2.6 Student Performance and Learning Outcomes

2.6.1 Program Outcomes (POs) and Course Outcomes (COs) for all Programs offered by the institution are stated and displayed on website

2021.22_2.6.1-All-Departments-Cos,Pos-and-PSOs.pdf (ycwm.ac.in)

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Course Outcomes (COs)

Program Outcomes (POs)

Program Specific Outcomes (PSOs)

Undergraduate Courses

DEPARTMENT: MARATHI

Name of Course (All Papers) /Programme (Subject of final year) offered
A. U.G. Course/Programme :- B. A.

B. A. I Marathi Sem-I Course- A शब्दसंहिता **Compulsory Generic Elective CGE-I Marathi (CBCS)** **The Student who Successfully Completes this Course Will be able to….**	
CO-1	विद्यार्थ्यांची मराठी भाषा आणि साहित्याविषयी अभिरूची विकसित होते.
CO-2	विध्यार्थ्यांना मराठी साहित्य परंपरा, लेखक, कवी यांचा परिचय होतो.
CO-3	विद्यार्थ्यांची मराठी भाषा आणि साहित्याविषयी अभिरूची विकसित होते.
CO-4	विद्याश्र्यांमध्ये मातृभाषा, राष्ट्रीय एकात्मता आणि उच्च मानवी मूल्याविषयी जाणीव निर्माण होते.
CO-5	विद्यार्थ्याचा व्यक्तिमत्व विकास होण्यास मोठी मदत झाली.
B. A. I Marathi Sem-II Course- B शब्दसंहिता **Compulsory Generic Elective CGE-I Marathi (CBCS)** **The Student who Successfully Completes this Course Will be able to….**	
CO-1	विध्यार्थांना मराठी साहित्य परंपरा, संतकवी, लेखक यांचा परिचय झाला.
CO-2	वैविध्यपूर्ण निबंधलेखनाच्या माध्यमातून विद्यार्थ्यांमध्ये भाषा उपयोजनाची कौशल्ये विकसित होण्यास मदत झाली.
CO-3	निबंधासारख्या साहित्यप्रकारातून विध्यार्थ्यांची वैचारिक मांडणी परिपक्व झाली.
CO-4	प्राचीन व आधुनिक काव्यातून बदलत्या वैचारिक धारेची मांडणी समजण्यास मदत झाली.
B. A. I Marathi Sem-I Course-I अक्षरबंध **Discipline Specific Core (DSC-A1) Marathi (CBCS)** **The Student who Successfully Completes this Course Will be able to….**	
CO-1	विद्यार्थ्यांची मराठी भाषा आणि साहित्याविषयी अभिरूची विकसित होण्यास मदत झाली.
CO-2	मराठी साहित्य परंपरेतील कथा वांडमयाचा परिचय झाला.
CO-3	चित्रपटसृष्टीतील व्यवसायिक व कलात्मक कौशल्याचा परिचय झाला.
CO-4	चित्रपटाची पटकथा लिहिण्याचे तंत्र आवगत झाले.
B. A. I Marathi Sem-II Course-II अक्षरबंध	

Discipline Specific Core (DSC-A13) Marathi (CBCS) **The Student who Successfully Completes this Course Will be able to….**	
CO-1	विद्यार्थ्यांची मराठी भाषा आणि साहित्याविषयी अभिरूची विकसित होण्यास मदत झाली.
CO-2	मराठी साहित्य परंपरेतील कविता वांडमयाचा परिचय झाला.
CO-3	प्रसारमाध्यमांचे स्वरूप व विशेषांचा परिचय झाला.
CO-4	वृत्तपत्रातील बातमीलेखन व इतर सदरातील लेखनकौशल्ये प्राप्त झाली.
B. A. II Marathi Sem-III MarathiPaper no. III काय डेंजर वारा सुटलाय आणि भाषिक कौशल्य **Discipline Specific Core Course (DSC-C1) (CBCS) The Student who Successfully Completes this Course Will be able to….**	
CO-1	नाटक या वाडमयप्रकाराचा व परंपरेचा परिचय झाला.
CO-2	नाटक वाङमयप्रकाराचे लेखन तंत्र समजण्यास मदत झाली.
CO-3	विद्यार्थ्यांमध्ये भाषिक जाणीव, राष्ट्रीय एकात्मता, बंधुता वाढीस लागण्यास मदत झाली.
CO-4	विद्यार्थ्यांमध्ये संवादलेखन कौशल्ये विकसित होण्यास मदत झाली.
B. A. II Marathi Sem-III Marathi Paper no. IV काव्यगंध आणि भाषिक कौशल्य **Discipline Specific Core Course (DSC-C25) (CBCS)** **The Student who Successfully Completes this Course Will be able to….**	
CO-1	मराठी काव्य परंपरा व प्रवाहाची ओळख झाली.
CO-2	काव्यप्रवाहानुरूप काव्यलेखनाचे विशेष तपासता आले.
CO-3	विद्यार्थ्यांना कवितेच्या आकृतीबंधाचा परिचय झाला.
CO-4	काव्यनिर्मितीची कौशल्ये आत्मसात झाली.
B. A. II Marathi Sem-IV Marathi Paper no. V माती, पंख आणि आकाश आणि भाषिक कौशल्य **Discipline Specific Core Course- (DSC-C25) (CBCS) The Student who Successfully Completes this Course Will be able to….**	
CO-1	आत्मचरित्र या वाडमयप्रकाराचा परिचय झाला.
CO-2	वेगवेगळ्या भारतीय व परदेशी प्रांतातील जीवनदर्शनाची ओळख झाली.
CO-3	आत्मवृत्त लेखनाचे कौशल्य आत्मसात झाले.
CO-4	प्रवासवर्णन व रोजनिशी या लेखनप्रकाराचे स्वरूप समजेल.
B. A. II Marathi Sem-IV Marathi Paper VI जुगाड(कादंबरी) आणि भाषिक कौशल्य **Discipline Specific Core Course (DSC-C26) (CBCS)** **The Student who Successfully Completes this Course Will be able to….**	

