इतिहास, फडके प्रकाशन, कोल्हापूर.
8. इंगळे बी.डी. (२०११) आर्थिक विचारांचा इतिहास, अरुणा प्रकाशन, लातूर.
9. प्रा.रायखेलकर,डॉ.दामजी (२०११) – आर्थिक विचारांचा इतिहास, विद्या बुक पब्लिशर्स,औरंगाबाद.
10. प्रा.डॉ.अनिलकुमार वावरे, प्रा.संजय धोंडे, व डॉ.अनिल सत्रे (२०१४)– आर्थिक विचारांचा इतिहास, एज्युकेशनल पब्लिशर्स अॅन्ड डिस्ट्रिब्युटर्स,औरंगाबाद.
11. प्रा.रा.म.गोखले - आर्थिक विचारांचा इतिहास
12. डॉ.विजय कविमंडन - आर्थिक विचारांचा इतिहास

SHIVAJI UNIVERSITY, KOLHAPUR

Established 1962

NAAC A++ Grade

Faculty of Commerce and Management

Syllabus for

B.C.A. Part- III (Sem – V and VI)(CBCS)

(To be implemented from June 2022 onwards)

(Subject to the modifications that will be made from time to time)

B.C.A Part-III (Sem-V)

Course Code : CC 501	**Java Programming**	**Credit:-4**	**Marks 100**
Marks:100	Total Hours of Teaching: 60	External :70	Internal:30
Course Outcomes:	**The student will be able to:** 1. Understand the features of Java Language 2. Demonstrate Object-Oriented Programming using Java 3. Develop Multithreaded and Networking applications 4. Design GUI applications using AWT and Swing.		
Unit No.	**Description**		**No. of Periods**
Unit 1	**Java Fundamentals** Introduction to Java, History and Features of Java, C++ vs Java, Simple Java Program, Internal path seting, JDK, JRE, and JVM (Java Virtual Machine),JVM Memory Management, data types, Unicode System, Operators, Keywords, and Control Statements, methods, constructor, class,objects,methods,Accessmodifiers,statickeyword,finalkeyword,STRINGManipulation,Array,		15
Unit 2	**Inheritance, Polymorphism and Encapsulation** Inheritance in Java, Is-A Relationship, Aggregation and Composition(HAS-A),Types of inheritance, this & super keyword Polymorphism in Java, Types of polymorphism, Static and Dynamic Binding, Abstract class and method, Interface, Encapsulation in Java, Getter and setter method in Java.		15
Unit 3	**Package, Multithreading and Exception handling** Defining & create packages, system packages, Introduction of Exception, Pre -Defined Exceptions, Try-Catch-Finally, Throws, throw,User Defined Exception examples, Multithreading- introduction, Thread Creations, Thread Life Cycle, Life Cycle Methods, Synchronization, Wait() notify() notify all() methods		15
Unit 4	**AWT,SWING (JFC)** Introduction and Components of AWT, Event-Delegation Model, Listeners, Layouts, Individual Components Label, Button, Check Box, Radio Button, Introduction Diff B/W AWT and SWING, Components hierarchy, Panes, Individual Swings components J Label, JButton, JText Field, JTextArea		15
	Reference Books: 1. Java - The Complete Reference-Author – Herbert Schildt, Latest Edition – 11th Edition, Publisher – McGraw Hill Education 2. The Complete Reference-Herbert Schildt 3. Core Java An Integrated Approach (Black Book)- Dr. R. NageswaraRao		

Course Code: CC502	Data Warehousing and Data Mining	Credits:04	Marks: 100
Marks:100	Total Hours of Teaching: 60	External :70	Internal:30
Course outcome	After completion of this course students will be able to 1. Define the Data warehouse architecture and its Implementation. 2. Describe the Architecture of a Data Mining system. 3. Understand the various Data preprocessing Methods. 4. Perform classification and prediction of data		
Unit No.	Descriptions		No. of Periods
1	**Data Warehousing:** Introduction to data warehousing, Data warehousing components, Building a data warehouse, Difference between database system and data warehouse, Data warehouse architecture-3 Tier architecture, Warehouse schema design, Data extraction, Cleanup& transformation tools, Multi-dimensional data model, Data cubes- Stars, Snowflakes, Fact constellations, Concept hierarchy, Online analytical processing-		15
2	**Data Mining:** Introduction of data mining - Definition and functionalities Issues in DM, Applications of data mining, KDD process. Data Pre-processing: Data Pre-processing, Data cleaning, Data integration and transformation, Data reduction, Discretization and concept hierarchy generation, Data mining Tasks		15
3	**Data Mining techniques:** Frequent item - set and association rule mining: apriori algorithm, use of sampling for frequent item- set tree algorithm, Graph sampling : frequent sub graph mining , tree mining ,sequence mining Classification and Prediction - Issues Regarding Classification and Prediction – Classification by Decision Tree Introduction – Bayesian Classification – Rule Based Classification –Prediction – Accuracy and Error Measures .		15
4	**Cluster Analysis:** Types of Data in Cluster Analysis, A Categorization of Major Clustering Methods, Partitioning Methods – K-Means and K-Medoids		15
	References: 1. Kimball, Ralph & et al, The Data Warehouse Lifecycle Toolkit, John Wiley & Sons, 2006. 2. Jiawei Han and MichelineKamber : "Data Mining Concepts and Techniques", 3rd Edition,Elsevier,2012. 3. Arun K. Pujari, "Data Mining",University Press. 4. PaulrajPonnian, "Data Warehousing Fundamentals", John Willey.		

Course Code: CC 503	IT Security	Credit:-4	Marks 100
Marks:100	Total Hours of Teaching: 60	External :70	Internal:30
Course Outcomes	**The student will be able to:** 1. Understand the concept and need of IT security, 2. Identify different security threats to information systems. 3. Describe security controls used for IS security. 4. Understand provisions in IT Act 2000 and Design Security policy for IT Enabled Organization.		
Unit No.	**Description**		**No. of Periods**
Unit 1	**Introduction to IT Security** Definition of Information System Security, Basics– Introduction, Need, Significance and Challenges of IT Security, IT Assets - Physical Assets (Servers, Workstations, Peripherals, Smartphones, Networking Devices, Information Technology Equipment, Storage Devices, Supplies, IT Personnel) and Logical Assets(Software, Data and Information)Information security dimensions- confidentiality, integrity and Availability		15
Unit 2	**Security Threats** Introduction and types of security threats, sources of threats, Cyber Crimes. Security Attacks- Passive attacks (Network Analysis; eavesdropping; Traffic control), Active attacks (Phishing, Sniffing, spoofing, Denial of service attack), Malicious Code (Virus, Malware, Worm, Trojan horse), Keyboard loggers, Web tracking, Perpetrators (Hackers; Crackers) Other Security Threats- Acts of God (Natural disaster), environmental hazards, Theft, User error, Hardware failure, Software failure.		15
Unit 3	**IT Security Control Measures** Identification, Access Controls/Authentication: Password Protection, Biometric verification, Intrusion detection and prevention system, Multilevel authentication. Antivirus, Recovery software and services, Data backups, Malware detectors, Logs. Cryptography-Types of Cryptography, Digital signature and certificate. Firewall System, Deception Technology Control Measures for Internet Security		15
Unit 4	**IT Act and Security Standards** • IT Act 2000 and features of IT Act, Amendments in IT Act, Cyber-crimes under Information Technology Act 2000, Legal issues and challenges		15

	• Cyber security standards • IS Audit and Security Policy	
	Reference Books: 1. Mark Stamp's Information Security: Principles and Practice (WIND) Paperback – by Deven N. Shah, Wiley. 2. Information Systems Security: Security Management, Metrics, Frameworks and Best Practices by Nina Godbole, Wiley, 2nd edition 3. Michael T. Simpson, Kent Backman, James Corley —Hands- On Ethical Hacking and Network Defense‖,2016 4. Steven DeFino, Barry Kaufman, Nick Valenteen —Official Certified Ethical Hacker Review Guide‖,2015 5. William Stallings, —Principle of Computer Security‖, McGraw Hill Education, Fourth Edition, 2016. 6. AtulKahate, —Cryptography and Network Security‖, Tata McGraw-Hill, 2003 7. Essential Computer Security: Everyone's Guide to Email, Internet and Wireless security", by Tony Bradley, Syngress Publication 2006 8. "Cryptography & Network Security", by Behrouz A. Ferouzan, Tata McGraw Hill, 2007. 9. Information & Network Security for GTU, I. A. Dhotre V. S. Bagad, Technical Publication, Edition 2018 10. Cyber frauds, cyber crimes and law in India by Pavanduggal. 11. Cyberlaw: The Law of the Internet and Information Technology, Brian Craig. 12. Information System Audit and Control by Ron Weber	

DSE 504 Elective-I	1. Python Programming	Credits: 4	Marks:100
Marks:100	Total Hours of Teaching: 60	External :70	Internal : 30
Course Outcomes	Students of this course will be able to : 1. Acquire programming skills in core Python. 2. Develop Python programs with conditionals and loops. 3. Understand advance datatypes in Python Programming. 4. Develop problem solving skills and their implementation through Python.		
Unit No.	**Description**		**No. of Periods**
Unit 1	**INTRODUCTION TO PYTHON** Installation, Spyder IDE, Python Interpreter, History Of Python, Python Features, Applications Of Python, Data Types, Types Of Operators, Operators Precedence, Expressions, Statements, Functions, Comment,Strings - Accessing Values In Strings, Updating Strings, Escape Characters, Built-In String Methods, User Input		15
Unit 2	**CONTROL FLOW AND LOOPS** Conditionals: Boolean Values And Operators, Conditional (If), Alternative (If-Else) ,Chained Conditional (If-Elif-Else) Looping-While Loop, The Infinite Loop, For Loop, Iterating BySequence Index, Using Else Statement With Loops, Nested Loops,Break, Continue & Pass Statement. Functions: Function With Arguments, Lambda Functions		15
Unit 3	**LISTS, TUPLES, DICTIONARIES AND SET** Lists-Create a List, Get and Set Items ,Add and Remove Items, List Slices, Different List Methods TUPLES - Creation and Accessing Values, Updating Tuples, DeletingTuple Elements, Basic Tuples Operations, Indexing, Slicing DICTIONARY- Accessing Values in Dictionary, Updating Dictionary,Delete Dictionary Elements, Properties of Dictionary Keys, Built-InDictionary Functions and Methods. SETS -Concept of Sets, Creating, Initializing and Accessing the Elements, Sets Operation.		15
Unit 4	**MODULES, FILES I/O,GUI** The Import Statement, Modules (Datetime, Calendar, Math Module) Files I/O: Text Files, Reading And Writing Files Introduction To GUI In Python		15
	Reference Books: 1. R. NageswaraRao, "Core Python Programming", Dreamtech 2. Practical Programming: An introduction to Computer Science Using Python, second edition, Paul Gries, Jennifer Campbell, Jason Montojo, The Pragmatic Bookshelf. 3. Programming with python, A users Book, Michael		

	Dawson, Cengage Learning	

DSE 504 Elective-I	**2. Emerging Trends in Database and Web Technology**	**Credits: 4**	**Marks:100**
Marks:100	Total Hours of Teaching: 60	External:70	Internal : 30
Course Outcomes	By the end of this course, the students should be able to: 1. Use XML and AJAX for asynchronous data transfer. 2. Describe the role of JQuery in Web application. 3. Differentiate between SQL and NoSQL database system. 4. Analyze given data using MongoDB.		
Unit No.	**Description**		**No. of Periods**
Unit 1	**Introduction to XML and AJAX** Introduction to XML, Working with Basics of XML: XML Tree, XML Syntax, XML Elements, XML Attributes, XML Namespaces, XML Display, XML Application, Overview of AJAX, AJAX components, Asynchronous Data Transfer with XML Http Request.		15
Unit 2	**Introduction to jQuery** JQuery Introduction, jQuery Syntax, jQuery Selectors, jQuery Events, jQuery Effects, jQuery and HTML contents, jQuery and CSS Classes, Working with jQuery and AJAX.		15
Unit 3	**Introduction to NoSQL** Introduction to NoSQL database, Types of NoSQL database, NoSQL data modeling, Benefits of NoSQL database, Comparison between SQL and NoSQL database system, NoSQL using MaongoDB.		15
Unit 4	**Working with MongoDB** Introduction to MongoDB shell, Basic data types, Running the MongoDB shell, MongoDB Client, ,Basic operations with MongoDB shell, Arrays, querying with MongoDB, find function, OR queries, Types specific querying, Aggregation in MongoDB.		15
	Reference Books 1. Teach yourself XML in 21 days, Steven Holzner, Sams. 2. Foundations of AJAX, Ryan Asleson and Natahniel T. Schutta, Apress 3. Learning from jQuery: Building on Core Skills, 2013, CallumMacrae, O'Reilly 4. Professional NoSQL, Shashank Tiwari, 2011, Wiley 5. Teach yourself NoSQL with MongoDB in 24 Hours, Brad Dayley, Sams		

Course Code: DSE 504	3. Ethical Hacking	Credit:-4	Marks 100
Marks:100	Total Hours of Teaching: 60	External:70	Internal : 30
Course Outcomes	After completion of the course, students should be able to: 1. Understand the risks in the computer systems and networks. 2. Identify and analyze problems in computer and networks security. 3. Identify security vulnerabilities and weaknesses 4. Develop security mechanisms to protect computer systems and networks.		
Unit No.	**Description**		**No. of Periods**
Unit 1	**Ethical Hacking** Introduction to Ethical Hacking, Objective of Ethical Hacking Need of Ethical hacking, Significance of ethical hacking for effective security management, Types of Hackers, Black Hat vs. Grey Hat vs. White Hat (Ethical) hacking		15
Unit 2	**Reconnaissance, Scanning and Enumeration** Attacks and Vulnerabilities, Asset, Access Control, CIA, Authentication, Authorization, Risk, Attack Surface, Security-Functionality-Ease of Use Triangle **Introduction to Reconnaissance:** Active and Passive Reconnaissance **Introduction to Scanning and Enumeration:** Scanning IP Address, Network and It's Services, Enumerating Open Ports - HTTP/S, SMB, SNMP, SMPT, Finding Vulnerabilities and It's Proof-of-Concept (POC)		15
Unit 3	**Types of vulnerabilities:** OWASP Top 10 : cross-site scripting (XSS), cross site request forgery (CSRF/XSRF), SQL injection, input parameter manipulation, broken authentication, sensitive information disclosure, XML, External Entities, Broken access control, Security Misconfiguration, using components with known vulnerabilities, Insufficient Logging and monitoring, OWASP Mobile Top 10, CVE Database, ARP Poisoning, DoS attack, SQL injection attack.		15
Unit 4	**Vulnerability Assessment and Penetration Testing (VAPT)** Process: Introduction to VA and PT, Threat modelling, Categories of Penetration Test, Tools used like WebInspect / Qualys, Nessus, differences in VA and PT.		15
	Reference Books: 1. Hacking: The Art of Exploitation by Jon Erickson 2. The Basics of Hacking and Penetration Testing: Ethical Hacking and Penetration Testing Made Easy by Patrick Engebretson 3. Certified Ethical Hacker Study Guide v9, Sean-Philip Oriyano, Sybex; Study Guide Edition,2016 4. CEH official Certified Ethical Hacking Review Guide, Wiley India Edition, 2007		
Course Code:	**1. Digital Marketing**	**Credit: 04**	**Marks:100**

GE 505 (Elective-II)			
Marks:100	Total Hours of Teaching: 60	External :70	Internal : 30

Course Outcomes (Cos):

At the end of the course the student should be able to:

1. Learn the applications of Digital Marketing
2. Analyze the different digital marketingavenues.
3. Examine digital marketingtools.
4. Build real life problems in the domain of digitalmarketing

Unit No.	Description	No. of Periods
I	**Digital Marketing**: Introduction, Definition, Meaning and Scope, Advantages of digital Medium over other media, Digital Marketing Plan. Digital Marketing Strategy-POEM framework, .Digital consumer behaviour.	15
II	**Search Marketing :**Introduction, Meaning, Types ,Basics of Search marketing, SEO-Working, Search Engine marketing (SEM) :Introduction, Meaning, Types of SEM, Difference between SEO and SEM, Overview of Google Ad words, Keywords research and analysis, Tracking the success of SEM Search Engine	15
III	**Types of Digital Marketing** **1.Mobile Marketing**: Different kinds of mobile marketing ,mobile marketing ecosystem **2. Social Media Marketing**: Different social Media Channels, Social media for various businesses B2C& B2B,Measuring social media ROI **3. Content Marketing**: story telling in Social media **4. E-Mail Marketing**: The basics of Email marketing 5. **Display Marketing**: Different Kinds of Display marketing , The display Marketing ecosystem	15
IV	**Affiliate Marketing**: Introduction, Meaning, Types of Affliate Mktg., Future of Digital Marketing, Technological advancements in Digital Marketing, Practical Applications of Digital Marketing.	15

Books Recommended:

1. Gupta Seema.-Digital Marketing,McGraw Hill Education(India) Pvt.Ltd.
2. AhujaVandana-Digital Marketing,Oxford University Press, 2015.
3. MohammedR.,—InternetMarketing,McGrawHill,NewYork,Vol.4,2001
4. Krishnamurthy,S.&Singh,N.(2005),TheInternationalE-MarketingFramework(IEMF)

Suggested Research Journal: Vikalp – IIMAhmedabad

- Boudreau,M.-C.&Watson,R.T.(2006),InternetAdvertisingStrategyAlignmentInternet Research,16,23-37.
- ImportantDigitalMarketingChannelsYouShouldKnowAbout".DigitalDoughnut.Retrieved17 October2015.

Course code: GE505(Elective II)	2. Management Information System	Credit:04	Marks:100
Marks:100	Total Hours of Teaching: 60	External :70	Internal : 30
Course Outcomes	After completion of this course students will be able to- 1.Understand the fundamental principles of information systems 2. Describe the types of management and decision making 3. Demonstrate different types of IS used in business. 4. Explain various applications of MIS		

UNIT No.	Description	No.ofPeriods
I	**Introduction to Information System** • Introduction to systems- definition, need, types, characteristic Definition of Information • Classification of Information • Need and importance of information system • Definition and Characteristics of information system • Role of information system in business	15
II	**Decision Making** • Decision Making Concepts, and Process, Types of Decisions • Behavioral Concepts in Decision Making • Organizational Decision-Making • MIS and Decision Making	15
III	**Types of Information System** • Introduction • Operational and Knowledge Level- TPS (Transaction Processing System), OAS (Office Automation System), KWS (Knowledge Work System) • Management and Strategic Level- • MIS (Management Information System-need characteristics, • DSS (Decision Support System)-need, characteristics, components, • ESS (Executive Support System)-need, characteristics	15
IV	**Applications of MIS** • Financial Information System • Human Resource Information System • Production Information System • Marketing Information System	15

	ReferenceBooks: 1.W. S. Jawadekar,Management Information Systems, 4th edition, McGraw Hill. 2. Ramesh Behl , James O" Obrien and George M. Marakas, Management Information Systems, 10th edition, McGraw Hill edition. 3. DR. Milind M. Oka. , Management Information Systems , Everest Publishing House	

Course Code: GE 505 Elective-II	**3. Knowledge Management**	**Credits: 04**	**Marks : 100**
Marks:100	Total Hours of Teaching: 60	External :70	Internal : 30
Course Outcomes	After completion of this course students will be able to - 1. Explain the fundamentals of knowledge management 2. Understand of the Knowledge Management life cycle. 3. Categorize the Knowledge Management tools. 4. Implement Knowledge Management in different sectors.		

