



Dnyanopasak Shikshan Mandal's
ARTS, COMMERCE AND SCIENCE COLLEGE,
JINTUR-431509 (M.S.)

Course Outcomes

Indexs

Sr.No.	Subject
1	English
2	Hindi
3	Marathi
4	Economics
5	Political Science
6	History
7	Sociology
8	Commerce
9	Chemistry
10	Physics
11	Mathematics
12	Electronics
13	Computer Science
14	Botany
15	Zoology
16	Fishery Science

कला, वाणिज्य व विज्ञान महाविद्यालय, जिंतूर

स्थापना-१९८३



1. B.A/B.COM/ B.Sc. First year compulsory English

Name of the course : Ability Enhancement Compulsory course (AECC)

: English Communication.

: Paper I & II course outcomes :

1. The students were introduced with short stories, essays and poetry on important topics by well-known writers.
2. The students were made to learn the grammar items like word classes and tenses and they were encouraged to write letter of application, curriculum vitae and report writing.
3. The students were prepared for complete exams by encouraging them to learn English.

ENGLISH OPTIONAL

Paper – I - Understanding Prose Fiction:

1. The students were acquainted with the literary genre of fiction its meaning, types, features and functions.
2. The students were introduced with the world-famous novelists and short story writers.

Paper – II – Understanding Poetry:

1. The students were acquainted with the literary genre of poetry its meaning, types, features and functions.
2. The students were encouraged to understand and appreciate poetry by world famous poets.

Paper – III- Understanding Non-Fictional Prose.

1. The students were acquainted with the literary genre of non-fictional prose, its meaning, types, features and functions.
2. The students were encouraged to read, understand and appreciate non-fictional prose of world famous non-fictional prose writers.

Paper – IV Understanding Drama.

1. The students were acquainted with the literary genre of drama, its meaning, types, features and functions.
2. The students were inculcated the habit of reading and appreciating dramas of world-famous dramatists.

2. B.A/B.COM/ B.Sc. Second year - English Compulsory

Name of the Course : Ability Enhancement Compulsory Course (AECC)

: English Communication.

: Paper - III & IV

1. The students were introduced with short stories, prose/essays and poetry on various topics by well-known writers.
2. The students studied grammar items like active and passive voice, reported speech and communication skills like writing for print and electronic media.
3. The students were encouraged for oral and written communication in English.

(English Optional) Paper- V- study of American literature.

1. The students were introduced with various genres of American literature like prose, poetry, drama and fiction and various features of American literatures as well as American history, historical background, etc.
2. The students were encouraged to understand and appreciate world famous American literature in various genres.

Paper – VI – Study of Indian English Literature.

1. The students were acquainted with various genres of Indian English literature like prose, poetry, fiction, and drama and its various characteristic features.
2. The students were inculcated the habit of reading, understanding and appreciating famous/ well known literary works in Indian English literature.

Paper – VII – Study of Women’s Literature.

1. The students were introduced to women’s literatures, its meaning, types, features and functions.
2. The students were encouraged to study and appreciate well known world-famous literary works in women’s literature.

Paper – VIII – Study of Indian Literature in Translation.

1. The students were introduced to various genres in Indian literature in translation, its special features and historical background.
2. The students were inculcated the habit of reading, and appreciating various well known literary works in Indian literature in translation.

Third Year

Paper: IX – DSE – ENG – I: Literary Criticism – I

1. Learners were made to understand the concepts and significance of literary criticism and literary studies.
2. Learners were sensitised to the foundations of different critical traditions.

Paper : X – GE – ENG – I Modern English Structure: Understanding English Phonology

1. The learners were made to perceive and transcribe the sounds the English language, while learning the acoustic and articulatory properties.
2. The learners acquired the ability of synthesizing speech.

Paper : XI – DSE – ENG – II Literary Criticism – II

1. Learners gained in ability is appreciate literary texts through the practice of critical analysis.
2. Learners perceived the development of English literary criticism through the ages.

Paper: XII – GE – ENG – II Modern English Structure – II: Understanding English Grammar

1. The learners gained capability of producing grammatically and semantically correct spoken and written discourse.
2. The learners acquired the knowledge of theory and practice in the field of English grammar in contemporary times.

Hindi

Programme Specific outcomes - Hindi

1. छात्र साहित्य में रुचि दिखाते हैं।
2. राष्ट्रभाषा के प्रति रुचि दिखाते हैं। राष्ट्रभाषा के विद्यार्थियों में एकता का भाव निर्माण करता है।
3. हिंदी साहित्य छात्रों में सामाजिक प्रतिबद्धता का निर्माण करता है।
4. रोजगार के अवसर प्रदान करता है।
5. भाषिक ज्ञान में वदोत्तरी करते हुए प्रभावी संप्रेषण तथा लेखन शैली विकसित करता है।
6. साहित्य के माध्यम से जीवन तथा मानवीय मुल्यों का ज्ञान छात्रों को हुआ है।
7. समाज में व्याप्त धरातय पर आधुनिक समस्याओं का समाधान ढूँढता है।

B.A. I, B.Com. I and B.Sc. I: Hindi as a Second Language

Name of the Paper – साहित्य भारती

1. हिंदी भाषा के प्रति छात्र रुचि लेते हुए व्यावहारिक ज्ञान प्राप्त किया।
2. विद्यार्थियों बौद्धिक, भावनिक, काल्पनिक शक्तियों का विकास कर उन में सामाजिक प्रतिबद्धता निर्माण किया।

Paper II, III (Optional) Hindi

पेपर का नाम कथा साहित्य

1. विद्यार्थी कहानी और उपन्यास विधा की जानकारी देते हैं। उन में चिंतन तथा लेखन शैली का विकास हुआ है।
2. सफल जीवन के लिए निर्णयात्मकता महत्वपूर्ण होती है अतः छात्रों में उचित अनूचित का निर्णय लेने की क्षमता निर्माण हुई है।
3. छात्र समाज में व्याप्त सामाजिक धरातल पर आधारित समस्याओं का समाधान मानसिक क्षमता को परिकृत करता है। विद्यार्थी समाजहित तथा राष्ट्रहित का कार्य करता है।

Paper III and IV (Optional) Hindi

नाटक तथा एकांकी

1. नाटक तथा एकांकी विधा की जानकारी देता है। अभिनय रंगमंच तथा नाटक लेखन के प्रति रुचि निर्माण हुई है।
2. साहित्य के अध्ययन से विभिन्न कलाएँ विकसित हुई तथा रोजगार की प्राप्ति भी हुई है।
3. रंगमंच की भूमिकाओं द्वारा जीवन की भूमिकाओं को निभाने की कला विद्यार्थियों में अवगत करली है।

B.A. II, B.Com. II, B.Sc. II, SL Hindi Paper – III

कथेत्तर गद्य

1. छात्रों को विभिन्न विधाओं का ज्ञान हुआ है। विद्याओं से व्यक्तित्व निर्माण में मदद हुई है।
2. विविध विधाओं (कहानी, कविता संस्मरण रेखाचित्र, पत्र) के द्वारा मानवताएँ देशभक्ती, राष्ट्रप्रेम जैसे नैतिक गुणों का विकास हुआ।
3. विद्यार्थियों का सर्वांगीण विकास हुआ।
4. इंटरनेट, वेबसर्चिंग, ब्लॉग का रोजगार उपयोग करते हैं।

Semi – III B.A. Second Year (Optional)

पेपर V: मध्ययुगीनकाव्य

1. संत चरित्र तथा साहित्य से विद्यार्थियों के व्यक्तित्व का निर्माण हुआ।
2. संत साहित्य द्वारा जीवन जीने की कला विद्यार्थी सिख गया।
3. विद्यार्थियों पर आदर्श जीवन जीने के संस्कार हो गए हैं।

पेपर VI :निबंध तथा कथेत्तर गद्य

1. निबंध तथा कथेत्तर गद्य (संस्मरण, साक्षात्कार पत्र) विधाओं को जानता है।
2. निबंध के माध्यम से छात्रों में नैतिक मुल्यों का विकास हुआ।

Optional SEC – I : हिंदी कौशल्य विकास

1. छात्रों में संभाषण कौशल्य विकसित हुआ है।
2. छात्र रोजगार मुलक हिंदी से परिचित हुआ है।

3. भारतीय संस्कृती, त्योहारों की जानकारी बताता है।

Paper – IV : नाटक तथा प्रयोजन मुलक हिंदी

1. नाटकविधा के द्वारा दलित समाज की समस्याओंको समझता है तथा उसपर समाधान ढुँढता है।
2. प्रयोजनमुलक हिंदी रोजगार अवसर प्रदान करता है।

B.A. II Hindi (Optional) Paper- VII : आधुनिक काव्य

1. काव्यविधा की जानकारी बताता है।
2. कविताके द्वारा छात्रोंमें देशप्रेम, प्रकृति प्रेम, राष्ट्रप्रेम की जागृती हुई है।
3. भूत और भविष्य को ध्यानमें रखकर जीवन जीने की कला विद्यार्थी सीख गए है।

B.A. III year Hindi (Optional)

1. हिंदी साहित्य के इतिहास की जानकारी देते है।
2. हिंदी साहित्य की प्रष्ठभुमि तथा प्रवृत्तियों बताते है।
4. छात्र जीवनमुल्य तथा जीवनदर्शन का ज्ञान प्राप्त करते है।

Hindi (Optional) Paper- X : हिंदी भाषा

1. हिंदी भाषा का स्वरूप तथा प्रयुक्त क्षेत्र की जानकारी बताता है।
2. हिंदी भाषा बोलचाल, साहित्य, विज्ञान, व्यापार की जानकारी बताता है।

SEC – III:हिंदी भाषा कौशल्य

1. छात्रोंमें व्यावसायाभिमुख कौशल्य विकसित हुआ है।
2. व्यावसाभिमुख दृष्टीकोण विकसित हुआ।

B.A. III Sem - VI

XI: साहित्यशास्त्र

1. जीवन जीने की कला के साथ व्यक्तित्व विकास हुआ है।
2. छात्रोंमें शास्त्रीय दृष्टीकोन विकसित हुआ है।
3. शब्द और अर्थों के संबंध बताता है।

B.A. III Sem - VI

XII: भाषा शिक्षण

1. छात्र भावनाओं विचारों की अभिव्यक्ति हिंदी भाषा में करता है।
2. भाषाई शुद्धता एवं कुशलता के माध्यम से रोजगार के अवसर प्राप्त किए।

SEC – IV:हिंदी भाषा कौशल्य

1. भाषाकौशल्य द्वारा युवाओं में व्यावसायाभिमुख कौशल्य विकसित हुआ।
2. युवाराष्ट्र निर्माण में योगदान देते है।
3. विविध कौशल्य छात्रों में विकसित हुए।

मराठी विभाग

(PSO)

मराठी द्वितीय भाषा (SL)

1. मध्ययुगीन व आधुनिक गद्य पद्याचे स्वरूप लक्षात येते
2. मराठी साहित्य, भाषा आणि व्याकरणाची ओळख होते.
3. वाङ्मय निर्मितीच्या प्रेरणांची उकल होते.
4. विद्यार्थ्यांचे वैचारिक पोषण होऊन भाषिक जाणीव समृद्ध होते.

ऐच्छिक मराठी

1. आधुनिक मराठी कथा वाङ्मयाचे स्वरूप लक्षात येते.
3. कवितेचा इतिहास समजतो.
4. कथात्म साहित्याची ओळख होते.
5. विद्यार्थ्यांना विविध लेखन प्रकारांचे ज्ञान प्राप्त होते.
6. नाट्य वाङ्मयाचे स्वरूप समजते.
7. कादंबरीचा वाङ्मय प्रकारामुळे जीवनाच्या आकलन क्षमता विकसित होते.
8. लोकाला उपयोगिता सिद्ध होते.
9. मध्ययुगीन साहित्याचे आकलन होते.
10. भारतीय आणि पाश्चिमात्य साहित्याची व्याप्ती लक्षात येते.
11. भाषा विज्ञान आणि व्याकरणाची तोंड ओळख होते.

बी.ए., बी. कॉम., बी.एस.सी., प्रथमवर्ष
द्वितीय भाषा(SL) – I

सेमीस्टर-पहिले- 'अक्षरलेणी'

1. मध्ययुगीन व आधुनिक गद्य, पद्य वाङ्मयाचा परिचय होतो.
2. मराठीतील वाङ्मय प्रकारांची ओळख होते.
3. मराठी भाषेतील व्याकरणाचे उपयोजन कळते.

सेमीस्टर-दुसरे- 'साहित्य शिल्प'-II

1. मराठी साहित्याची ओळख होते.
2. भाषेतील प्रमाण लेखनाची ओळख होते.
3. जीवन व कलामुल्यांचा परिचय होतो.

बी.ए., मराठी ऐच्छिक, प्रथमवर्ष

सेमीस्टर-पहिले- ' Optional'-I "आधुनिक मराठी कथा वाङ्मय"

4. कथा वाङ्मयाच्या विविध प्रकारांची ओळख होते.
5. विद्यार्थ्यांची कथात्म दृष्टी विकसित होते.
6. कथा वाङ्मयाची अभिरुची निर्माण होते.

सेमीस्टर-पहिले- ' Optional'-II " मध्ययुगीन आणि आधुनिक पद्य वाङ्मय"

4. कवितेच्या विचारधारा समजून घेता येतात.
5. कवितेचे विविध रचनाप्रकार कळतात.
6. काव्य वाङ्मयाचा परिचय होतो.

सेमीस्टर-दुसरे- ' Optional' -III " मराठी कथात्म साहित्य"

5. मानवी मुल्यांची रुजवणूक होते.
6. वाचन आणि लेखन अभिरुची वृद्धीगत होते.
7. कथात्म साहित्यातील विविध लेखन प्रकारांची माहिती मिळते.

सेमीस्टर-दुसरे- ' Optional' -IV " आधुनिक मराठी कविता"

4. आधुनिक मराठी कवितेचा परिचय होतो.
5. कवितेचे रचनाप्रकार कळतात.
6. आधुनिक मराठी कवितेच्या प्रेरणा कळून येतात.

(CO)

बी.ए., बी. कॉम., बी.एस.सी., द्वितीय वर्ष

द्वितीय भाषा(SL) – III

सेमीस्टर-तिसरे- "अक्षरविद्या"

3. मराठी वाङ्मय निर्मितीच्या प्रेरणांची उकल होते.
4. मराठी साहित्याची आवड निर्माण होते.
5. मराठी शब्दाकरांचा परिचय होतो.

सेमीस्टर-चौथे- "साहित्य विद्या" -IV

4. विद्यार्थ्यांची भाषिक जाणीव समृद्ध होते.
5. विद्यार्थ्यांचे वैचारिक पोषण होते.
6. मराठी गद्य पद्यांच्या स्वरूपाचे ज्ञान होते.

बी.ए., मराठी ऐच्छिक, द्वितीय वर्ष

सेमीस्टर-तिसरे- ऐच्छिक-V "निवडक मराठी गद्य"

1. मराठी गद्य साहित्याची ओळख होते.
2. विविध लेखन प्रकारांची माहिती होते.
3. विद्यार्थ्यांना गद्य साहित्य निर्मितीस प्रेरणा मिळते.

सेमीस्टर-तिसरे- ऐच्छिक-VI "मराठी नाट्यात्म साहित्य"

1. आधुनिक मराठी नाटकांचा परिचय होतो.
2. नाटयरचना प्रकार, भाषा, प्रतिमा सृष्टीचा अभ्यास होतो.
3. नाटय प्रवाहातील वैचारिक अधिष्ठानाचा शोध लागला.

सेमीस्टर-चौथे- ऐच्छिकमराठी-VII "मराठी कादंबरी लोकवाङ्मय"

3. कादंबरी वाङ्मयाच्या विविध प्रकाराची ओळख होते.
4. विद्यार्थ्यांची कथात्म दृष्टी विकसित होते.
5. जीवनाच्या आकलन कथा रुंदावतात.

सेमीस्टर-चौथे- ऐच्छिक मराठी-VIII "मराठी लोकवाङ्मय"

3. लोकधारांची ओळख होते.
4. विविध लोक परंपरांचा परिचय होतो.
5. लोकसंस्कृतीचे स्वरूप समजून येते.

Sec. - I

सेमीस्टर-तिसरे" मराठी भाषिक कौशल्ये: संभाषण कौशल्ये"

4. संभाषण कौशल्ये विकसित होतात.
5. विविध व्यवसायातील संधी लक्षात येतात.
6. संभाषण क्षेत्राची दारे खुली होतात.