CO-1	मराठी कादंबरी या वांडमयप्रकाराची ओळख झाली.
CO-2	आधुनिक व जागतिकीकरणाच्या जाणीवा निर्माण होण्यास मदत झाली.
CO-3	कादंबरीलेखनाने विशेष व वांडमयीन स्वरूप कळण्यास मदत झाली.
CO-4	विद्यार्थ्यांमध्ये वृतांतलेखन करण्याचे कौशल्ये निर्माण झाले.
B. A. III Marathi Sem-V Marathi Paper no. VII साहित्यविचार **Discipline Specific Core Course (DSE-E1) Marathi (CBCS) The Student who Successfully Completes this Course Will be able to….**	
CO-1	पौर्वात्य, पाश्चात्य व आधुनिक भारतीय साहित्यशास्त्राचा परिचय झाला.
CO-2	ललित व ललितेत्तर साहित्यातील मूलभूत फरक लक्षात आले.
CO-3	साहित्यातील रसप्रक्रिया भरताचे रससूत्र यांचा परिचय झाला.
CO-4	व्यवहारभाषा, शास्त्रभाषा आणि साहित्यभाषा यातील भेद लक्षात आले.
B. A. III Marathi Sem-V Marathi Paper no. VIII मराठी भाषा व भाषाविज्ञान **Discipline Specific Core Course (DSE-E2) Marathi (CBCS) The Student who Successfully Completes this Course Will be able to….**	
CO-1	भाषेची उत्पत्ती कशी झाली याचा परिचय झाला.
CO-2	मराठी भाषा आणि भाषाविज्ञान यांचा सहसंबंध लक्षात आला.
CO-3	मराठी भाषेची वर्णमाला, मुळातून समजली.
CO-4	मराठी प्रमाण भाषा व तिच्या बोलींचा परिचय झाला.
B. A. III Marathi Sem-V Marathi Paper no. IX मध्ययुगीन मराठी वांडमयाचा इतिहास (प्रारंभ ते १५००) **Discipline Specific Core Course (DSE-E3) Marathi (CBCS) The Student who Successfully Completes this Course Will be able to….**	
CO-1	प्रारंभ ते इ.स.१५०० या काळातील मराठी वाडमयाचा परिचय झाला.
CO-2	प्रारंभ ते इ.स.१५०० या काळातील प्रमुख ग्रंथकार व ग्रंथ यांचा स्थूल परिचय झाला.
CO-3	मध्ययुगीन मराठी वाडमयातील पंडिती काव्यप्रवाहाचा परिचय झाला.
CO-4	मध्ययुगीन मराठी वाडमयातील शाहिरी आणि बखर वाडमयाचे स्वरूपविशेष समजले.
B. A. III Marathi Sem-V Marathi Paper no. X मराठी भाषा व अर्थार्जनाच्या संधी **Discipline Specific Core Course (DSE-E4) Marathi (CBCS) The Student who Successfully Completes this Course Will be able to….**	
CO-1	शोधनिबंध व प्रकल्पलेखन तयार करण्याची कौशलये झाली.
CO-2	आंतरजालावरील मराठी लेखनाच्या पद्धती समजल्या, लेखन करण्याची प्रेरणा मिळाली.
CO-3	प्रसारमाध्यमांतील भाषिक कौशल्ये व अर्थार्जनाच्या संधी यांची ओळख झाली.

CO-4	सर्जनशील लेखन वैचारिक लेखन याची ओळख झाली.
B. A. III Marathi Sem-V Marathi Paper no. XI वांडमयप्रवाहाचे अध्ययन: मध्ययुगीन**Discipline Specific Core Course (DSE-E5) Marathi (CBCS) The Student who Successfully Completes this Course Will be able to….**	
CO-1	महाराष्ट्रातील महानुभाव पंथाची आचारधर्म व तत्वज्ञानं समजले.
CO-2	रचनेच्या दृष्टीने वेगळा असलेला दृष्टांतपाठ ग्रंथ समजला.
CO-3	ललित गद्य वाडमयप्रकाराचे स्वरूप विशेषांचा परिचय झाला.
CO-4	समाजाच्या शैक्षणिक, सामाजिक, राजकीय पर्यावरणातील वेगळ्या व्यक्तिमत्वाचे भावविश्व उलगडण्यास मदत झाली.
B. A. III Marathi Sem-VI Marathi Paper no. XII साहित्यविचार **Discipline Specific Core Course (DSE-E126) Marathi (CBCS) The Student who Successfully Completes this Course Will be able to….**	
CO-1	साहित्यातील रसप्रक्रिया, भरताचे रससूत्र यांचा परिचय झाला.
CO-2	शब्दशक्तीचे आकलन होण्यास मदत झाली.
CO-3	मराठी भाषेतील छंद व वृत्त यांचे महत्व लक्षात आक़ले.
CO-4	व्यवहारभाषा, शास्त्रभाषा आणि साहित्यभाषा यातील भेद लक्षात आले.
B. A. III Marathi Sem-VI Marathi Paper no. XIII मराठी भाषा व भाषाविज्ञान **Discipline Specific Core Course (DSE-E127) Marathi (CBCS) The Student who Successfully Completes this Course Will be able to….**	
CO-1	मराठी भाषेची वर्णव्यवस्था समजण्यास मदत झाली.
CO-2	ध्वनी व अर्थ परिवर्तनाचे स्वरूप समजले.
CO-3	बोली व प्रमाणभाषा यांचे स्वरूप समजण्यास मदत झाली.
CO-4	मराठी भाषेबद्दल आवड निर्माण होण्यास मदत झाली.
B. A. III Marathi Sem-VI Marathi Paper no. XIV मध्ययुगीन मराठी वांडमयाचा इतिहास (१५०० ते १८००) **Discipline Specific Core Course (DSE-E128) Marathi (CBCS) The Student who Successfully Completes this Course Will be able to….**	
CO-1	मध्ययुगीन मराठी वाडमयाचा स्थूल परिचय झाला.
CO-2	पंडित कवी व साहित्याचा परिचय झाला.
CO-3	बखर वाड्मय व शाहिरी वाड्मय यांचे स्वरूप समजण्यास मदत झाली.
CO-4	मध्ययुगीन मराठी गद्य व पद्य रचनेचे विशेष कळाले.
B. A. III Marathi Sem-VI Marathi Paper no. XV मराठी भाषा व अर्थार्जनाच्या संधी	

Discipline Specific Core Course (DSE-E129) Marathi (CBCS) The Student who Successfully Completes this Course Will be able to….	
CO-1	प्रसारमाध्यमांतील भाषिक कौशल्ये व अर्थार्जनाच्या संधी यांची ओळख झाली.
CO-2	स्पर्धा परीक्षांमध्ये मराठीचे महत्व समजले.
CO-3	उद्योग व सेवा क्षेत्रात मराठी भाषा विषयाचे महत्व लक्षात आले.
CO-4	मुद्रित शोधनाची पद्धत समजण्यास मदत झाली.
B. A. III Marathi Sem-VI Marathi Paper no. XVI वांडमयप्रवाहाचे अध्ययन: ललित गद्य (व्यक्तिचित्रे)**Discipline Specific Core Course (DSE-E-130) Marathi (CBCS) The Student who Successfully Completes this Course Will be able to….**	
CO-1	ललित गद्य वाड्मय प्रकाराचे स्वरूप समजले.
CO-2	व्यक्तिचित्रण ही संकल्पना समजण्यास मदत झाली.
CO-3	'मुलखावेगळी माणस' मधील व्यक्तीविशेषांचे आकलन झाले.
CO-4	समाजाच्या शैक्षणिक, सामाजिक, राजकीय पर्यावरणातील वेगळ्या व्यक्तिमत्वाचे भावविश्व उलगडण्यास मदत झाली.