Unit No.	**Description**	**No. of Periods**
I	**Introduction to Knowledge Management (KM):** • History of Knowledge Management, • Definition, scope and significance of Knowledge Management • BasicTypes of Knowledge, • Knowledge Management Processes • Knowledge Management Systems • Data-Information-knowledge-Wisdom relationship • Organizational impact on knowledge management • Factors influencing Knowledge Management.	15
II	**Knowledge Management Life Cycle** • Introduction & phases of Knowledge management life cycle • Principles of Knowledge Management • Techniques of Knowledge Management • Knowledge Application Systems • Knowledge Capture Systems • Knowledge sharing systems • Knowledge Discovery Systems	15
III	**Knowledge Management Techniques and Tools** • Organizational knowledge creation- Knowledge network, knowledge mapping tools- visual thinking software, concept map, • Knowledge Acquisition tools- e-mail, newsgroup, web-conferencing, IRC etc. • Organizational knowledge processing • Knowledge analysis- data mining, on-line data analytical processing	15
IV	**Knowledge Management and Industry perspective:** • Role of Information Technology in Knowledge Management Systems • Knowledge Management and E-commerce • Bench marking and Knowledge Management • Knowledge Management in Manufacturing and service industry, • KM roles and Responsibilities within organizations, • Future of Knowledge Management. • Future challenges for KM. • Careers in Knowledge Management	15

References:	•Knowledge Management, Sudhir Warier, Vikas Publishing House. • Web Warehousing & Knowledge Management, Mattison: Tata McGraw-Hill. • Knowledge management: An Evolutionary view, Becerra Fernandez: PHI. • Knowledge Management, Fernando: Pearson. • Knowledge Management, B. Rathan Reddy: Himalaya. • Knowledge Management, Tapan K Panda: Excel. • Knowledge Management systems, Barnes: Cengage. • The Knowledge Management tool kit, Tiwana: 2/e, Pearson Education. • Knowledge Management, Sislop: Oxford University Press,. • Knowledge Management, Debowski: Wiley Student Edition, Wiley Ind • Knowledge management, A Thothathri Raman, Excel books

CCL 506	Lab Course IX based on CC501	Credit:-2	Marks 50
Marks:50	Total Hours of Teaching:30	External : 50	
Course Outcomes:	1. Implement the Concept of OOP in Java through simple programs. 2. Implementation and Evaluation of concept related to class and inheritance, concept of Multiprogramming and Exception Handling.		
	List of Programs (Note: Students should certify & enclose minimum 10 programs in journal.)		
1	Java programs based on branching and looping statements.		
2	Java programs based Type Casting		
3	Java programs based on command line arguments		
4	Java programs based on constructors		
5	Java programs based on inheritance		
6	Java programs based on method overloading		
7	Java programs based on method overriding		
8	Java programs based on interfaces		
9	Java programs based on packages		
10	Java programs based on multithreading		
11	Java programs based on exception handling		

CCL 507	Lab Course-X Based on DSE504	Python Programming	Credit:-2
Marks:50	**Total Hours of Teaching:30**	**External : 50**	
Course Outcomes	After completion of this course student should be able to- 1. Demonstrate and use different Datatypes in Python. 2. Apply various built looping statements and Modules provided by Python.		
1.	Program to display name and address.		
2.	Program to Accept two number and display addition, subtraction, multiplication, division and modules.		
3.	Program to calculate factorial of given number.		
4.	Program to create a list of 100 numbers and separate those numbers in two different list one includes odd number other even.		
5.	Program to display maximum number and minimum number from given list		
6.	Program to demonstrate slicing.		
7.	Program to demonstrate set operators(union ,intersection, minus)		
8.	Program to print current date and time.		

9.	Program to Today's Year, Month, and Date
10.	Program to convert Date to String
11.	Program to display the Calendar of a given month.
12.	Program to display calendar of the given year.
13.	Program to demonstrate File input.
14.	Program to demonstrate file output
15.	Program two add two numbers using GUI.

Note: Students should certify & enclose minimum 10 programs in journal.

CCL 507	**Lab Course-X Based on DSE504**	**Emerging Trends in Database and Web Technology**	**Credit:-2**
Marks:50	Total Hours of Teaching:30	External : 50	
Course Outcomes:	After completion of this course student should be able to- 1. Demonstrate and use different types of XML files. 2. Apply various built in statements and queries to demonstrate AJAX and MongoDB		
	Practical List		
1	Program to view simple XML file.		
2	Program to prepare Food Menu using XML.		
3	Display Food Menu formatted with CSS file.		
4	Create a simple XMLHttpRequest and retrieve data from txt file.		
5	Create a simple XMLHttpRequest with callback function and retrieve text file data.		
6	Create a simple XMLHttpRequest and retrieve data from xml file.		
7	Write a JQuery program to demonstrate different selectors.		
8	Write a JQuery program to demonstrate different events.		
9	Write a JQuery program to set and get HTML contents and attributes.		
10	Write a JQuery program to set and return CSS properties.		
11	Write a JQuery program to demonstrate AJAX load() method.		
12	Write a JQuery program to demonstrate AJAX get() and post() method.		
13	Create and Drop database using MongoDB.		
14	Create and Drop collection using MongoDB.		
15	Insert document into a MongoDB collection.		
16	Implementing find function to query document in MongoDB collection		
17	Update document into a MongoDB collection.		
18	Delete document from a MongoDB collection.		
19	Sort documents in a MongoDB collection.		
20	Demonstrate Aggregation operations using a MongoDB.		

Note: Students should certify & enclose minimum 10 programs in journal.

CCL 507	**Lab Course-X Based on DSE504**	**Ethical Hacking**	**Credit:-2**
Marks:50	**Total Hours of Teaching:30**	**External : 50**	
Course Outcomes	After completion of this course student should be able to- 1. Implement the different methods in ethical hacking. 2. Understand security risks and it's impact using different tools		
1.	Use Google and Whois for Reconnaissance		
2.	Perform Google Dorking		
3.	Use CrypTool to encrypt and decrypt passwords using RC4 algorithm		
4.	Use Cain and Abel for cracking Windows account password using Dictionary attack and to decode wireless network passwords		
5.	Perform vulnerability analysis using Nessus tool		
6.	Run and analyze the output of following commands in Linux - ifconfig, ping, netstat, traceroute		
7.	Perform ARP Poisoning in Windows		
8.	Use NMap scanner to perform port scanning of various forms - ACK, SYN, FIN, NULL, XMAS		
9.	Use Wireshark (Sniffer) to capture network traffic and analyse		
10.	Use Nemesy to launch DoS attack		
11.	Simulate persistent cross-site scripting attack		
12.	Session impersonation using Firefox and Tamper Data add-on		
13.	Perform SQL injection attack		

Note : Student Should certify and enclose at least 10 programs in journal.

BCA-III (Sem-VI)

Course Code: CC 601	Cloud Computing	Credit:-4	Marks 100
Marks:100	Total Hours of Teaching: 60	External:70	Internal : 30

Course Outcomes (COs) : On completion of the course, the students will be able to:

CO1	Understand the fundamental principles of Cloud Computing.
CO2	Understand the importance of virtualization in distributed computing and how this has enabled the development of Cloud Computing.
CO3	Explain the core concepts of the cloud computing paradigm: how and why this paradigm shift came about, the characteristics, advantages and challenges brought about by the various models and services in cloud computing.
CO4	Describe cloud computing applications

Unit No.	Description	No. of Periods
Unit I	Introduction to Cloud Computing • Introduction • Roots of Cloud Computing • Layers and Types of Cloud • Desired Features of a Cloud • Platform as a Service Providers • Architecture of cloud computing • Challenges in the cloud • Types of Cloud : Private, Public, Hybrid	15
Unit II	Virtualization • Introducing virtualization and its benefits • Implementation Levels of Virtualization • Virtualization at the OS Model • Virtualization Structure: Hosted Structure, Bare-Metal Structure • Virtualization of CPU,Memory, and I/O Devices • Virtualization in Multicore Processors • Virtual Clusters and Resource management	15
Unit III	Cloud Computing Services • Infrastructure as a Service • Platform as a servive • Leveraging PaaS for productivity • Guidelines for selecting PaasPovider • Concern with PaaS • Language and PaaS • Software as a Servive • Database as a Service • Specialized Cloud Services	15
Unit IV	Cloud Computing Applications • Business Applications: MailChimp, Salesforce, Chatter,Paypal	15

	• Education Applications:Google Apps for Education,Chromebooks for Education,Tablets with Google Play for Education • Entertainment Applications:Online games, Video Conferencing Apps, • Social Applications:Facebook, Twitter, LinkedIn	

Books Recommended :

- Cloud Computing : Princi,ples and Paradigms
  RajkumarBuyya, James Broberg, AndrzejGoscinski, Willey Publication
- Cloud Comuting : Black Book
  KailashJayaswal, JagannathKallakurchi, Donald J. Houde, Dr. Deven Shah
- Cloud Computing : Bible
  Barrie Sosinsky, Willey Publication
- Cloud Computing : A Hands-On Approach
  ArshdeepBahga, Vijay Madisetti

Course Code: Elective I DSE 602	1. Internet of Things	Credit:-4	Marks 100
Marks:100	Total Hours of Teaching: 60	External :70	Internal : 30

Course outcomes

CO1 Understand the fundamentals of Internet of things.
CO2 Identify different components in IoT environment
CO3 Demonstrate Hardware and Software configuration for IoT using Arduino
CO4 Differentiate between different types of IoT applications using Arduino

Unit No.	Description	No. of Periods
Unit I:	**Fundamentals of IoT** Overview of basic electronics and basic components used in electronics lab: Resistors, Capacitors, Diodes, Transistors, Overview of digital electronics: Logic Gates and Families, Arithmetic circuits, Decoders, Multiplexers, flip flops, Shift Register, Integrated Circuits, Overview of Microprocessor and Microcontroller, Common features of Microcontroller.	15
Unit II:	**IoT Environment** Introduction to embedded system: History, Classifications and applications of embedded systems, Design principals of IoT architecture, Outline of IoT architecture, Various platforms of IoT, Key features of IoT, IoT Hardware, IoT Software, IoT protocols,Real time examples of IoT, Advantages of IoT, Challenges of IoT.	15
Unit III:	**Introduction to Arduino** Arduino Uno architecture, Pin configuration and architecture, Device and platform features, Concept of digital and analog ports, Familiarizing with Arduino Interfacing Board, Arduino IDE Interfacing basic hardware components with Arduino, Software and Libraries.	15
Unit IV:	**IoT Application Development** Arduino data types, Variables and constants, Operators, Control Statements, Arrays, Functions, Arduino i/o Functions: Pins Configured as INPUT, Pull-up Resistors, Pins Configured as OUTPUT, pinMode() Function, digitalRead() Function, digitalWrite() Function, analogRead() function, analogWrite() function, Arduino time Functions: delay() function, delayMicroseconds() function, millis() function, micros() function, Working with Serial Monitor.	15

Reference Books:

1. Olivier Hersent, David Boswarthick, Omar Elloumi , "The Internet of Things Key applicationsand Protocols", Wiley, 2012.
2. Vijay Madisetti and ArshdeepBahga, "Internet of Things (A Hands-on-Approach)",1st Edition, VPT, 2014
3. CunoPfister, Getting Started with the Internet of Things, O"Reilly Media, 2011, ISBN: 978-1-4493-9357-1
4. Arduino, The complete guide to Arduino for beginners, including projects, tips, tricks, and

programming!,James Arthur, 2020
5. Arduino Cookbook, Recipes to Begin, Expand, and Enhance Your Projects Michael Margolis, Brian Jepson, Nicholas Robert Weldin, O'Really, 3rd Edition, 2020

Course Code: Elective I DSE 602	**2.Android Programming**	**Credit:-4**	**Marks 100**
Marks:100	Total Hours of Teaching: 60	External :70	Internal : 30

Course Outcomes

CO1: Understand the building blocks of Mobile Operating Systems
CO2: Analyze different elements of Android Development Environment
CO3: Illustrate the structure of Mobile Applications using Android
CO4:Identify different components used in Mobile Applications using Android

Unit No.	**Description**	**No. of Periods**
Unit I	**Introduction to Mobile Operating System** Mobile operating system, Operating system structure, Constraints and Restrictions, Features: Multitasking Scheduling, Memory Allocation, File System Interface, Keypad Interface, I/O Interface, Protection and Security, Multimedia features. Brief history of Android, Different types of mobile applications	**15**
Unit II:	**Android Development Environment** Introduction to Mobile development IDE's, Setting up development environment, Android Software Development, Working with the AndroidManifest.xml, Dalvik Virtual Machine & .apk file extension, Android Architecture, Building a sample Android application using Android Studio. Android Project Structure, Working with emulator.	**15**
Unit III:	**Android Application Framework** Layouts &Drawable Resources, Basic Building blocks - Activities and Activity lifecycle, UI Components - Views & Notifications, Components for communication -Intents & type of Intents, Android API levels (versions & version names), Developing sample Application	**15**
Unit IV:	**Basic UI design** Form widgets, Text Fields, Layouts, Option menu, Context menu, Sub menu, Time and Date, Images and media, Composite, Alert Dialogs & Toast, Popup, Introduction to SQLite Programming, SQLite Database.	**15**

Reference Books:

1. AnubhavPradhan, Anil V Deshpande, " Mobile Apps Development" Edition:I
2. Teach Yourself Android Application Development In 24 Hours, Edition:I, Publication: SAMS
3. Jeff McWherter, Scott Gowell "Professional Mobile Application Development", John Wiley & Sons, 2012.

4. Barry Burd, "Android Application Development All in one for Dummies", Edition:I

Course Code: Elective I DSE 602	3. R Programming	Credit:-4	Marks 100
Marks:100	Total Hours of Teaching: 60	External :70	Internal : 30

Course Outcomes:	At the end of this course, student will be able to: 1. Understand the fundamental syntax of R through practice exercises. 2. Describe the control statements and functions in R. 3. Analyze a data set in R and represent findings using the appropriate R packages. 4. Use data visualization tools.	
Unit No.	**Description**	**No. of Periods**
1	**Introduction to R:** Installation of R &RStudio, Features of R, Variables, Constants, Operators in R, Datatypes and R Objects, Accepting Input, Important Built-in functions, Creating Vectors, Accessing elements of a Vector, Operations on Vectors, Vector Arithmetic.	15
2	**Control statements and functions:** Control statements: if...else, if else() function, switch() function, repeat loop, while loop, for loop, break statement, next statement, Formal and Actual arguments, Named arguments, Global and local variables, Argument and lazy evaluation of functions, Recursive functions. Creating strings, paste(), Formatting numbers and string using format(), String manipulation	15
3	**Matrices, Arrays and Data frames:** Creating matrices, Accessing elements of a Matrix, Operations on Matrices, Matrix transpose, Creating arrays, Accessing array elements, Calculations across array elements, Introduction to data frames and basic operations on data frames.	15
4	**Introduction to Data Visualization:**Data visualization basics, Installing and loading packages, importing data, Working with missing data, Extracting a subset of a data frame, Scatter Plot, Box Plot, Bar plot. Plotting categorical data, Stacked bar plot, Histogram, plot() function and line plot, pie chart / 3D pie chart.	15
	Reference Books: 1. R Programming for Data Science Peng, R.D. (2020) Bookdown: New York. 2. An Introduction to Statistical Learning by Gareth James (2017) Publisher: Springer 3. R for Data Science by Garrett Grolemund and Hadley Wickham, Publisher: O'Reilly Media, Inc. 2017. 4. R Fundamentals by Sosulski, K. (2018) Bookdown: New York. 5. Discovering Statistics Using R by Andy P. Field, SAGE Publications Limited.	

Course Code: Elective-II GE 603	1. IT Management	Credit:-4	Marks 100
Marks:100	Total Hours of Teaching: 60	External :70	Internal : 30

Course Outcomes:	After completion of course student will be able to: 1) Understand IT assets and describe functions of IT Department 2) Identify IT infrastructure components. 3) Describe network infrastructure components and security management activities. 4) Demonstrate best practices and operational processes in Data Centre Management.	
Unit No.	**Description**	**No. of Periods**
1	**Information Technology Assets and IT Department Organization** Introduction to IT, Components of IT, IT Assets, Types of IT Assets, Need and Significance of IT Asset Management. Organization of IT Department – set up , roles & responsibilities , Interfacing with other functional departments , Functions of IT Management Department. IT Professionals- Recruitment, Background checking, segregation of duties, compulsory vacation etc	15
2	**IT Infrastructure Management** Introduction to IT Infrastructure, Infrastructure Components (Hardware, Software, Network), Need and significance of Infrastructure Management, Hardware infrastructure management: Selecting, installing, deploying, maintaining, and configuring all the hardware in the infrastructure. Software Infrastructure Management: Selecting, installing, deploying, maintaining, and configuring all the software's in the infrastructure. Software Licensing issues, Licensing options	15
3	**Network Infrastructure and Security Management:** Network infrastructure Components, Selecting, installing, deploying, maintaining, and configuring all the network components in the infrastructure Need and significance of Security Management, IS security planning, Security program, Risk management and control , Formation of SOC, Organization of Responsibilities of SOC.	15
4	**Data Centre Management:** Introduction to Data Centre, Need and significance to Data centre, Types of Data Centre (Tier I, Tier II, Tier III, Tier IV), Regulations, best practices and operational processes, Introduction to virtualization.	15
	Reference Books: 1. Information Technology for Management : henry C. Lucas Jr. Tata McHill 2. Information Technology Planning – Lori A.Goetsch - Jaiko Books 3. Planning & Financial Management of IT–Frank Bakhister–British Library catalogue in Publish of Data 4. Information Technology for Management – John Wiley & SMS (ASIA) PAC Lts. Singapore	

	5. Management of Technology – Zafar Husain Sushil ,RD Patnaik , ANMOL Publication Pvt.Ltd., New Delhi -110002 6. Data Centre Handbook by Hwaiyu Geng PE 7.Data Centre Management: Your Guide to Efficient Data Centre Operation	

Course Code: Elective-II GE 603	**2. ERP**	**Credit:-4**	**Marks 100**
Marks:100	Total Hours of Teaching: 60	External :70	Internal : 30

CourseOutcomes	After completion of this course student should be able to- 1. Understand concept, need and significance of ERP. 2. Demonstrate different ERP models with their subsystem 3. Evaluate features of ERP products, select ERP application and plan ERP project. 4. Describe organizational opportunities and challenges in the design system within a business scenario.

UNITNo.	**Description**	**No.ofPeriods**
1	**Business Process Reengineering:** Meaning and definition of BPR, Need of BPR , Business process, BPR Phases	15
2	**Introduction to ERP:** Introduction ,concept and definition of ERP, direct and indirect benefits of ERP, ERP Evolution, Conceptual Model of ERP, ERP models and subsystems	15
3	**ERP Implementation**: ERP implementation life cycle, ERP implementation phases Selection criteria of ERP, role of consultant in ERP implementation, ERP implementation strategies, costs in ERP implementation, Critical success and failure factors of ERP implementation.	15
4	**ERP Marketplace Dynamics**: Market Overview, Marketplace Dynamics, the Changing ERP Market. Introduction to SAP and Oracle ERP packages with their key features and subsystems.	15
	ReferenceBooks: 1. Alexis Leon, "ERP Demystified", Tata McGraw Hill 2. Rahul V. Altekar "Enterprise Resource Planning", Tata McGraw Hill, 3. Vinod Kumar Garg and Venkitakrishnan N K, "Enterprise Resource Planning – A Concepts and Practice", PHI 4. Mary Summer, "Enterprise Resource Planning"- Pearson Education	

Course Code: Elective-II GE 603	3. M - Commerce	Credit:-4	Marks 100
Marks:100	Total Hours of Teaching: 60	External :70	Internal : 30

Course Outcomes	After completion of this course students will be able to - 1) Understand the concepts and scope of E- Commerce. 2) Differentiate between m commerce and E-Commerce. 3) Describe M commerce applications in industry. 4) Explain security issues and control measures in M-commerce.