Sec. - II

सेमीस्टर-चौथे " मराठी भाषिक कौशल्ये: लेखन कौशल्ये"

- 1^प लेखन कौशल्ये विकसित होतात.
- 2^प लेखन क्षेत्राची दारे खुली होतात.
- 3^प भाषिक क्षमतांचा विकास होतो.

बी.ए., तृतीय वर्ष- IX & XI

सेमीस्टर-पाचवे आणि सहावे " मध्ययुगीन मराठी वाङ्मयाचा इतिहास"

2. मध्ययुगीन वाङ्मय निर्मितीच्या प्रेरणा समजतात.
3. वाङ्मय स्वरूप, परंपरा व इतिहासाचा परिचय होतो.
4. मध्ययुगीन वाङ्मय स्वरूपाचे ज्ञान होते.

सेमीस्टर-पाचवे " साहित्य विचार"-X

1. भारतीय साहित्य शात्राची ओळख होते.
2. पाश्चिमात्य साहित्य विचारांचा परिचय होतो.
3. साहित्याच्या भाषेचे स्वरूप लक्षात येते.

सेमीस्टर-सहावे " भाषाविज्ञान व व्याकरण" - XII

1. मराठी भाषेचा इतिहासाची ओळख होते.
2. भाषेचे शास्त्र शुध्द स्वरूप समजून येते.
3. मराठी व्याकरणिक घटकांचे ज्ञान होते.

बी.ए., तृतीय वर्ष- Sec - III

सेमीस्टर-पाचवे " मराठी भाषिक कौशल्ये विकास भाग एक"

1. भाषिक कौशल्याच्या विकासाला वाव मिळतो.
2. भाषिक क्षमतांच्या वाढीस मदत होते.
3. ग्रंथ प्रकाशाचे स्वरूप समजून घेता येते.

बी.ए., तृतीय वर्ष- Sec - III

सेमीस्टर-सहावे " मराठी भाषिक कौशल्ये विकास भाग दोन"

1. विविध क्षेत्रातील व्यवसायाच्या संधी मिळतात.
2. देहबोलीचे महत्त्व कळते.
3. संभाषण प्रभारी होते.

Course outcomes
Department of Economics
Course outcomes For B.A. First Year
Semester – I

1. Micro Economics (Comp.) Paper – I

- I) Meaning, nature and scope were studied in this course.
- II) Student utilized their ability to tackle the current economic problems.
- III) Students adopted more knowledge in the field of modern economics by studying this course.
- IV) This course increased the utility and application to acquire more satisfaction in life.

2. Economy of Maharashtra (Optional) Paper – II

- I) Awareness about development in economy of Maharashtra has been created.
- II) Students understand the various challenges of economy in Maharashtra.
- III) Students studied the problems of economy in Maharashtra.
- IV) Student can suggest remedies for different issues of economy in Maharashtra.
- V) Enhanced the knowledge of student about the different concepts of economy in Maharashtra.

OR

3. Statistical Methods (Optional) Paper – II

- I) The study of the course prepared students to understand the statistical method.
- II) The course created interest among the students to learn technical paper like statistics, quantitative techniques, mathematical economics and economics.
- III) The course made the students able to understand basic statistical tools of data analysis.
- IV) This course is useful for the students to get job where the data analysis is comprehensively used.

Semester – II

4. Micro Economics (Compulsory) Paper – III

- I) Students got the knowledge about production cost, and revenue.
- II) Students were acquainted with the various markets from the point of view of competition.
- III) This course was helpful to realize the actual market through competitive point of view.
- IV) The students acquired knowledge about different factors of production.

5. Economy of Maharashtra (Optional) Paper IV

- I) Awareness about development in economy of Maharashtra is created.
- II) Students understood the various challenges of economy in Maharashtra.
- III) Students studied the problems of economy in Maharashtra.
- IV) This study suggested remedies for different problems in economy of Maharashtra.

OR

6. Statistical Methods. (Optional) Paper – IV

- I) The students understood the statistical methods.
- II) This is useful for the students to get job where the data analysis is widely used.
- III) The students were able to understand the basic statistical tools of data analysis.
- IV) Understanding of the basic concepts of data interpretation with the help of statistics was facilitated.

Course outcomes For B.A. Second Year
Semester – III

1. Micro Economics – I (Compulsory) Paper – III

Course objectives:-

- I) Students can understand the basic introductory principles of macroeconomics theory.
- II) The students to understand the basic analytic framework and models of macroeconomics in a general manner.
- III) The students equipped to analyse the real-world economic issues in a rational manner.
- IV) This course developed the broad conceptual frame work, which enabled students to understand and comment upon real economic issues like inflation, money supply GDP and their interlink age.

2. Quantitative techniques – I (Optional) Paper – VI

Course Objectives :-

- I) Student can apply Quantitative skill to real economic problems.
- II) Student can apply the rank correlation coefficient practically.
- III) Student understood the various techniques in statistics.

- IV) Students can utilize the mathematical techniques in the competitive exams.
- V) The numerical efficiency among the students is increased.
- I) The course was helpful to study other branches of economics and research. The course was useful for the students to understand data analysis, estimation and inference since the course is based on the technique of statistics.

OR

3. Economics of Development (Optional) Paper – VI

- I) Course was useful in understanding the concept of development from many dimensions.
- II) Learners were made aware of the different approaches towards development.
- III) Course was useful in understanding different government schemes in the process of economic development.

4. Skill Enhancement Course cashless transaction (Sec - I)

Course outcomes :-

- I) Banking systems inexistence and how they are structured are disused.
- II) The relative importance of new modes of payments in transaction was explained.
- III) The main types of cashless instruments and main techniques employed by banks are introduced to the learners.

Semester IV

5. Macro Economics – II (Compulsory) Paper VII

- I) This course aims to develop the broad conceptual frameworks, which enabled students to understand and comment upon real economic issues like employment and multiplier, acceleration, banking system, open economy, and their interlink ages. It also allowed the students to evaluate various macro economics policies in terms of a coherent logical structure.

6. Quantitative Techniques – II (Optional) Paper – VIII

- I) Students got knowledge about how the value of money is decided.
- II) Students studied price differentiation between base year and current year.
- III) Students studied the change in economic factors in course of times.
- IV) Students studied the economic and social trend with the help of moving average method.

OR

7. Economics of Developments and Environment (Optional) Paper - VIII

- I) Student understood the environmental concept.
- II) Students came to know the role of environmental in the process of development.
- III) Student acquired an idea about sustainable development and natural resource management.

8. Skill Enhancement Course Data Collection (Sec – II)

Course objectives :-

- I) To develop the understanding of the basic concept of research.
- II) To develop the understanding of the basic framework of sampling and data collection.
- III) To develop the understanding of various sampling methods and techniques.
- IV) To identify various sources of information for data collection.

Course of Outcome :-

- I) The students enabled to classify and present the collected data in the form of graph bar, diagram, chart etc.
- II) The students identified the appropriate source of data in relation to the collection of research data.
- III) The students demonstrated his/her understanding of sampling methods and the ability to use collection of data.

Course outcomes For B.A. Third Year Semester – V

1. History of Economic Thoughts – I (Optional) DSE - ECO – IX

- I) The pupils understood the basic economic concept by studying the course.
- II) The students were able to solve the economic problems by studying the course.
- III) The students acquired the judgment power by studying the comparative approach.

OR

2. Mathematical Economics (Optional) DSE –ECO – IX

Course Objectives :-

- I) Understand the basic mathematical concepts to students
- II) Utilize the theories of economics using mathematics and statistics

III) Understand the basic concept of economics with the help of mathematics and statistics.

3. Indian Economics (Compulsory) GE - ECO - X

Course Outcomes :-

- I) Student acquired the knowledge of Indian Economy.
- II) Student understood various challenges of Indian economy.
- III) Students were able to suggest various measures to policy makers for solution of economic problems.

4. Skill Enhancement Course Financial Inclusion and Financial Literacy (Sec - III)

- I) Students were able to create their own financial plan.
- II) The students were able to create their own budget
- III) The student proposed a personal saving and investment plan.
- IV) The students were made aware about financial inclusion and financial literacy.
- V) The students were face prepared face a challenging economical future.

Semester VI

5. History of Economic Thoughts - II (Optional) DSE - ECO - XI

Course outcomes:-

- I) Agricultural entrepreneurship was adopted by pupils.
- II) Students got knowledge of the exploitation of Indian economy in the British rule.
- III) Students came to know how much the political leadership is successful in solving the economic problems of the society.
- IV) The students came to know the importance of eastern economic ideas on the world level.

6. Mathematical Economics - II DSE - ECO - XI

Course of Outcome :-

- I) Students understood basic economic concept with the help of this course.
- II) This course was important to prepare the background for the post graduate course in economics.
- III) This course is useful for preparation of competitive exam.
- IV) With the help of this course, the student tightly understands the basic economic concepts.

7. Public Finance (Compulsory) GE - ECO - XII

Course of Outcome :-

- I) Students were made able to analyse different concept of public finance.
- II) The student understood the imbalance between public revenue and public expenditure.
- III) The student suggested various measures to decrease deficit.
- IV) The students were enabled to evaluate working of recent finance commission.

8. Skill Enhancement Course Entrepreneurship Development (SEC - IV)

- I) The students were explained the competencies of an entrepreneur understand the meaning and ways of generating ideas and able to prepare a business plan.
- II) The students understood the reasons of success and failure of a business plan.
- III) The students were made identify the various support structure available for promoting entrepreneurship.

कला, वाणिज्य व विज्ञान महाविद्यालय, जितूर

स्थापना-१९८३



Program :BAFY
Subject :Political Science
Paper I Title : Introduction of Political Concepts

Unit No.	Unit Name	Topics	Unit-wise Outcome
1	State	Meaning & Definition Elements, Theories,	Students acquainted with the origins of state
2	Government	Meaning & Definition Organs, Types	Introduced students with the types and relations state & government
3	Sovereignty	Meaning & Definition Characteristics, Types, Theories	Explained students the need of sovereignty for state and thoughts related to it
4	Power and Authority	Meaning & Definition Bases, Characteristics, Types	Students Introduced with difference between power & authority, origins and characteristics.

Specify Course Outcome : Students studied different concepts, important to understand Introduction of Political Concepts.

Specify Program Outcome: They understood political behavior of human being, overall Introduction of Political Concepts.

Class :- B.A. F.Y
Subject :- Political Science
Paper :- Government and Politics of Maharashtra
Paper :- II

Unit No.	Unit Name	Topics	Unit wise outcomes
1.	Formation of Maharashtra State	State recognition commission Sanyukta Maharashtra movement	Student understand the formation of Maharashtra State
2.	State Government	i) Government power and function ii) Chief Minister power and function iii) Council of Minister power and function	Assessed the power and function of state executives and legislatives
3.	State legislature	i) Legislative Assembly composition power and function ii) Legislative council Composition power and function	Studied the structure of state assembly
4.	Judiciary	High Court, District Court, Taluka Court Composition Function	Examinable the role of Judicious in governance

Program : BAFY
Subject :Political Science
Paper III Title :Introduction of Political concepts

Unit No	Unit Name	Topics	Unit-wise Outcome
1	Liberty, Equality and Justice	Meaning & Definition, types relations, social justice, Sources	Students understood Liberty, Equality and Justice students understood
2	Legitimacy	Meaning & Definition, Classification elements, essentials	Succeeded to develop general idea of legitimacy.
3	Democracy	Meaning & Definition, features and types, merits and demerits conditions & obstacles	Implanted the values and ethics of democratic system
4	Nationalism	Meaning & Definition, Elements types, merits and demerits	Developed nationalism among the students.

Specify Course Outcome: Students understood the Introduction of political concepts Specify Program Outcome : Students understood the Introduction of political concepts

Class :- B.A. F.Y

Subject :- Political Science

Paper :- Government and Politics of Maharashtra Paper :- IV

Unit No	Unit Name	Topics	Unit wise outcomes
1.	Local self government (Rural)	73th Constitutional amendment composition power and function of Gram Panchayat, Panchayat Samiti, Zilha Parishad	Student understand various provisions of amendment and structure or rural bodies
2.	Local self government (Urban)	74th Constitutional amendment composition, power and functional of Municipal co. council	Student understand various provision of amendment and structure of urban bodies
3.	Regional and politics parties in Maharashtra	Shetkari' Kamgar Paksha, Shivsena, Republican Party, M.N.S.	Students Studies the objects, agendas of various parties
4.	Political Movement in Maharashtra	Peasents, Mahathawada, vikasAndolan, Anti corruption, Andhashradha Nirmulan movement	Students studied the objects agendas of various movements

Program :BASY

Subject :Political Science

Paper V Title :INDIANGOVERNMENTANDPOLITICS

Unit No	UnitName	Topics	Unit-wise Outcome
1	Indian Constitution	Sources, Preamble, Features	Student understood the importance of preamble
2	Constitutional Provisions	Fundamental Rights Fundamental Duties Directive Principles	Implanted the values regarding the fundamental rights & duties
3	Legislature	Loksabha, Rajyasabha-structure, power & functions, Law Making Process	Acquainted students with the power and functions of union government
4	Executive	President, Vice President, Prime Minister, Cabinet	Acquainted students with the power and functions of Executive
5	Judiciary (Supreme Court)	Composition, power & function Independence of Judicial Review	Student understood the importance of Judiciary

Specify Course Outcome : Succeeded to inculcate in students the overall functioning of union government in democracy.

Specify Program Outcome : Students understood the nature of Indian Government and politics

Class :- B.A. S.Y

Subject :- Political Science

Paper :- International Relation Paper :- VI

Unit No	Unit Name	Topics	Unit wise outcomes
1.	International Relations	Meaning and definition, stages Nature, scope and significance	Students understand with overall nature of International relations
2.	Approaches to the study of International Relations	Historical approach Decision making approach, game theory	Students analyses different approaches of international relations
3.	National Interest	Meaning, Definition, Nature, types characteristics element	Students studied the concepts of National interest
4.	National power	Meaning, Determinations limitations	Studied the concept of national power
5.	Balance of power	Meaning and definition technique, types significance	Students understood the role of balance of power in I.R.

Program : B.A.S.Y
Subject : Political Science

Course Code : Paper VII

Title : INDIAN GOVERNMENT AND POLITICS

Unit No	Unit Name	Topics	Unit-wise Outcome
1	Centre - State Relations	Legislative Administrative Financial	Examined state- centre relations
2	Election Commission	Structure, Functions, Role of Election Commission Electoral Reforms	Student understood the Functions & Role of Election Commission
3	Political Parties in India	Features of Party System in India All Indian National Congress, Bhartiya Janta Party, Communist Party	Students acquainted with the types and nature of political parties
4	Role of Opposition Party in Indian Democracy	History, Controlling Devices on Rolling Prates, Role & Functions of Opposition Parties	Students acquainted with the Functions and Role of Opposition parties
5	Challenges before Indian Democracy	Casteism Communalism Regionalism	Studied different challenges before democracy

Specify Course Outcome : Student studied different organs and political parties in Indian government

Specify Program Outcome : Acquainted students with different organs of government and political parties in India

Class :- B.A. S.Y
Subject :- Political Science
Paper :- International Relation Paper :- VIII

Unit No.	Unit Name	Topics	Unit wise outcomes
1.	Disarmaments	Meaning and definition obstacles types of disarmament	Students understood with arms race arms control and disarmament
2.	Diplomacy	Meaning and definition objective types function importance	Students understood with function, types importance of diplomacy
3.	Propaganda	Meaning and definition Necessities, techniques problems	Studied the Necessities Techniques, Agencies and problems of propaganda
4.	International Law	Meaning and definition Nature, Characteristics, Sources, Importance, limitations	Students understood the nature, Importance limitations of international Law
5.	United Nations	Origin objectives structure functions success and failures	Students Analyses different aspects of united nations.