DEPARTMENT: HINDI

Course Outcomes (CO),

A) U.G. Course / Programme

B. A. I Hindi:Semester I:Paper Iसाहित्यजगत **Ability Enhancement Compulsory Course: Hindi for Communication(CBCS)**	
The student who successfully completes this course will be able to …..	
CO1:	छात्र हिंदी साहित्य के प्रति रुचि दिखाता है।
CO:2	छात्र विविध कवियों की विचारधारा से परिचित होता है।
CO:3	छात्र राष्ट्रीय एकात्मतामे रुचिदिखाता है।
CO:4	छात्र सामाजिक एकता में विश्वास रखता है।

B. A. I Hindi: Semester II: Paper II : साहित्यजगत Ability Enhancement Compulsory Course: Hindi for Communication(CBCS)	
The student who successfully completes this course will be able to …..	
CO:1	छात्र हिंदी कवियों की विचारधारा से परिचित हो जाता है।
CO:2	छात्र विविधता में एकता का महत्व बताता है।
CO:3	छात्र सामाजिक, राष्ट्रीय कार्यों में सहभाग लेता है।
CO:4	छात्र सामाजिक समस्या, राष्ट्रीय विकास विषय पर निबंध लिखता है।

B. A. Part II Hindi: Semester III:Paper III – .अस्मिता मुलक विमर्श और हिंदी गद्य साहित्य	
The student who successfully completes this course will be able to …..	
CO:1	छात्र कथा साहित्य का स्वरूप तत्व एवं प्रकारों का अध्ययन करताहै।
CO:2	छात्र समीक्षा मानदंडों के आधार पर कथा साहित्य का अध्ययन करताहै।
CO:3	छात्र कथेतर साहित्य का समीक्षात्मक अध्ययन करता है।
CO:4	छात्रकथा और कथित साहित्य का वर्तमान प्रासंगिकता का अध्ययन करता है।

B. A. Part II Hindi: Semester III:Paper IV – हिंदी संत काव्य तथा राष्ट्रीय काव्य धारा	
The student who successfully completes this course will be able to …..	
CO:1	छात्र की हिंदी साहित्य के प्रति रुचि बढ़ती है।
CO:2	छात्र को मध्य काल हिंदी कवियों से परिचित होता है।
CO:3	छात्र में नैतिक मूल्य और राष्ट्रीय मूल्य एवं उत्तरदायित्व के प्रति आस्था निर्माण होती है।
CO:4	छात्र को आधुनिक हिंदी कविता में चित्रित विविध विमर्श से परिचित होता है।

B. A. Part II Hindi: Semester IV:Paper V –रोजगार परक हिंदी	
The student who successfully completes this course will be able to …..	
CO:1	छात्र रोजगार उन्मुख शिक्षा एवं कौशल से परिचित होता है।
CO:2	छात्र कार्यालय और व्यवसाय में हिंदी प्रयोग का कौशल ज्ञान विकसित करता है।
CO:3	छात्र पत्राचार के स्वरूप सेपरिचित होता है।
CO:4	छात्र में हिंदी भाषा के श्रवण, पठन एवं लेखन कौशल विकसित होता है।

B. A. Part II Hindi: Semester IV:Paper VI – अस्मिता मुलक विमर्श और हिंदी पद्य साहित्य	
The student who successfully completes this course will be able to …..	
CO:1	छात्र हिंदी कवियों से परिचित होता है।
CO:2	छात्र में हिंदी भाषा के संगठन एवं लेखन की क्षमता को विकसित होती है।
CO:3	छात्र की हिंदी साहित्य के प्रति रूचि बढ़ती है तथा छात्र साहित्य की विविध विधाओं से परिचित होता है।
CO:4	छात्र में नैतिक मूल्य, राष्ट्रीय मूल्य एवं उत्तरदायित्व के प्रति आस्था निर्माण होती है।

B. A. Part III Hindi: Semester V:Paper VII– विधा विशेष का अध्ययन	
The student who successfully completes this course will be able to …..	
CO:1	छात्रो व नाटककार की बहुमुखी प्रतिभा से परिचित होता है।
CO:2	छात्र नाटककार के साहित्य से परिचित होता है।
CO:3	छात्रनाटककार की विचारधारा को प्रस्तुत करता है।
CO:4	छात्र नाटककार के ग्रंथों का आलोचनात्मक विवरण करता है।

B. A. Part III Hindi: Semester V:Paper VIII– साहित्य शास्त्र	
The student who successfully completes this course will be able to …..	
CO:1	छात्र साहित्य निर्मिती की प्रक्रिया का बोध करता है।
CO:2	छात्र काव्य के विभिन्न अंगों व भेदों से परिचित होता है।
CO:3	छात्र समीक्षा सिद्धांतों का वर्णन करता है।
CO:4	छात्र साहित्य तत्वों को स्पष्ट करता है।

B. A. Part III Hindi: Semester V:Paper IX– हिंदी साहित्य का इतिहास	
The student who successfully completes this course will be able to …..	
CO:1	छात्र हिंदी भाषा साहित्य विकास से परिचित होता है।
CO:2	छात्र इतिहासकारों द्वारा प्रस्तुत काल विभाजन और नामकरण को प्रस्तुत करता है।
CO:3	छात्र हिंदी के संत कवि उनकी रचना की आलोचना करता है।
CO:4	छात्र आदि काल से लेकर आधुनिक काल के कवियों की विचारधारा को जीवन में इस्तेमाल

	करता है।

B. A. Part III Hindi: Semester V:Paper X– प्रयोजनमूलक हिंदी	
The student who successfully completes this course will be able to …..	
CO:1 CO:2 CO:3 CO:4	छात्र हिंदी में कार्य करने की रुचि रखता है। छात्र पारिभाषिक शब्दावली परिचित होता है। छात्र रोजगार उन्मुख शिक्षा एवं कौशल्य प्राप्त करता है। छात्र जनसंचार एवं इलेक्ट्रॉनिक माध्यमों का उपयोग बताता है।

B. A. Part III Hindi: Semester V:Paper XI– भाषा विज्ञान और हिंदी भाषा	
The student who successfully completes this course will be able to …..	
CO:1 CO:2 CO:3 CO:4	छात्र भाषा के विविध रूपों से परिचित होता है। छात्र हिंदी भाषा एवं लिपि उद्‌भव और विकास से परिचित होता है। छात्र भाषा की शुद्‌धता के प्रति जागरूकता से कार्य करता है। छात्र मानक हिंदी वर्तनी का लेखन में प्रयोग करता है।

B. A. Part III Hindi: Semester VI:Paper XII– विधा विशेष का अध्ययन	
The student who successfully completes this course will be able to …..	
CO:1 CO:2 CO:3 CO:4	छात्र उपन्यास के तत्व स्वरूप से परिचित होता है। छात्र उपन्यासकार के व्यक्तित्व एवं कृतित्व से परिचित होता है। छात्र का रचना विशेष का महत्व समझने एवं मूल्यांकन करने की क्षमता रखता है। छात्र पाठ्यक्रम में निर्धारित उपन्यास की प्रासंगिकता को स्पष्ट करता है।