Unit No.	Descriptions	No. of Periods
1	**E-Commerce** Introduction, meaning and definition of E-Commerce, Brief history of E-Commerce, Need of Ecommerce, Advantages and limitations of e-commerce, Role of ecommerce in industries, Requirements of E-Commerce, Scope of E – Commerce, , E-commerce Models(B2B,B2C,C2B,C2C,B2G,G2B)	15
2	**Mobile Commerce** Introduction, scope of mobile—commerce, applications of m-commerce, . Principles of mobile commerce, benefits of mobile commerce, limitations of mobile commerce, E-commerce vs. M-commerce	15
3	**Mobile Commerce: Theory and Applications** The Ecology Of Mobile Commerce – The Wireless Application Protocol – Mobile Business Services – Mobile Portal – Factors Influencing The Adoption of Mobile Gaming Services – Mobile Data Technologies And Small Business Adoption And Diffusion – E–commerce in The Automotive Industry – Location– Based Services: Criteria For Adoption And Solution Deployment – The Role of Mobile Advertising In Building A Brand – M–commerce Business Models	15
4	**Mobile Commerce Security** Introduction to Web security, Security threats in M-commerce, Control measures in mobile commerce. (Firewalls & Transaction Security. Multilevel authentications) Security Challenges in M –Commerce.	15

REFERENCES

1. P. J. Louis, "M-Commerce Crash Course", McGraw- Hill Companies February 2001.
2. Paul May, "Mobile Commerce: Opportunities, Applications, and Technologies Of Wireless Business" Cambridge University Press March 2001.
3. Gary Schneider, Electronic Commerce, Thomson Publishing. ISBN-10: 1-4239-0305-6
4. Pandey, Srivastava and Shukla, E-Commerce and its Application, S. Chand
5. P.T. Joseph, Electronic Commerce – An Indian Perspective, P.H.I Bharat Bhaskar, Electronic Commerce, TMH

Course Code: AEC 604	**Soft Skills & Personality Development**	**Credit:-2**	**Marks 50**
Marks:100	Total Hours of Teaching: 30	External:	Internal : 50

Course Outcomes	After completion of this course students will be able to - 1. Reflect on the importance of Professional behavior. 2. Articulate and adapt the various facets that make up one's personality.	
UNIT No.	**Description**	**No. of Periods**
1	**Soft Skills:** Introduction and Importance; Difference between Hard skills and Soft Skills; Need of Soft Skills at the Workplace; Soft Skills for Professional Excellence: Communicative Skills, Critical Thinking and Problem Solving Skills, Team Work,Attitude- steps to build a Positive Attitude, Leadership skill, Time Management- Pareto's Principle; Stress Management	15
2	**Personality Development:** Introduction and Importance; Discovering Oneself, SWOT Analysis; Developing Interpersonal Relationships- ways to build Strong Inter Relationships; Etiquette and Manners- Professional Etiquette, Email Etiquette and Telephonic Etiquette ,Dressing, Grooming and Body Language;Group Discussion- Expectations of the Panel, Do's & Don'ts in a Group Discussion: Differences between Group Discussion and a Debate ; Resume Building; Facing The Personal Interview	15
	Reference Books: 1. Andrews, Sudhir. How to Succeed at Interviews. 21st (rep.) New Delhi.Tata McGraw-Hill 1988. 2. Heller, Robert. Effective leadership. Essential Manager series. Dk Publishing, 2002 3. Hindle, Tim. Reducing Stress. Essential Manager series. Dk Publishing, 2003 4. Lucas, Stephen. Art of Public Speaking. New Delhi. Tata - Mc-Graw Hill. 2001 5. Mile, D.J Power of positive thinking. Delhi. Rohan Book Company, (2004). 6 Dr.K.K. Ramachandran and Dr.K.K. Karthick, From Campus to Corporate, Macmillan Publishers India Limited, New Delhi,2010. 7. Smith, B . Body Language. Delhi: Rohan Book Company. 2004 8. Essentials of Business Communication - Rajendra Pal and J. S. Korlhalli - Sultan Chand & Sons, New Delhi. 9. Personality Development and Career management: By R.M.Onkar (S Chand Publications)	

	10. Managing Soft Skills For Personality Development---B.N. Ghosh---- McGraw Hill Education 11.Personality Development, Interpersonal Skills and Career Management---Dr. C.S.G. Krishnamacharyulu and Dr. LalithaRamakrishnan ---- Himalaya Publishing House Pvt.Ltd. 12.Personality Development –R.C. Bhatia--- Ane Books Pvt.Ltd. 13.Soft Skills: An Integrated Approach to Maximise Personality ---Gajendra Singh Chauhan---Wiley Publisher. **Nature of Internal Evaluation** Mock Interview 10 Marks Role Play 10 Marks Group Discussion 10 Marks Written Assignment 10 Marks Listening Activity 10 Marks

Course Code: AEC 605	**Industrial Visit**	**Credit: 01**	**Marks:25**
Marks:25	Total Industrial Visits :2	External:	Internal : 25
Course Outcomes:	At the end of the course the student should be able to: 1. Linking existing knowledge with learning experience 2. Examining the gap between classroom theoretical training and practical learning in a real-life environment.		

	Industrial Visit Report	
	Industrial visit report may include following- ➢ Company Profile ➢ Objectives of visit ➢ Observations ➢ Details of Journey ➢ Photographs at company location ➢ Visit outcomes	

CCL 606	Lab Course XI based on DSE602	Internet of Things	Credit:-4
Marks:100	Total Hours of Teaching:60	External : 100	

Course outcomes

CO1: Demonstrate the circuit configuration for IoT applications using Arduino boards.

CO2: Apply the different functions provided in Arduino libraries for execution of IoT applications

1. Program to Turn an LED on and off every second.
2. Program to read a switch, print the state out to the Arduino Serial Monitor.
3. Program to demonstrate the use of analog output to fade an LED.
4. Program to Read an analog input and prints the voltage to the Serial Monitor.
5. Program to Blink an LED without using the delay() function.
6. Program for a pushbutton to control an LED.
7. Program for the use of INPUT_PULLUP with pinMode()
8. Program to Count the number of button pushes.
9. Program using Analog Input to Read an analog input pin to dim or brighten an LED.
10. Program using Analog Input to control the blinking of an LED with photoresistor.

Reference

- **https://docs.arduino.cc/built-in-examples/**

Note: Students should certify & enclose minimum 10 programs in journal.

CCL 606	Lab Course XI based on DSE602	Android Programming	Credit:-4
Marks:100	Total Hours of Teaching:60	External : 100	

Course outcomes

CO1: Design Mobile Applications using different UI components in Android.

CO2: Apply Android Application Framework to develop mobile applications

1. Create android application to display Hello World message.
2. Create android application to demonstrate Activity Life Cycle.
3. Create android project to design one activity using different controls.
   - Text View
   - Edit Text
   - Button
   - Image View
4. Create Android Application to demonstrate following layouts:
   - Linear Layout
   - Relative Layout
   - Relative Layout
   - Table Layout
5. Display toast message after click button.
6. Create simple arithmetic calculator in android.
7. Enter your name on one activity and display it on another activity.
8. Create Android application to demonstrate Alert dialog.
9. Create Android application to demonstrate popups.
10. Create one activity in your android application to implement all CURD operations on SQLite database. (Take any database example)

Reference

https://www.tutorialspoint.com/android/index.htm

Note: Students should certify & enclose minimum 10 programs in journal.

CCL 606	Lab Course XI based on DSE602	R Programming	Credit:-4
Marks:100	Total Hours of Teaching:60	External : 100	

Course outcomes

CO1: Apply syntax of R through practice exercises.
CO2: Implement the control statements, functions, data visualization. in R.

Practical's:

1. Import a variety of data formats into R.
2. Execute statistical analyses with R.
3. Apply data science concepts and methods using R to solve problems in real-world contexts and will communicate these solutions effectively.

Basic R Programs:

1. Find the factorial of a number
2. Check whether a number is prime or not
3. Find Sum, Mean and Product of Vector
4. Generate Random Number from Standard Distributions
5. Find Minimum and Maximum
6. Check Armstrong Number
7. Sum of Natural Numbers Using Recursion
8. Print the Fibonacci Sequence
9. Check for Leap Year
10. Check whether number is Odd or Even
11. Check if a Number is Positive, Negative or Zero
12. Find the Sum of Natural Numbers
13. Convert Decimal into Binary using Recursion in R
14. Find the Factorial of a Number Using Recursion
15. R Program to Find H.C.F. or G.C.D.

Data Visualization basic practical's:

Download **mtcars dataset in R**. (also available on GitHub) and create the following graphics:

1. Create a pie chart showing the proportion of cars from the mtcars data set that have

different cylinder (cyl) values.

2. Create a bar graph, that shows the number of each carb type in mtcars.
3. Show a stacked bar graph of the number of each gear type and how they are further divided out by cyl.
4. Draw a scatter plot showing the relationship between wt and mpg.

Design a visualization of your choice using the data and write a brief summary about why you chose that visualization.

Note: Students should certify & enclose minimum 10 programs in journal.

CCL 607	**Major Project**	**Credit:-5**	**Marks:125**
Marks:125	Total Hours of working on Project :75	External : 100	Internal: 25

Guidelines for Major Project Work :

Number of Copies: The student should submit two Hard-bound copies of the Project Report.

Acceptance/Rejection of Project Report:

The student must submit an outline of the project report to the college for approval. The college holds the right to accept the project or suggest modifications for resubmission. Only on acceptance of draft project report, the student should make the final copies.

Format of the Project Report:

The student must adhere strictly to the following format for the submission of the Project Report.

a. Paper:

The Report shall be typed on white paper, A4 size, for the final submission. The Report to be submitted to the must be original and subsequent copies may be photocopied on any paper.

b. Typing:

The typing shall be of standard letter size, 1.5 spaced and on one side of the paper only. (Normal text should have Arial Font size 11 or 12. Headings can have bigger size).

c. Margins:

The typing must be done in the following margins:
Left -----1.5 inch, Right ----- 1 inch
Top ----- 1 inch, Bottom ----- 1 inch

d. Front Cover:

The front cover should contain the following details:
TOP : The title in block capitals of 6mm to 15mm letters.
CENTRE: Full name in block capitals of 6mm to 10mm letters.
BOTTOM: Name of the University, Course, Year of submission -all in block capitals of 6mm

to 10mm letters on separate lines with proper spacing and centering.

f. Blank Sheets:

At the beginning and end of the report, two white black bound papers should be provided, one for the purpose of binding and other to be left blank.

Appendix - 2

- Input Design
- Report Design
- Implementation
- Testing

Standard Project Report Documentation Format

a) Covering Page
b) Institute/College certificate
c) Guide Certificate
d) Student declaration
e) Acknowledgement
f) Index (Chapter Scheme)
g) Chapter Scheme (Index)
1) Introduction to Project
-Introduction
-Existing System
-Need and scope of System
-Organization Profile
2) Proposed System
-Objectives
-Requirement Engineering.
- Requirement Gathering.
- SRS

3) System Diagrams
- DFD
- ERD
- UML(if applicable)

System Requirements
- Hardware
- Software

4) System Design
- Database Design
- Input Design
- Output Design

5) User Guideline
- Installation process

6) Source Code
7) Outputs-
Input screens and Reports (with valid Data)
7) Conclusion and Suggestions
- Conclusion and suggestions

• Future enhancement
Bibliography:
Note : Minimum 5 reports are essential as outputs of the project work done by the student..

SHIVAJI UNIVERSITY, KOLHAPUR.

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Accredited By NAAC with 'A' Grade

CHOICE BASED CREDIT SYSTEM

Syllabus For

B.Sc. Part - I
ZOOLOGY

SEMESTER I AND II

(Syllabus to be implemented from June, 2018 onwards.)

B. Sc. Part – I Semester – I

ZOOLOGY

DSC – 15A (ANIMAL DIVERSITY-I)

Theory: 30 hrs. (37.5 lectures of 48 minutes)

Marks-50 (**Credits: 02**)

Unit 1:

Kingdom Protista **(3 hrs.)**

General characters and classification up to classes; Locomotory Organelles and locomotion in Protozoa

Phylum Porifera **(3 hrs.)**

General characters and classification up to classes; Canal System in *Sycon*

Phylum Cnidaria **(3 hrs.)**

General characters and classification up to classes; Polymorphism in Hydrozoa

Phylum Platyhelminthes **(3 hrs.)**

General characters and classification up to classes; Life history of *Taenia solium and its parasitic adaptationns*

Phylum Nemathelminthes **(3 hrs.)**

General characters and classification up to classes; Life history of *Ascaris lumbricoides* and its parasitic adaptations

Unit 2:

Phylum Annelida **(3 hrs.)**

General characters and classification up to classes; Metamerism in Annelida

Phylum Arthropoda **(5 hrs.)**

General characters and classification up to classes; Vision in Arthropoda, Metamorphosis in Insects

Phylum Mollusca **(3 hrs.)**

General characters and classification up to classes; Torsion in gastropods

Phylum Echinodermata **(4 hrs.)**

General characters and classification up to classes; Water-vascular system in Asteroidea

B. Sc. Part – I Semester – I

ZOOLOGY

DSC – 16 A (ANIMAL PHYSIOLOGY)

Theory: 30 hrs. (37.5 lectures of 48 minutes)
Marks-50 (**Credits: 02**)

Unit 1:

Nerve and muscle **(9 hrs.)**

Structure of a neuron, Resting membrane potential, Origin of Action potential and its propagation in non-myelinated nerve fibers, Ultra-structure of skeletal muscle, Molecular and chemical basis of muscle contraction

Digestion **(6 hrs.)**

Physiology of digestion in the alimentary canal; Absorption of carbohydrates, proteins, lipids

Unit 2:

Respiration

Pulmonary ventilation, Transport of Oxygen and carbon dioxide in blood **(4 hrs.)**

Excretion **(5 hrs.)**

Structure of nephron, Mechanism of Urine formation, Counter-current Mechanism

Cardiovascular system **(6 hrs.)**

Composition of blood, Structure of Heart, Origin and conduction of the cardiac impulse, Cardiac cycle

Total Periods – 60

Suggested Readings :

Ruppert and Barnes, R.D. (2006). *Invertebrate Zoology*, VIII Edition. Holt Saunders International Edition.

- Barnes, R.S.K., Calow, P., Olive, P.J.W., Golding, D.W. and Spicer, J.I. (2002). *The Invertebrates: A New Synthesis*, III Edition, Blackwell Science
- Young, J. Z. (2004). *The Life of Vertebrates*. III Edition. Oxford university press.
- Pough H. *Vertebrate life,* VIII Edition, Pearson International.
- Hall B.K. and Hallgrimsson B. (2008). *Strickberger's Evolution*. IV Edition. Jones and Bartlett Publishers Inc.

Tortora, G.J. and Derrickson, B.H. (2009). *Principles of Anatomy and Physiology*, XII Edition, John Wiley & Sons, Inc.

- Widmaier, E.P., Raff, H. and Strang, K.T. (2008) *Vander's Human Physiology*, XI Edition., McGraw Hill
- Guyton, A.C. and Hall, J.E. (2011). T*extbook of Medical Physiology*, XII Edition, Harcourt Asia Pvt. Ltd/ W.B. Saunders Company

B. Sc. Part – I Semester – II

ZOOLOGY

DSC – 15B (CELLBIOLOGYAND EVOLUTIONARY BIOLOGY))

Theory: 30 hrs. (37.5 lectures of 48 minutes)

Marks -50(**Credits: 02)**

CELL BIOLOGY & EVOLUTIONARY BIOLOGY

UNIT – 1

Cell structure- **(2 hrs.)**

Cell theory and diversity in cell size and shape

Structure of nucleus – **(2 hrs.)**

Nucleus with reference to Nuclear membrane, Nucleoplasm, Chromatin and nucleolus.

Structure of Chromosome - **(3 hrs.)**

With reference to Morphology and organization (Nucleosome), Polytene Chromosomes

Ultra structure and functions of the following **(8 hrs.)**

Plasma membrane (Fluid Mosaic Model)

Mitochondria

Endoplasmic reticulum

Golgi complex

Lysosome

Unit 2:

History of Life **(2 hrs.)**

Major Events in History of Life

Introduction to Evolutionary Theories **(5 hrs.)**

Lamarckism, Darwinism, Neo-Darwinism

Direct Evidences of Evolution **(4 hrs.)**

Types of fossils, Incompleteness of fossil record, Dating of fossils

Extinction **(4 hrs.)**

Mass extinction (Causes, Names of five major extinctions, K-T extinction in detail), Role of extinction in evolution

B. Sc. Part – I Semester – II

ZOOLOGY

DSC – 16B (GENETICS)

Theory: 30 hrs. (37.5 lectures of 48 minutes)

Marks -50(**Credits: 02)**

Unit 1:

Introduction to Genetics **(3 hrs.)**

Mendel's work on transmission of traits, Genetic Variation, Molecular basis of Genetic Information

Mendelian and post Mendelian Genetics **(8 hrs.)**

Principles of Inheritance, Incomplete dominance and co-dominance,gene interaction, Multiple alleles w.r.t. ABO, Rh blood groups and coat colour in rabbit, sex linked inheritance.

Linkage, Crossing Over **(4 hrs.)**

Linkage and process of crossing over, Coupling and repulsion theory, Cytological evidence of crossing over.

Unit 2:

Mutations **(6 hrs.)**

Chromosomal Mutations: Deletion, Duplication, Inversion, Translocation, Aneuploidy and Polyploidy, induced gene mutation.

Sex Determination **(9 hrs.)**

Sex Chromosomal theory of sex determination, Genic balance theory, Haploidy Diploidy mechanism, Environmental sex determination, dosage compensation.

Total Periods – 60

Suggested Readings :

- De Robertis EDP and De Robertis EME – Cell and Molecular Biology
- C.B. Powar – Cell Biology, Himalaya Pub. House
- Verma P. S. and Agarwal V. K. – Genetics, S. Chand and Company
- Strickberger – Genetics. C Millian Publications
- Winchester – Genetics, Oxford Publication
- Cell Biology – Dr. N. Arumugam
- Genetics by P.P. Meyyan
- P. S. Varma & V. K. Agarwal – Cell Biology, Genetics, Molecular Biology,

- Evolution and Ecology
- R. P. Meyyan, N, Arumugam – Genetics & Evolution
- P. K. Gupta – Cell and Molecular Biology
- Gardner, E.J., Simmons, M.J., Snustad, D.P. (2008). *Principles of Genetics*. VIII Edition. Wiley India.
- Snustad, D.P., Simmons, M.J. (2009). *Principles of Genetics*. V Edition. John Wiley and Sons Inc.
- Klug, W.S., Cummings, M.R., Spencer, C.A. (2012). *Concepts of Genetics*. X Edition. Benjamin Cummings.
- Russell, P. J. (2009). *Genetics- A Molecular Approach.* III Edition. Benjamin Cummings.
- Griffiths, A.J.F., Wessler, S.R., Lewontin, R.C. and Carroll, S.B. *Introduction to Genetic Analysis*. IX Edition. W. H. Freeman and Co.
- Ridley, M. (2004). *Evolution*. III Edition. Blackwell Publishing
- Barton, N. H., Briggs, D. E. G., Eisen, J. A., Goldstein, D. B. and Patel, N. H. (2007). *Evolution*. Cold Spring, Harbour Laboratory Press.
- Hall, B. K. and Hallgrimsson, B. (2008). *Evolution*. IV Edition. Jones and Bartlett Publishers
- Campbell, N. A. and Reece J. B. (2011). *Biology*. IX Edition, Pearson, Benjamin, Cummings.
- Douglas, J. Futuyma (1997). *Evolutionary Biology*. Sinauer Associates.