Class :- B.A. T.Y
Subject :- Political Science
Paper Name :- Indian Political Thought Paper :- IX

Unit No.	Unit Name	Topics	Unit wise outcomes
1.	B.G. Tilak (1856-1920)	Views on social reforms chatusutri Nationalism- critical, Appreciation of Tilak's Views on nationalism	Students understood the thought of B.G. Tilak from all aspects
2.	M.K. Gandhi (1869-1948)	Views on truth and non violence satyagrah thought on state critique of westerns civilization	Student understood the thought of M.K. Gandhi from all aspects.
3.	DR. B.R. Ambedkar (1891 - 1956)	Nation, and nationalism thought on social democracy state socialism critique of cast system	Students understood the thought of B.R. Ambedkar from all aspects
4.	Pandit Jawaharlal Nehru (1889-1964)	Thought on nationalism democracy socialism, Idea of secularism Internationalism	Students understood the thought of Pandit J. Neharu all aspects.
5.	M.N.Roy (1887-1954)	Thoughts on Marxism Roy and Gandhism Radical Humanism Roy and Nationalism	Students understood the thoughts of M.N. Roy from all aspects

Program :BATY
Subject :Political Science
Paper : X Title : WESTERN POLITICAL THINKER

Unit No	Unit Name	Topics	Unit-wise Outcome
1	Plato	Ideal State Philosopher King Views on Education Concept of Justice Theory of Communism Second Ideal State	Student understood the thoughts of Plato from all aspects
2	Aristotle	Concept of Ideal State, Views on Family and Property Thoughts on Slavery Views on Civilization Thoughts on Revolution	Student understood the thoughts of Aristotle from all aspects
3	Machiavelli	Thoughts on Human Nature Views on Religion and Morality, State-Craft	Student understood the thoughts of Machiavelli from all aspects
4	Jean-Jacques Rousseau	View on Human Nature, Social Contract Theory, General Will Sovereignty	Student understood the thoughts of J. J. Rousseau from all aspects
5	J. S. Mill	His contribution to utilitarianism liberty Thoughts on Representative Government	Student understood the thoughts of J. S. Mill from all aspects

Specify Course Outcome: Student studied various Western political thinkers and understood various views.
Specify Program Outcome : offered in depth analysis of Western political thinkers

Class :- B.A. T.Y
Subject :- Political Science
Paper Name :- Political Ideology Paper :- XI

Unit No.	Unit Name	Topics	Unit wise outcomes
1.	Political Ideology	Meaning, Natures, Silent Features, Functions significance	Student understand the concept of ideology
2.	Liberalism	Meaning, definitions and nature origin and developments kinds classical and modern liberalism critique of liberalism	Students acquainted with the idea of liberalism
3.	Marxism	Meaning, features, Theories of Marx's Indian Marxist movement	Student understand idea of Marxism to student
4.	Democratic socialism	Meaning, definition origin and developments sources principles critics	Student acquaintal with the idea of democratic socialism
5.	Fascism	Meaning, Definition origin and development sources principles corporate state	Implanted among, student the spirit of Empowerment

Program :BATY
Subject :Political Science
Paper XII Title : MODERN POLITICAL ANALYSIS

Unit No	Unit Name	Topics	Unit-wise Outcome
1	Emergence of Modern Political Analysis	Meaning, Definitions Origin, Nature and Scope Characteristics Significance	Understood the nature and features of modern political analysis
2	Approaches to the Study of Modern Political Analysis	Behavioral Approach System approach Structural Functional Approach	Students were acquainted with the different approaches of political analysis

3	Political Leadership	Meaning and Definition Elements of Leadership Qualities of Ideal Leadership Types of Leadership	This section taught student the essentials of leadership
4	Political Participation	Meaning and definition Characteristics Types, Determinants, Political Apathy	Student studied features functions of political parties.
5	Political Parties	Meaning and definition Characteristics of Political Parties, Functions of Political Parties, Party Structure and Classification	Student studied features functions of political parties.

Specify Course Outcome : The course succeeded to inform students about modern political analysis Specify Program Outcome : This program helped students to understand overall political process

Program : B.A.F.Y

Subject : History

Course Code :

Paper - I Title :-HISTORY OF ANCIENT INDIA (up to 647 A.D.)

Unit Number	Unit Name	Topics	Unit -wise Outcome
1	Sources	a) Archaeological Sources b) Literary Sources c) Reliability & Importance of Sources	The Students Understood the Historical advancement of Ancient India from Stone Age to 647 A.D.
2	Stone Age & Indus Valley Civilization	a) Stone Age - Various Stages b) Indus Valley Civilization i. Discovery ii. Major Sites & Excavation (Harappa, Mohenjo-Daro, Kalibangan, Lothal) iii. Town Planning iv. Causes of Decline	The Students were introduced with the cultural History of Indus Valley civilization
3	Vedic Age	a) Pre Vedic Period - Political, Social, Religious & Economic Life b) Post Vedic Period - Political, Social, Religious & Economic Life	The Students understood the cultural History of Vedic Age.
4	Wardhman Mahavir & Jainism	a) Sixteen Mahajanpadas b) Wardhman Mahavir - Early Life c) Teaching & Principles	The Students of Wardhman Mahavir and his Jain religion.
5	Gautam Budhha & Buddhism	a) Gautam Budhha - Early Life b) Teaching & Principles	The Students understood Goutam Budha and his Philoshophy

Specify Course Outcome : The course succeeded to inform students about history of ancient india

Specify Course Outcome : This program helped students to understand overall history.

Program : B.A.F.Y

Subject : History

Course Code :

Paper - II Title :-HISTORY OF INDIA (648 A.D.to 1526 A.D.)

Unit Number	Unit Name	Topics	Unit -wise Outcome
1	Sources	a) Archaeological Sources b) Literary Sources c) Reliability & Importance of Sources	The Students understood the historical events from 648 A.D. to 1526 A.D.
2	Rashtrakuta, Chalukya & Yadava	a) Rashtakuta - Dantidurga, Krishna - I, Amoghvarsha - I, Krishna - III b) Chaalukya of Kalyani - Tailap - II, Vikramaditya - VI c) Yadava - Bhillam -V, Ramchandradeva, Decline of Yadava	The Students understood the archaeological and literary Sources.
3	Rajput Dynasty	a) GurjarPratihar, Chouhan, Solunki b) Decline of Rajput Dynasty	The course developed a broad view about various dynasty
		a) Harihar & Bukka b) Krishnadevraya c)	The course created an interest

4	Vijayanagar Empire	Decline of Vijayanagar Empire	among the students about hindu dynasty
5	Bahamani Empire	a) Allaudin Hasan Bahamanshah b) Mahmudshah - III c) MehmudGawan d) Decline of Bahamani Empire	The course created an interest among the students about muslim invasions and dynasties

Specify Course Outcome : The course succeeded to inform students about history of India

Specify Course Outcome : This program helped students to understand overall history.

Program : B.A.F.Y

Subject : History

Course Code :

Paper - III Title :-HISTORY OF ANCIENT INDIA (up to 648 A.D.)

Unit Number	Unit Name	Topics	Unit -wise Outcome
1	Mauryan Empire	a) Chandragupta Maurya - Career & Achievement b) Ashoka - Career & Achievement c) Causes of Decline of Mauryan Empire	The course create interest among students about ancient period Empire and dynasty.
2	Satavahana Dynasty	a) Satkarni - I b) Raja Hal c) Gautami putra Satkarni	The bramin Empire Gautami putra Satkarnisexporehisa Empire.
3	Gupta Dynasty	a) Chandragupta - I b) Samudragupta c) Chandragupta - II & Golden Age d) Decline of Gupta Empire	The Student understood the Gupt Dynasty and his Golden Age
4	Vakataka Dynasty	a) Vindhyaashakti b) Pravarsen - I	The Great braminvakataka dynasty and his explore his empire.
5	Wardhan&Chalukya Dynasty	a) Wardhan Dynasty - Harshawardhan - Career & Achievement b) Chalukya of Badami - Pulkeshi II - Career & Achievement	The students know about the great king in ancient india.

Specify Course Outcome : The course succeeded to inform students about history of ancient india

Specify Course Outcome : This program helped students to understand overall history.

Program : B.A.F.Y

Subject : History

Course Code :

Paper - IV Title :-HISTORY OF INDIA (648 A.D.to 1526 A.D.)

Unit Number	Unit Name	Topics	Unit -wise Outcome
1	Early Muslim Invasion & its Effects	a) Arab Invasion - Mohammad Bin Qasim b) Turki Invasion - Mehmud Gazani, Mohammad Ghorī	The Students requayed the knowledge of the historical events from 648 A.D. to 1526 A.D.
2	Slave Dynasty	a) Qutubuddin Aibak b) Altamash c) Razia Sultan	The Students understood an Archaeological and literary Soureces.
3	Khilji Dynasty	a) Alaudin Khilji - Early Life b) Expansion of empire in North India c) Deccan Policy of Alaudin Khilji	The course developed a bropad view about various dynasty
4	Tughlaq Dynasty	a) Muhammad bin Tughlaq - Early Life b) Schemes of Muhammad bin Tughlaq c) Causes of Failure	The course created an interest among the students about muslim invasions and dynasty.
5	Sayyad & Lodi Dynasty	a) Sayyad Dynasty - Khijr Khan b) Lodi Dynasty - Ibrahim Lodi c) Decline of Delhi Sultanate	This paper helps students to understood the Muslim invasion and their impacts on India.

Specify Course Outcome : The course succeeded to inform students about history of india

Specify Course Outcome : This program helped students to understand overall history.

Program : B.A.S.Y

Subject : History

Course Code :

Paper - V Title CHHATRPATI SHIVAJI AND HIS TIME (1630 A.D. to 1707 A.D.)

Unit Number	Unit Name	Topics	Unit -wise Outcome
1	Sources for the study of Maratha History	a) Literary Sources b) Archaeological Sources c) Reliability & Importance of Sources	The students understood the real history of chhatrpati shivaji maharaj and his time.
2	Causes for the Rise of Maratha Power	a) Causes b) Contribution of Shahaji Raje and Rajmata Jijau	The students understood the benevolent nature of chhatrpati shivaji's regime.
3	Shivaji Maharaj's Relation with Adilshahi	a) Early movements of Shivaji Maharaj b) jawali episode c) Afzal Khan Episode .	The students focussed on the contribution of chhatrpati shivaji in building an independent Swarajya.
4	Shivaji Maharaja's Relation with Mughal	a) Shahista Khan Episode and Attack on Surat b) Invasion of Mirza RajeJaisingh c) Treaty of Purandar and Visit to Agra	The Students were introduced with various policies regarding Agriculture, water management, Environment and scientific approach of chhatrpati shivaji maharaj.
5	Chhatrpati Shivaji's Coronation & Karnataka Expedition	a) Chhatrpati Shivaji's Coronation: causes and significances b) Karnataka Expedition: Causes and Consequences	It is essential to present Chhatrpati Shivaji's contribution in various aspects for people

Specify Course Outcome : The course succeeded to inform students about Chhatrapati Shivaji and His Times
Specify Course Outcome : This program helped students to understand overall history.

Program : B.A.S.Y

Subject : History

Course Code :

Paper - VI Title :- History of India (1526 A.D. to 1707 A.D.)

Unit Number	Unit Name	Topics	Unit -wise Outcome
1	Sources of Mughal History	a) Literary b) Archaeological	The Students understood the historical advancement of Mughal period 1526 to 1707 A.D.
2	Establishment of Mughal Empire	a) Babar - Invasions, First Panipat War, Expansion b) Shershah Suri - Expansion, Reforms, Administration System	Students understood the political aggressiveness of Mughal and British in this Age
3	Badshah Akbar	a) Second Battle of Panipat b) Expansion c) Deccan Policy d) Religious Policy	It developed the broad view about the religious development of Mughal and British in india.
4	Badshah Shahajahan	a) Career and achievement b) Rajput Policy c) Deccan Policy	The interest among students was created about Mughal Empire and British rule.
5	Badshah Aurangajeb	a) Career and achievement b) Rajput Policy c) Religious Policy d) Deccan Policy e) Decline of Mughal Empire	The students were interoduced about the contributions of Mughal Badshah and British governors.

Specify Course Outcome : The course succeeded to inform students about History of India (1526 A.D. to 1707 A.D.)
Specify Course Outcome : This program helped students to understand overall history.

Program : B.A.S.Y

Subject : History

Course Code :

Paper - VII Title :- Chhatrpati Shivaji and His Times (1630 A.D. to 1707 A.D.)

Unit Number	Unit Name	Topics	Unit -wise Outcome
1	Chhatrpati Shivaji: A Benevolent King	a) Agricultural Policy b) Water Management c) Environmental Policy d) Scientific Approach	The Students understood the real history of chhatrpati Shivaji Maharaj and his times.
2	Chhatrapati Sambhaji	a) Relation with Adilshahi and Kutubshahi b) Relation with Mughal c) Relation with Portuguese, British and Siddhis	The students came to know the benevolent nature of chhatrpati Shivaji's regime.
3	Chhatrapati Rajaram	a) Early Life b) Contribution to Maratha War of Independence c) Ramchandra pant Amatya	The students focused on and understood the contribution of chhatrpati Shivaji in building an independent swarajya.
4	Maharani Tarabai	a) Contribution to Maratha War of Independence b) SantajiGhorpade and Dhanaji Jadhav c) Importance of the Maratha war of Independence.	The various policies regarding Agriculture, water management, Environment and scientific were introduced is
5	the Maratha Administrative System	a) Central administration b) Provincial Administration c) Village administration	It will help the students to understand the most important and inspiring history of Medieval Maharashtra.

Specify Course Outcome : The course succeeded to inform students about Chhatrpati Shivaji and His Times (1630 A.D. to 1707 A.D.)

Specify Course Outcome : This program helped students to understand overall history.

Program : B.A.S.Y

Subject : History

Course Code :

Paper - VIII Title :- **History of India (1757 A.D. to 1856 A.D.)**

Unit Number	Unit Name	Topics	Unit -wise Outcome
1	Establishment of British Power 1	a) East India Company b) Battle of Plassey-1757 c) Battle of Baxar - 1764	Students understood the historical advancement of Mughal period 1526 to1707 A.D.
2	Robert Clive (1765-1767 A.D.)	a) Internal Reform b) Dual Government System c) Foreign Policy	Students understood the political aggressiveness of Mughal and British in this Age.
3	Expansion of British Rule - I	a) Warren Hastings (1772-1785 A.D.) b) Lord Cornwallis (1786-1793 A.D.)	It developed the broad view about the religious development of Mughal and british in india.
4	Expansion of British Rule - II	a) Lord Wellesley (1798-1805 A.D.) b) Lord Hasting's (1813-1823 A.D.)	It created interest among students about Mughal empire and british rule.
5	Consolidation of British Rule	a) Lord Bentinck (1828-1835 A.D.) - Reform and contribution b) Lord Dalhousie (1848-1856 A.D.) - Reform and contribution	Students were interduced about the contributions of Mughal badshah and british governors.

Specify Course Outcome : The course succeeded to inform students about History of India (1757 A.D. to 1856 A.D.)

Specify Course Outcome : This program helped students to understand overall history.

Program : B.A.T.Y

Subject : History

Course Code :

Paper - IX Title History of Modern India (1857A.D. to 1947 A.D.)

Unit Number	Unit Name	Topics	Unit -wise Outcome
1	Uprising of 1857	a) Causes b) Course c) Consequences	Students were introduced indian freedom struggle movements in broad mannar.
2	Religious and Social Reform Movements	a) Bramho Samaj b) Prathana Samaj c) Satyashodhak Samaj d) Arya Samaj	Students were instilled with the spirit nationalism among students.
3	Indian National Congress	a) Indian Nationalism & Indian National Congress b) Moderates-Ideology & Achievements i. Mahadev Govind Ranade ii. DadabhaiNauroji iii. Gopal Krishna Gokhale iv. Ferozshah Mehta	The students were made responsible citizen of the nation.
4	Lokmanya Tilak & Extremist Nationalism	a) Rise of Extremist Nationalism & Ideology of Extremism b) Surat Congress – 1907 c) Achievements of Extremists i. Bal Gangadhar Tilak ii. Lala Lajpat rai iii. Bipinchandra Pal d) Home Rule Movement	The students were inculcated with moral qualities like freedom,unity,fraternity,equality in students.
5	Education and Press	a) Hunter Commission b) University Act of 1904 c) Vernacular Press act of 1878 d) Lord Ripon's Policy of Press	The students were made aware of criticizing.

Specify Course Outcome : The course succeeded to inform students about History of Modern India (1857A.D. to 1947 A.D.)

Specify Course Outcome : This program helped students to understand overall history.

Program : B.A.T.Y

Subject : History

Course Code :

Paper - X Title :- Social Reformers in Maharashtra & Awakening Movements

Unit Number	Unit Name	Topics	Unit -wise Outcome
1	Social Reforms Movement in Maharashtra	a) Causes b) Effects c) Importance	The students were acquainted with social change process in modern maharashtra.
2	Mahatma Jotiba Phule	a) Early Life b) Social Work c) Educational Work	Students were introduced the educational development in modern Maharashtra.
3	Gopal Ganesh Agarkar	a) Early Life b) Social Work c) Educational Work	The perception ability of the students was enhance.
4	Maharshi Vitthal Ramji Shinde	a) Early Life b) Social Work c) Educational Work	The broad view of students was widen the society.
5	RajarshiShahu Maharaj	a) Early Life b) Social Work c) Educational Work	Awareness among the students was created among organ donation.

Specify Course Outcome : The course succeeded to inform students about Social Reformers in Maharashtra & Awakening Movements

Specify Course Outcome : This program helped students to understand overall history.