B. A. Part III Hindi: Semester VI:Paper XIII– साहित्य शास्त्र और हिंदी आलोचना	
The student who successfully completes this course will be able to …..	
CO:1 CO:2 CO:3 CO:4	छात्र साहित्य निर्मिती प्रक्रिया से परिचित होता है। छात्र साहित्य की विधाओं से परिचित होता है। छात्र समीक्षा सिद्‌धांत का साहित्य में प्रयोग करता है। छात्र काव्य के तत्व स्पष्ट करता है।

B. A. Part III Hindi: Semester VI:Paper XIV– हिंदी साहित्य का इतिहास	
The student who successfully completes this course will be able to …..	
CO:1 CO:2 CO:3 CO:4	छात्र हिंदी भाषा साहित्य विकास से परिचित होता है। छात्र इतिहासकारों द्वारा प्रस्तुत काल विभाजन और नामकरण को प्रस्तुत करता है। छात्र हिंदी के संत कवि उनकी रचना की आलोचना करता है। छात्र आदि काल से लेकर आधुनिक काल के कवियों की विचारधारा को जीवन में इस्तेमाल करता है।

B. A. Part III Hindi: Semester VI:Paper XV– प्रयोजनमूलक हिंदी	
The student who successfully completes this course will be able to …..	
CO:1 CO:2 CO:3 CO:4	छात्र हिंदी में कार्य करने की रुचि रखता है। छात्र पारिभाषिक शब्दावली परिचित होता है। छात्र रोजगार उन्मुख शिक्षा एवं कौशल्य प्राप्त करता है। छात्र जनसंचार एवं इलेक्ट्रॉनिक माध्यमों का उपयोग बताता है।

B. A. Part III Hindi: Semester VI:Paper XV– भाषा विज्ञान और हिंदी भाषा	
The student who successfully completes this course will be able to …..	
CO:1 CO:2 CO:3 CO:4	छात्र भाषा के विविध रूपों से परिचित होता है। छात्र हिंदी भाषा एवं लिपि उद्भव और विकास से परिचित होता है। छात्र भाषा की शुद्धता के प्रति जागरूकता से कार्य करता है। छात्र मानक हिंदी वर्तनी का लेखन में प्रयोग करता है। छात्रव्याकरण के प्रति सजगता दर्शाता है।

B) U.G. Course/Programme : C.O.C./ L.L.L. etc

Life Long Learning Course : सामान्य हिंदी व्याकरण	
The student who successfully completes this course will be able to …..	
CO:1 CO:2 CO:3 CO:4	छात्र भाषा में व्याकरण का महत्व समझता है। छात्र लिखित और मौखिक भाषा में फरक बताता है। छात्र विचार विनिमय के लिए भाषा - व्याकरण का महत्व स्पष्ट करताहै।छात्र भाषिक कौशल्य को भाषा में इस्तेमाल करता है।

DEPARTMENT: ENGLISH

Course Outcomes (Cos)

U.G. Course/ Programme

B.A.I- Semester I- Paper I- Ability Enhancement Compulsory Course English for Communication **(CBCS)**

The student who successfully completes this course will be able to……	
CO: 1	Acquaint and equip with communication skills.
CO: 2	Inculcate human values through poems and prose.
CO: 3	Improve the language competence.
CO: 4	Develop the writing skills

B.A.I- Semester II- Paper II- Ability Enhancement Compulsory Course English for Communication **(CBCS)**

The student who successfully completes this course will be able to……	
CO: 1	Acquire language skills by reading and understanding the literature.
CO: 2	Understand the word formation and acquire word-power.
CO: 3	Develop the writing skills.
CO: 4	Enhance the speaking to acquire the language ability for his /her future opportunity.

B.A.I- (Opt. Eng) Semester I- Paper I- Modern Indian Writing in English Translation

The student who successfully completes this course will be able to……	
CO: 1	know developments, themes and elements of the short story
CO: 2	develop an interest in appreciation of literature.
CO: 3	interpret texts with due sensitivity to both textual and contextual clues.
CO: 4	use English effectively for study purpose across the curriculum.

B.A.I- (Opt. Eng) Semester II- Paper II- Modern Indian Writing in English Translation

The student who successfully completes this course will be able to……	
CO: 1	Demonstrate an understanding of short story as an evolving art form that reflects the values and concerns of writers and the societies in which they live.
CO: 2	Learn various types of short stories .
CO: 3	Understand short story as a minor form of literature
CO: 4	Explain about a highly oppressive, conservative and communal social order.

B.A.II- Semester III- Paper C- Ability Enhancement Compulsory Course English forCommunication **(CBCS)**

The student who successfully completes this course will be able to……	
CO: 1	develop communication skills in English, both oral and written
CO: 2	Equip with the language skills for use their personal, academic and professional lives
CO: 3	Develop the essential employability skills,
CO: 4	enter the job market with confidence and the ability to work effectively.

B.A.II- Semester IV- Paper D- Ability Enhancement Compulsory Course English for Communication **(CBCS)**

The student who successfully completes this course will be able to……	
CO: 1	learn and practice both language and soft skills.
CO: 2	Practice the active involvement in learning process.
CO: 3	cultivate a broad human and cultured outlook

CO: 4	be confident in conversation skills.

B.A.II- (Opt. Eng) Semester III- Paper III – Partition Literature

The student who successfully completes this course will be able to……	
CO: 1	examine the causes and effects of the partition of British India in 1947
CO: 2	analyses how the partition of India compares to other partitions.
CO: 3	understand if partition creates more conflicts than it solves
CO: 4	judge the impact of events that led to the Partition

B.A.II- (Opt. Eng) Semester IV- Paper VI- Partition Literature

The student who successfully completes this course will be able to……	
CO: 1	understand the sensibility with which the writers have chalked out the predicament of those suffering as a result of this traumatic national event.
CO: 2	understand the concept of Partition Literature
CO: 3	understand some of the novels of partition Literature
CO: 4	trace the progression of the themes, theories and techniques of literary writing.

B.A.II- (Opt. Eng) Semester III- Paper III - Literature and Cinema

The student who successfully completes this course will be able to……	
CO: 1	Understand different theories of adaptation
CO: 2	Explain the process of filming a novel or play
CO: 3	Understand the concept of Interpretation
CO: 4	Know about Gulzar as Filmmaker and his film ‘ Angoor’

B.A.II- (Opt. Eng) Semester IV- Paper V- Literature and Cinema

The student who successfully completes this course will be able to……	
CO: 1	Find relationship between literature and film
CO: 2	Understand the process of Adaptation

CO: 3	Find the relationship between Hollywood and Bollywood Cinema
CO: 4	Find relationship between novel and film

B.A.III- Semester V- Paper - Ability Enhancement Compulsory Course English for Communication **(CBCS)**

The student who successfully completes this course will be able to……	
CO: 1	Communicate in English, in oral and written modes, in their day-to-day lives as well as at workplaces.
CO: 2	Face job interviews confidently and efficiently.
CO: 3	Acquire soft skills required at workplaces and in real life.
CO: 4	Learn group behavior and team work.

B.A.III- Semester VI- Paper - Ability Enhancement Compulsory Course English for Communication **(CBCS)**

The student who successfully completes this course will be able to……	
CO: 1	value and respect others' opinions and views and develop democratic attitude
CO: 2	Face competitive examinations confidently and efficiently with adequate linguistic confidence
CO: 3	Acquire professional skills required in media writing such as writing editorials.
CO: 4	enjoy reading poetry and prose passages.