B. Sc. Part – I

ZOOLOGY PRACTICALS

Marks -50 (**Credits: 02**)

DSC– 15A and 16 A : LAB

1. Study of the following specimens:

i. Study of *Amoeba, Euglena, Plasmodium, Paramecium,* w.r.t. classification and locomotion

ii. Study of Sycon, *Hyalonema,* and *Euplectella, Obelia, Physalia, Aurelia, Tubipora, Metridium, Taenia solium,* Male and female *Ascaris lumbricoides, Aphrodite, Nereis, Pheretima, Hirudinaria, Palaemon, Cancer, Limulus, Palamnaeus, Scolopendra, Julus, Periplaneta, Apis, Chiton, Dentalium, Pila, Unio, Loligo, Sepia, Octopus, Pentaceros, Ophiura, Echinus, Cucumaria* and *Antedon,* w.r.t. classification and morphological peculiarities.

2. Study of the following :

i. T.S. and L.S. of *Sycon,*

ii. Life history *Taeni and Ascaris* and their parasitic adaptations.

3. Preparation of hemin and hemochromogen crystals.

4. Study Tour : Visit to Natural History Museum and submission of report.

DSC– 15Band 16B : LAB

5. Identification of ABO and Rh blood groups.

6. Cytological Preparations.:

Mitochondria – Stained preparation of mitochondria from onion peeling / Hydrilla leaf / Oral mucosa by using Janus Green B.

Polytene Chromosome – Stained preparation of Polytene chromosome in chironomous larva/ Drosophila larva.

7. Study of fossil evidences from plaster cast models and pictures.

8. Darwin's Finches with diagrams/ cut outs of beaks of different species.

9. Study of Mendelian Inheritance and gene interactions (Non Mendelian Inheritance) using suitable examples. Verify the results using Chi-square test, Study of Linkage, recombination, gene mapping using the data (Minimum 10 Examples on Mono, Dihybrid ratio, Incomplete dominance, Co-dominance, Multiple alleles, Sex linked inheritance, Linkage and Crossing over and Gene interaction).

10. Study of Human Karyotypes.

SUGGESTED READINGS

- Ruppert and Barnes, R.D. (2006). *Invertebrate Zoology*, VIII Edition. Holt Saunders International Edition.
- Barnes, R.S.K., Calow, P., Olive, P.J.W., Golding, D.W. and Spicer, J.I. (2002). *The Invertebrates: A New Synthesis*, III Edition, Blackwell Science
- Young, J. Z. (2004). *The Life of Vertebrates*. III Edition. Oxford university press.
- Pough H. *Vertebrate life,* VIII Edition, Pearson International.
- Hall B.K. and Hallgrimsson B. (2008). *Strickberger's Evolution*. IV Edition. Jones and Bartlett Publishers Inc.

Practical Zoology by Kotpal.

Practical Zoology by Verma and Agarwal.

Physiology by C. C. Chattarji.Vol. I & II.

SCHEME OF MARKING (THEORY)

SEM	Core Course	Evaluation	Marks	Total Marks	Answer Books	Standard of passing(Min)
I	DSC - 15A	Semester wise	50	100	As per Instructions	35
	DSC - 16A	Semester wise	50			
II	DSC - 15B	Semester wise	50	100	As per Instructions	35
	DSC - 16B	Semester wise	50			

SCHEME OF MARKING (PRACTICAL)

Practical examination is annul

SEM	Course	Marks	Evaluation	Sections	Standard of passing
I and II	DSC – A(DSC 15A and DSC 16A) Lab and DSC - B (DSC 15B and DSC 16B) Lab	50	Annual	As per Instructions	35%

SHIVAJI UNIVERSITY, KOLHAPUR.

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Accredited By NAAC with 'A' Grade

CHOICE BASED CREDIT SYSTEM

Syllabus For

B.Sc. Part - I
ZOOLOGY

SEMESTER I AND II

(Syllabus to be implemented from June, 2018 onwards.)

B. Sc. Part – I Semester – I

ZOOLOGY

DSC – 15A (ANIMAL DIVERSITY-I)

Theory: 30 hrs. (37.5 lectures of 48 minutes)

Marks-50 (**Credits: 02**)

Unit 1:

Kingdom Protista **(3 hrs.)**

General characters and classification up to classes; Locomotory Organelles and locomotion in Protozoa

Phylum Porifera **(3 hrs.)**

General characters and classification up to classes; Canal System in *Sycon*

Phylum Cnidaria **(3 hrs.)**

General characters and classification up to classes; Polymorphism in Hydrozoa

Phylum Platyhelminthes **(3 hrs.)**

General characters and classification up to classes; Life history of *Taenia solium and its parasitic adaptationns*

Phylum Nemathelminthes **(3 hrs.)**

General characters and classification up to classes; Life history of *Ascaris lumbricoides* and its parasitic adaptations

Unit 2:

Phylum Annelida **(3 hrs.)**

General characters and classification up to classes; Metamerism in Annelida

Phylum Arthropoda **(5 hrs.)**

General characters and classification up to classes; Vision in Arthropoda, Metamorphosis in Insects

Phylum Mollusca **(3 hrs.)**

General characters and classification up to classes; Torsion in gastropods

Phylum Echinodermata **(4 hrs.)**

General characters and classification up to classes; Water-vascular system in Asteroidea

B. Sc. Part – I Semester – I

ZOOLOGY

DSC – 16 A (ANIMAL PHYSIOLOGY)

Theory: 30 hrs. (37.5 lectures of 48 minutes)
Marks-50 (**Credits: 02**)

Unit 1:

Nerve and muscle **(9 hrs.)**

Structure of a neuron, Resting membrane potential, Origin of Action potential and its propagation in non-myelinated nerve fibers, Ultra-structure of skeletal muscle, Molecular and chemical basis of muscle contraction

Digestion **(6 hrs.)**

Physiology of digestion in the alimentary canal; Absorption of carbohydrates, proteins, lipids

Unit 2:

Respiration

Pulmonary ventilation, Transport of Oxygen and carbon dioxide in blood **(4 hrs.)**

Excretion **(5 hrs.)**

Structure of nephron, Mechanism of Urine formation, Counter-current Mechanism

Cardiovascular system **(6 hrs.)**

Composition of blood, Structure of Heart, Origin and conduction of the cardiac impulse, Cardiac cycle

Total Periods – 60

Suggested Readings :

Ruppert and Barnes, R.D. (2006). *Invertebrate Zoology*, VIII Edition. Holt Saunders International Edition.

- Barnes, R.S.K., Calow, P., Olive, P.J.W., Golding, D.W. and Spicer, J.I. (2002). *The Invertebrates: A New Synthesis*, III Edition, Blackwell Science
- Young, J. Z. (2004). *The Life of Vertebrates*. III Edition. Oxford university press.
- Pough H. *Vertebrate life,* VIII Edition, Pearson International.
- Hall B.K. and Hallgrimsson B. (2008). *Strickberger's Evolution*. IV Edition. Jones and Bartlett Publishers Inc.

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- Widmaier, E.P., Raff, H. and Strang, K.T. (2008) *Vander's Human Physiology*, XI Edition., McGraw Hill
- Guyton, A.C. and Hall, J.E. (2011). T*extbook of Medical Physiology*, XII Edition, Harcourt Asia Pvt. Ltd/ W.B. Saunders Company

SHIVAJI UNIVERSITY, KOLHAPUR.

Accredited By NAAC with 'A' Grade

Revised Syllabus For

Bachelor of Science

Part-II

ZOOLOGY

CBCS PATTERN

Syllabus to be implemented from

June, 2019 onwards.

B. Sc. Part II Semester- III

ZOOLOGY

PAPER-V

DSC- …….. (ANIMAL DIVERSITY-II)

Theory: 30 hrs. (37.5 lectures of 48 minutes)

Marks-50 (Credits: 02)

Unit 1:

Protochordates: **(4 hrs.)**

General characters and Classification of Protochordata.

Agnatha: **(4 hrs.)**

General characters of Agnatha and Classification of cyclostomes up to classes.

Pisces: **(4 hrs.)**

General characters and Classification up to orders; Respiration in Fishes.

Amphibia: **(4 hrs.)**

General features and Classification up to orders; Parental care.

Unit 2:

Reptiles: **(4 hrs.)**

General characters and Classification up to orders; Venomous and non-venomous snakes, Biting mechanism in snakes.

Aves: **(5 hrs.)**

General characters and Classification up to orders; Digestive and Respiratory systems.

Mammals: **(5 hrs.)**

General characters and Classification up to orders; Circulatory of mammals.

B. Sc. Part II Semester- III

ZOOLOGY

Paper-VI

DSC- …….. (BIOCHEMISTRY)

Theory: 30 hrs. (37.5 lectures of 48 minutes)

Marks-50 (Credits: 02)

Unit 1:

Nucleic acids:

DNA and RNA. **(7 hrs.)**

Structure and types of RNA .DNA- Secondary structure of Watson and Crick. Forms of DNA

Carbohydrate Metabolism: **(8 hrs.)**

Glycolysis, Krebs Cycle, Pentose phosphate pathway, Gluconeogenesis, Glycogenolysis.

, Review of electron transport chain.

Unit 2:

Lipid Metabolism: **(5 hrs.)**

Biosynthesis and β oxidation of fatty acids.

Protein metabolism: **(5 hrs.)**

Transamination, Deamination and Urea Cycle.

Enzymes: **(5 hrs.)**

Introduction- classification and nomencelature. Mechanism of action, Enzyme Kinetics, Inhibition and Regulation. Isoenzymes, Co-enzymes and Co-factors.

B. Sc. Part II Semester- IV

ZOOLOGY

Paper-VII

DSC- …….. (REPRODUCTIVE BIOLOGY)

Theory: 30 hrs. (37.5 lectures of 48 minutes)

Marks-50 (Credits: 02)

Unit 1: Functional anatomy of female reproduction: (15 hrs.)

Outline and histological structure of female reproductive system in rat and human; Ovary: folliculogenesis, ovulation, corpus luteum formation and regression; Steroidogenesis and secretion of ovarian hormones; Reproductive cycles in human and their regulation, changes in the female tract; Ovum transport in the fallopian tubes; Sperm transport in the female tract, fertilization; Hormonal control of implantation; pregnancy diagnosis Hormonal regulation of gestation, , Mechanism of parturition and its hormonal regulation; Lactation and its regulation.

Unit 2:

Functional anatomy of male reproduction: (8 hrs.)

Outline and histology of male reproductive system in human; Testis: Cellular functions, germ cell; Spermatogenesis: hormonal regulation; Epididymal function and sperm maturation; Accessory glands functions; Sperm transportation in male tract.

Unit 3: Reproductive Health: (7 hrs.)

Infertility in male and female: causes, diagnosis and management; Assisted Reproductive Technology: sex selection, sperm banks, frozen embryos, in vitro fertilization, ET, EFT, IUT, ZIFT, GIFT, ICSI, PROST; Modern contraceptive technologies.

B. Sc. Part II Semester- IV

ZOOLOGY

Paper-VIII

DSC- …….. (APPLIED ZOOLOGY-I)

Theory: 30 hrs. (37.5 lectures of 48 minutes)

Marks-50 (Credits: 02)

Unit 1:

Introduction to Host-parasite Relationship: **(4 hrs.)**

Host, Definitive host, Intermediate host, Parasitism, Symbiosis, Commensalism, Reservoir, Zoonosis.

Unit 2:

Epidemiology of Diseases: **(7 hrs.)**

Transmission, Prevention and control of diseases: Tuberculosis, Typhoid.

Unit 3:

Rickettsia and Spirochaetes: **(6 hrs.)**

Brief account of *Rickettsia prowazekii, Borrelia recurrentis* and *Treponema pallidum.*

Unit 4:

Insects of Economic Importance: **(8 hrs.)**

Biology, Control and damage caused by *Helicoverpa armigera*, *Pyrilla perpusilla* and *Papilio demoleus, Callosobruchus chinensis, Sitophilus oryzae* and *Tribolium castaneum*

Unit 5:

Poultry Farming: **(5 hrs.)**

Principles of poultry breeding, Management of breeding stock and broilers, Processing and Preservation of eggs.

B. Sc. Part II

ZOOLOGY PRACTICAL-I

Marks-50 (Credits: 02)

PRACTICAL-I (Based on Animal diversity-II and Biochemistry of Semester-III).

Unit: 1

Animal diversity-II:

1. Study of the following specimens with reference to morphological peculiarities and classification upto orders: *Herdmania, Branchiostoma, Petromyzon, Sphyrna, Pristis, Torpedo, Labeo, Exocoetus, Anguilla, Ichthyophis/Ureotyphlus, Salamandra, Bufo, Hyla, Chelone, Hemidactylus, Chamaeleon, Draco, Crocodylus, Gavialis.*
2. Characters identifying venomous and non-venomous snakes: Russell's viper, Saw scaled viper, Common krait, Indian Cobra, Sea snake, Rat snake and Checkered keelback.
3. Study of any six common birds from different orders with the help of photographs and keys.
4. Study of the following specimens with reference to morphological peculiarities and classification up to orders: shrews, Bat, Squirrel and Loris.

   An "**animal album**" containing photographs, cut outs, with appropriate write up about the above mentioned taxa. Different taxa/ topics may be given to students for this purpose.
5. Dissection of brain of fowl.
6. Temporary preparation of hyoid apparatus, sclerotic plates, Pecten and Collumella of fowl.
7. Temporary preparation of Cycloid, Ctenoid and Placoid scales in fishes.

Unit: 2

Biochemistry:

1. Qualitative tests to identify functional groups of carbohydrates and lipid in given solutions (Glucose, Fructose, Sucrose, Lactose and Lipid).
2. Estimation of total protein in given solutions by Lowry's method/ Quantitative estimation of amino acids by using Ninhydrin reaction.
3. Study of activity of salivary Amylase under optimum conditions.
4. Effect of Temperature, pH and salinity of activity of salivary amylase.
5. Estimation of total lipids from given sample.
6. DNA isolation from plant/animal.
7. Estimation of uric acid from bird excreta.

B. Sc. Part II

ZOOLOGY PRACTICAL-II

Marks-50 (Credits: 02)

PRACTICAL-II (Based on Reproductive Biology and Applied Zoology of Semester-IV).

Unit: 1

Reproductive Biology:

1. Study of animal house: set up and maintenance of animal house, breeding techniques, care of normal and experimental animals.
2. Examination of vaginal smear rats from live animals/Study of stages of estrus cycle through permanent slides.
3. Surgical techniques: principles of surgery in endocrinology. Ovarectomy, hysterectorny, castration and vasectomy in rats. Demonstration or film only.
4. Examination of histological sections from photomicrographs/ permanent slides of rat: testis, epididymis and accessory glands of male reproductive systems; Sections of ovary, fallopian tube, uterus (proliferative and secretory stages), cervix and vagina.
5. Human vaginal exfoliate cytology.
6. Sperm count and sperm motility in rat/ Any mammal.
7. Study of modern contraceptive devices by photographs or models.

Unit: 2

Applied Zoology:

1. Study of arthropod vectors associated with human diseases: *Pediculus, Culex, Anopheles, Aedes* and *Xenopsylla.*
2. Study of insect damage to different plant parts/stored grains through damaged products/photographs.
3. Identifying feature and economic importance of *Helicoverpa* (*Heliothis*) *armigera*, *Papilio demoleus*, *Pyrilla perpusilla, Callosobruchus chinensis, Sitophilus oryzae* and *Tribolium castaneum.*
4. Field trip to poultry farm or animal breeding centre or any suitable place to study animal diversity or any place related to theory syllabus. Submission of field trip report (Printed/Hand writings).

Suggested readings for Paper V and VI:

Berg, J. M., Tymoczko, J. L. and Stryer, L. (2006). Biochemistry. VI Edition. W.H Freeman and Co.

Guyton, A.C. and Hall, J. E. (2011). Textbook of Medical Physiology, XII Edition, Harcourt Asia Pvt. Ltd/ W.B. Saunders Company

Hall B. K. and Hallgrimsson, B. (2008). Strickberger's Evolution. IV Edition. Jones and Bartlett Publishers Inc.

Murray, R.K., Granner, D.K., Mayes, P.A. and Rodwell, V.W. (2009). Harper's Illustrated Biochemistry. XXVIII Edition. Lange Medical Books/Mc Graw3Hill.

Nelson, D. L., Cox, M. M. and Lehninger, A.L. (2009). Principles of Biochemistry. IV Edition. W.H. Freeman and Co.

Pough H. (2008). Vertebrate life, 8th Edition, Pearson International.

Young, J. Z. (2004). The Life of Vertebrates. III Edition. Oxford university press.

Suggested readings for paper VII and VIII:

Arora, D. R and Arora, B. (2001). Medical Parasitology. II Ed. CBS Pub., and Distributors.

Atwal, A.S. (1986). Agricultural Pests of India and South East Asia, Kalyani

Austin, C.R. and Short, R.V. (1982). Reproduction in Mammals. Cambridge University Press, London. Vol. 1.

Chapman, R. F. (1998). The Insects: Structure and Function. IV Edition, Cambridge University Press, UK.

Dennis, H. (2009). Agricultural Entomology. Timber Press (OR).

Degroot, L.J. and Jameson, J.L. (2010). (6 th eds). Endocrinology. W.B. Saunders and Company.

Dunham R.A. (2004). Aquaculture and Fisheries Biotechnology Genetic Approaches. CABI publications, U.K.

Hafez, E. S. E. (1962). Reproduction in Farm Animals. Lea & Fabiger Publisher.

Hatcher, R.A. *et al.* (2001). The Essentials of Contraceptive Technology. Population Information Programme.

Knobil, *et al.* (2014). (4th eds). The Physiology of Reproduction. Raven Press Ltd.

Park, K. (2007). Preventive and Social Medicine. XVI Edition. B.B Publishers.

Pedigo L. P. (2002). Entomology and Pest Management. Prentice Hall Publication.

SHIVAJI UNIVERSITY, KOLHAPUR.