Program : B.A.T.Y

Subject : History

Course Code :

Paper - XI Title :- History of Modern India (1857A.D. to 1947 A.D.)

Unit Number	Unit Name	Topics	Unit -wise Outcome
1	Gandhian Era	a) Mahatma Gandhi - Early Political Activities b) Non Cooperation Movement c) Civil Disobedience Movement d) Quit India Movement	Students were introduced indian freedom struggle movements in broad manner.
2	Revolutionary Movement	a) Causes for Rise of Revolutionary Movement b) Revolutionary Movement in Maharashtra, Bengal & Punjab c) Netaji Subhash Chandra Bose and Azad Hind Sena	The spirit of nationalism was instilled among students.
3	Constitutional Development	a) Government of India Act - 1858 b) Morley Minto Act - 1909 c) Montague Chelmsford Act - 1919 d) Government of India Act - 1935	The students were made responsible citizen of the nation.
4	Independence of India	a) Mountbatten Plan b) Indian Independence act - 1947 c) Partition of India & its Consequences	The students were inculcated with moral qualities like freedom, unity, fraternity, equality in students.
5	Indian Constitution	a) Formation of Indian Constitution b) Preamble c) Salient Features of Indian Constitution	The students were made aware of criticizing.

Specify Course Outcome : The course succeeded to inform students about History of Modern India (1857A.D. to 1947 A.D.)

Specify Course Outcome : This program helped students to understand overall history.

Program : B.A.T.Y

Subject : History

Course Code :

Paper - XII Title :- Social Reformers in Maharashtra & Awakening Movements

Unit Number	Unit Name	Topics	Unit -wise Outcome
1	Dr. Babasaheb Ambedkar	a) Early Life b) Social Work c) Educational Work	The students were acquainted with social change process in modern Maharashtra.
2	Karmaveer Bhaurao Patil	a) Early Life b) Social Work c) Educational Work	Students were introduced with the educational development in modern Maharashtra.
3	Karmayogi Baba Amte	a) Early Life b) Social Work c) Skill Based Education	The scientific outlook among the students was enhanced.
4	Superstition Eradication Movement	a) Meaning & Nature b) Types & Challenges c) Background of Anti-Superstition & Black Magic Act 2013	The perception ability of the students was enhanced.
5	Organ Donation Movement	a) Meaning, Nature & Process b) The Transplant of Human Organs & Tissue Act, 1994 c) Tradition of Organ Donation d) Benefits & Challenges	The broad view of the students was widen the society.

Specify Course Outcome : The course succeeded to inform students about Social Reformers in Maharashtra & Awakening Movements

Specify Course Outcome : This program helped students to understand overall history.

DEPARTMENT OF SOCIOLOGY

B.A. F.Y

Paper - I Introduction to Sociology

Out come :-

1. To understand Sociology is a social science in context of society.
2. Its hap to scientific study about sociology

Paper II) New changes in social Institutions (CCSOC-II)

- I) Students will become familiar with social institution
- II) Students will know the meaning and Importance of marriage institutions
- III) Students will be aware of the changes taking place in the institutions of family.
- IV) students will learn the meaning of secularism and national integration.
- V) Students will know the nature of privatization of education

Paper II) Contemporary Social Institutions (CCSOC - II)

- I) Students will be aware of the change in political institutions
- II) Students will aware of the change in the economy
- III) Students will be learn the importance of relationships
- IV) Students will know the meaning and importance of jurisdiction.
- V) Students will learn about the development of applied sociology.

Paper - III Basic concepts in Sociology

Out come :-

1. To understand basic concepts of sociology in context of society.
- 2.

B.A.S.Y.

V) Indian Society : Structure and change (CCSOC -I)

- I) Students will know the main features of Indian society
- II) Students will understand the changing face of the Indian community.
- III) Students will notice the impact of the change in agriculture on Indian society.
- IV) Students will be able to understand contemporary concepts a secularism, Democracy and National integration
- V) Students will notice the changing face of modern Indian society

Paper - VI. Human Rights and Social Justice

Out come :-

1. To understand Importance and necessity of Human Rights and social Justice.
2. To understand impact and effect of human rights and social justice in society.

VII) Issues and problems in Indian society (CCSOC -I)

- I) The classical meaning of the social problem will be know to the students.
- II) Students will learn about crimes against women in India,
- III) Students will know the reasons for farmers suicide,
- IV) Students will be informed about the measures takers against racial violence.
- V) Students will understand the atrocities Act.

B.A.T.Y

X) Methods of Social Research (DGE SOC - I)

- I) Students will understand the meaning and importance of social research
- II) Students will know the meaning of objectivity.
- III) Students will know the meaning of the Hypothesis.
- IV) Students will learn the importance and types of research design in social research.
- V) Students will know the meaning of case study method.

XII) Techniques of Social Research(DGE SOC -II)

- I) Students will know the meaning of Data Collection
- II) Students will learn to compile and analyse data.
- III) Students will know the types of sample selection
- IV) Students will know the meaning of social statistics
- V) The importance of computer in social research will be notice.

Paper - DSE SOCI DSE -A-I Classical sociological thinker

Out come :-

1. To understand sociological thinker and theory.

Paper - DSE SOCI DSE -A-I Indian social reformer.

Out come :-

1. This paper will help students to understand the contribution of social reformers.
2. The major aim and objective of this paper is to motivate students to make them able to follow these thoughts in their life.

Department of Commerce : PSO and CO

Class/ Semester	Subject	Subject Code	Course Objective	Course Outcome
B.Com FY 1st Semester	Fundamental of Financial Accounting	BC 1.1	i) Recording ii) Maintaining iii) And presenting the accounting and financial fact	i) Accounting Knowledge ii) Application of Accounting in Business
	Business Statistics	BC 1.2	The objective of this course is to provide fundamental knowledge of statistical techniques useful for business analysis.	Student can understand the basic concept of statistics and its application in business and data analysis
	Business Economics-I	BC 1.3	The objective of this course is to acquaint the students with the business economic principles and theories as are applicable in business.	There is need of smart class room along with traditional class room and reading and Library facility.
	Fundamentals of Business Communication	BC 1.4	i) To Develop Communication Skills of Students ii) To help in personality development iii) To improve speaking, writing, and interview skills of students.	Adequate Knowledge about good communication in business
	Fundamentals of Salesmanship	BC. 1.5.3	This Course is designed to help Students to Learn Qualities and Functions of Salesmanship in a Changing Global Scenario	1. Identifying customers and their needs 2. Marketing sales presentation and organizing demonstration 3. Computer basics and needs and used in selling techniques
B.Com FY 2nd Semester	Financial Accounting	BC 2.1	i) Recording ii) Maintaining iii) And presenting the accounting and financial fact	i) Student Can Understand the : ii) Accounting Knowledge iii) Application of Accounting in Business
	Business Statistics and Mathematics	BC 2.2	Objective of this course is to provide foundation of quantitative techniques applied in solving business problems.	Student can understand the basic concept of mathematics and its operational use in various business operations.
	Business Economics II	BC 2.3	The objective of this course is to acquaint the students with the market Structures and theory of distribution is as applicable in business. Pre-requisites: There is need of smart class room along with traditional class room and reading and library facility.	Students will be acquainted with the market structures and theory of Distribution is as applicable in business.
	Modern Business Communication	BC 2.4	1 To Develop Communication Skills of Students 2 To help in personality development 3 To improve speaking, learning, and interview skills of students.	Adequate Knowledge about good communication in business
	Advertising	BC2.5.3	1. To male Students Aware about Advertising 2. To familiarize Students about Online advertising activity 3. To Impart the Knowledge of advertising techniques among the Students. 4. To enhance the knowledge about	1. students can understand the practices of advertising 2. the students can learn to maintaining the advertising techniques

			accounting budgets of advertising	
B.Com 3rd Semester	Corporate Accounting	BC.3.1	<ol style="list-style-type: none"> 1. To make students capable of understanding the features and debentures. 2. To grow the understanding about Redemption of shares and debentures and its types. 3. To set an idea about how to publish the company's final accounts. 4. To impart the students in expertise in the preparation of corporate accounts. 5. To help students to gain the conceptual knowledge of the corporate accounting. 6. To learn the techniques of preparing the financial statements. 	<ol style="list-style-type: none"> 1. The course is beneficial to understand the provision of company act 1956 regarding the preparation of accounts. 2. It is beneficial for students to move in to advance areas i.e. C.A, I.C.W.A, CS etc 3. It could help graduates to work as financial analyst, HRM officers. 4. It provides the knowledge of differentiating the profit Prior and post Incorporation. 5. It provides the basic concept of knowledge of buyback, for features of shares.
	Cost Accounting	BC.3.2	<ol style="list-style-type: none"> 1. To learn how the cost accounting is different from financial accounting. 2. To understand how to use accounting methods and cost calculations. 3. To define the cost and their impact on value creation in the company. 4. To understand how to make differentiate Cost Management systems. 	<ol style="list-style-type: none"> 1. The selection of the appropriate cost accounting and their impact on the business policy. 2. The determination of cost as per element per unit of production. 3. The Identification and control of cost of production. 4. Becoming a superior Cost accountant and cost analyst.
	Principles of Business Management	BC.3.3	<ol style="list-style-type: none"> 1. To make students capable of understanding the evolution of management. 2. To help the students to gain the knowledge of the functions and uses of management principles in organizations. 3. To study the systems and processes of effective Controlling in organization. 4. To understand the concept and relation of manager to manage the business organization in the dynamic and global environment. 5. It helps to learn the effective and barriers of communication in the organization. 	<ol style="list-style-type: none"> 1. Successfully completion of this course, students will be able to understand the Managerial functions. 2. To understand the way of implementation of the planning process within the organization. 3. It would help the students to clarify the basic and fundamental concepts of the management systems. 4. To illustrate the ability to directly leading and communicating effectively. 5. It would be useful for analyzing, evaluating and synthesizing the information of management.
	Mercantile Law	BC.3.4	<ol style="list-style-type: none"> 1. To acquire knowledge and develop understanding of the necessary framework of mercantile law with reference to various provisions and acts. 2. To make acquainted to the students regarding the provisions of Indian contract act. 3. To make acquainted to the students regarding the provisions of various mercantile and business laws. 	<p>Students will be able to apply and follow the rules and regulations as per the various business and mercantile laws.</p> <p>It is very useful to perform various business activities as per rules and regulations and laid down provisions under various business and mercantile laws of the government.</p>
	Fundamental	BC.3.5	<ol style="list-style-type: none"> 1. To make students to become familiar 	<ol style="list-style-type: none"> 1. After Completion of course

	s of Income Tax		<p>with basic principles and fundamental provision of direct and indirect tax law.</p> <ol style="list-style-type: none"> To help to develop a board understanding of the tax law and accepted tax practice. To give an understanding of the relevant provisions of direct tax code. TO introduce practical aspect of tax planning as an important managerial decision-making process. To explore the participants to real life situations involving taxation. 	<p>students will be capable to describe the provisions in the corporate tax law which can be used for tax planning.</p> <ol style="list-style-type: none"> Students can well define the residential status of the assets. Student of the course will be able to explain different type of income of their tax liabilities, expenses and their deduction ability. Students who complete their course will be able to learn various direct and indirect taxes and their implications Students of the course will be able to state the use of various deduction to reduce the taxable income. Student will be capable of choosing a career to become a Tax consultant.
	E-Commerce-I	SEC.1.4	<ol style="list-style-type: none"> To understand the process of setting up an interactive website. To understand the process of maintaining the security of E-commerce site. To be able to work as a team To be able to work with an online store and modify when necessary. 	<ol style="list-style-type: none"> It enables students to evaluate the information on the Need of business entity to adhere the E-Commerce. The course is useful for the In application technologies and tools in commerce which are used to conduct the business. E-commerce has posed the new issues in the development of Business information systems The scheme is to understand the new content and practice regarding web-based technologies. It impacts on business process.
B.Com 4th Semester	Advance Corporate Accounting	BC.4.1	<p>स्थापना-१९८३</p> <ol style="list-style-type: none"> To help the students to understand the techniques of reconstruction and liquidation of the corporate entity. To provide the student with knowledge of record development in corporate accounting. To teach them the various requirement of corporate reporting Widely used in present corporate world 	<ol style="list-style-type: none"> Student can acquire an idea about internal reconstruction of the company The learn and understand how the two companies amalgamated Students get knowledge of process of how the Holding company and subsidiary company come together Provide the knowledge of Advance and recent transactional concept of corporate accounting
	Advanced Cost Accounting	BC.4.2	<ol style="list-style-type: none"> It is designed for providing advance knowledge to student and give both technical views of managerial accounting It helps to examine the importance of analyzing and managing cost activities 	<ol style="list-style-type: none"> It will assist to student in company decisions making in practical manner Students has an opportunity to become a cost analyst and cost accountant

			<p>3) To providing knowledge, importance of cost accounting and system</p> <p>4) To familiarized and acquaint the students with the application of advance costing technique</p>	<p>3) Students can evaluate financial cost and cost volume profit model By acquiring the costing knowledge</p> <p>4) Students can become to propose an organizational design based managerial accounting concept.</p>
Business Management	BC.4.3		<p>1) Student would made to understand the history of Business Management</p> <p>2) It would be expose to the function of Business Management</p> <p>3) To understand the Internal and external environment in an organizational function</p> <p>4) To know the knowledge of quality management</p>	<p>1.It is beneficial to become successful manager.</p> <p>2.It is very useful to apply theories and techniques of management in practical life.</p> <p>3. It develops managerial skills among the students.</p>
Corporate Law	BC.4.4		<p>1) To impart basic knowledge of the provision of company Act 2013</p> <p>2) To understand and to know the procedure of board and Director meeting.</p> <p>3) To provide knowledge about provision relating to books of account, Auditor appointment and wind-up procedure of company</p> <p>4) To make able for preparation of meetings agenda, articles of association, of company</p>	<p>1) Student know the procedure of conducting meetings</p> <p>2) Student hasan opportunity to become a company secretary</p> <p>3) By acquiring the knowledge of technical process of company winding-up</p> <p>4) Student can understand various provision of incorporation of company</p>
Income Tax Law and Practice	BC.4.5		<p>1) To understand the various deduction to be made from total Income while calculating the tax</p> <p>2) To understand the procedure and provisions made under GST act for computing the tax</p> <p>3) To make aware how many item and Services are come under the GST</p> <p>4) To provide knowledge of GST rates to be charges according the nature of items and Services</p>	<p>1) Student able to make differentiate the direct and indirect tax</p> <p>2) Student acquaint the knowledge and able to file tax return on individual</p> <p>3) To learn and make able to compute total Income and define tax compliance and structure</p> <p>4) Enable to understand amendment made from time to time by finance department</p>
E-Commerce-II	SEC.2.3		<p>The course aims to equip the students with advanced learning in online business practices of organizations and procedures involved in managing a business online, and to make the students aware and learn about e-marketing, e-financing, e-banking, e-trading, digital economy and e-ticketing etc.</p>	<p>students are able to demonstrate and understand the foundations and importance of E-Commerce and analyze the impact of E-Commerce on Business Models and Strategies. Students are alsoable to describe Internet trading Relationships also discuss legal issues and privacy of E-Commerce.</p>

Chemistry
B.Sc. F.Y
Course outcome

- P-I 1. To learn basic concept of organic chemistry, nomenclature and functional group.
2. To learn periodic properties like atomic size, ionization energy, electron affinity and electro negativity.
3. To know about cycloalkane and diene.
4. To understand inert gases and their compounds.
- P-II 1. Learning and understanding rules of drawing graph, derivatives, integration, different mathematical concept and SI units.
2. To learn the knowledge of gas phase.
3. To impart knowledge of solid phase and crystallography.
4. To understand characteristics of s' block elements,
- P-III 1. To learn the concept of aromatic hydrocarbon, aromaticity and antiaromaticity.
2. to understand different properties of P- block elements.
3. To know the acids and bases by different concepts.
4. To know about carboxylic acid, alcohols, haloalkane phenol and haloarenes.
- P-IV 1. To understand atomic structure, various theories of atom structure.
2. To learn properties of liquid as surface tension, viscosity and parachor.
3. To grasp basic knowledge of chemical bonding and its different types.
4. To learn concept of hybridization, study VSEPR and MOT with its limitations.
- P-V 1. To aware with glassware handling of chemicals, safety measures, laboratory protocol.
2. To understand determination of equivalent weight of Mg. Viscosity, surface tension, heat displacement, Heat of solution.
3. To synthesis various organic compound
4. How to determine M.P. and B.P.
5. To learn about determination of acidic and Basic radicals by Inorganic qualitative analysis.