B.A.III-(Spl.Eng) Semester V- Paper No: V-English Poetry

The student who successfully completes this course will be able to……	
CO: 1	trace the development of the poetry in English from the days of Shakespeare to the contemporary India
CO: 2	appreciate and analyze the poems properly.
CO: 3	have a fairly comprehensive view of the Western and Eastern poetic tradition and they will be able to relate it to various literary movements.
CO: 4	hear and read poems aloud and to memorize lines

B.A.III-(Spl.Eng) Semester VI- Paper No: XIII-English Poetry

The student who successfully completes this course will be able to……	
CO: 1	Engage as curious readers of poetry
CO: 2	Appreciate poetry from various cultures and traditions
CO: 3	understand that poetry to derive intellectual, moral and linguistic pleasures
CO: 4	have an insight into poetry and they will be able to make a lively and interesting reading.

B.A.III-(Spl.Eng) Semester V- Paper No: IX-English Drama

The student who successfully completes this course will be able to……	
CO: 1	understand different forms of drama.
CO: 2	relate drama to their ideological or socio-political contexts.
CO: 3	know about various aspects of the drama
CO: 4	improve their creative and imaginative faculties through the reading of drama

B.A.III-(Spl.Eng) Semester VI- Paper No: XVI- English Drama

The student who successfully completes this course will be able to……	
CO: 1	improve their creative and imaginative faculties through the reading of drama
CO: 2	know about various aspects of the drama
CO: 3	understand different forms of drama
CO: 4	relate drama to their ideological or socio-political contexts

B.A.III-(Spl.Eng) Semester V- Paper No: VII- INTRODUCTION TO LITERARY CRITICISM (CBCS) Discipline Specific Elective

The student who successfully completes this course will be able to……	
CO: 1	understand the major trends in criticism
CO: 2	the major trends in literary criticism
CO: 3	interpret critical concepts.
CO: 4	familiarize students with the major critical concepts.

B.A.III-(Spl.Eng) Semester VI- Paper No: XII- INTRODUCTION TO LITERARY CRITICISM (CBCS) Discipline Specific Elective

The student who successfully completes this course will be able to……	
CO: 1	study the original contributions to literary criticism
CO: 2	acquainted with literary and critical movements.
CO: 3	understand the meaning and appreciate the poems critically.
CO: 4	study the original contributions made in the field of literary criticism.

B.A.III-(Spl.Eng) Semester V- Paper No: X- ENGLISH NOVEL

The student who successfully completes this course will be able to……	
CO: 1	understand different forms of novel.
CO: 2	relate novels to their ideological or socio-political contexts.
CO: 3	understand different technique of novel.
CO: 4	Acquire essential qualities in English novel

B.A.III -(Spl.Eng) Semester VI- Paper No: X- ENGLISH NOVEL

The student who successfully completes this course will be able to……	
CO: 1	improve their creative and imaginative faculties through the reading of novels.
CO: 2	know about various aspects of the novel.
CO: 3	Acquire essential communication skills in English
CO: 4	Create interest in English novel

B.A.III-(Spl.Eng) Semester V- Paper No: XI- LANGUAGE AND LINGUISTICS

The student who successfully completes this course will be able to……	
CO: 1	orient students to the concept of communication
CO: 2	know types of sentences.
CO: 3	make the students familiar with varieties of the English language.
CO: 4	familiar with varieties of the English language

B.A.III-(Spl.Eng) Semester VI- Paper No: XVI- LANGUAGE AND LINGUISTICS

The student who successfully completes this course will be able to……	
CO: 1	know different levels of study of the English language
CO: 2	know basic units of grammar.
CO: 3	know words and phrases.
CO: 4	know the different ways of structuring clauses

B. Sc. III- Semester V- Ability Enhancement Compulsory Course (CBCS) ENGLISH FOR COMMUNICATION

The student who successfully completes this course will be able to……	
CO: 1	Communicate in English, in oral and written modes, in their day-to-day lives as well as at workplaces.
CO: 2	Face job interviews confidently and efficiently.
CO: 3	Acquire soft skills required at workplaces and in real life.
CO: 4	Learn group behavior and team work.

B. Sc. III- Semester VI- Ability Enhancement Compulsory Course (CBCS) ENGLISH FOR COMMUNICATION

The student who successfully completes this course will be able to……	
CO: 1	Learn to value and respect others' opinions and views and develop democratic attitude.
CO: 2	Face competitive examinations confidently and efficiently with adequate linguistic confidence
CO: 3	Acquire professional skills required in media writing such as writing editorials.
CO: 4	Learn to appreciate and enjoy reading poetry and prose passages

B. Sc. I- Semester I-Paper I Ability Enhancement Compulsory Course (CBCS) ENGLISH FOR COMMUNICATION

The student who successfully completes this course will be able to……	
CO: 1	acquaint students with communication skills.
CO: 2	inculcate human values among the students through poems and prose.
CO: 3	improve the language and business competence of the students
CO: 4	prepare students for competitive examinations

B. Sc. I- Semester II-Paper II Ability Enhancement Compulsory Course (CBCS) ENGLISH FOR COMMUNICATION

The student who successfully completes this course will be able to……	
CO: 1	create interest in English literature among students
CO: 2	Learn group behavior and team work
CO: 3	Learn to appreciate and enjoy reading poetry and prose passages.
CO: 4	enhance students' reading comprehension skills

B. Com. I- Semester I-Paper I Ability Enhancement Compulsory Course ENGLISH FOR BUSINESS COMMUNICATION

The student who successfully completes this course will be able to……	
CO: 1	recognize the major processes that are used in the formation of English words.
CO: 2	understand word-classes and use them in a variety of contexts.
CO: 3	generate synonyms and antonyms and use them appropriately.
CO: 4	identify and define commonly confused words and use them correctly

B. Com. I- Semester II-Paper II Ability Enhancement Compulsory Course ENGLISH FOR BUSINESS COMMUNICATION

The student who successfully completes this course will be able to……	
CO: 1	use dictionary properly and to expand vocabulary
CO: 2	Acquaint and students with effective business communication skills
CO: 3	Inculcate human values among the students through poems and prose
CO: 4	Improve the language competence of the students

B. Com. II- Semester III-Paper I Ability Enhancement Compulsory Course ENGLISH FOR BUSINESS COMMUNICATION

The students who successfully complete this course will be able to……	
CO: 1	develop communication skills in English, both oral and written.
CO: 2	learn and practice both language and soft skills.
CO: 3	encourage the active involvement of students in learning process.
CO: 4	Improve the language competence of the students

B. Com. I- Semester II-Paper II Ability Enhancement Compulsory Course ENGLISH FOR BUSINESS COMMUNICATION

The student who successfully completes this course will be able to……	
CO: 1	equip with the language skills for use in their personal, academic and professional lives
CO: 2	develop essential employability skills.
CO: 3	enter the job market with confidence and the ability to work effectively
CO: 4	cultivate a broad, human and cultured outlook.