Accredited By NAAC with 'A' Grade

CHOICE BASED CREDIT SYSTEM

Syllabus For

B. Sc. Part – III

Computer Science (Optional)

SEMESTER – V & VI

(Syllabus to be implemented from June, 2020 onwards)

CBCS B.Sc. 3: (A) (i) Structure of B. Sc. Programme Sem I & II

Structure – I

Sr. No.	Course (Subject) Title	TEACHING SCHEME						EXAMINATION SCHEME						
		THEORY			PRACTICAL			THEORY				PRACTICAL		
		Credits	No. of lectures	Hours	Credits	No. of lectures	Hours	Hours	Max	Total Marks	Min	Hours	Max	Min
SEMESTER – I (Duration – 6 Months)														
1	DSC-A	2	5	4	2	4	3.2	2	50	100	35	PRACTICAL EXAMINATION IS ANNUAL		
2	DSC-A	2						2	50					
3	DSC-A	2	5	4	2	4	3.2	2	50	100	35			
4	DSC-A	2						2	50					
5	DSC-A	2	5	4	2	4	3.2	2	50	100	35			
6	DSC-A	2						2	50					
7	DSC-A	2	5	4	2	4	3.2	2	50	100	35			
8	DSC-A	2						2	50					
9	AECC-A	2	4	3.2	-----	-----	-----	2	50	50	18			
Total		18	24	19.2	8	16	12.8	-		450				
SEMESTER – II (Duration – 6 Months)														
1	DSC-B	2	5	4	2	4	3.2	2	50	100	35	As per BOS Guide-lines	50	18
2	DSC-B	2						2	50					
3	DSC-B	2	5	4	2	4	3.2	2	50	100	35		50	18
4	DSC-B	2						2	50					
5	DSC-B	2	5	4	2	4	3.2	2	50	100	35		50	18
6	DSC-B	2						2	50					
7	DSC-B	2	5	4	2	4	3.2	2	50	100	35		50	18
8	DSC-B	2						2	50					
9	AECC-B	2	4	3.2	-----	-----	-----	2	50	50	18		200	
Total		18	24	19.2	8	16	12.8	-		450				
Grand Total		36	48	38.4	16	32	25.6			900				

- Student contact hours per week : 32 Hours(Min.)
- Theory and Practical Lectures : 48 Minutes Each
- Total Marks for B.Sc.-I (Including English) : 1100
- Total Credits for B.Sc.-I (Semester I & II) : 52
- **DSC**–Discipline Specific Core course: Select any 4 subject pairs from A1 to A38 and B1 to B38.
- **AECC** – Ability Enhancement Compulsory Course (1A & 1B)-English
- Practical Examination will be conducted annually for 50 Marks per course(subject).
- ***Except English, combined passingfortwotheorypapersof50markseach.i.e.Min.35marksrequiredforpassingoutof100.***
- ***There shall be separate passing for theory and practical courses.***

(A) Non-Credit Self Study Course : Compulsory Civic Courses (CCC)

For Sem I: CCC – I : Democracy, Elections and Good Governance

(B) Non-Credit Self Study Course : Skill Development Courses (SDC)

For Sem II: SDC – I : Any one from following (i) to (v)

i) Business Communication & Presentation ii) Event management iii) Personality Development, iv) Yoga & Physical Management v) Resume, Report & proposal writing

Structure of B. Sc. Programme Semester III &IV

Structure - II

Sr. No.	Course (Subject) Title	TEACHING SCHEME						EXAMINATION SCHEME						
		THEORY			PRACTICAL			THEORY				PRACTICAL		
		Credits	No. of lectures	Hours	Credits	No. of lectures	Hours	Hours	Max	Total Marks	Min	Hours	Max	Min
SEMESTER – III (Duration – 6 Months)														
1	DSC-C	2	3	2.4	4	6.4	8	2	50	100	35	PRACTICAL EXAMINATION IS ANNUAL		
2	DSC-C	2	3	2.4				2	50					
3	DSC-C	2	3	2.4	4	6.4	8	2	50	100	35			
4	DSC-C	2	3	2.4				2	50					
5	DSC-C	2	3	2.4	4	6.4	8	2	50	100	35			
6	DSC-C	2	3	2.4				2	50					
7	AECC-C	4	4	3.2	---	---	---			---	---			
	TOTAL	16	22	17.6	12	19.2	24			300	---			
SEMESTER – IV (Duration – 6 Months)														
1	DSC-D	2	3	2.4	4	6.4	8	2	50	100	35	As per BOS Guide-lines	100	35
2	DSC-D	2	3	2.4				2	50					
3	DSC-D	2	3	2.4	4	6.4	8	2	50	100	35		100	35
4	DSC-D	2	3	2.4				2	50					
5	DSC-D	2	3	2.4	4	6.4	8	2	50	100	35		100	35
6	DSC-D	2	3	2.4				2	50					
7	AECC-C AECC-D	---	---	---	---	---	---	3	70 30	100	25 10	---	---	---
	TOTAL	12	18	14.4	12	19.2	24			400	---			
		28	40	32	24	38.4	48			700	--	---	300	

- Studentcontacthoursperweek:32Hours(Min.)
- Total Marks for B.Sc.-II(IncludingEVS) 1000
- Theory and Practical Lectures : 48 MinutesEach
- Total Credits for B.Sc.-II (Semester III & IV) : 52
- **DSC:-**Discipline Specific Core Course:Selectany3subjectpairs,relevanttothoseoptedasB.Sc.I, From DSCC1toDSCC38and/orDSCIC39toDSCIC50andDSCD1toDSCD38and/orDSCID39to DSCID50.
- **AECC**- Ability Enhancement Compulsory Course (1C): Environmental Studies: EVS (Theory – 70 & Project – 30 Marks)
- Practical Examination will be conducted annuallyfor100Markspercourse(subject)
- ***Except Environmental Studies, combined passingfortwotheorypapersof50markseach.i.e.Min.35 marks required for passing out of100.***
- ***There shall be separate passing for theory and practical courses also for Environmental Studies.***

ii) Structure of B. Sc. Programme Sem V &VI

Structure - III

Sr. No.	Subject Title	TEACHING SCHEME						EXAMINATION SCHEME						
		THEORY			PRACTICAL			THEORY				PRACTICAL		
		Credits	No. of lectures	Hours	Credits	No. of lectures	Hours	Hours	Theory	Internal	Min Marks	Hours	Max Marks	Min Marks
SEMESTER – V (Duration – 6 Months)														
1	DSE-E	2	3	2.4	8	20	16	2	40	10	14+4=18	PRACTICAL EXAMINATION IS ANNUAL		
2	DSE-E	2	3	2.4				2	40	10	14+4=18			
3	DSE-E	2	3	2.4				2	40	10	14+4=18			
4	DSE-E	2	3	2.4				2	40	10	14+4=18			
5	AECC-E	2	4	3.2	---	---	---	2	40	10	14+4=18			
	TOTAL	10	16	12.8	8	20	16		200	50	---			
SEMESTER – VI (Duration – 6 Months)														
1	DSE-F	2	3	2.4	8	20	16	2	40	10	14+4=18	As per BOS Guidelines	200	70
2	DSE-F	2	3	2.4				2	40	10	14+4=18			
3	DSE-F	2	3	2.4				2	40	10	14+4=18			
4	DSE-F	2	3	2.4				2	40	10	14+4=18			
5	AECC-F	2	4	3.2	---	---	---	2	40	10	14+4=18	---	---	---
TOTAL		10	16	12.8	8	20	16		200	50	---			
GRAND TOTAL		20	32	25.6	16	40	32		400	100	--	---	200	

- Studentcontacthoursperweek:32Hours(Min)
- Theory and Practical Lecture : 48 Min.Each
- Total Marks for B.Sc.-III(Including English):700
- Total Credits for B.Sc.-III (Semester V & VI) :36
- **DSE- Discipline Specific Elective.** A candidate shall select one course (subject) from the three Courses (Subjects)selectedatB.Sc.–II.Selectany4pairsofpapersfromDSE-E1toDSE-E84forSem–VandDSE-F1 to DSE - F84 for Semester - VI
- **AECC**- Ability Enhancement Compulsory Course (E & F) :English
- Practical Examination will be conducted annually for 200Marks.
- ***There shall be separate passing for theory, internal and practical***

(A) Non-Credit Self Study Course : Compulsory Civic Courses (CCC)
For Sem V: CCC – II : Constitution of India and Local Self Government

(B) Non-Credit Self Study Course : Skill Development Courses (SDC) For
Sem VI: SDC – II: Any one from following (vi) to (x)
vi) Interview & Personal Presentation Skill, vii) Entrepreneurship Development Skill, viii) Travel & Tourism, ix) E-Banking & Financial Services, x) RTI & Human Right Education (HRE), IPR & Patents

CBCS R.B. Sc. 3: (B) List of courses:

i) B. Sc. Part 1 (Sem I &II),

Course code	Name of Course	Course code	Name of Course
B. Sc. 1: Sem I DSC – 1A to 38 A			
DSC A1	Physics I	**DSC A21**	Geology I
DSC A2	Physics II	**DSC A22**	Geology II
DSC A3	Chemistry I	**DSC A23**	Seed Technology I
DSC A4	Chemistry II	**DSC A24**	Seed Technology II
DSC A5	Mathematics I	**DSC A25**	Microbiology I
DSC A6	Mathematics II	**DSC A26**	Microbiology II
DSC A7	Statistics I	**DSC A27**	Industrial Microbiology I
DSC A8	Statistics II	**DSC A28**	Industrial Microbiology II
DSC A9	Electronics I	**DSC A29**	Biochemistry I
DSC A10	Electronics II	**DSC A30**	Biochemistry II
DSC A11	Computer Science I	**DSC A31**	Psychology I
DSC A12	Computer Science II	**DSC A32**	Psychology II
DSC A13	Botany I	**DSC A33**	Food Science & Quality control I
DSC A14	Botany II	**DSC A34**	Food Science & Quality control II
DSC A15	Zoology I	**DSC A35**	Astrophysics I
DSC A16	Zoology II	**DSC A36**	Astrophysics II
DSC A17	Biotechnology (Opt) I	**DSC A37**	Nanotechnology (opt) I
DSC A18	Biotechnology (Opt) II	**DSC A38**	Nanotechnology (opt) II
DSC A19	Geography I		
DSC A20	Geography II	**AECC – A**	English – I

DSC: Discipline Specific Core Course

AECC – Ability Enhancement Compulsory Course

Sem II: DSC – 1B to 38B

Course code	Name of Course	Course code	Name of Course
B. Sc. 1: Sem II DSC – 1B to 38B			
DSC B1	Physics III	**DSC B21**	Geology III
DSC B2	Physics IV	**DSC B22**	Geology IV
DSC B3	Chemistry III	**DSC B23**	Seed Technology III
DSC B4	Chemistry IV	**DSC B24**	Seed Technology IV
DSC B5	Mathematics III	**DSC B25**	Microbiology III
DSC B6	Mathematics IV	**DSC B26**	Microbiology IV
DSC B7	Statistics III	**DSC B27**	Industrial Microbiology III
DSC B8	Statistics IV	**DSC B28**	Industrial Microbiology IV
DSC B9	Electronics III	**DSC B29**	Biochemistry III
DSC B10	Electronics IV	**DSC B30**	Biochemistry IV
DSC B11	Computer Science III	**DSC B31**	Psychology III
DSC B12	Computer Science IV	**DSC B32**	Psychology IV
DSC B13	Botany III	**DSC B33**	Food Science & Quality control III
DSC B14	Botany IV	**DSC B34**	Food Science & Quality control IV
DSC B15	Zoology III	**DSC B35**	Astrophysics III
DSC B16	Zoology IV	**DSC B36**	Astrophysics IV
DSC B17	Biotechnology (Opt) III	**DSC B37**	Nanotechnology (opt) III
DSC B18	Biotechnology (Opt) IV	**DSC B38**	Nanotechnology (opt) IV
DSC B19	Geography III		
DSC B20	Geography IV	**AECC – B**	English – II

ii) B.Sc. Part 2 (Sem III &IV)

Course code	Name of Course	Course code	Name of Course
B. Sc. 2: Sem III DSC – 1C to 38C			
DSC C1	Physics V	**DSC C21**	Geology V
DSC C2	Physics VI	**DSC C22**	Geology VI
DSC C3	Chemistry V	**DSC C23**	Seed Technology V
DSC C4	Chemistry VI	**DSC C24**	Seed Technology VI
DSC C5	Mathematics V	**DSC C25**	Microbiology V
DSC C6	Mathematics VI	**DSC C26**	Microbiology VI
DSC C7	Statistics V	**DSC C27**	Industrial Microbiology V
DSC C8	Statistics VI	**DSC C28**	Industrial Microbiology VI
DSC C9	Electronics V	**DSC C29**	Biochemistry V
DSC C10	Electronics VI	**DSC C30**	Biochemistry VI
DSC C11	Computer Science V	**DSC C31**	Psychology V
DSC C12	Computer Science VI	**DSC C32**	Psychology VI
DSC C13	Botany V	**DSC C33**	Food Science & Quality control V
DSC C14	Botany VI	**DSC C34**	Food Science & Quality control VI
DSC C15	Zoology V	**DSC C35**	Astrophysics V
DSC C16	Zoology VI	**DSC C36**	Astrophysics VI
DSC C17	Biotechnology (Opt) V	**DSC C37**	Nanotechnology (opt) V
DSC C18	Biotechnology (Opt) VI	**DSC C38**	Nanotechnology (opt) VI
DSC C19	Geography V	*	
DSC C20	Geography VI		

*Interdisciplinary Courses (IDS) (DSC - IC)

DSC IC39	Astrophysics I	**DSC IC45**	Plant Protection I
DSC IC40	Astrophysics II	**DSC IC46**	Plant Protection II
DSC IC41	Geochemistry I	**DSC IC47**	Pollution I
DSC IC42	Geochemistry II	**DSC IC48**	Pollution II
DSC IC43	Biochemistry I	**DSC IC49**	Fisheries I
DSC IC44	Biochemistry II	**DSC IC50**	Fisheries II

Sem – IV

Course code	Name of Course	Course code	Name of Course
B. Sc. 2: Sem IV DSC – 1D to 38D			
DSC D1	Physics VII	DSC D20	Geography VIII
DSC D2	Physics VIII	DSC D21	Geology VII
DSC D3	Chemistry VII	DSC D22	Geology VIII
DSC D4	Chemistry VIII	DSC D23	Seed Technology VII
DSC D5	Mathematics VII	DSC D24	Seed Technology VIII
DSC D6	Mathematics VIII	DSC D25	Microbiology VII
DSC D7	Statistics VII	DSC D26	Microbiology VIII
DSC D8	Statistics VIII	DSC D27	Industrial Microbiology VII
DSC D9	Electronics VII	DSC D28	Industrial Microbiology VIII
DSC D10	Electronics VIII	DSC D29	Biochemistry VII
DSC D11	Computer Science VII	DSC D30	Biochemistry VIII
DSC D12	Computer Science VIII	DSC D31	Psychology VII
DSC D13	Botany VII	DSC D32	Psychology VIII
DSC D14	Botany VIII	DSC D33	Food Science & Quality control VII
DSC D15	Zoology VII	DSC D34	Food Science & Quality control VIII
DSC D16	Zoology VIII	DSC D35	Astrophysics VII
DSC D17	Biotechnology (Opt) VII	DSC D36	Astrophysics VIII
DSC D18	Biotechnology (Opt) VIII	DSC D37	Nanotechnology (opt) VII
DSC D19	Geography VII	DSC D38	Nanotechnology (opt) VIII
		*	
AECC C Environmental Studies (Theory Paper)			
AECC D Environmental Studies (Project)			

*Interdisciplinary Courses (IDS) (DSC – ID)

DSC ID39	Astrophysics III	DSC ID45	Plant Protection III
DSC ID40	Astrophysics IV	DSC ID46	Plant Protection IV
DSC ID41	Geochemistry III	DSC ID47	Pollution III
DSC ID42	Geochemistry IV	DSC ID48	Pollution IV
DSC ID43	Biochemistry III	DSC ID49	Fisheries III
DSC ID44	Biochemistry IV	DSC ID50	Fisheries IV

iii) B. Sc. Part 3 (Sem V &VI)

Discipline Specific Elective (DSE)

Course code	Name of Course	Course code	Name of Course
B. Sc. 3: Sem V DSE – 1E to 84E			
DSE E1	Physics IX	**DSE E45**	Seed Technology IX
DSE E2	Physics X	**DSE E46**	Seed Technology X
DSE E3	Physics XI	**DSE E47**	Seed Technology XI
DSE E4	Physics XII	**DSE E48**	Seed Technology XII
DSE E5	Chemistry IX	**DSE E49**	Microbiology IX
DSE E6	Chemistry X	**DSE E50**	Microbiology X
DSE E7	Chemistry XI	**DSE E51**	Microbiology XI
DSE E8	Chemistry XII	**DSE E52**	Microbiology XII
DSE E9	Mathematics IX	**DSE E53**	Industrial Microbiology IX
DSE E10	Mathematics X	**DSE E54**	Industrial Microbiology X
DSE E11	Mathematics XI	**DSE E55**	Industrial Microbiology XI
DSE E12	Mathematics XII	**DSE E56**	Industrial Microbiology XII
DSE E13	Statistics IX	**DSE E57**	Biochemistry IX
DSE E14	Statistics X	**DSE E58**	Biochemistry X
DSE E15	Statistics XI	**DSE E59**	Biochemistry XI
DSE E16	Statistics XII	**DSE E60**	Biochemistry XII
DSE E17	Electronics IX	**DSE E61**	Psychology IX
DSE E18	Electronics X	**DSE E62**	Psychology X
DSE E19	Electronics XI	**DSE E63**	Psychology XI
DSE E20	Electronics XII	**DSE E64**	Psychology XII
DSE E21	Computer Science IX	**DSE E65**	Food Science & Quality control IX
DSE E22	Computer Science X	**DSE E66**	Food Science & Quality control X
DSE E23	Computer Science XI	**DSE E67**	Food Science & Quality control XI
DSE E24	Computer Science XII	**DSE E68**	Food Science & Quality control XII
DSE E25	Botany IX	**DSE E69**	Plant Protection V
DSE E26	Botany X	**DSE E70**	Plant Protection VI
DSE E27	Botany XI	**DSE E71**	Plant Protection VII
DSE E28	Botany XII	**DSE E72**	Plant Protection VIII
DSE E29	Zoology IX	**DSE E73**	Fisheries V
DSE E30	Zoology X	**DSE E74**	Fisheries VI

DSE E31	Zoology XI	**DSE E75**	Fisheries VII
DSE E32	Zoology XII	**DSE E76**	Fisheries VIII
DSE E33	Biotechnology (Opt) IX	**DSE E77**	Astrophysics IX
DSE E34	Biotechnology (Opt) X	**DSE E78**	Astrophysics X
DSE E35	Biotechnology (Opt) XI	**DSE E79**	Astrophysics XI
DSE E36	Biotechnology (Opt) XII	**DSE E80**	Astrophysics XII
DSE E37	Geography IX	**DSE E81**	Nanotechnology (Opt)IX
DSE E38	Geography X	**DSE E82**	Nanotechnology (Opt)X
DSE E39	Geography XI	**DSE E83**	Nanotechnology (Opt)XI
DSE E40	Geography XII	**DSE E84**	Nanotechnology (Opt)XII
DSE E41	Geology IX		
DSE E42	Geology X		
DSE E43	Geology XI		
DSE E44	Geology XII	**AECC E**	English III