B. Sc. S. Y.

- P-VI 1. To learn the name reaction with mechanism
2. To understand synthesis and reaction of aromatic carboxylic acid, sulphonic acid and organometallic compound.
3. To study the basic concepts of Oils, Fats, Soap and Detergent.
4. Students know the basic principle and application of qualitative analysis and also properties of non-aqueous solvent.
- P-VII 1. To learn phase rule, phase Equilibria of one and two component system.
2. To understand the concept of entropy
3. To know about first, second and third law of thermodynamics.
4. To understand Planck quantum theory, photo-electric effect, Compton effect, de-Broglie hypothesis Heisenberg's uncertainty principle, Schrodinger wave equation, Davisson –Germer Experiment.
5. To know structure of Nucleus and release of nuclear reaction, concept of radioactivity
6. Steps involved in Gravimetric Analysis.
- P-VIII 1. To understand concept of stereochemistry
2. To study various types of reagents used in organic synthesis.
3. Learn the chemistry of carbohydrates and organic compounds containing Nitrogen.
4. Understand chemistry of d & F – block elements.
- P-IX 1. Know the order and rate of reaction
2. understand the terms conductance of electrolyte.
3. Students can understand application of Kohlrausch law and conductometric titration.
4. Gathering basic knowledge of silicates, zeolite, carbic, fullerene, Inter – halogen compound.
5. Know regarding volumetric analysis.
- P-X 1. Determination of Normality and strength of the solution by using potentiometer and conductivity meter.
2. Determine energy of activation, heat of solution, enthalpy of ionization, partition coefficient.
3. Understand and verify Lamberts – Beers Law Calorimetrically.
4. Student should know how to separate elements from each other.

SECC- I

1. To understand concept of pollution and how to analyse water pollution.
2. Determination of Dissolved oxygen, COD, BoD, Hardness, Chloride, Sulphate,

SECC-II

1. Student should learn preparation and standardisation of solution.

2. Know the concentration of solution and term expressing the concentration of solution
3. Understand the concept of solution.

B. Sc. T. Y.

P-XI

1. Students learn structure, synthesis, chemical reaction with mechanism of Heterocyclic compound
2. Know the synthesis and uses of synthetic drugs and dyes.
3. Understand uses and synthesis of vitamins and pesticide.
4. Students recognize the basic principle and application of coordination compound.

P-XII

1. Students will be able to acquire basic knowledge in spectroscopy.
2. Understand the importance of distribution law.
3. Students will learn about kinetics of complex reaction and photochemical reaction.
4. Able to explain classification, preparation, properties and structure of organometallic comp. And metal carbonyl.

P-XIII

1. Know the basic concept and elucidate the structure of organic compound by U.V., I.R. and NMR spectroscopy.
2. Understand mechanism of rearrangement reaction.
3. Student gather the basic knowledge, uses and synthesis of polymers.
4. Know the theory of coordination complex such as VBT and CFT
5. Students able to explain types of electronic transitions.

P-XIV.

1. Understand theory and application of electrochemistry thermodynamics.
2. Learn different colligative properties.
3. Students will describe the biological role of elements understand the synthesis, structure and properties of boranes, carboranes, metalboranes, metalcarboranes.

P-XV.

1. Student will be able to separate organic binary mixture and qualitative analysis of compound.
2. Learn synthesis of organic compound.
3. Know estimation of element Gravimetrically.

P- XVI.

3. Student will be able to handle conductometer, potentiometer, colorimeter,
4. Know to determine rate constant, energy of activation, enthalpy change, interfacial tension, molecular weight.
5. Understand the preparation of complex and estimation of metal ions.

P-XVII. (Elective)

4. Understand importance of solution of Non-electrolyte.
5. Study basic principle and application of polarography.
6. Know the magnetic substance and properties of magnetic substance.
7. Study theory and application of simple and heteropoly acid and bases.

P-XVIII. (Elective)

1. Student will be able to understand basic concept of sugar and alcohol industry.
2. Know basic principle and importance of textile, agro and green chemistry.
3. Understand basic concept and application of nanotechnology
4. Student will be able to explain basic concept application and synthesis of inorganic polymer.

P-XIX. (Elective)

1. Student will be able to handle polarimeter conductometer, colorimeter.
2. Study the effect of temp on viscosity of liquid.
3. Determine the solubility of substance at different temp.
4. Determine partition coefficient, reaction kinetic.
5. Understand separation and estimation of metal ion.

SEC - III.

1. Know the instrumentation and application of uv, IR NMR and Mass spectroscopy
2. Should be able to prepare cosmetic product.
3. Understand analytical and instrumental method
4. Know error evaluation and statistics.

SEC - IV.

1. Student will know the types of fuels and their importance.

2. Student will be collect the information of software used in chemistry and how to draw structure using software.
3. Use of excel in chemistry
4. Using software how biology activity and toxicity of organic compound determine.

Physics: PSO and CO

Programme Specific Outcomes (PSO): Department of Physics

PSO1	The courses given in this document are of student-centric nature and help the stakeholders to understand the basic laws of nature and develop necessary skills to apply them to the advanced areas of studies
PSO2	To provide adequate knowledge of the basic courses of physics such as principles of cooling and liquification of gasses, thermodynamics, theoretical physics, AC current, part of industrial electronics and enable the students to apply them to the advanced courses as well as in industrial and research related fields
PSO3	Skill enhancement courses of advanced nature and help the students to develop their skills through hands-on activities as they progress in the program.
PSO4	To develop their keen interest in studying Physics.
PSO5	Evaluate problems in Physics using the SCILAB application software
PSO6	

Abbreviation used: CCP- Core Course Physics, CCPP-Core Course Physics Practical, U-understand, APP-apply, An-analyze, C-create, Co- conceptual, F-factual, P-procedural
Course Outcome (CO) for B. Sc. F.Y.

Course	Course Outcomes	PSO	Cognitive Level	Knowledge category
CCP I (Section A): Mechanics and Properties of Matter (P-I)	Students Knows about mechanics and properties of matter that exists in different states i.e. solids, liquids and gases.	PSO	U	Co, F
	The students can solve the problems related to mechanics and properties of matter.	PSO	U	Co
	The students should know about laws of motion and elasticity, viscosity and surface tension properties.	PSO	U	Co
CCP I (Section B): Mathematical methods in Physics (P-II)	Student can apply the concept of vectors and complex variables to various physical quantities.	PSO	Ap	Co, P
	The students can solve the problems related to partial differentiation.	PSO	U	Co
	The students can analyze the periodic functions using Fourier series.	PSO	An	C
CCP II (Section A): Heat and Thermodynamics (P-III)	Student should know about heat and thermodynamics and the behaviors of the systems at different thermodynamics conditions.	PSO	U	Co
	The students should understand the difference in the behavior of the ideal and real gases, transport phenomena of gases.	PSO	U	Co
	Students understands the working of different heat engine and the way to increase their efficiency.	PSO	U	p
CCP II (Section B): Electricity and Magnetism (P-IV)	Understand the concepts of static and dynamical electrical magnetic fields, the sources for generating such fields, polarization and induction effects	PSO	U	F
	Understand the basic difference between the DC and AC circuits and their functioning	PSO	U, An	F
	Understand the use of transformer, choke in domestic and other appliances.	PSO	U, Ap	F

	Can understand the working principles of various electrical components and gadgets	PSO	U, An	F
CCPP I (Annual Pattern): P-V: Practical based on Section A & B of CCP-I& II	Can measure the elastic moduli of the materials in the form of a bar, rod, etc.	PSO	U, Ap	F
	Can use sensitive instruments like spectrometer, ballistic galvanometer, and viscometer.	PSO	Ap	F
	Analyze the V-I characteristics of PN junction and Zener diode	PSO	An	F
	Evaluate problems in Physics using the SCILAB application software	PSO	U, Ap	F

Course Outcome (CO) for B. Sc. S.Y.

CCP III (Section A): Waves and Oscillations (P-VI)	Understand the concepts of mechanical waves, their properties, propagation and reflection properties, free and forced vibrations.	PSO	U	P
	Understand formation of standing waves, their applications in resonance tubes, and analyze energy distribution in the standing waves	PSO	U, An, Ap	
	Understand the concepts of acoustics and analyze the closed hall for its good acoustical conditions.	PSO	U, An	Co
	Understand the concepts of ultrasonic waves and their applications.	PSO	U, Ap	Co
CCP III (Section B): Statistical Physics, Electromagnetics and Theory of Relativity (P-VII)	The students should know about to the concept of macroscopic world and statistical approach for understanding properties of macroscopic bodies.	PSO	U	Co
	To know about classification of system on the basis of macroscopic and microscopic basis and their application to photonic and electronic gases.	PSO	U, Ap	F
	To know about Maxwell equation and their application in electromagnetic theory.	PSO	U	F
	To know about theory of relativity and its importance in the development of modern physics.			
CCPS I - (Section A) SEC-I Skill Enhancement Course I B: Electrical Measurements	Acquired the skills of using the instruments for measurement of the voltage, current, impedance, etc. using analogue and digital meters.	PSO	U, Ap	P
	Learned the skills of selecting meters of proper scales, can handle /use them.	PSO	An, Ap	Co
	Can test the electronic devices like diode and transistors	PSO	Ap	Co
CCP IV - (Section A) P-VIII Core Paper: Optics and Lasers	Can use geometrical optics to understand working of optical instruments.	PSO	An, Ap	Co
	Can apply the concepts of interference, polarization and diffraction of light to analyze the natural phenomena.	PSO	An	F
	Can understand the properties and uses of LASER.	PSO	U, Ap	Co
CCP IV - (Section B) P-IX Core Paper: Basic Electronics	Student should understand semiconductor theory, different type of semiconductor diode and their applications.	PSO	U	C
	To know the basic theory of transistor and their applications.	PSO	Ap	F
	To know the basic theory of operational amplifier and their applications.	PSO	Ap	F
	Use of transistor as an oscillator and different type of oscillator for generating sinusoidal waves of different frequencies.	PSO	Ap	F
CCPS I - (Section B) SEC-II Skill	Understand the working and usage of electrical appliances and other electrical devices.	PSO	U, Ap	P

Enhancement Course II A. Electronic Devices and Equipment	Knows the behavior of active and passive devices under ac and dc conditions and use them for designing various circuits such as signal generators and amplifiers	PSO	An, Ap	P
CCPP-II P-X: Practicals Based on Section A of CCP III & IV (Papers P-VI & VIII)	Can calibrate and use spectrometer for different applications	PSO	An, Ap	P
	Understand and analyze the electrical signals by using CRO	PSO	An, U	P
	Can analyze the characteristics of green energy sources viz. solar and photovoltaic cells	PSO	An	P
CCPP-III P-XI: Practicals Based on Section B of CCP III & IV (Papers P-VII & IX)	Can calibrate and use B.G. for critical measurements	PSO	An, Ap	P
	Can use AC bridge for inductance measurement	PSO	An, Ap	P
	Can handle important active devices like thermistor, LED, etc.	PSO	Ap	P

Course Outcome (CO) for B. Sc. T.Y.

DSEP I (Section A): Quantum Mechanics (P-XII)	Students know about microscopic world of molecules, atoms, nuclei and elementary particles.	PSO1	U	C
	To understand the basic of quantum mechanics and application to simple system.	PSO2	U	C
	Importance's of Schrodinger's equation and using solving problems.	PSO2	U	Co
DSEP I Elective (Section B): Solid State Physics (P-XIII)	Can understand the relationship between the internal structure and various properties of matter	PSO1	U	Co
	Knows the types of bonds and analyze the relationship between the bonding and properties of the crystals.	PSO2	An, Ap	F
	Can classify the materials in different classes based on their physical, thermal, electrical, and magnetic properties.	PSO2	An, Ap	Co
Elect (Communication Electronics-II)	14 Understand working of radio receiver	PSO2	U	Co
	Understand basic knowledge of microwave	PSO3	U	Co
	Understand basic knowledge of RADAR system	PSO2	U	Co
	Understand basics of mobile communications and optical fibers	PSO1	U	Co
SEC-III Skill Enhancement Course II B. Electrical Circuit Analysis Skill	Aim of this course is to create awareness among the students about the electrical circuits, wiring of the electrical appliances and enable them to check for troubleshoots through hands-on exercises.	PSO2	U	Co
	To know about varies electrical components, their uses and application.	PSO2	U	Co
	Students should not only be able to check the electrical connections at house-hold but will also learn the skill to repair the electrical appliances for the general troubleshoots and wiring faults	PSO2	U	Co
DSEP II(Section A): Atomic, Molecular & Nuclear Physics (P-XIV)	To introduce the students to the world of physics of atoms, molecules and nuclei, their structures, emission of Gamma rays, X-rays, optical and microwave spectra from these systems, the interaction of atoms and molecules with electric and magnetic fields	PSO6	Ap	F
	To know basic concept of atomic and molecular spectra.	PSO6	U	Co
	To study the basic theory of particle accelerator and nuclear energy.	PSO6	U	Co
DSEP II (Section B): Elective A. Digital and	Can understand the importance and interconvertibility of various number systems.	PSO6	U	Co

Communication Electronics (P-XV A)	Can solve the Boolean expressions and design the simple logic circuits.	PSO6	An, Ap	Co
	Know the working of communication systems i.e., modulators, demodulators, transmitters and receivers, etc.	PSO2	An	Co
SEC-IV Skill Enhancement Course II B. Semiconductor Devices Application Skill	Student is aware about the mechanical, electrical and electronic tools through hands-on activities.	PSO2	U	Co
	Student has the workshop skills like cutting, drilling, filing, different types of AC and DC generators.	PSO2	Ap	Co
	Student can find faults and general troubleshoots and wiring faults.	PSO2	An, Ap	
DSCPP-I P-XVI Practicals Based on of P XII & XIV	Can determine the R.P. of different optical instruments	PSO	Ap	P
	Can determine h and e/m .	PSO	An, U	P
	Can analyze the working of photovoltaic cell	PSO	An	P
DSCPP-I P-XVI Practicals Based on of P-XIII & XV	Can use CRO for measurement of ac electrical quantities.	PSO	An, Ap	P
	Can analyze the working of electronic devices like LED and thermistor	PSO	An, Ap	P
	Can use digital gates to design and construct logic circuits.	PSO	An, Ap	P

कला, वाणिज्य व विज्ञान महाविद्यालय, जितूर
स्थापना-१९८३

Department of Mathematics

Course - I different calculus Outcomes :- after successful completion of the course is to learn elementary knowledge of differential calculus

1. Understanding concept of limit continuity of single and two variable functions.
2. Find the higher order derivatives of product function.
3. Understanding the concept of partial differential equations.
4. Use the result to solve problems.
5. Differentiate difference between derivative of single variable and two variables.

Course - II Algebra and Trigonometry Outcomes :-

After successful completion of the course student will be able to

1. Add, subtract and multiply two matrices.
2. Recognize the different type of matrices.
3. Find the inverse of invertible matrices.
4. Determine the rank of a matrix.
5. Transform matrices to Row Echelon form.
6. Solve the system of linear Equations.
7. Find the characteristic roots and characteristic vectors of a square matrix.
8. Check that every square matrix satisfies its own characteristic polynomial.

Course - III Integral calculus

Outcomes :- after successful completion of the course student will be able to

1. Apply method of integration to find the integral of function.
2. Solve examples of definite integrals.
3. Find the area and volume of given shape.
4. Solve problems on multiple integrals.

Course - IV (Geometry)

Outcomes :- After successful completion of this course student will be able to.

1. Understanding concepts three dimensional geometry.
2. Find e^{α}
3. of right lines, plane, spheres, cones and cylinders.
4. Find the direction cosine of any line under the different given conditions
5. Understand the intersection of any two or three, three dimensional geometrical fig.
6. Transform the equation of a plane to the normal form unsymmetric to symmetric form
7. Find the length of perpendicular from a point to a plane.
8. Find the angle of intersection of two sphere.
9. Understanding concepts of plane of contact.

Course - V : Practical Paper :-

After successful completion of the course student will be able to.

1. Verify associativity of matrix addition left distributive law and right distributive law of matrices.
2. Find determinant Eigen values, Eigen vectors, inverse, eigenvalues and characteristic polynomial of a square matrix.
3. To draw the graph of different functions with the help of MATLAB software and related freeware.

Course - VI real analysis - I

Course outcomes :- after successful completion of the course student will be able to.