DEPARTMENT OF ECONOMICS

COURSE OUTCOMES

U.G. Course/ Programme

b) U.G. Course / Programme Title of course and Course Outcomes (Statement)	
CBCS, B.A.-I, Sem.- I, Paper No. I,Indian Economy-I	
CO.1	The student who successfully complete this course, students will able to.
CO.2	General outline of Indian economy.
CO.3	Classification of Indian economy of various sector.
CO.4	To develop various ideas which challenges facing the Indian economy.
CO.5	To awareness related to population policy in India.
CBCS, B.A.-I, Sem.-II, Paper No. II, Indian Economy-II	
CO.1	The student who successfully complete this course, students will able to
CO.2	To acquaint the policy and performance of major sector in Indian economy.
CO.3	Analyses the importance of service sector in India.
CO.4	Explain impact of LPG model in Indian economy.
CO.5	Investigate economic reforms in India since 1991
CBCS, B.A.-II, Sem.- III, Paper No. III, Macro Economics-I	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Differentiate macro variables and components of microeconomics.
CO.3	Describe the concept national income and classify in various category.
CO.4	Explain the output and employment theory in his/ her own words.
CO.5	Relate value of money and its impact on economy.
CBCS, B.A.-II, Sem.- III, Paper No. IV, Money and Banking	
CO.1	Discuss function of money and measurement of money supply.
CO.2	Explain banking system and its functioning in India.
CO.3	Identify the nature of banking business and banking practices.
CO.4	Examine recent trends in Indian banking.
CBCS, B.A.-II, Sem.- IV, Paper No. V, Macro Economics-II	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Construct finance system of state and its impact on economy.
CO.3	Students understand concept of exchange rate and its impact on international trade.
CO.4	Describe international trade theories in his /her own words.
CBCS, B.A.-II, Sem.- IV, Paper No. VI, Banks and Financial Markets	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Students understand use of e banking services.
CO.3	Discuss and demonstrate working of RBI in India.
CO.4	Provide various kind of financial consultancy
CBCS, B.A.-III, Sem.- V, Paper No. VII, Principles of Micro Economics	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Students understand the concept of microeconomics dealing with consumer behaviour.

CO.3	Relate the supply side of the market through the production and the cost of behaviour of firm.
CO.4	Demonstrate reply of consumer behaviour and firm theory to business situations.
CBCS, B.A.-III, Sem.- V, Paper No. VIII, Economics of Development	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Explain the various aspect of economic development.
CO.3	Students understand concept of role of sustainable development green development in economic development.
CO.4	Relate human capital and economic development.
CO.5	Describe theory of economic growth and development in her/ his own words.
CBCS, B.A.-III, Sem.- V, Paper No. IX, International Economics-I	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Understand concept of international trade and international trade.
CO.3	Differentiate between free trade policy and protective trade policy and its impact of economy.
CO.4	Explain recent changes in export import policy in India.
CBCS, B.A.-III, Sem.- V, Paper No. X, Research Methodology in Economics-I	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Students get acquaint with the research in economics.
CO.3	Identify the various aspect of research in economics.
CO.4	Design research proposal in concern subject.
CO.5	Differentiate between assumption and hypothesis.
CBCS, B.A.-III, Sem.- V, Paper No. XI, History of Economic Thoughts-I	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Describe the development of economic thoughts.
CO.3	Interpret classical economics thoughts.
CO.4	Examine the role of fabric list economic thought in undeveloped countries.
CO.5	Differentiate between classical economist and Karl marks economic thoughts.
CBCS, B.A.-III, Sem.- VI, Paper No. XII, Factor Pricing	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Students will understand market structure.
CO.3	Explain price determination in different market.
CO.4	Importance of factor pricing in various market.
CO.5	Implement of tools of consumer behavior and former theory of business situation.
CBCS, B.A.-III, Sem.- VI, Paper No. XIII, Economics of Planning	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Students will understand the history concept and various issue 2 of economic planning.
CO.3	Examine process of planning in India in 11th and 12thfive year plan.
CO.4	Distinguish between older National planning commission and NITI Aayog.
CBCS, B.A.-III, Sem.- VI, Paper No. XIV, International Economics-II	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Distinguish between balance of trade and balance of payment related to foreign policy.

CO.3	Explain foreign policy since 1991 and locate their effect on Indian economy.
CO.4	Interpret the objective and function of international institutions (IMF,WTO,WB)
CBCS, B.A.-III, Sem.- VI, Paper No. XV, Research Methodology in Economics-II	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Demonstrate the sampling technique as a method of data collection.
CO.3	Identify various aspect of data processing and its analysis.
CO.4	Design and construct a research proposal and its report writing skills.
CBCS, B.A.-III, Sem.- VI, Paper No. XVI, History of Economic Thoughts-II	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Describe theory of new classical and Indian thinker in in his/ her own words.
CO.3	Distinguish between various Indian economic thinkers.
CO.4	Importance of Indian economy thoughts in development.
b) U.G. Course /Programme **Title of course and Course Outcomes (Statement)**	
CBCS B.Com-1 SEM-I Micro Economics (Paper-1)	
CO.1	Objective of the course is to acquaint students with the concepts of micro economics dealing with consumer behaviour.
CO.2	The course also makes the student understand the supply side of the market through the production and the cost behaviour of firm.
CO.3	The student should be able to apply tools of consumer behaviour and firm theory to business situation.
CBCS B.Com-1 SEM-I Micro Economics (Paper-2)	
CO.1	Objective of the course is to acquaint students with the concepts of micro economics dealing with consumer behaviour.
CO.2	The course also makes the student understand the supply side of the market through the production and the cost behaviour of firm.
CO.3	The student should be able to apply tools of consumer behaviour and firm theory to business situation.
CBCS B.Com-2 SEM III Money and Financial System (Paper No–1)	
CO.1	Learners will be able to explain functions of money and measurement of money supply
CO.2	Learners will understand the banking system and its functioning in India.
CO.3	Learners will understand the nature of banking business and business practices
CO.4	Learners will understand the important recent trends in banking system
CO.5	Ability to explain monetary system in India.
CO.6	Ability to critical thinking on banking business
CO.7	Ability to explain recent trends in Indian Banking
CBCS B.Com-2 SEM IV Money and Financial System (Paper No–2)	
CO.1	Students will be able to use e-banking services
CO.2	Students will be able explain working of RBI in India
CO.3	Students will be able to provide consultancy and guidance for investment in financial markets
CO.4	Students will be able to explain the business practices of NBFCs and AIFI
CO.5	Use of E-banking services.