SEM – VI

Course code	Name of Course	Course code	Name of Course
B. Sc. 3: Sem VI DSE – 1F to 84F			
DSE F1	Physics XIII	**DSE F45**	Seed Technology XIII
DSE F2	Physics XIV	**DSE F46**	Seed Technology XIV
DSE F3	Physics XV	**DSE F47**	Seed Technology XV
DSE F4	Physics XVI	**DSE F48**	Seed Technology XVI
DSE F5	Chemistry XIII	**DSE F49**	Microbiology XIII
DSE F6	Chemistry XIV	**DSE F50**	Microbiology XIV
DSE F7	Chemistry XV	**DSE F51**	Microbiology XV
DSE F8	Chemistry XVI	**DSE F52**	Microbiology XVI
DSE F9	Mathematics XIII	**DSE F53**	Industrial Microbiology XIII
DSE F10	Mathematics XIV	**DSE F54**	Industrial Microbiology XIV
DSE F11	Mathematics XV	**DSE F55**	Industrial Microbiology XV
DSE F12	Mathematics XVI	**DSE F56**	Industrial Microbiology XVI
DSE F13	Statistics XIII	**DSE F57**	Biochemistry XIII
DSE F14	Statistics XIV	**DSE F58**	Biochemistry XIV
DSE F15	Statistics XV	**DSE F59**	Biochemistry XV
DSE F16	Statistics XVI	**DSE F60**	Biochemistry XVI
DSE F17	Electronics XIII	**DSE F61**	Psychology XIII
DSE F18	Electronics XIV	**DSE F62**	Psychology XIV
DSE F19	Electronics XV	**DSE F63**	Psychology XV
DSE F20	Electronics XVI	**DSE F64**	Psychology XVI
DSE F21	Computer Science XIII	**DSE F65**	Food Science & Quality control XIII
DSE F22	Computer Science XIV	**DSE F66**	Food Science & Quality control XIV
DSE F23	Computer Science XV	**DSE F67**	Food Science & Quality control XV
DSE F24	Computer Science XVI	**DSE F68**	Food Science & Quality control XVI
DSE F25	Botany XIII	**DSE F69**	Plant Protection IX
DSE F26	Botany XIV	**DSE F70**	Plant Protection X
DSE F27	Botany XV	**DSE F71**	Plant Protection XI
DSE F28	Botany XVI	**DSE F72**	Plant Protection XII
DSE F29	Zoology XIII	**DSE F73**	Fisheries IX
DSE F30	Zoology XIV	**DSE F74**	Fisheries X
DSE F31	Zoology XV	**DSE F75**	Fisheries XI

DSE F32	Zoology XVI	**DSE F76**	Fisheries XII
DSE F33	Biotechnology (Opt) XIII	**DSE F77**	Astrophysics XIII
DSE F34	Biotechnology (Opt) XIV	**DSE F78**	Astrophysics XIV
DSE F35	Biotechnology (Opt) XV	**DSE F79**	Astrophysics XV
DSE F36	Biotechnology (Opt) XVI	**DSE F80**	Astrophysics XVI
DSE F37	Geography XIII	**DSE F81**	Nanotechnology (Opt) XIII
DSE F38	Geography XIV	**DSE F82**	Nanotechnology (Opt) XIV
DSE F39	Geography XV	**DSE F83**	Nanotechnology (Opt) XV
DSE F40	Geography XVI	**DSE F84**	Nanotechnology (Opt) XVI
DSE F41	Geology XIII		
DSE F42	Geology XIV		
DSE F43	Geology XV		
DSE F44	Geology XVI	**AECC F**	English IV

B.Sc. Computer Science (Optional) Part III
Semester-V&VI
CBCS Syllabus to be implemented from June 2020 Onwards

1. **TITLE:** Computer Science
2. **YEAR OF IMPLEMENTATION**: Revised Syllabus will be implemented from June2020onwards.
3. **DURATION:** B.Sc. in Computer Science Part- III The duration of course shall be one year and two semesters.
4. **PATTERN:** Pattern of examination will be semester.
5. **STRUCTURE OF COURSE:**

STRUCTURE OF COURSE

Sr. No.	Paper	Name of Paper	Marks
		Computer Science (Semester V)	
1	DSE-21E	Core Java	40 (Theory)
2	DSE-22E	C# Programming	40 (Theory)
3	DSE-23E	Linux part- I	40 (Theory)
4	DSE-24E	Python Part -I	40 (Theory)
		Computer Science (Semester VI)	
5	DSE-21F	Advance Java	40 (Theory)
6	DSE-22F	ASP .NET	40 (Theory)
7	DSE-23F	Linux Part- II	40 (Theory)
8	DSE-24F	Python Part -II	40 (Theory)
		Practical (Annual)	
5	Practical Paper-IV	Computer Science Practical Paper Based on DSE-21E,22E,21F and 22F	50 (Practical)
6	Practical Paper-V	Computer Science Practical Paper Based on DSE-23E,24E,23F and 24F	50 (Practical)
7	Practical Paper VI	Software Project	100

6. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS (FOR REVISED SYLLABUS)

Paper No.	Title of old paper	Paper No.	Title of New paper
SEMESTER V			
IX	Computer Networking	IX	More chances be given
X	Visual Programming using C#	X	C# Programming
XI	Linux Operating System	XI	Linux- I
XII	MY SQL and PHP	XII	More chances be given
SEMESTER – VI			
XIII	Network Technology and Windows Server 2008	XIII	More chances be given
XIV	Java Programming	XIV	Core Java
XV	Advanced Linux OS	XV	Linux- II
XVI	E-commerce	XVI	More chances be given
PRACTICAL (ANNUAL PATTERN)			
	Computer Science Practical Paper-IV,V and VI		More chances be given

B.Sc. Part –III Computer Science Optional (Semester– V)
Course Code: DSE-21E
Paper IX
Course Title: Core Java
Total Contact Hours: 36 Hrs. (45 Lectures of 48 Min.)
Teaching Scheme: Theory – 03 Lect. / Week

Credits: 02 **Total Marks: 40**

Objectives:

The objective of this course is to teach the learner how to use Object Oriented paradigm to develop code and understand the concepts of Core Java and to cover-up with the pre-requisites of Core java.

Course Outcomes:

1.Object oriented programming concepts using Java.
2.Knowledgeof input, its processing and getting suitable output.
3.Understand, design, implement and evaluate classes and applets
4. Understand concept of Multiprogramming and Exception Handling

Unit	Content	Hours Allotted
I	**Introduction to java** • History of java • Features of Java • Comparison between C++ and java • Java Virtual Machine(JVM) • Tokens • Java Keywords • Data Types-integer(byte,short,int ,long),floating point(float, double),char, boolean • Operators-arithemetic,relational,logical,unary,ternary,bitwise • Branching and looping statement • Typecasting-Implicit and Explicit • Command line arguments • Writing simple java program • Compiling and executing Java program	12
II	**Object Oriented Programming using Java** • Introduction- Class, Object and method • staticKeywords,Constructors,and destructor • super and thisKey Word • Encapsulation and Abstraction • Inheritance- Definition and its types-single,multilevel,hierarchical • Polymorphism-Definition and concepts of overloading and overriding • Difference between Overloading and overriding • Abstract Classes and Interfaces • String- String and String Buffer class • Defining package • System Packages –java, lang, awt, javax, swing, net, io, util.	12

	• user defined packages-creating and accessing the package	
III	**Multithreading, Exception Handling and Applets** • Creating threads, extending a thread class- declaring the class, run() method • Stopping and blocking threads • Life cycle of thread • Using thread method • Thread priority • Definition of exception • Syntax of exception handling code • Multiple catch statement • Using finally statement • Applets Definition • Building applet code • Applet life cycle • Adding applet code to HTML file • Introduction to Abstract Window Toolkit (AWT)	12

Reference Books:

1. Programming with JAVA, A Primer by E Balaguruswamy
2. Herbert Schildt, Java2: The Complete Reference, Tata McGraw-Hill
3. Java Programming- Rajendra Salokhe (Aruta Pub)
4. *The Java Tutorials: http://docs.oracle.com/javase/tutorial/)*
5. The Java Tutorials of Sun Microsystems Inc

Practical Based on DSE 21E(Lab course IV)

1. Java programs based on branching and looping statements.
2. Java programs based Type Casting
3. Java programs based on command line arguments
4. Java programs based on constructors
5. Java programs based on inheritance
6. Java programs based on method overloading
7. Java programs based on method overriding.
8. Java programs based on interfaces
9. Java programs based on packages
10. Java programs based on multithreading
11. Java programs based on exception handling
12. Java programs with applets.

B.Sc. Part –III Computer Science Optional (Semester– V)
Course Code: DSE-22E
Computer Paper X
Course Title: C# Programming
Total Contact Hours: 36 Hrs. (45 Lectures of 48 Min.)
Teaching Scheme: Theory – 03 Lect. / Week

Credits: 02 **Total Marks:40**

Course Outcomes:

This course will cover the practical aspects C#.NET framework. The goal of this course is to introduce the students to the basics of OOPs and windows application program.

Unit	Content	Hours Allotted
I	**Introduction to .Net** • .NET Framework Architecture • An Overview • Components of .NET: CLR ,CLS • Microsoft Intermediate Language ("MSIL" or "IL"), • The Common Type System (CTS), Namespaces, • .NET Framework Base Classes, DLL and Exe. • An Overview of C# • History and Features of C#. • Data Types, Value and Reference Types, Boxing and • Unboxing • Properties : Set and Get • C# - Flow Control: Branching, Switching and Looping • Structure	12
II	**Object oriented Concepts** • C# Program compilation and execution • Command Line Arguments • Programming Examples using Console application . • Classes and Objects • Inheritance • Polymorphism • Abstract Classes • Sealed Classes • Partial Classes • Exception Handling	12
III	**Introduction to Windows Form Application Using C#** • IDE – (Integrated Development Environment) • Form Controls: Label, Button, Textbox, Checkbox, RadioButton, Timer, calendar, ListBox, Image and overview of remaining all common controls its properties and events	12

References:

1. C# 4.0 The Complete Reference Schildt Mc Graw Hill
2. Inside C# - By Tom Archer, Andrew Whitechapel (Microsoft Pub)
3. Programming in C#- E Balagurusamy

Practical Based on DSE-E22

1. Write a C# program that print hello word using command line argument.
2. Write a console application program to demonstrate switching, looping, branching statement.
3. Write a console application for swapping of 2 numbers using Pass by value.
4. Write a console application for swapping of 2 numbers using Pass by Reference.
5. Write a C# program that uses explicit keyword.
6. Write a C# program that uses implicit keyword.
7. Write a C# program to implement out parameter.
8. Write C# program to display factorial of number.
9. Write C# program to display prime factors of entered number.
10. Write C# program check entered number is even or odd.
11. Write C# program to demonstrate array.
12. Create DLL and implement in another console application.
13. Write C# program to demonstrate static and non-static methods.
14. Write C# program to demonstrate Inheritance.
15. Write C# program to demonstrate Interface.
16. Write C# program to demonstrate abstract class.

B.Sc. Part –III Computer Science Optional (Semester– V)
CourseCode: DSE-23E
Computer Paper XI
Course Title: LINUX Part I
Total Contact Hours: 36 Hrs. (45 Lectures of 48 Min.)
Teaching Scheme: Theory – 03 Lect. / Week

Credits: 02 **Total Marks:40**

Course Outcomes

1. Upon completion of this course, students should have a good working knowledge of Linux.
2. Allowing them to easily use any Linux distribution.
3. This course shall help student to learn advanced subjects in computer science practically.

Unit	Contents	Hours Allotted
I	**Introduction to Linux** • History of Linux • Architecture of Linux • Operating System Services • Shell • Types of Shell • Kernel • Login, Logout • General Purpose Utilities (banner, cal, date, calendar, who, tty, uname, password, lock, echo, tput, bc, clear, script, wc, head, tail, echo, test, expr)	9
II	**File System, System Calls and Process** • Basic file system management • Files Types, Boot block, Super block, Inode table • Storage and Accessibility of files • Finding Information of commands • File and Directory Commands • File and Directory Manipulation commands • File ownership and permission • Open, Read, Write, Close • Mounting and Un-mounting File System • Process States and Transitions • Process Creation • Signal • Process Termination • Awaiting Process Termination • Invoking Other Programs • Process Management(ps, kill, background processing, no hang up, SPOOL, job scheduling using at command)	18
III	**Editors and Shell Scripting** • Types of editors • Modes of Operation	9

	• Editing Text Files • Block Commands • Set Commands • Command Line Options • Choosing a Shell • Invoking the Shell Variables • Getting input from keyboard • Special Variables • Control Statement- Conditional • Iterative Statements • Regular expression	

Reference Books

1. Linux Commands- Instant Reference by Bryan PF affenberge
2. The Design of the Unix Operating System- Bach
3. Unix Shell Programming- Yashwant Kanetkar
4. Unix Concepts and Application – Sumitabhadas
5. Linux : The Complete Reference- Richard Peterson

Practical Based on DSE-23E

1. Demonstration of General Purpose Utilities.
2. Write a shell script using if statements to check file exists or not.
3. Write a shell script to copy a file.
4. Write a shell script to check the given number is odd or even.
5. Write a shell script to check file permission.
6. Write a shell script to calculate the grade of student.
7. Write a shell script to find out given word contains vowel and also the entered vowel is small case or capital.
8. Write a shell script to display given year is leap year or not.
9. Write a shell script to greet message according to time.
10. Write a shell script to print the Fibonacci series.
11. Write a shell script to print the numbers between 1 to10.
12. Write a shell script to read name, sex and marital status and display the same.

B.Sc. Part –III Computer Science Optional (Semester– V)
Course Code: DSE-24E
Computer Paper XII
Course Title: Python Part I
Total Contact Hours: 36 Hrs. (45 Lectures of 48 Min.)
Teaching Scheme: Theory – 03 Lect. / Week

Credits: 02 **Total Marks: 40**

Objective
Master the fundamentals of writing Python scripts

Course Outcomes:
1. To understand why Python is a useful scripting language for developers
2. To learn how to write loops and decision statements in Python
3. To learn how to use lists, tuples, and dictionaries in Python programs

Unit	Contents	Hours Allotted
I	**Introduction** • History • Features • Setting up path • Working with Python • Basic Syntax • Keywords • Variable and Data Types • Operator • Input , output functions **Conditional Statements & Looping** • If • If- else • Nested if-else • For • While • Nested loops	12
II	**Control Statements** • Break • Continue • Pass **String Manipulation** • Accessing Strings • Basic Operations • String slices • Function and Methods **Lists** • Introduction • Accessing list • Operations • Working with lists • Function and Methods	12

III	**Tuple** • Introduction • Accessing tuples • Operations • Working • Functions and Methods **Dictionaries** • Introduction • Accessing values in dictionaries • Working with dictionaries • Properties • Functions	12

Reference Books

1. Practical Programming: An introduction to Computer Science Using Python, second edition, Paul Gries, Jennifer Campbell, Jason Montojo, The Pragmatic Bookshelf.
2. Python for Informatics: Exploring Information, Charles Severance
3. Learning Python, Fourth Edition, Mark Lutz, O'Reilly publication
4. Introduction to Python for Computational Science and Engineering (A beginner's guide). Hans Fangohr
5. John V Guttag. "Introduction to Computation and Programming Using Python". Prentice Hall of India
6. R. Nageswara Rao, "Core Python Programming", Dreamtech

Pretical Based on DSE-24E

1. Python program to add two numbers
2. Python program for factorial of a number
3. Python program for simple interest
4. Python program to check if a string is palindrome or not
5. Python program to reverse words in a given string in python
6. Python program to find out ways to remove i'th character from string in python
7. Python program to check if a substring is present in a given string
8. Python program to interchange first and last elements in a list
9. Python program to swap two elements in a list
10. Python program to find out different ways to clear a list in Python
11. Python program to reversing a List
12. Python Program for Linear Search
13. Python Program for Insertion Sort
14. Python Program to demonstrated use of dictionaries by Key or Value
15. Python Program to remove a key from dictionary

B.Sc. Part –III Computer Science Optional (Semester– VI)
Course Code: DSE-21F

Paper XIII

Course Title: Advanced Java
Total Contact Hours: 36 Hrs. (45 Lectures of 48 Min.)
Teaching Scheme: Theory – 03 Lect. / Week

Credits: 02 **Total Marks: 40**

Objectives:
Explore advanced topic of Java programming for solving problems.

Course Outcomes:

1) The student will be able to develop distributed business applications, develop web pages Using advanced server-side programming through servlets and Java server pages.
2) Demonstrate approaches for performance and effective coding
3) To learn database programming using Java
4) To study web development concept using Servlet and JSP

Unit	Content	Hours Allotted
I	**Swing and JDBC** • Concept of swing • MVC architecture • Component of swing: JFrame,JComponent,JLable, JTextfields, JCheckbox, JPanel, JRadiobuttons, JTabbed Pane,JButton. JTree, JTable, JMenu • Difference between AWT and Swing • Introduction Java Data Base Connectivity (JDBC) • JDBC Connection Statements, ResultSet. • simple program • Executing commands and SQL queries • Updatable ResultSet • Forward Only ResultSet • Scrollable ResultSet • PreparedStatement • Connection Modes, SavePoint.	12
II	**Servlet** • Introduction to Servlet • Hierarchy of Servlet • Life cycle of servlet • ServletConfig • ServletContext • Servlet API • packages- javax.servlet and javax.servlet.http • Servlet Communication • Handing get and post request (HTTP) • Handling a data from HTML to servlet • Retrieving a data from database to servlet	12

	• Session tracking – User Authorization, URL rewriting, Hidden form fields	
III	**Java Server Page (JSP)** • Concept of JSP • Life cycle of JSP • JSP v/s Servlet • Components of JSP: Directives, Tags • Scripting elements – Declarations, Expressions, Scriplets, Comments • Implicit objects of JSP • Connecting to database • Simple application using JSP	12

Reference Books

1. Programming with JAVA, A Primer by E Balaguruswamy
2. Herbert Schildt, Java2: The Complete Reference, Tata McGraw-Hill
3. Java Programming- Rajendra Salokhe (Aruta Pub)
4. Java 2 Black Book –(DreamTech)
5. *The Java Tutorials: http://docs.oracle.com/javase/tutorial/)*
6. The Java Tutorials of Sun Microsystems Inc

Practical Based on DSE-21F

Practical Program List

1. Program on Swing
2. Simple program using servlet
3. Simple program using JSP
4. Program on Database Connection.
5. Develop a java application to store image in a database as well as retrieve image from database
6. Create EMP table in Database and perform insert ,update ,and delete operation onEMP table using JSP.

B.Sc. Part –III Computer Science Optional (Semester– VI) CourseCode:DSE-22F

Computer Paper XIV

Course Title: ASP .NET

Total Contact Hours: 36 Hrs. (45 Lectures of 48 Min.)

Teaching Scheme: Theory – 03 Lect. / Week

Credits: 02 **Total Marks:40**

Course Outcomes:

This course will cover the practical aspects of multi-tier web based application development using the .NET framework. The goal of this course is to introduce the students to the basics of distributed Web application development.