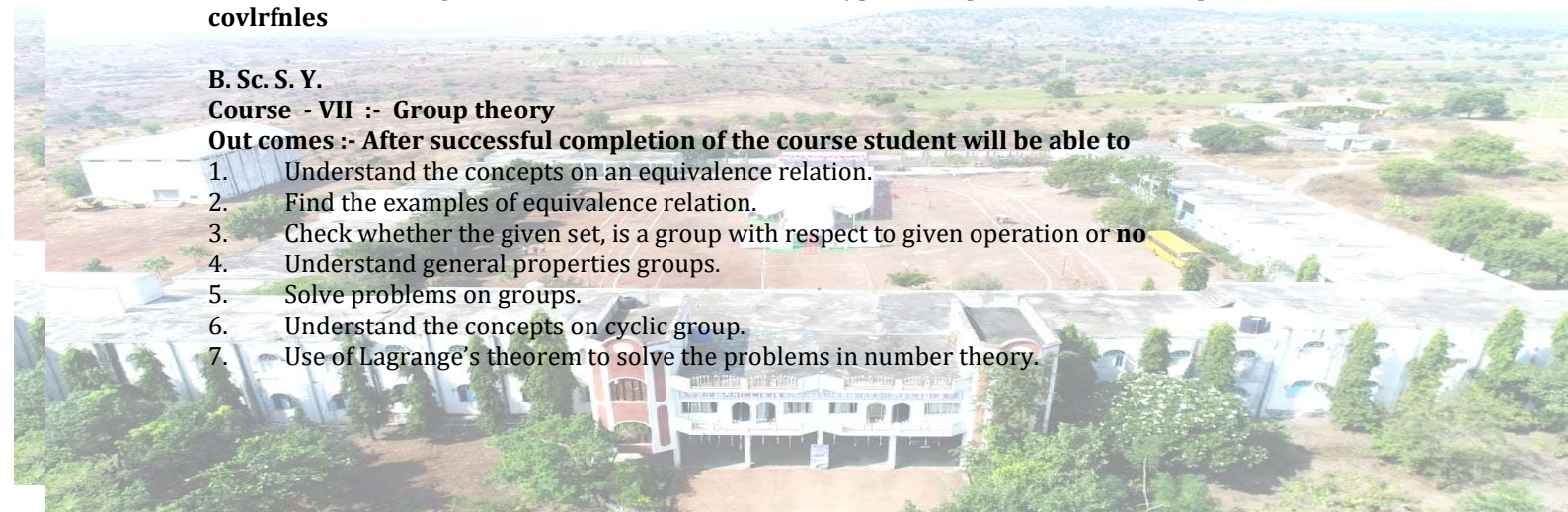
1. Understanding the basic concept of set and its properties.
2. Understanding the concept of limit points of a set at closed set and open set.
3. Use the result to solve some problems
4. Understanding the difference between different types of sequences, series and comparison tests of series

B. Sc. S. Y.

Course - VII :- Group theory

Outcomes :- After successful completion of the course student will be able to

1. Understand the concepts on an equivalence relation.
2. Find the examples of equivalence relation.
3. Check whether the given set, is a group with respect to given operation or not
4. Understand general properties groups.
5. Solve problems on groups.
6. Understand the concepts on cyclic group.
7. Use of Lagrange's theorem to solve the problems in number theory.



8. Find the kernel of a group homomorphism

Course - VIII - ordinary different equations

Course outcomes :- after successful completion of the course student will be able to.

1. Understanding concept of solution of differential equations.
2. Transform the equation into variable separable form.
3. Solve Clairaut equation.
4. Transform the equation to the homogeneous linear form.

Course - IX :- Real Analysis - II

Outcomes :- After successful completion of this course students will be able to.

1. Understand meaning of interval, subinterval, partitions and their refinement.
2. Understanding basic concept of upper integral and lower integral and Riemann integral.
3. Understanding difference between upper sum, lower sum and Riemann sum.
4. Acquire the idea about Riemann integrability and Riemann integration.
5. Understand various theorems associated with Riemann integration.
6. Develop knowledge about Riemann integration and applications of improper integral.
7. Determine convergence of improper integral.
8. Understanding distinguishes between convergence and absolute convergence of improper integral.

Course - X :- Ring Theory :- After successful completion of the course student will be able to.

1. Understanding given algebraic structure is a ring or not.
2. Construct the ideals of ring with known example of ring.
3. Differentiate between zero-divisors and non zero-divisors in a given ring.
4. Check whether given two rings are isomorphic.
5. Understand the concept of principal ideal ring.
6. Understanding concept of Euclidean rings.

Course - XI - partial differential equations.

Course outcomes :- after successful completion of the course student will be able to.

1. Classification of partial differential equations.
2. Solve linear as well as non linear PDE.
3. Solve real life problems by identifying these appropriately from the perspective of PDE.
4. Mathematical formulation of real problem precisely.
5. Solve problem using boundary conditions.
- 6.

B. Sc. T. Y.

Course - XII - Metric spaces.

Outcomes :- After successful completion of the course student will be able to.

1. Demonstrate and understanding of metric spaces and subspaces by proving unseen results.
2. Produce example and counter examples.
3. Understand the concept of open and closed sets.
4. Understand the concept of convergence and completions.
5. After completion of this course student can aware with basic concepts of functional analysis.

Course - XIII :- Linear algebra.

Course outcomes : after successful completion of the course student will be able to.

1. Understanding about vector space, subspace basis and inner product space.
2. Determine a basis and dimension of finite dimensional space.
3. Understanding and prove statements about linear transformations.
4. Find the kernel, range, rank and nullity.
5. Determine Eigen values and Eigen vectors.

Course - XIV (B) - Mechanics - I

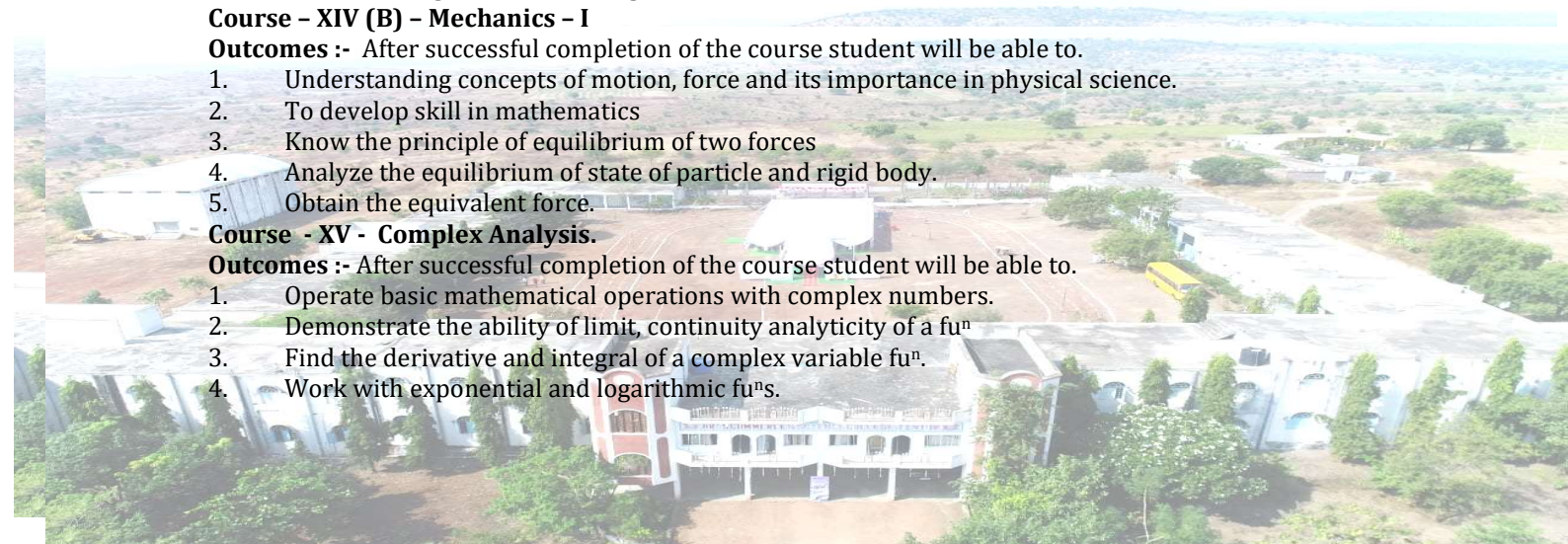
Outcomes :- After successful completion of the course student will be able to.

1. Understanding concepts of motion, force and its importance in physical science.
2. To develop skill in mathematics
3. Know the principle of equilibrium of two forces
4. Analyze the equilibrium of state of particle and rigid body.
5. Obtain the equivalent force.

Course - XV - Complex Analysis.

Outcomes :- After successful completion of the course student will be able to.

1. Operate basic mathematical operations with complex numbers.
2. Demonstrate the ability of limit, continuity analyticity of a function
3. Find the derivative and integral of a complex variable function.
4. Work with exponential and logarithmic functions.



5. Use of Cauchy integral theorem.
6. Use of Liouville's theorem.
7. Use Taylor and Laurent's series.

Course : SEC 3 and 4

Outcomes : skill – IV (A), skill – IV (B) and skill – IV (c)

1. Students can solve the given problems by using MATLAB.
2. Students can solve the given problems by using Latex.

Course - XVI – integral transforms

Course outcomes. :-After successful completion of the course student will be able to.

1. Understand the concept of integral transform.
2. Identify integral transform by their integration limit and kernel.
3. Obtain integral transform of the function.
4. Know the for make for integral transform of students functions
5. Understand various properties of integral transform.
6. Apply the integral transform for evaluavating integrals.

Course – XVII (A – Topology)

Course outcomes :- After successful completion of the course student will be able to.

1. Understand concept of topological spaces
2. Understand topology properties of sets.
3. Understand concept of subspace topology.
4. Understand the basic concept of converted spaces and compact spaces.
5. Understand utility of converted and compactness.

Programme Specific Outcomes (PSO): Department of Electronics

PSO1	Understanding basic operation of electronic devices, electronic instruments, OP-Amps and microprocessors
PSO2	Understand basic concept of electronic circuit, network theorems, digital electronics, amplifiers, oscillators, multivibrators, communication electronics and power electronics
PSO3	Understanding electronics law and concepts
PSO4	Implementation of laws of electronics in actual practical applications.
PSO5	Apply the conceptual understanding and the skills to write program
PSO6	Applications of Electronics circuit and devices

Abbreviation used: U- understand, APP- apply, An- analyze, C- create, Co- conceptual, F- factual, P- procedural

Course Outcome (CO) for B. Sc. F.Y.

Course	Course Outcomes	PSO	Cognitive Level	Knowledge category
Elect 01 (Basic Electronics and Network Theorem)	Understand basic function electronics components and properties	PSO1	U	Co, F
	Understand working of network theorems	PSO2	U	Co
	Understand A. C. fundamentals	PSO1	U	Co
Elect 02 (Basic Digital Electronics)	Understand concept of digital electronics and logic circuits	PSO2	U	Co, P
	Understand number systems	PSO3	U	Co
	Understand laws of Boolean algebra	PSO3	U	C
	Implementation of simple combinational circuit.	PSO3	Ap	F
Elect 03 (Semiconductor Devices and Electronic Instrumentation)	Understand semiconductor devices with properties and operation	PSO1	U	Co
	Understand characteristics of unipolar and bipolar transistor	PSO1	U	Co
	Understand requirements of D. C. power supply and its components	PSO1	U	p
	Understand principal and working of multimeter and CRO	PSO1	U	F
Elect 04 (Digital Logic Circuits)	Implementation of data processing using logic circuit.	PSO2	Ap	F
	Understand Flip Flops and use in logic circuit	PSO2	U	F

		Understand working of counters, registers, A to D and D to A Converters	PSO2	U	F
Elect (Practical-V)	05	Applications of electronic instrumentation	PSO1	Ap	F
		Working and characteristics of semiconductor devices	PSO1	Ap	F
		Working of power supply	PSO2	Ap	F
		Construct the gates and their outputs	PSO1	C	F
		Construction of logic circuit and applications	PSO2	C	F

Course Outcome (CO) for B. Sc. S.Y.

Elect (Amplifiers)	06	Understand biasing of transistor	PSO1	U	P
		Analysis of small signal amplifier using h-parameter and designing of CE amplifier	PSO2	An	Co
		Applications of OP-Amps	PSO6	U	Co
Elect (Microprocessor and Its applications)	07	Understand basics of microprocessor	PSO1	U	Co
		Knowledge of Instruction sets of 8085 and ALP skills	PSO5	U, Ap	F
		Understand working and applications of IC74373 and 8255	PSO1	U	F
Elect (Oscillators and Multivibrators)	08	Understand positive and negative feedback	PSO3	U	P
		Understand working of oscillator	PSO4	U	Co
		Understand working and applications of multivibrators using IC 555	PSO1	U	Co
		Understand time base circuits	PSO2	U	Co
Elect (Introduction to Microcontroller Intel 8051)	09	Understand architecture of 8051	PSO1	U	Co
		Understand Instruction sets and ALP programs of 8051	PSO5	U, Ap	F
		Knowledge of SFRs, Timers and Interrupts of 8051	PSO2	U	Co
Elect (Practical-X)	10	Understand design and working of amplifiers	PSO2	U	C
		Application of OP-AMPS	PSO6	Ap	F
		Construction of Oscillators using transistor	PSO2	Ap	F
		Constructions of multivibrators and time base circuit	PSO2	Ap	F
Elect (Practical-XI)	11	Writing and running of microprocessor 8085 ALP	PSO5	C	P
		Writing and running of microcontroller 8051 ALP	PSO5	C	P

Course Outcome (CO) for B. Sc. T.Y.

Elect (Communication Electronics-I)	12	Understand electronics communication systems.	PSO1	U	C
		Understand analog modulation technique	PSO2	U	C
		Understand analog pulse modulation	PSO2	U	Co
		Understand digital pulse modulation	PSO2	U	Co
Elect (Power Electronics-I)	13	Understand working of SCR, DIAC, TRIAC, PMOSFET, IGBT	PSO1	U	Co
		Understand thyristor triggering circuits	PSO2	U	F
		Understand series and parallel operation of thyristors	PSO2	U	Co
Elect (Communication Electronics-II)	14	Understand working of radio receiver	PSO2	U	Co
		Understand basic knowledge of microwave	PSO3	U	Co
		Understand basic knowledge of RADAR system	PSO2	U	Co
		Understand basics of mobile communications and optical fibers	PSO1	U	Co
Elect (Power Electronics-II)	15	Understand working of controlled rectifiers.	PSO2	U	Co
		Understand power control circuit	PSO2	U	Co
		Understand working of Choppers and Inverters	PSO2		

Elect 16 (Practical-XVI)	Design and study of IF amplifier, audio amplifier, Push pull amplifier	PSO6	Ap	F
	Understand working of modulator and demodulator	PSO6	U	Co
	Understand transmission and reception of light through optical fiber	PSO6	U	Co
Elect 17 (Practical-XVII)	Study working of UJT, SCR, DIAC, TRIAC	PSO6	U	Co
	Application of DIAC and TRIAC for different circuit	PSO6	U	Co
	Study the working of Invertor and Chopper	PSO2	U	Co

Course Outcomes and Programme Specific Outcomes

COMPUTER SCIENCE

Program	Program Outcomes	Course	Course Specific Outcomes	
B.Sc. First Year I – Semester	It builds the student on studies in computer science tools and techniques and to become competent in the current race in computer science and development.	Paper – I – IProgramming Logic Concepts	Student will be able to aware about fundamentals of computer science Student will be able to design algorithms to solve different problems Student will understand how to solve problems using computers	
		Paper – II Designing of Web Pages Using HTML	Understand how to plan and conduct user research related to web usability. Be able to use the HTML programming language Understand the principles of creating an effective web page.	
			Paper – III Introduction to Data Structure	Able to write well-structured procedure-oriented programs To develop application using data structures. Students develop knowledge of applications of data structures including the ability to implement algorithms for the creation, insertion, deletion, searching etc.
				Paper – IV Programming in C Language
B.Sc. First Year II – Semester		Introduces the more advanced features of the C language.		
		Paper – V Practical Based on Theory Papers II and IV.	Practical approach to understand the principles of creating an effective web page. The course is designed to provide complete knowledge of C language to develop logics which will help them to create programs,	
B.Sc. Second Year III – Semester			Paper – VI Operating System	Fundamentals of Operating System Students will be able to understand the basic components of a computer Operating System. Mechanism of OS
		Paper – VII Object Oriented Programming using		Understand how C++ improves C Students will able to do programming

		C++	independently and will also be able to built small applications.
B.Sc.Second Year III – Semester SEC – I		Paper – SEC – I (A) Programming Using SCILAB	Students will be able to understand the main features of the SCILAB program development environment. To implement simple mathematical functions/equations in numerical computing environment such as SCILAB.
		Paper – SEC – I Or (B) PC Installation & Networking	Students would have knowledge of computer hardware and peripherals their installation, PC assembly, trouble shooting.
B.Sc.Second Year IV – Semester		Paper – VIII Computer Networks	Understanding basics of computer networking, connectivity techniques and related protocols. Students would be able to chose, escalate and establish a computer network Understood basic hardware requirement for computer network
		Paper – IX Java Programming	The student would be able to use Java integrated development environment Understood to write, compile, run, and test simple object-oriented Java programs Students would be able to make elementary modifications to Java programs that solve real-world problems.
		Paper – SEC – II (A) Introduction to Web Applications	Learn how to setup a quick and easy website with the new free Google sites. Knowledge of website development and design specialization
		Paper – SEC – II Or (B) Digital Media Concepts	To build practical skills in the creation and publication of digital technologies Student will be able to use essential skills for digital media
B.Sc.Second Year Annual Lab		Paper – X Practical's based on theory papers-VI & VII (OS and C++)	Student will be able to understand the basic components of a Linux operating system To understand how C++ improves C with object-oriented features.
		Paper – XI Practical's based on theory papers- VIII & IX (CN & Java)	Students will gain expertise in some specific areas of networking such as the design and maintenance of individual networks. The student would be able to, use an integrated development environment to write, compile, run, and test simple object oriented Java programs.
B.Sc. Third Year V – Semester		Paper – XII Software Engineering	Understand Software Engineering Process. Understand Requirements and components of Software Engineering. Understand software design and software testing fundamentals.
		Paper – XIII Elective (A) Programming in Visual Basic	Understand Graphical User Interface Language. Develop an application using GUI Language.