CO.6	Able to provide Financial consultancy.
CO.7	Critical thinking about NBFCs and their effects
CBCS B.Com-2 SEM-III MACRO ECONOMICS – PAPER- I	
CO.1	The macro variables and components of macro economics
CO.2	Changing value of money and its impacts on economy.
CO.3	The relevance of national income concepts and its applications in economic policy making.
CO.4	The output and employment generation process through investment and consumption.
CBCS B.Com-2 SEM-IV MACRO ECONOMICS – PAPER- II	
CO.1	Public finance system of state and its impact on economy and citizens of the nation.
CO.2	The trade and business practices through international trade theories and other relevant concepts.
CO.3	The international monetary exchange system and determination of rate exchange.
CO.4	The trade cyclical phenomenon in the economy and they will able to take practical decisions at their business level in future.
B.Com-3 SEM-V Business Environment – PAPER- I	
CO.1	Learners will understand the Indian economic environment.
CO.2	Ability to explain the problems facing the Indian economy.
CO.3	Learners will understand the recent era service sector is growing rapidly.
CO.4	Learners will understand the Indian economy is facing some of the fundamental economic problems.
CO.5	Students should have to know economic environment at national and international level.
B.Com-3 SEM-V Cooperative Development – PAPER- I	
CO.1	To study the meaning and principles of Co-operation.
CO.2	To study the agricultural and Non-agricultural Credit Co-operative institutions.
CO.3	To study the Co-operative movement in Maharashtra.
CO.4	To Study the impact of Globalization on Co-operative movement.
CO.5	Proper understanding of co-operative thoughts and administration is a prerequisite for study of co-operative movement.
B.Com-3 SEM-VI Business Environment – PAPER- II	
CO.1	Learners will understand the Indian economic environment.
CO.2	Ability to explain the problems facing the Indian economy.
CO.3	Learners will understand the recent era service sector is growing rapidly.
CO.4	Learners will understand the Indian economy is facing some of the fundamental economic problems.
CO.5	Students should have to know economic environment at national and international level.
B.Com-3 SEM-VI Cooperative Development – PAPER- II	
CO.1	To study the agricultural and Non-agricultural credit co-operative institutions.
CO.2	To acquaint the students with co-operative movement.
CO.3	To study the impact of Globalization on co-operative Movement.

CO.4	To develop the capabilities of students for knowing different types of cooperatives.
CO.5	To study the role of state and central govt. in development of co-operative sector.
CO.6	To give basic knowledge of co-operative society and its administration.
	Proper management of co-operative institutes and administration is a prerequisite for study of co-operative movement.

DEPARTMENT OF SOCIOLOGY

COURSE OUTCOMES

A) U.G. Course / Programme

B. A. I Sociology: Semester I: Paper I DSC B 02 Ability Enhancement Compulsory Course: Introduction to Sociology (CBCS)	
The student who successfully completes this course will be able to …..	
CO1: CO:2 CO:3 CO:4	inculcate social values in day today life. understand development of Sociology in India differentiate between social interaction and social structure inculcate process of socialization

B. A. I Sociology: Semester II: Paper II: DSC B 16 Ability Enhancement Compulsory Course: Applied Sociology (CBCS)	
The student who successfully completes this course will be able to …..	
CO:1 CO:2 CO:3 CO:4	understand theoretical approaches in sociology acquaint and equip with process of modernization and globalization analyse impact of mass media on society evaluate applications of sociology

B. A. II Sociology: Semester III: Paper III: DSC D 3 Ability Enhancement Compulsory Course: Social Issues in India (CBCS)	
The student who successfully completes this course will be able to …..	
CO:1 CO:2 CO:3 CO:4	identify need of study for social issues understand socio-cultural issues like communalism and female-foeticide analyse socio-economic issues like poverty and unemployment evaluate socio-legal issues like human rights and cyber crime

B. A. II Sociology: Semester III: Paper IV: DSC D 4 Ability Enhancement Compulsory Course: Social Movements in India (CBCS)	
The student who successfully completes this course will be able to …..	
CO:1 CO:2 CO:3 CO:4	understand elements of social movements classify various social movements understand peasant problems in India analyse impact of dalit movement in India

B. A. II Sociology: Semester IV: Paper V: DSC D 31 Ability Enhancement Compulsory Course: Gender and Violence (CBCS)	
The student who successfully completes this course will be able to …..	
CO:1	analyse major gender issues in India
CO:2	understand nature of gender issues
CO:3	analyse domestic violence for dowry and divorce
CO:4	evaluate women's harassment at workplace

B. A. II Sociology: Semester IV: Paper VI: DSC D 32 Ability Enhancement Compulsory Course: Sociology of Health (CBCS)	
The student who successfully completes this course will be able to …..	
CO:1	Understand importance of sociology of health
CO:2	analyse effect of major diseases on India
CO:3	classify difference between traditional and modern lifestyle
CO:4	evaluate health policies in India

B. A. II Sociology: Semester III: IDS Paper I Ability Enhancement Compulsory Course: Social Reforms in India I (CBCS)	
The student who successfully completes this course will be able to …..	
CO:1	analyse role of socio-religious reform movements in India
CO:2	analyse role of Rajarshi Shahu Maharaj in cultural movement
CO:3	evaluate role of Dr. B.R. Ambedkar in social upliftment of lower classes

B. A. II Sociology: Semester IV: IDS Paper II Ability Enhancement Compulsory Course: Social Reforms in India II(CBCS)	
The student who successfully completes this course will be able to …..	
CO:1	analyse difference between social condition of early 19th century and contemporary society
CO:2	evaluate impact of KarmveerBhaurav Patil and BapujiSalunkhe's educational work on contemporary education system
CO:3	analyse contribution of Panjabrao Deshmukh in Indian educational policy

B. A. III Sociology: Semester V: Paper VII: DSE E 66 Ability Enhancement Compulsory Course: Western Sociological Thinkers (CBCS)	
The student who successfully completes this course will be able to …..	
CO:1	understand the grand foundational themes of sociology
CO:2	analyse application of theories and concepts from classical sociological theories to develop intellectual openness and curiosity
CO:3	evaluate classical concepts and theories of sociology

B. A. III Sociology: Semester V: Paper VIII: DSE E 67 Ability Enhancement Compulsory Course: Methods of Social Research (Paper I) (CBCS)	
The student who successfully completes this course will be able to …..	
CO:1 CO:2 CO:3	differentiate between qualitative and quantitative aspects of research understand multi-faceted, heterogeneous and dynamic nature of social reality formulate research designs, methods and analysis of data

B. A. III Sociology: Semester V: Paper IX: DSE E 68 Ability Enhancement Compulsory Course: Political Sociology (CBCS)	
The student who successfully completes this course will be able to …..	
CO:1 CO:2 CO:3	comprehend the embeddedness of political and the social in each other understand and appreciate the diversity of ways in which politics operates historically generate hypotheses and research questions within the theoretical perspectives and ethnographic contexts in political sociology

B. A. III Sociology: Semester V: Paper X: DSE E 69 Ability Enhancement Compulsory Course: Human Rights (CBCS)	
The student who successfully completes this course will be able to …..	
CO:1 CO:2 CO:3	identify issues and problems relating to the realization of human rights understand the nature & role of human rights in India contribute to the resolution of human rights issues and problems

B. A. III Sociology: Semester V: Paper XI: DSE E 70 Ability Enhancement Compulsory Course: Sociology of Religion (CBCS)	
The student who successfully completes this course will be able to …..	
CO:1 CO:2 CO:3	identify different theories, approaches and concepts that make up the study of religion think about linkages between religion and society at various levels make a link between texts and paraphrase their arguments and use these to communicate their ideas in research papers, projects and presentations