Unit	Content	Hours Allotted
I	**Introduction to ASP.Net:** • Web browser, web server • HTTP request response structure • HTML form elements • GET/POST method • Client side and Server side programming. • Web form life cycle, page events, • Visual studio IDE. • **Server Controls:** Textbox, Listcontrols, FileUpload, Linkbutton, Imagemap, Image, Imagebutton, Calender, Literal control, Radiobutton, Checkbox, • Validation Controls • Navigation controls • Master Page.	14
II	**Asp.Net State Management** • Cross page postback property of button, • Response.Redirect, • Server.transfer, Response.Write, • Hiddenfield control, • View State, Cookies, Session, Application • Global.asax	10

	• Caching	
III	**Database and ADO.Net** • Sql Server Database. • Data controls o Gridview o Listview o FormView o DetailsView, o Repeater • Introduction to ADO.Net o ADO.NET Architecture- Connection, command, data reader, data adapter, data set o Understanding connected layer of ADO.NET and disconnected layer of ADO.NET • Basics of Crystal reports	12

Reference Books:

- Beginning ASP.NET 4.5 in C# and VB, Wrox, 2012, ISBN-10: 1118311809
- Beginning ASP.NET 4.5 in C#, Apress, 2012, ISBN-10: 1430242515
- Pro C# with .NET 3.0, Andrew Troelsen, Apress, 2007, ISBN 978-1-59059-823-8

Practical Experiments based on DSE-F22:

1. Write an Asp.Net Program to print a Message on web form.
2. Write an Asp.Net Program to Create Simple Web Application using two or more web form.
3. Write an Asp.Net Program to set a link for new Page.
4. Write an Asp.Net Program to demonstrate different common Control.
5. Write an Asp.Net program using while or for loop to print sum of first 100 ODD and Even Numbers.
6. Write an Asp.Net Program to add the value of Text Box in to Dropdown List and List box Controls.
7. Write an Asp.Net Program to Delete Items from Dropdown list and List box.
8. Write an Asp.Net Program to set Image on Image Control according to selection of image name from dropdown list.
9. Write an Asp.Net Program to demonstrate use of Master Page.
10. Program to demonstrate ADO.Net connected architecture.
11. Program to demonstrate ADO.Net disconnected architecture

12. Program to demonstrate client side state management.
13. Program to demonstrate serverside state management.
14. Write an Asp.Net Program to perform Insert and update operation in Database.
15. Write an Asp.Net program to perform Search and Delete operation in Database.
16. Write an Asp.net program to display the records from database using Data Reader Object.

B.Sc. Part –III Computer Science Optional (Semester– VI) CourseCode:DSE-23F

Computer Paper XV

Course Title: Linux Part II

Total Contact Hours: 36 Hrs (45 Lectures of 48 Min.)

Teaching Scheme: Theory – 03 Lect. / Week

Credits:02 **Total Marks:40**

Course Outcome:

1. This course covers design principles of Linux Operating System Memory management.
2. Structure of File system and virtual file system is also elaborated.
3. This course contains details of shell programming and introduces System administration

Unit	Content	Hours Allotted
I	**Memory Management and Advanced vi** • Swapping • Demand Paging • ex Mode- handling Multiple Files • Named Buffer • Numbered Buffers • Entering control characters • Searching for a characters	9
II	**Filters and Advanced Shell Programming** • sed and sed options • grep and grep options • Line Addressing • Multiple Instruction(-E and -F) • Context Addressing • Writing Selected Lines to a File • Shell and subshell • Command Line Arguments • Exporting Shell Variables • Arrays • Shell Functions	18
III	**Networking Tools** • Introduction to TCP/IP • Network Management Tools- Firewall • The write command • The wall command • cron	9

Reference Books:

1. Linux Commands –Instant Reference by Bryan PF affenberge
2. The design of the Unix Operating System- Bach
3. Unix Shell Programming- Yashwant Kanetkar
4. Unix Concepts and Applications- Sumitabha das
5. Linux : The Complete Reference- Richard Peterson

Practical Based on DSE-23F

1. Write a shell script using grep command to print prime numbers between 1 to 30.
2. Write a shell script to find whether the supplied user working on network or not. If he/she is working then display his/her login time.
3. Write a anawk program to display customer earning report with given format.
4. Write a shell script which accepts a file name as a input. Find out whether it is ordinary file or directory. If a file is available then display all file access permission on screen.
5. Write a shell script which copies files from one directory to another during copy command.
6. Write an awk program to display stock report with given format.
7. Create a data file which contains given format and perform the given operations on that data file using sed.
8. Write a shell script to copy a file using command line argument, source file must be exists and readable and target file must be non existing file name.
9. Write a shell script, which works similar to wc command accept filename as command line argument.
10. Accept any word through command line argument and find out its length.

B.Sc. Part –III Computer Science Optional (Semester– VI) CourseCode:DSE-24F
Computer Paper XVI
Course Title: Python Part II
Total Contact Hours: 36 Hrs. (45 Lectures of 48 Min.)
Teaching Scheme: Theory – 03 Lect. / Week

Credits:02 **Total Marks:40**

Course Outcomes:

1. To learn how to write functions and pass arguments in Python
2. To learn how to build and package Python modules for reusability
3. To learn how to use exception handling in Python applications for error handling

Unit	Content	Hours Allotted
I	**Functions** • Defining a function • Calling a function • Types of functions • Function Arguments • Anonymous functions • Global and local variables	12
II	**Modules** • Importing module • Math module • Random module • Packages • Composition **Input-Output** • Printing on screen • Reading data from keyboard • Opening and closing file • Reading and writing files • Functions	12
III	**Exception Handling** • Exception • Exception Handling • Except clause • Try , finally clause • User Defined Exceptions **Object Oriented Programming Concepts** • Class and object • Attributes • Inheritance • Overloading • Overriding • Data hiding	12

Reference Books:

1 Practical Programming: An introduction to Computer Science Using Python, second

Practical Based on DSE-24F

1. Write a simple Python function to check whether x is even or odd
2. Write a simple Python program to demonstrate default arguments to function
3. Write a simple module (e.g. calc.py) for addition and subtraction
4. Write a program for importing sqrt() and factorial from the module math
5. Write a program to provide the facility to input and display it on the screen
6. Write a program to demonstrate to open and close file
7. Write a Python program to handle simple runtime error
8. Write program to handle multiple errors with one except statement
9. Write a python program to create user-defined exception
10. Write Python code to illustrate clean up (finally) actions
11. Write a program to demonstrate the use of class
12. Write a Python program to demonstrate inheritance
13. Write a Python program to demonstrate overloading
14. Write a Python program to demonstrate overriding

NATURE OF QUESTION PAPER AND SCHEME OF MARKING:

The practical Paper – IV is based on Paper No. IX, X, XIII and XIV.

The practical Paper – V is based on Paper No. XI, XII, XV and XVI.

The practical Paper – VI is of Major Project work done by the student.

NATURE OF PRACTICAL QUESTION PAPER:

1. The practical question paper IV and V for B.Sc.-III(computer science) will be of maximum 50 marks each.
2. The practical paper IV having four questions out of which two questions are based on Paper –IX (Sem.-V) Paper-XIII (Sem.-VI) and two questions are based on Paper X(Sem.V), Paper-XIV (Sem.-VI)
3. The practical paper V having four questions out of which two questions are based on Paper – XI (Sem.-V), Paper XV (Sem.-VI) and two questions are based on Paper-XII(Sem.-V), Paper-XVI (Sem.- VI)
4. The Student has to attempt any TWO questions out of FOUR questions. Each question carries 20 marks.
5. 10 marks are for Viva and certified Journal.
6. The student appearing for the practical examination is expected to write paper work for TWO questions. Paper work is compulsory and it includes problem analysis, Algorithm, source code, output and tracing.
7. It is expected to complete the paper work within 120 minutes. The student has to complete his/her actual practical experiment on machine within 90 minutes. The practical based viva will be of 30 minutes duration.
8. The duration of practical will be 4 hours.
9. Practical Paper VI is Project work of 100 marks.

Practical Paper VI: Project work - 100 marks

Project work Guidelines:

1. Institute is expected to conduct Industrial visit to any computerized industry and students are supposed to submit the report based on same.
2. Software development project is to be carried out by the candidate in actual consumer environment taking some real life problem.
3. The candidate submit the project work according to norms of software engineering i.e. the project document should contain Introduction, detailed design, sample testing and conclusion(Guidelines and other details are mentioned at **Appendix -1 and 2**)
4. Project will have internal guide to supervise and monitor the progress of the project. The internal guide may assign the project to the student or within the group of student (maximum 2 candidates in group) depending upon the complexity of the problem

6. The mark distribution for Practical paper VI will be as follows:

Project documentation	:	30 marks
On-line Presentation	:	20 marks
Project Based Viva-voce	:	30 marks
Industrial Visit Report	:	20 marks
Total Marks	**:**	**100marks**

Appendix- 1

Guidelines for Project:
Number of Copies: The student should submit two Hard-bound copies of the Project Report. (one copy for institute and one copy for student)

Acceptance/Rejection of Project Report:

The student must submit an outline of the project report to the college for approval. The college holds the right to accept the project or suggest modifications for resubmission.

Format of the Project Report:
The student must adhere strictly to the following format for the submission of the Project Report.

a. Paper:
The Report shall be typed on white paper, A4 size, for the final submission.

b. Typing:
The typing shall be of standard letter size, 1.5 spaced and on one side only. (Normal text should have Arial Font size 12. Headings have bigger size i.e. up to size 14)

c. Margins:

- The typing must be done in the following margins:
- Left -----1.5 inch, Right ----- 1 inch
- Top ----- 1 inch, Bottom ----- 1 inch

d. Front Cover:
The front cover should contain the following details:

- TOP : The title in block capitals of 6mm to 15mm letters.
- CENTRE: Full name in block capitals of 6mm to 10mm letters.
- BOTTOM: Name of the University, Course, Year of submission -all in block capitals of 6mm to 10mm letters on separate lines with proper spacing and centring.

f. Blank Sheets:
At the beginning and end of the report, two white black bound papers should be provided, one for The purpose of binding and other to be left blank.

Appendix - 2

- Input Design
- Report Design
- Implementation
- Testing

Standard Project Report Documentation Format

a) Covering Page

b) Institute/College certificate

c) Guide Certificate

d) Student declaration

e) Acknowledgement

f) Index (Chapter Scheme)

1) Introduction to Project

- Introduction
- Existing System
- Need and scope of System
- Organization Profile

2) Proposed System

- Objectives
- Requirement Engineering.
- Requirement Gathering.
- SRS

3) System Diagrams

- DFD
- ERD
- UML(if applicable)

4) System Requirements

- Hardware
- Software

5) System Design

- Database Design
- Input Design
- Output Design

6) User Guideline

- Installation process

7) Source Code

8) Outputs

- Input screens and Reports (with valid Data)

9) Conclusion and Suggestions

- Conclusion and suggestions

- Future enhancement
- Bibliography:

Note: Minimum 5 reports are essential as outputs of the project work done by the student

SHIVAJI UNIVERSITY, KOLHAPUR.

Accredited By NAAC with 'A' Grade

Revised Syllabus For

B.Sc Part- III

Chemistry

Syllabus to be implemented from

June, 2020 onwards.

INTRODUCTION

This syllabus is prepared to give the sound knowledge and understanding of chemistry to undergraduate students at last year of the B.Sc. degree course. The goal of the syllabus is to make the study of chemistry as stimulating, interesting and relevant as possible. The syllabus is prepared by keeping in mind the aim to make students capable of studying chemistry in academic and industrial courses and to expose the students, to develop interest in them in various fields of chemistry. The new and updated syllabus is based on disciplinary approach with vigour and depth taking care the syllabus is not heavy at the same time it is comparable to the syllabi of other universities at the same level. The syllabus is prepared after discussions of number of faculty members of the subject and by considering the existing syllabi of B.Sc. Part-I, II & III, new syllabi of XIth & XIIth standards, syllabi of NET and SET exams. U.G.C. model curriculum, syllabi of different entrance examination and syllabi of other Universities.

The units of the syllabus are well defined and the scope is given in detail. The periods required for units are given. The lists of reference books are given in detail.

OBJECTIVES

1. To promote understanding of basic facts and concepts in Chemistry while retaining the excitement of Chemistry
2. To make students capable of studying Chemistry in academic and Industrial courses and to expose the students to different processes used in Industries and their applications.
3. To expose the students to various emerging new areas of Chemistry and apprise them with their prevalent in their future studies and their applications in various spheres of chemical sciences.
4. To develop problem solving skills in students.
5. To developed ability and to acquire the knowledge of terms, facts, concepts, processes, techniques and principles of subjects.
6. To develop ability to apply the knowledge of contents of principles of chemistry.
7. To inquire of new knowledge of chemistry and developments therein.
8. To expose and to develop interest in the fields of chemistry
9. To develop proper aptitude towards the subjects
10. To develop the power of appreciations, the achievements in Chemistry and role in nature and society.
11. To develop skills required in chemistry such as the proper handling of appara tus and chemicals

Shivaji University, Kolhapur
B.O.S. in Chemistry
B.Sc. Part – III
Semester CBCS Syllabus
To be implemented from June – 2020

Equivalence

Sr. No.	Title of old paper (Syllabus implemented from June-2015)	Title of new paper (To be implemented from June-2020)
1	Paper – IX & XIII Physical Chemistry	Paper IX DSE-E5 and XIII DSE-F5 Inorganic Chemistry
2	Paper – X & XIV: Inorganic Chemistry	Paper- X DSE-E6 and XIV DSE-F6 Organic Chemistry
3	Paper-XI & XV: Organic Chemistry	Paper XI DSE-E7 and XV- DSE-F7 Physical Chemistry
4	Paper-XII & XVI: Analytical & Industrial Chemistry	Paper XII-DSE-E8 and XVI DSE-F8: Analytical & Industrial Chemistry

A repeater candidate, if any, will be allowed to appear for practical examination as per old course up to March / April 2021 examination.

List of Laboratory Equipments

Apparatus & Equipments

1. Digital balance with 1 mg accuracy
2. Conductometer
3. Potentiometer
4. pH Meter
5. Polarimeter
6. Colorimeter
7. Thermostat
8. Electric Oven
9. Suction Pump
10. Crucible Heater
11. IR Lamp
12. Magnetic stirrer
13. Buckner funnel
14. Water bath / Thermostat.
15. Platinum electrode
16. Glass electrode
17. Silver, Zinc, Copper electrodes
18. Conductivity cell
19. Distilled water plant.
20. Refractometer
21. Freeze
22. Deep Freeze
23. H_2S Apparatus
24. Muffle Furnace
25. Magnetic Stirrer

Glassware & Porcelain ware:

1. Burette (25/50 ml)
2. Micro burette (10 ml)
3. Pipette (5 ml,10 ml,25ml)
4. Graduated Pipette (1/2/5/10 ml)
5. Conical flask(100 ml, 250 ml)
6. Beakers (100 ml, 250 ml, 500 ml)
7. Volumetric flask (25ml,50 ml,100 ml, 250 ml)
8. Gooch Crucible / Sintered glass Crucible
9. Silica Crucible
10. Watch glass
11. Glass tubing
12. Glass Funnel (3")
13. Gas jar
14. Glass rod
15. Test Tubes (12 x100, 5x5x8)
16. Evaporating dish
17. TLC Unit
18. Measuring cylinder
19. Thile's tubes
20. Fusion Tube
21. Capillary tube
22. Stopper bottle
23. Thermometer ($1/10^{o}$, 360^{o})
24. Water condenser
25. Distillation flask (100 ml/ 250 ml)
26. Titration tiles.
27. Asbestos sheet.
28. Desiccators
29. Clay pipe triangle

Iron & Wooden ware:

1. Burners
2. Tripod stand
3. Iron stand
4. wire gauze
5. Burette stand
6. Test tube stand
7. Pair of tongs
8. Test tube holder
9. Spatula
10. Copper foil

Chemicals: All the chemicals required for experiments are mentioned in the syllabus.

Others:

1. Filter papers (Kalpi)
2. Whatman Filter paper No. 1, 40, 41 and 42.

Lab Safety Precautions / Measures in Chemistry Laboratory:

Part-I: Personal Precautions

1. All personnel must wear safety Goggles at all times.
2. Must wear the Lab. Aprons / Lab jacket and proper shoes.
3. Except in emergency, an over-hurried activity is forbidden.
4. Fume cupboard must be used whenever necessary.
5. Eating, Drinking and Smoking in the laboratories strictly forbidden.

Part-II: Use of safety and Emergency Equipments –

1. First aid kits.
2. Sand Bucket.
3. Fire extinguishers (dry chemical and carbon dioxide extinguisher).
4. Chemical storage cabinet with proper ventilation.
5. Material safety data sheets
6. Management of local exhaust system and fume hoods.
7. Sign in register if using instruments.

Nature of Theory Question Papers

N.B. The question paper should cover the entire syllabus. Marks allotted to questions should be in proportion to the lectures allotted to respective units.

Papers Semester V: IX-DSE-E5, X-DSE-E6, XI- DSE-E7, XII- DSE-E8,

Semester VI: XIII- DSE-F5, XIV-DSE-F6, XV-DSE-F7 and XVI- DSE-F8

Total Marks 40

Question No.	Details	Marks	Marks of Options
1.	Answer in one sentence (One mark for each question). Multiple choice questions (One mark for each question)	4 4	- -
2.	Long answer type questions (2 out of 3)	20	10
3.	Short answer type questions (3out of 5)	12	08
	Total	40	18

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General Structure

Theory Examination:

There will be four theory papers of 40 marks each for each semester. Their titles and distribution of marks are as follows.

Semester V : Papers IX-DSE-E5, X-DSE-E6, XI- DSE-E7, XII- DSE-E8,

Semester VI: Papers XIII- DSE-F5, XIV-DSE-F6, XV-DSE-F7 and XVI- DSE-F8

Paper – **IX** DSE-E5, **& XIII** DSE-F5: Inorganic Chemistry – 40 marks

Paper – **X** DSE-E6 **& XIV** DSE-F6**:** Organic Chemistry – 40 marks

Paper – **XI** DSE-E7 **& XV** DSE-F7**:** Physical Chemistry – 40 marks

Paper – **XII** DSE-E8 **&XVI** DSE-F8**:** Analytical and Industrial Chemistry – 40 marks

The duration of each theory paper for examination will be of 2 hours

Internal examination (Oral/Seminar/test/home assignment) will be conducted for 10 marks for each paper.

Practical Examination:

Practical examination will be of 200 marks. The distribution of marks will be as follows:

1. Physical Section : 60 marks
2. Inorganic Section : 65 marks
3. Organic Section : 60 marks
4. Project : 15 marks

Total: 200 marks

The duration of practical examination will be of three days – six and half hours per day.

CHEMISTRY

Semester Syllabus for B.Sc.-III

Theory

1. N. B. Figures shown in bracket indicate the total lectures required for the respective topics.
2. The question paper should cover the entire syllabus. Marks allotted to questions should be in proportion to the lectures allotted to respective topics.
3. All topics should be dealt with S.I. units.
4. Study tour/industrial visit/visit to national institute or research laboratory is prescribed.
5. Use of recent editions of reference books is essential.
6. Use of scientific calculator is allowed.
7. **Values required for spectral problems should be provided in the question paper.**

B.Sc. Part III (CBCS) SEMESTER-V
Paper No. DSE-E5, Chemistry Paper No. –IX
(Inorganic Chemistry)
(Theory Credits: 02, 30 hours, 37 lectures)

Expected Learning Outcomes:

Name of the topic	Expected Learning Outcome
1. Acids bases and Non-aqueous solvents	Useful for the study of role of acids and bases in Chemistry. The study of non –aqueous solvents is important to learn all chemical properties of solutes and from the research point of view.
2. Metal ligand bonding in transition metal complexes	Useful to understand geometry, stability and nature of bonding between metal ion and ligand in complexes.
3. Metals, semiconductors and Superconductors	The topic deals with the synthesis and the applications of the semiconductors and Superconductors in electrical and electronic devices.
4. Organometalic compounds	The structure, method of preparation and the applications of organo metallic compound in various fields are explained.
5. Catalysis	The classification, types, mechanism and applications of catalyst in industrial fields is explained.