			Implement VB programs to solve simple problems.
		Paper – XIII Elective Or (B)Advanced JAVA Programming	Understand the Graphics and Applet programming
			Gives the knowledge on basics concepts of multithreading programming.
			Understand web-based programming
B.Sc. Third Year V – Semester SEC – III		Paper – SEC – III (A) System Security	Candidates are expected to possess in-depth knowledge of formal modelling techniques for secure computer systems
			Candidates have advanced knowledge of common vulnerabilities, attack mechanisms, and methods against computer and information systems
		Paper – SEC – III (A) Data Science	Students will develop relevant programming abilities.
			Students will demonstrate proficiency with statistical analysis of data.
B.Sc. Third Year VI – Semester		Paper – XIV Software Testing	Understand Software Testing Process
			Understand Various types of software testing
			Understand how to handle testing process
			Set the basic path to students towards becoming a Software Professional.
B.Sc. Third Year VI – Semester SEC – IV		Paper – XV Elective (A)Relational Database Management System	Knowledge of RDBMS
			Knowledge about the Use of SQL & PL/SQL for RDBMS
		Paper – XV Elective (B)Data Mining	Understood What is Data Mining
			Understood Applications of Data Mining
B.Sc. Third Year VI – Semester SEC – IV		Paper – SEC – IV (A)Website Development	How to and where to start research, planning for website & actually build excellent web sites.
			To create web elements like buttons, banners & Bars and of course complete UI designs.
			Forms and validations for your website.
			Ssetting up page layout, color schemes, contract, typography in the designs.
B.Sc. Third Year Annual Lab		Paper – SEC – IV Or (B)Image Processing Software	Understand the need for image transforms different types of image transforms and their properties.
			Develop any image processing application.
			Understand the need for image compression and to learn the spatial and frequency domain techniques of image compression.
			Understand the need for image compression and to learn the spatial and frequency domain techniques of image compression.
B.Sc. Third Year Annual Lab		Paper – XVI Practical's based on theory papers-XIII & XV	Implement VB programs to solve simple problems.
			Understand web-based programming
			Use of SQL & PL/SQL for RDBMS
		Paper – XVII Project Work	Understood actual software development methodology.
			Project report writing

Programme Specific Outcomes (PSO): Department of Botany

PSO1	This program will train and orient the students in the field of cell biology, molecular biology, genetics, plant breeding, plant pathology, systematic botany and herbal technology.
PSO2	This program will help the students for their career development.
PSO3	This program will provide updated curriculum with recent advances in the subject and enable the students to face the competitive examinations successfully.
PSO4	This program shall train and orient the students for laboratory skills and serve as human resource for the educational institutes, industries and other organizations.
PSO5	The programme also has a strong interdisciplinary component. Emphasis is given on the experimental learning through hands-on laboratory exercises, field trips and assignments.
PSO6	Students will be able to understand and explain different specializations in Botany such as cell biology, molecular biology, genetics, plant breeding, plant pathology, systematic botany and herbal technology etc. Students will be able to demonstrate the experimental techniques and methods in plant sciences and have innovative research ideas.
PSO7	The programme will enlighten the current thrust areas of the subject and provide substantial exposure and skills in Botany.
PSO8	Skill Enhancement Courses being offered during this program will provide job opportunities and additional specific skills to the students for self-employability through the development of their own enterprises.

Abbreviation used: CCP- Core Course Physics, CCP- Core Course Physics Practical, U-understand, APP- apply, An-analyze, C-create, Co- conceptual, F-factual, P-procedural

Course Outcome (CO) B.Sc. F.Y.

CCB-I (A) Theory Paper-I- Viruses, Bacteria, Algae, Fungi, lichens and Mycorrhiza

Course outcomes:

1. Understand the morphology, structure and importance of the various organisms
 2. Differentiate between various groups of Algae, Fungi, Bacteria, Viruses, and Lichens & Mycorrhiza
- learn the life cycles of individuals belonging to Algae, Fungi, Bacteria, Viruses, Lichens & Mycorrhiza

CCB-I (B) Theory Paper-II

Plant Ecology, Phytogeography and Environmental Biology

Course outcomes:

1. Able to understand the ecological principles, interactions taking place in the Ecosystems and the flow of energy.
2. Learn about the concept of phytogeography and its relations with other disciplines

CCB-II (A) Theory Paper-III

Bryophytes, Pteridophytes, Gymnosperms & Paleobotany-

Course outcomes:

1. Learn the life cycles of individuals belonging to Bryophytes, Pteridophytes and Gymnosperms
2. Learn about process of fossil formation and fossils plants

CCB-II (B) Theory Paper-IV

Taxonomy of Angiosperms

Course Outcomes:

1. Proficiency with the basic terminology of plant morphology.
2. Student will be able to identify the major families of plants and their economic importance.
3. Understand the methods of collecting and preserving plants

CCBP-I Practical paper-v: based on theory papers-I, II, III & IV.

B. Sc. Second Year

CCB-III (A) Theory Paper- VI -Plant Anatomy

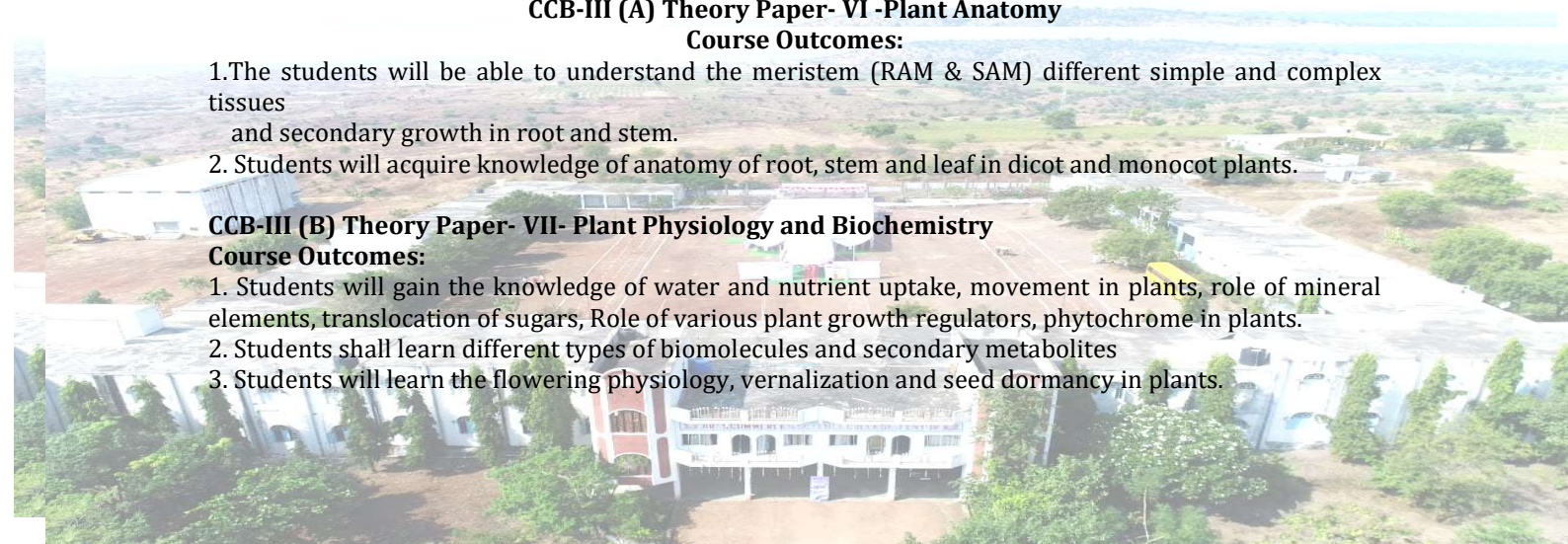
Course Outcomes:

1. The students will be able to understand the meristem (RAM & SAM) different simple and complex tissues and secondary growth in root and stem.
2. Students will acquire knowledge of anatomy of root, stem and leaf in dicot and monocot plants.

CCB-III (B) Theory Paper- VII- Plant Physiology and Biochemistry

Course Outcomes:

1. Students will gain the knowledge of water and nutrient uptake, movement in plants, role of mineral elements, translocation of sugars, Role of various plant growth regulators, phytochrome in plants.
2. Students shall learn different types of biomolecules and secondary metabolites
3. Students will learn the flowering physiology, vernalization and seed dormancy in plants.



CCB-IV (A) Theory Paper- VIII Plant Embryology

Course Outcomes:

1. This course will be able to demonstrate foundational knowledge in embryology of plants.
2. Students will be able to understand the development of pollen, Ovule, and fertilization and palynological information.

CCB-IV (B) Theory Paper-IX Plant Metabolism and Biotechnology

Course Outcomes:

1. Students will be able to understand the various metabolic processes such as photosynthesis, respiration, Nitrogen metabolism etc. which are important for life.

2. Students shall be become familiar with the gene cloning and its transfer in plants

3. Students shall learn different databases and their applications

CCBP-II Practical paper-x: based on theory papers-vi & viii

CCBP-III Practical paper-xi: based on theory papers-vii & ix

SECB-I (A): Fruit and vegetable processing

1. Student will be able identification and processing scenario of fruit and vegetable in India. Ecofriendly application of frit and vegetable processing industries

2. Student will be able to know about preparation and preservation technique of fruit and vegetable.

3. Student will be able to know commercial production of fruits and vegetable.

SECB-II (B): Bioinstrumentation

1. Student will be able to know about the biological instrumentation such as GLC, HPTLC, Ion exchange.

2. Student will be able application of and uses of instrumentation in biological research

3. Student will be able know basic principle of biological instruments

Course Outcome (CO) for B. Sc. T.Y.

DSCB-I: Cell and molecular biology (Th. per.- xii)

1. The students will be able to understand ultra-structure of a cell, cell wall, cell membrane, cell organelles and chromosomes, cell cycle and cell division.

2. The students will be able to understand in detail the structure of DNA and RNA, protein synthesis, gene structure, gene mutation and related diseases.

3. Students will acquire knowledge of cell and molecular biology

DECB-I: SYSTEMATIC BOTANY-I (Theory Paper-XIII)

1. The students will be able to understand fundamentals of classification of angiosperms.

2. The students will be able to understand in detail the principles of plant taxonomy.

3. Students will acquire knowledge of different families of polypetalae, gamopetalae and apetalae.

DSCB-I: GENETICS AND PLANT BREEDING (Theory Paper-XIV)

1. Understand Mendelian genetics, gene interaction.

2. Learn the sex determination, linkage, sex linked inheritance and genetic variations.

3. Understand various crop improvement methods in plant breeding.

DECB-I: SYSTEMATIC BOTANY-II (Theory Paper-XV)

1. Students will acquire knowledge of different families of monocotyledons

2. The students will be able to understand principles of taxonomy

3. The students will be able to understand in detail the origin of angiosperms.

DSCBP-I Practical paper-XVI: Practical based on theory paper-XII&XIV

(Cell and molecular biology & Genetics and plant breeding)

1. Understand Cell biology

2. Learn the molecular biology

3. Understand genetics and plant breeding

Annual Pattern

DECBP-I Practical paper-XVII: Practical based on theory paper-XIII&XV

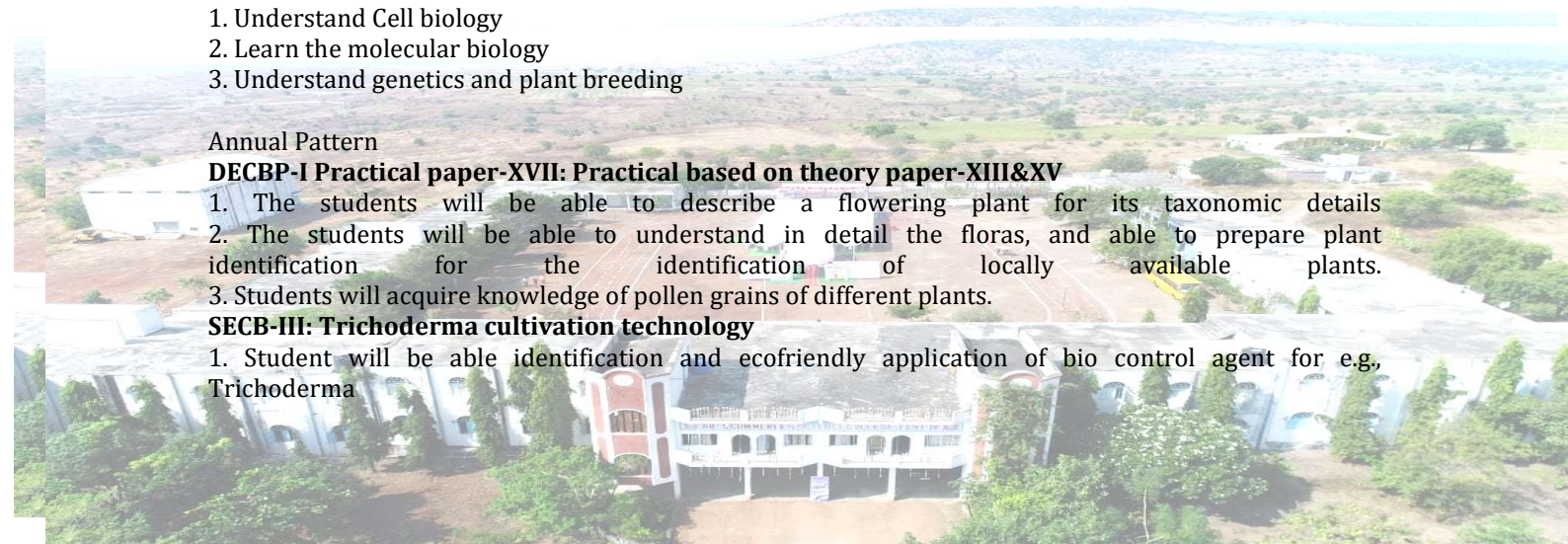
1. The students will be able to describe a flowering plant for its taxonomic details

2. The students will be able to understand in detail the floras, and able to prepare plant identification for the identification of locally available plants.

3. Students will acquire knowledge of pollen grains of different plants.

SECB-III: Trichoderma cultivation technology

1. Student will be able identification and ecofriendly application of bio control agent for e.g., Trichoderma



2. Student will be able to structure and mode of action of Trichoderma as bio fertilizer
3. Student will be able to know commercial production of bio fertilizer

SECB-II: Medicinal plant product preparation skill

1. Student will be able to identification of medicinal plant all over the world
2. Student will be able application of medicinal plant against diseases and disorder
3. Student will be able know preparation of medicinal product such as syrup, powder, capsule, tablet etc.

SECB-IV: Mushroom cultivation

1. Student will be able to know about the food value of Mushroom
2. Student will be able to understand conventional and non- congenital food value
3. Student will be able understand morphology and edible species of mushroom
4. Student will be able for commercial production of mushroom and their marketing for empowerment of economy

SECB- IV: Herbal drug processing

1. Student will be able about application of herbal medicine
2. Student will be able to identify and classification of herbal medicinal plant
3. Student will be able extraction and processing technique of herbal medicine.

Programme Specific Outcomes (PSO): Department of Zoology

PSO1	The courses given in this document are of student-centric nature and help the stakeholders to understand the basic laws of nature and develop necessary skills to apply them to the advanced areas of studies
PSO2	To provide adequate knowledge of the basic courses of Zoology such as study of the structure embryonic development, evolution, classification, habits and distribution of all animals, both living and extinct. There are several specializations available to students pursuing this field. There are several groups of animals studied in Zoology like Invertebrates, Vertebrates, Protozoans and others. In the study of Zoology, there are many options to choose from depending on individual capabilities and interest.
PSO3	Skill enhancement courses of advanced nature and help the students to develop their skills through hands-on activities as they progress in the program.
PSO4	To develop their keen interest in studying Zoology..
PSO5	Evaluate problems in Zoology by using the Bioinformatics application software
PSO6	Evaluate problems in Zoology by using the Biometry.

Abbreviation used: CCZ- Core Course Zoology , CCZP-Core Course Zoology Practical, CA- Continuous Assessment, ESE- End of Semester Examination

Course Outcome (CO) for B. Sc. F.Y.

Course	Course Outcomes	PSO	Cognitive Level	Knowledge category
CCZ- I (Section A): Paper I: Biodiversity of Invertebrates.	1. The student will be able to identify a given invertebrate up to class level.	PSO	U	Co, F
	2. Ability to understand the contribution of Invertebrates in the biodiversity index of any given habitat.	PSO	U	Co
	3. Ability to understand and appreciate the ecological and economic importance of invertebrates and vertebrates.	PSO	U	Co
CCZI (Section B): Paper II: Biodiversity of Chordates.	1. The student will be able to identify and understand the Biodiversity of Chordates	PSO	Ap	Co, P
	2. Ability to understand anatomical relation between different vertebrate classes.	PSO	U	Co
	3. The learner will be able to understand the economic importance of Chordates.	PSO	An	C
CCZ- II (Section A): Paper III: Comparative	1. The students will be able to identify and understand comparative anatomical structure of vertebrate organs system.	PSO	U	Co

Anatomy of Vertebrates.	2. The learner will be able to understand the evolution of various organs and systems in the vertebrate body according to its environment.	PSO	U	Co
	3. Understand the plasticity of organ systems to adapt to the environment and acquire different novel forms. .	PSO	U	p
CCZ- II (Section B): Paper – IV: Developmental Biology of Vertebrates.	1. The student will be able to explain the basic processes of vertebrate embryonic development.	PSO	U	F
	2. Ability to describe the various steps in vertebrate development.	PSO	U, An	F
	3. Identify and explain about the different embryonic structures.	PSO	U, Ap	F
	4. Describe the functions of different extra-embryonic structures.	PSO	U, An	
CCZP- I (Annual Pattern): Paper -V: Practical based on Section A & B of CCZ-I& II	1. Ability to understand anatomical organization of organs and systems in representative species.	PSO	U, Ap	F
	2. Ability to identify and describe structure and functions of different body parts of invertebrates and vertebrates.	PSO	Ap	F
	3. Students would be able to prepare temporary and permanent mountings of biological material.	PSO	An	F
	4. Students would be able to relate different bones and be able to articulate them to form an skeleton.	PSO	U, Ap	F

Course Outcome (CO) for B. Sc. S.Y.

CCZ- III (Section A): Paper – VI: Physiology	Students will be able to:	PSO	U	P
	1. Monitor their blood pressure and identify blood groups.			
	2. Understand functions and types of heart and circulatory system.			
	3. Appreciate the basic function of kidney, main function of nerves.	PSO	U, An, Ap	
	4. Acquire knowledge on the nature and functions of hormones and learn the mechanism of hormone action.	PSO	U, An	Co
	5. Learn the structure and functions of Endocrine glands.	PSO	U, Ap	Co
	6. Understand the structure, development and function of reproductive organs in human.			
CCZ- III (Section B): Paper – VII: Biochemistry	The students will be able to:	PSO	U	Co
	1. Understand the chemical structure and functions of various biomolecules.			
	2. Learn the signaling of biomolecules in cell membrane.	PSO	U, Ap	F
	3. Understand to correlation between metabolisms of different types of biomolecules.	PSO	U	F
CCZS- I (Section A) SEC-I Skill Enhancement Course I B: Urinology	Acquired the skills of:	PSO	U, Ap	P
	1. Ability to describe function of human urinary system.			
	2. Skill to collect, preserve, process and store urine samples.	PSO	An, Ap	Co
	3. Skill to perform physical, chemical and microscopic examination of urine samples.			

	4. Ability to document findings of urine examination/analysis.	PSO	Ap	Co
CCZ- IV (Section A) Paper -VIII Core Paper: Cell Biology and Genetics.	Students will be able to: 1. Understand the structure and function of the cell as the fundamentals for understanding the functioning of all living organisms. 2. Understand structures and various cellular functions associated with the macromolecules found in cells. 3. Acquire knowledge of Mendelian Genetics and its Extension. 4. Graduates will be able to explain and interpret various processes, phenomena, states and evolutionary tendencies at a biological system level.	PSO	An, Ap	Co
CCZ- IV (Section B) Paper-IX Core Evolutionary Biology and Genetic Engineering.	The students will be able to: 1. Understand the theories and concepts of evolution. 2. Learn the oprocess of evolution in animals. 3. Understand the patterns of evolutionary changes in animals. 4. Understand the organization and functions of genetic material in the living world. 5. Understand the Recombinant DNA Technology.	PSO	U	C
CCZS -I (Section B) SEC-II Skill Enhancement Course II A. Hematology	1. Ability to identify different types of tissues and distinguish between different components of cells. 2. Skill related to fixation of tissue samples and microteaching processing of tissues. 3. Ability to identify, handle and catalogue slides of different tissues. 4. Students skill in operating and maintaining different types of microtomes.	PSO	U, Ap	P
CCZP-II Paper -X: Practicals Based on Section A of CCZ III & IV (Papers P-VI & VII)	1. Students will able to improve the skills in microscopy, slide preparation, observations, drawings and laboratory techniques. 2. To acquaint the students with operations of the different laboratory equipment. 3. Ability to understand the detection of blood groups of humans. 4. Ability to understand the estimation of blood cell counts, Hemoglobin content in humans.	PSO	An, Ap	P
CCZP-III Paper-XI: Practicals Based on Section B of CCZP- III & IV (Papers -VIII& IX)	1. Students would be able to prepare temporary squash preparations of onion root tips the mitosis. 2. Demonstrate the genetic traits in Man. 3. Ability to culture Drosophila flies in the laboratory. 4. Ability for mounting of salivary glands of Drosophila larvae. 5. Students are able to understand the outline of genetic Engineering. 6. Ability to learn the ole of Genetic Engineering in biology.	PSO	An, Ap	P

Course Outcome (CO) for B. Sc. T.Y.

DSEZ- I (Section A) Paper - XII: Ecology and Zoogeography.	1. Demonstrate knowledge of biotic and abiotic interactions. 2. Express understanding of environmental issues, and inter-relation between different components of ecosystems.	PSO1	U	C
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	3. Ability to elaborate about distribution and abundance of organisms. 4. Apply different experimental techniques to study any ecosystem or its components.	PSO2	U	C
	5. Describe the relation between structures and function species in environment. 6. Display knowledge of natural resources and pollution management techniques.	PSO2	U	Co
		PSO2	U	Co
DSEZ- I Elective (Section B): Paper - XIII(A): Pisciculture	1. Ability and skill to design and construct a fish farm. 2. Skill to describe and undertake different methods of fish breeding.	PSO1	U	Co
	3. Describe different food fish species and their capture methods used in India capture fishery. 4. Elaborate about different fishing craft and gear used in Indian capture fishery.	PSO2	An, Ap	F
	5. Knowledge of fish diseases and skill to treat sick fish with appropriate techniques.	PSO2	An, Ap	Co
SECZ-III Skill Enhancement Course III(F) Vermiculture and Vermicomposting.	1. Knowledge of morphology and biology of earthworms used in vermiculture. 2. Ability and skill of rearing earthworms and using them in vermicomposting.	PSO2 PSO3	U U	Co Co
	3. Proper operating of implements and equipment used in vermicomposting.	PSO2	U	Co
	4. Train in the operation and use of implements and equipment used in vermicomposting.	PSO1	U	Co
DSEZ II (Section A): Paper - XIV Ethology, Biometry and Bioinformatics	1. An appreciation of animal behavior and complexities of ethology. 2. Knowledge of basic concepts and techniques of Biometry	PSO2	U	Co
	3. Knowledge and skill to apply the techniques statistical methods in biology.	PSO2	U	Co
	4. Knowledge and understanding of practical use of computers in Bioinformatics.	PSO2	U	Co
DSEP- II (Section B): Elective Paper - XV(A): Aquaculture	1. Knowledge and understanding of aquaculture methods, Mari culture and fish processing. 2. An understanding of the different man-made hazards to aquaculture.	PSO6	Ap	F
	3. Knowledge and skill to use different species of locally available larvivorous fish in vector control.	PSO6	U	Co
	4. Knowledge and understanding of the role of Government agencies in development of aquaculture.	PSO6	U	Co

SECZ-IV Skill Enhancement Course IV(H):Sericulture	1. Ability to cultivate mulberry plant and silk worms identify and manage mulberry diseases.	PSO6	U	Co
	2. Properly carry out silk worm rearing and post-cocoon processing.	PSO6	An, Ap	Co
	3. Identify and manage silkworm diseases, their control and prevention.	PSO2	An	Co

DSCZP-I& II Paper-XVI: Practicals Based on P- XII & XIV	1. Skill on handling, testing and analysis of water samples.	PSO2	U	Co
	2. Recognition and description of animal adaptations under different ecological and Zoo-geographic conditions.			
	3. Describe animal responses to different environmental signals. 4. Apply different techniques to gather analyze data using a computer.	PSO2	Ap	Co
DSCZP-I& II Paper-XVII(A): Practical Based on o P-XIII(A)& XV(A)	5. Browse, search and download information from online biological databases. Student can find faults and general troubleshoots and wiring faults.	PSO2	An, Ap	
	1. Perform fish farm practices, farm management, fish breeding & rearing.	PSO	Ap	P
	2. Adopt appropriate fish preservation and processing techniques for fish by-products.	PSO	An, U	P
	3. Ability to identify and describe fish of capture and culture food fish.	PSO	An	P

FISHERY SCIENCE

Program	Program Outcomes	Course	Course Specific Outcomes
B.Sc. First Year-I Sem	Understand the Concept of Fish as animal	Paper -I. Ichthyotaxonomy and Ecological adaptations	Understand the Species Diversity
	The basic concept of Fish Living in water analysis		Categories the Ecological niches
	Develop the skills of fish identification	Paper No. II. Type Study -Wallago attu.	Dissection techniques of fish animals Understand the fish species Biology
			Identify the various body system and it's working
			Use the Reproductive conditions status of fishes in fish production.
B.Sc. First Year-II Sem	Understand the basic information of fish	Paper No.-III. Fresh Water Fish Culture Technology	Understand the fish culture techniques
	Understand the scope of fishery Science.		Knowledge of the various fish culture Medias
	Understand Fish Culture Technology		Modern fish engineering techniques used.
Annual Lab Course based on CCFS-I&II		Manual Lab Course-I Paper No.V	Understand the Dissection Techniques
			To prepare the students for fish body system analysis
			Develop the skills for body system of fish
B.Sc.S.Y.- Sem-III	Studying the Fisheries education	Paper No.-VI. Fish Disease Management	Study and analyze the fish health
	Understand the need of growing human population		Studying Mental Fish health and corelate to life
	Understand the health conditions of fish also		Understand the parasites and it's effects on fish body
		Paper No.VII. Fish Developmental Biology	Understand the fish behaviour
			Studying the fish fecundity and tools
SEC-I	Understand the importance of skills	SEC-I Manufacturing of fish by-products(A)	Understand the growth of fish
	Provide latest knowledge of fishing tools		Knowledge of latest demand of fish by-product
	How to use the basic and		Techniques adopted for recent manufacturing conditions Utilization of various fish by-product

	applied skills in fishery	OR	
		SEC-I Soil & water analysis techniques(B)	Understand the importance of water the importance of soil for fish culture
			Use latest technique and tools for water analysis
B.Sc.S.Y.- Sem-IV	Understand the situation of surplus fish catch	Paper No. VIII.-Fish preservation & fish by production technology	Understand the importance of fish preservation
	Use of modern tools and techniques		Used the methods of fish preservation
	Studying the fishing technology		Understand the skills of by-product and principle of preservation
		Paper No. IX.Fishing craft & gear technology	Understand the new craft Technology
			Understand the gear mending techniques
			Understand the preservation techniques
SEC-II	Understand the importance of fish and manufacturing the gears	SEC-II(A) Fish and Processing Technology	Understand the Skills of Fish spoilage
	Understand the practical knowledge of preservation and net manufacturing		Analysis the causes of fish Rigor-mortis
	Understand the techniques used for various skills		Used various fish preservation principles and methods
		SEC-II (B) Manufacturing of fishing nets.	Understand the classification of gears
			Analysis was done for the accessories for gear or nets
			Skills used in nets fabrication
Annual Lab Course based on CCFS-VI & VIII		Manual Lab Course -II Paper No. X prctical.	Understand the practical knowledge
			Can do Water analysis is done
			Use of water with suitable contents for fish life (analytical)
		Manual Lab Course-II. Paper No.XI. practical	Understand the dissection techniques
			Analysis is for gear and craft was done
		स्थापना-१९८३	The principle and methods of preservation used in food processing
B.Sc.T.Y.Sem-V	Understand the importance of Mericulture	Paper No.XII. Indian Marine Fisheries (A)	Understand the importance of marine sectors
	Analysis is done for fresh, marine and brackish waters		Analysis was done in marine and brackish and lagoons
	Different food and fish culture techniques performed		Use the knowledge in industry and other relevant sector
		Paper No. XIII.Aquaculture Techniques and fish Nutrition (Elective B-I)	Understand the various fish culture techniques
			Analysis the integrated fish farming
			Use the modern tools in culture techniques and in food nutrition
		Paper No. XIII. Soil and Water Quality	Understand the properties of water for Aquaculture

		Management in Aquaculture (Elective B-II)	
			Analysis the various bio fertilizers for aquaculture
			Use the suitable water and bio fertilizers for good aquaculture
SEC-III.	Understand the importance of skills in aquaculture	SEC-III(A) Fish feed Production Technology	Understand the importance of feed
	Analysis of feed ingredients and it's use		Analysis of fish feed ingredients
	Use of various skills in aquarium preparation		Formulation of fish feed in Aquaculture
		SEC- III(B) Culture of Fish food Organisms	Understand the culture fish food organisms
			Analysing the various fish food organisms
			Preparation of various fish food organisms
B.Sc.T.Y.Se m-VI	Understand the importance of Aquarium and Marketing	Paper No. XIV Ornamental Fish Production and Management	Understand the importance of Ornamental fishes
	Analysis of aquarium fishes and ornamental fishes		Analysis of egg bears and live bears
	Prepared aquarium and Demand		Prepared various types of aquariums for selling.
		Paper No. XV Fisheries Economics, Co-operatives and Marketing Management (Elective BI)	Understand the principles of fisheries economics
			Analysis of various fisheries institutions
			Marketing strategies and co-operative strategies adopted
		Paper No. XV. Nutrition and Feed Technology (Elective B II)	Understand the importance of Fish Nutrition
			Analysis of various fish nutrients
			Use nutrients rich food from flesh
SEC-IV	Understand the importance of aquarium and breeding techniques	SEC-IV-(A) Fabrication of Aquarium	Understand the different accessories and types of aquarium
	Analysis of accessories of aquarium		Analysis of aquarium settings of various types
	Use different types of aquarium and breeding of ornamental fishes		Use of suitable shape and size of aquarium in life
		SEC-IV(B) Breeding Techniques of ornamental fishes	Understand importance of ornamental fishes
			Analysis the breeding of egg depositors, live-bearer, egg-bearers and nest-builders
			Use suitable breeding techniques of ornamental fish in commercial purpose.
Annual Lab	Understand the importance of Marine and	Paper No. XVI. Practical Paper	Understand the difference between fisheries

Course Practical-	Fresh fisheries	Based on paper -XII +XIV	
	Analysis of different fisheries		Analysis the penaeid and non-penaeid prawns
	Use the different fisheries for development		Use various aquarium fishes and prepared aquarium
		Paper No. XVII (BI) Practical paper Based on paper XIII (BI)+XV(BI)	Understand the importance of culturable fishes
			Analysis of fish feed ingredients
			Use of estimated feed ingredients as proteins, carbohydrates and fats.
		Paper No. XVII(B II) Practical paper Based on paper XIII (B II)+XV(B II)	Understand the importance of various ingredients
			Analysis of different contents of water analysis
		Use of the good water contents for fish development	