Unit 1. Acids, Bases and Non aqueous Solvents **[8]**

1.1 Introduction to theories of Acids and Bases-Arrhenius concept, Bronsted-Lowry concept, Lewis Concept, Lux-Flood Concept (definition and examples)

1.2 Hard and Soft Acids and Bases. (HSAB Concept)

1.2.1 Classification of acids and bases as hard, soft and borderline.

1.2.2 Pearson's HSAB concept.

1.2.3 Acid–Base strength and hardness-softness.

1.2.4 Applications and limitations of HSAB principle.

1.3 Chemistry of Non aqueous Solvents.

1.3.1 Introduction, definition and characteristics of solvents.

1.3.2 Classification of solvents.

1.3.3 Physical properties and Acid-Base reactions in Liquid Ammonia (NH_3) and Liquid Sulphur Dioxide (SO_2).

Unit 2. Metal Ligand bonding in Transition Metal Complexes **[10]**

2.1 Crystal field theory (CFT)

2.1.1 Introduction: Shapes of d-orbitals, Basic assumptions of CFT.

2.1.2 Crystal field splitting of d-orbitals of metal ion in octahedral, tetrahedral, square planar complexes and John-Teller distortion.

2.1.3 Factors affecting the Crystal field splitting.

2.1.4 High spin and low spin octahedral complexes w.r.t. Co (II).

2.1.5 Crystal Field stabilization energy (CFSE), Calculation with respect to octahedral complexes only.

2.1.6 Limitations of CFT.

2.2 Molecular orbital theory (MOT).

2.2.1 Introduction.

2.2.2 MOT of octahedral complexes with sigma bonding such as $[Ti(H_2O)_6]^{3+}$,$[CoF_6]^{3-}$, $[Co(NH_3)_6]^{3+}$.

2.2.3 Merits and demerits of MOT.

Unit 3. Metals, Semiconductors and Superconductors. **[9]**

3.1 Introduction.

3.2 Properties of metallic solids.

3.3 Theories of bonding in metal.

i. Free electron theory.

ii. Molecular orbital theory (Band theory).

3.4 Classification of solids as conductor, insulators and semiconductors on the basis of band theory.

3.5 Semiconductors- Types - intrinsic and extrinsic and applications of semiconductors.

3.6 Superconductors: Ceramic superconductors - Preparation and structures of mixed oxide $YBa_2Cu_3O_{7-x}$.

3.7 Applications of superconductors.

Unit.4. Organometallic Chemistry. **[4]**

4.1 Definition, Nomenclature of organometallic compounds.

4.2 Synthesis and structural study of alkyl and aryl compounds of Be and Al.

4.3 Mononuclear carbonyls -Nature of bonding in simple mononuclear carbonyls.:$[Ni(CO)_4]$, $[Fe(CO)_5]$, $[Cr(CO)_6]$.

Unit 5. Catalysis **[5]**

5.1 Introduction

5.2 Classification of catalytic reaction- Homogenous and Heterogeneous

5.3 Types of Catalysis.

5.4 Characteristics of catalytic reactions.

5.5 Mechanism of catalysis.

i. Intermediate compound formation theory.

ii. Adsorption theory.

5.6 Industrial applications of catalysis.

Reference Books:

1. Concise Inorganic Chemistry (ELBS, 5th Edition) – J. D. Lee.
2. Inorganic Chemistry (ELBS, 3rd Edition) D. F. Shriver, P. W. Atkins, C. H.Lang Ford, Oxford University Press, 2nd Edition.
3. Basic Inorganic Chemistry : Cotton and Wilkinson.
4. Advanced Inorganic Chemistry (4^{th} Edn.) Cotton and Wilkinson.
5. Concepts and Models of Inorganic Chemistry : Douglas and Mc. Daniel. 3^{rd} Edition. John Wiley publication.
6. Structural principles in inorganic compounds. W. E. Addison.
7. Theoretical principles of Inorganic Chemistry – G. S. Manku.
8. Theoretical Inorganic Chemistry by Day and Selbine.
9. Co-ordination compounds. SFA Kettle.
10. Essentials of Nuclear Chemistry by H. J. Arnikar.
11. Nuclear Chemistry by M. N. Sastri.
12. Organometallic Chemistry by R. C. Mahrotra, A. Sing, Wiley Eastern Ltd.New Delhi.
13. Inorganic Chemistry by A. G. Sharpe, Addision – Wisley Longman – Inc.

14. Principles of Inorganic Chemistry by Puri, Sharma and Kalia, Vallabh Publication. Pitampur Delhi.
15. Text book of Inorganic Chemistry by K. N. Upadhyaya Vikas Publishing House – New Delhi.
16. Inorganic Chemistry 3rd Edn G. L. Miessler and D.A. Tarr, pearson publication.
17. Co-ordination compounds by Baselo and Pearson.
18. UGC Inorganic chemistry by H.C. Khera, Pragati prakashan
19. UGC Advanced Inorganic Chemistry by Agarwal and Keemtilal, Pragati Prakashan

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B.Sc. Part III (CBCS) SEMESTER-V
Paper No. DSE-E6 Chemistry Paper No. X
(Organic Chemistry)
(Theory Credits: 02, 30 hours, 38 lectures)

Expected learning Outcomes:

Name of the topic	Expected Learning Outcome
1. Introduction to Spectroscopy	Understanding of energy associated with electromagnetic radiation and its use in analytical technique.
2.UV-Vis Spectroscopy	Knowledge of chromophore, auxochrome and calculation of λ_{max}.
3. IR Spectroscopy	Knowledge of vibrational transitions, regions of IR spectrum, functional group recognition.
4.NMR Spectroscopy	Understanding of magnetic-non magnetic nuclei, shielding-deshielding, chemical shift, splitting pattern
5. Mass spectroscopy.	Knowledge of molecular ion, fragmentation pattern and different types of ions produced.
6. Combined Problems based on UV-Vis, IR, NMR and Mass Spectral data	Student will predict the structure of organic compound with the help of provided spectral data.

Unit 1. Introduction to Spectroscopy **[03]**

1.1 Meaning of spectroscopy.

1.2 Nature of electromagnetic radiation: wavelength, frequency, energy, amplitude, wave number and their relationship.

1.3 Different units of measurement of wavelength and frequency.

1.4 Different regions of electromagnetic radiations.

1.5 Interaction of radiation with matter: absorption, emission, fluorescence and scattering.

1.6 Types of spectroscopy and advantages of spectroscopic methods.

1.7 Energy types and energy levels of atoms and molecules.

Unit 2. UV-Vis Spectroscopy **[05]**

2.1 Introduction.

2.2 Beer-Lambert's law, absorption of UV radiation by organic molecules leading to different excitations.

2.3 Terms used in UV Spectroscopy: Chromophore, Auxochrome, Bathochromic shift, hypsochromic shift, hyperchromic and hypochromic effect.

2.4 Modes of electromagnetic transitions.

2.5 Effect of conjugation on position of UV band.

2.6 Calculation of λ_{max} by Woodward and Fischer rules for dienes and enones.

2.7 Colour and visible spectrum.

2.8 Applications of UV Spectroscopy.

Unit 3. IR Spectroscopy **[06]**

3.1 Introduction.

3.2 Principles of IR Spectroscopy.

3.3 Instrumentation, schematic diagram.

3.4 Fundamental modes of vibrations, types and calculation.

3.5 Conditions for absorption of IR radiations.

3.6 Regions of IR spectrum, fundamental group region, finger print region.

3.7 Hook's Law for Calculation of vibrational frequency.

3.8 Factors affecting IR absorption frequency.

3.9 Characteristic of IR absorption of following functional groups a) alkanes, alkenes, alkynes b) alcohol and phenols c) ethers d) carbonyl compounds e) amines f) nitro compounds and g) aromatic compounds.

Unit 4. NMR Spectroscopy **[09]**

4.1 Introduction.

4.2 Principles of PMR Spectroscopy.

4.3 NMR- Instrumentation, Schematic diagram.

4.4 Magnetic and nonmagnetic nuclei.

4.5 Chemical shift: definition, measurement, calculation, Factors affecting Chemical shift.

4.6 Shielding & deshielding.

4.7 Peak Integration.

4.8 Merits of TMS as PMR reference compound.

4.9 Coupling Constant.

4.10 Types of Coupling Constant.

4.11 Spin-spin splitting (n+1 rule).

4.12 Applications.

Unit 5. Mass Spectroscopy. **[08]**

5.1 Introduction.

5.2 Principles of mass spectroscopy.

5.3 Mass spectrometer - schematic diagram.

5.4 Types of ions produced during fragmentation.

5.5 Nitrogen rul

5.6 Fragmentation patterns of: alkanes, alkenes, aromatic hydrocarbons, alcohols, phenols, amines and carbonyl compounds.

5.7 McLaffrety rearrangement.

5.8 Applications.

Unit 6. Combined Problems based on UV, IR, NMR and Mass Spectral data. **[07]**

Reference Books: (Use recent editions)

1. Absorption Spectroscopy of Organic Molecules by V.M.Parikh.
2. Spectroscopy of Organic compounds by P. S. Kalsi.
3. Elementary Organic Absorption Spectroscopy by Y. R. Sharma.
4. Instrumental Methods of Analysis (7^{th} edition) by Willard, Merritt, Dean, Settle.
5. Spectroscopy by G. R. Chatwal and S. K. Anand
6. Spectroscopy by Pavia, lampman, Kriz,Vyvyan
7. Organic Spectroscopy (2^{nd} edition) by JagMohan
8. Organic Spectroscopy (3^{rd} edition) by William Kemp
9. Instrumental Methods of Chemical Analysis by H. Kaur

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B.Sc.-III (CBCS) SEMESTER V

Paper No. DSE- E7 Chemistry Paper No. XI

(Physical Chemistry)

(Theory Credits: 02, 30 hours, 38 lectures)

Expected learning Outcomes:

Name of the Topics	Expected Learning Outcome
1. Elementary quantum mechanics	Learning and understanding quantum Chemistry, Heisenberg's uncertainty principle, concept of energy operators (Hamiltonian), learning of Schrodinger wave equation. Physical interpretation of the ψ and ψ^2. Particle in a one dimensional box
2. Spectroscopy	Knowledge about spectroscopy, Electromagnetic spectrum, Energy level diagram, Study of rotational spectra of diatomic molecules: Rigid rotor model, Microwave oven, vibrational spectra of diatomic molecules, simple Harmonic oscillator model, Raman spectra: Concept of polarizability, pure rotational and pure Vibrational Raman spectra of diatomic molecules, related knowledge will be gained by the students.
3. Photochemistry	Learning and understanding photochemical laws, reactions and various photochemical phenomena.
4. Solution	Learning the various types of solutions, relations vapour pressure, temperature relations.
5. Electromotive force	Learning and understanding the knowledge of emf measurements, types of electrodes, different types of cells, various applications of emf measurements.

Unit 1. Elementary quantum mechanics **[08]**

1.1 Introduction.

1.2 Drawbacks of classical mechanics, Black body radiation, Photoelectric effect, Compton effect, Duel nature of matter and energy: De Broglie hypothesis.

1.3 The Heisenberg's uncertainty principle.

1.4 Concept of energy operators (Hamiltonian).

1.5 Derivation of Schrodinger wave equation, well behaved function.

1.6 Physical interpretation of the ψ and ψ^2.

1.7 Particle in a one dimensional box.

1.8 Numerical problems.

Unit 2. Spectroscopy **[08]**

2.1 Introduction.

2.2 Electromagnetic radiation.

2.3 Interaction of radiation with matter, Electromagnetic spectrum, Energy level diagram.

2.4 Rotational spectra of diatomic molecules: Rigid rotor model, moment of inertia, energy levels of rigid rotor, selection rules, Intensity of spectral lines, determination of bond length, isotope effect, Microwave oven

2.5 Vibrational spectra of diatomic molecules: Simple Harmonic oscillator model, Vibrational energies of diatomic molecules, Determination of force constant, overtones.

2.6 Raman spectra: Concept of polarizability, pure rotational and pure Vibrational Raman spectra of diatomic molecules, selection rules.

2.7 Comparative study of IR and Raman spectra, rule of mutual exclusion- CO_2 molecule.

2.8 Numerical problems.

Unit 3. Photochemistry **[06]**

3.1 Introduction, Difference between thermal and photochemical processes.

3.2 Laws of photochemistry: i) Grotthus - Draper law ii) Lambert law iii) Lambert – Beer's law (with derivation) iv) Stark-Einstein law.

3.3 Quantum yield, Reasons for high and low quantum yield.

3.4 Factors affecting Quantum yield.

3.5 Photosensitized reactions – Dissociation of H_2, Photosynthesis.

3.6 Photodimerisation of anthracene, decomposition of HI and HBr.

3.7 Jablonski diagram depicting various processes occurring in the excited state: Qualitative description of fluorescence and phosphorescence.

3.8 Chemiluminescence, Electroluminescence and Bioluminescence.

3.9 Numerical problems.

Unit 4. Solutions **[06]**

4.1 Introduction.

4.2 Ideal solutions, Raoult's law, Vapour pressure of ideal and non ideal solutions of miscible liquids.

4.3 Composition of liquid and vapour, vapour pressure and boiling point diagrams of miscible liquids. Distillation of miscible liquid pairs.

Type I : Systems with intermediate total vapour pressure (i.e. System in which b.p. increases regularly – Zeotropic).

Type II : Systems with a maximum in the total vapour pressure (i.e. System with a b.p. minimum – Azeotropic).

Type III : Systems with a minimum in the total vapour pressure (i.e. System with a b.p. Maximum – Azeotropic).

4.4 Solubility of partially miscible liquids.

i. Maximum solution temperature type: Phenol – water system.

ii. Minimum solution temperature type: Triethyl amine – water system.

iii. Maximum and minimum solution temperature type: Nicotine – water system.

Distillation of partially miscible liquid pairs.

4.5 Vapour pressure and distillation of immiscible liquids, steam distillation.

Unit 5. Electromotive force **[10]**

(Convention: Reduction potentials to be used)

5.1 Introduction

5.2 Thermodynamics of electrode potentials, Nernst equation for electrode and cell potentials in terms of activities.

5.3 E.M.F. series.

5.4 Types of electrodes: Description in terms of construction, representation, half cell reaction and emf equation for

i) Metal – metal ion electrode.

ii) Amalgam electrode.

iii) Metal – insoluble salt electrode.

iv) Gas – electrode.

v) Oxidation – Reduction electrode.

5.5 Reversible and Irreversible cells.

i. Chemical cells without transference.

ii. Concentration cells with and without transference.

iii. Liquid – Liquid junction potential: Origin, elimination and determination.

5.6 Equilibrium constant from cell emf, Determination of the thermodynamic parameters such as ΔG, ΔH and ΔS.

5.7 Applications of emf measurements :

i. Determination of pH of solution using Hydrogen electrode.

ii. Solubility and solubility product of sparingly soluble salts (based on concentration cells).

5.8 Numerical problems.

Reference Books:

1. Physical Chemistry by G. M. Barrow, International student Edition,Mc Graw Hill.
2. University General Chemistry by C.N.R. Rao, Macmillan.
3. Physical Chemistry by, R. A. Alberty, Wiley Eastern Ltd.
4. The Elements of Physical Chemistry by P. W. Atkins, Oxford.
5. Principles of Physical Chemistry by S. H. Maron, C. H. Prutton, 4thE dition.

6. Nuclear and Radiochemistry by Friedlander, Kennedy and Miller, John Wiley and Sons. Wiley International edition.
7. Essentials of Nuclear Chemistry by H. J. Arnikar, 4th edition. Wiley Eastern.
8. Principles of Physical Chemistry by Puri, Sharma, Pathania,Shobhanlal Naginchand and Company, Jalandar.
9. Instrumental methods of chemical analysis by Chatwal and Anand,5th Edition, Himalaya Publication.
10. Fundamentals of molecular spectroscopy by C. N. Banwell – Tata Mc Graw-Hill.
11. Quantum Chemistry including molecular spectroscopy by B. K. Sen,Tata Mc Graw -Hill.
12. Text Book of Physical Chemistry by S. Glasstone, Macmillan India Ltd.
13. Elements of Physical Chemistry by D. Lewis and S. Glasstone (Macmillan).
14. Principles of Physical Chemistry by Maron and Lando (Amerind).
15. Electrochemistry by S. Glasstone.
16. Physical Chemistry by W. J. Moore.
17. Basic Chemical Thermodynamics by V. V. Rao (Macmillan).
18. Essential of Physical Chemistry, Bahl and Tuli (S. Chand).
19. Text Book of Physical Chemistry, Soni and Dharmarha.
20. Advanced Physical Chemistry Gurdeep Raj GOEL Publishing House, 36th Edition

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B.Sc. Part III (CBCS) SEMESTER-V
Paper No. DSE-E8 Chemistry paper No. XII
(Analytical Chemistry)
(Theory Credits: 02, 30 hours, 38 lectures)

Expected learning Outcomes:

Name of the topic	Expected Learning Outcome
1.Theory of Gravimetric Analysis	Learning and understanding the techniques of gravimetric analysis.
2.Flame Photometry	Knowledge of instrumental analysis of alkali and alkaline earth elements.
3.Colorimetry and Spectrophotometry	Understanding, working and applications of optical methods as an analytical tool.
4.Potentiometric titrations	Understanding theory and applications of potentiometric titrations.
5.Chromatographic techniques and Quality control	Understanding the basics of ion exchange and column adsorption chromatography, Quality control practices in analytical industries / laboratories.

Unit 1. Theory of Gravimetric Analysis **[08]**

1.1 Introduction.

1.2 Gravimetric analysis by precipitation: nucleation, crystal growth, digestion/ageing, filtration, drying, ignition, weighing.

1.3 Optimum conditions for good precipitation.

1.4 Physical nature of precipitate.

1.5 Purity of precipitate: co-precipitation, post-precipitation.

1.6 Organic precipitants and their applications.

Unit 2. Flame Photometry **[06]**

2.1 Introduction.

2.2 General principles of flame photometry.

2.3 Instrumentation: Block diagram, Burners (Premix and Lundergraph burners), mirror, slits, filters, detector (Photomultiplier tube).

2.4 Effect of solvent in flame photometry.

2.5 Experimental procedure of analysis (Standard addition and internal standard).

2.6 Interferences and Factors that influence the intensity of emitted radiation in a flame photometer.

2.7 Applications of flame photometry in real sample analysis.

2.8 Limitations of flame photometry.

Unit 3. Colorimetry and Spectrophotometry **[06]**

3.1 Theory of colorimetry and spectrophotometry.

3.2 Lambert Beer's law, deviation from Beer's law.

3.3 Terms used in colorimetry and spectrophotometry.

3.4 Classification of methods of 'colour' measurement or comparison.

3.5 Photoelectric colorimeter method–Single beam photo-electric colorimeter.

3.6 Spectrophotometer method–Single beam direct reading spectrophotometer.

3.7 Determination of unknown concentration by using concentration-absorbance plot.

3.8 Applications of colorimetry and spectrophotometry.

Unit 4. Potentiometric titrations **[07]**

4.1 Introduction.

4.2 Determination of pH.

4.3 Study of Quinhydrone and Glass electrodes and their use in determination of pH.

4.4 Potentiometric titrations: Classical and analytical methods for locating end points.

4.5 Acids- Bases titration with suitable example.

4.6 Redox titration with suitable example.

4.7 Precipitation titration with suitable example.

4.8 Basic circuit of direct reading potentiometer.

4.9 Advantages of potentiometric titrations.

Unit 5. Chromatographic techniques and Quality control **[10]**

5.1 Introduction, classification.