B. A. III Sociology: Semester VI: Paper XII: DSE E 191 Ability Enhancement Compulsory Course: Indian Sociological Thinkers (CBCS)	
The student who successfully completes this course will be able to …..	
CO:1 CO:2 CO:3	understand how postclassical sociologists attempt to understand the social world evaluate relevance and limits of the contemporary theories or theoretical approaches to make sense of social reality analyse the basic methodological approaches of the thinkers

B. A. III Sociology: Semester VI: Paper XIII: DSE E 192 Ability Enhancement Compulsory Course: Methods of Social research (Part 2) (CBCS)	
The student who successfully completes this course will be able to …..	
CO:1	acquaint them with quantification of data
CO:2	differentiate between qualitative and quantitative aspects of research in terms of collection and subsequent analysis of data
CO:3	understand and analyse social reality

B. A. III Sociology: Semester VI: Paper XIV: DSE E 193 Ability Enhancement Compulsory Course: Social Anthropology (CBCS)	
The student who successfully completes this course will be able to …..	
CO:1	understand the social aspects of tribal's in India
CO:2	provide the conceptual understanding about anthropology
CO:3	analyse socio-cultural life of tribal community Maharashtra

B. A. III Sociology: Semester VI: Paper XV: DSE E 194 Ability Enhancement Compulsory Course: Rural Sociology (CBCS)	
The student who successfully completes this course will be able to …..	
CO:1	engage rural communities as living societies and grasp their condition as human
CO:2	be ready for a range of academic and professional roles that may require a knowledge of rural societies
CO:3	understand the social aspects of rural India

B. A. III Sociology: Semester VI: Paper XVI: DSE E 195 Ability Enhancement Compulsory Course: Urban Sociology (CBCS)	
The student who successfully completes this course will be able to …..	
CO:1	appreciate the significance of the city and the process of urbanization
CO:2	understand the urban in the historical as well as modern contexts
CO:3	learn about key urban processes such as migration, displacement and urban slums

DEPARTMENT: HISTORY

U.G. Course/ Programme

CBCS Syllabus for B.A.I HISTORY (from June 2018) Semester I, Paper I: Rise of the Maratha Power (1600-1707)

The student who successfully completes this course will be able to……	
CO: 1	To introduce important epoch in the history of Marathas.
CO: 2	introduce to the history of the rise of Maratha power with main emphasis on life and work of Chhatrapati Shivaji Maharaj.
CO: 3	sacrifices made by Maratha leaders and people to protect freedom and sovereignty of the region
CO: 4	Later, Chhatrapati Sambhaji, Chhatrapati Rajaram and Maharani Tarabai led the Maratha struggle of independence against the Mughal rule.

Syllabus for B.A.I HISTORY (from June 2018) Semester II, Paper II: Polity, Society and Economy under the Marathas (1600-1707)

The student who successfully completes this course will be able to……	
CO: 1	to acquaint the students with the political, socio-economic and religious life of the people during the 1600-1707 period.
CO: 2	It will educate the students about the policy and contribution of Chhatrapati Shivaji Maharaj
CO: 3	acquaint the students with the political, socio-economic 1600 to 1707 was a period of rapid change in the history of Marathas.
CO: 4	political, socio-economic and religious life of the people

B.A.II-SemesterIII-PAPERIII- HISTORY OF MODERN MAHARASHTRA (1900 to 1960) (CBCS)

The student who successfully completes this course will be able to……	
CO: 1	CO1.Understand the beginnings and growth of nationalist consciousness in Maharashtra
CO: 2	Explain the contribution of Maharashtra to the national movement
CO: 3	Give an account of various movements of the peasants, workers, women and backward classes
CO: 4	.CO4. Know the background and events which led to the formation of separate state of Maharashtra.

B.A.II- Semester IV- PAPER- V: HISTORY OF MODERN MAHARASHTRA (1960-2000)(CBCS)

The student who successfully completes this course will be able to……	
CO: 1	. Acquaint himself with the contribution of eminent leaders of Maharashtra
CO: 2	CO2. Know about the economic transformation of Maharashtra
CO: 3	Understand the salient features of changes in society
CO: 4	Explain the growth of education

B.A.II-SEMESTER - III PAPER IV: HISTORY OF INDIA (1757-1857) (CBCS)

The student who successfully completes this course will be able to……	
CO: 1	Acquaint himself with significant events leading to establishment of the rule of East India Company
CO: 2	Know the colonial policy adopted by the company to consolidate its rule in India
CO: 3	Understand the structural changes initiated by colonial rule in Indian Economy
CO: 4	Explain the various revolts against rule of the East India Company

B.A.II-PAPER VI: History of Freedom Struggle (1858-1947) (CBCS)

The student who successfully completes this course will be able to……	
CO: 1	Understand the events which lead to the growth of nationalism in India
CO: 2	2. Acquaint himself with major events of the freedom struggle under the leadership of Mahatma Gandh
CO: 3	Explain the contribution of Revolutionaries, Left Movement and Indian National Army
CO: 4	Know the concept of Communalism and the causes and effects of the partition of India

B.A.II-SEMESTER - III IDS PAPER I: SOCIAL REFORMS IN INDIA (CBCS)

The student who successfully completes this course will be able to……	
CO: 1	Understand the salient features of prominent socio-religious reform movements
CO: 2	Explain the thought and work of Mahatma Phule for radical transformation of Indian society
CO: 3	Know the measures taken by Rajashri Shah Maharaj for emancipation of lower classes and women
CO: 4	Know how the Indian constitution embodies the values of social justice and equality

B.A.II-PAPER VI: SEMESTER - IV IDS PAPER- II: SOCIAL REFORMS IN MAHARASHTRA

The student who successfully completes this course will be able to……	
CO: 1	Know about the beginnings of social reforms in Maharashtra by the ParamhansaMandali and Prarthana Samaj.
CO: 2	Understand the contribution of women reformers
CO: 3	Explain the contribution of Social reformers in the fight for social justice
CO: 4	Explain the role played by educational reforms in transformation of society.

B.A.III- (CBCS)Semester –V, Course VII DSE E-61 Paper VII : Early India (from to 4th c. BC)

The student who successfully completes this course will be able to……	
CO: 1	Understand the transition of humans in India from Hunters to Farmers
CO: 2	Explain the transition from Early to Later Vedic period.
CO: 3	Give an account of the teachings of Gautama Buddha and Vardhamana Mahavira
CO: 4	Explain the salient features of Ashoka's Dhamma

B.A.III- Semester VICourse No. XII DSE E-186 Ancient India (From 4th c. BC to 7th c. AD

The student who successfully completes this course will be able to……	
CO: 1	Know the political ,economic and religious developments which took place in early historic India
CO: 2	Explain the role played by Major Satavahana, Kushana, Gupta and Vakataka Kings
CO: 3	.Give an account of the developments in the Post-Gupta period
CO: 4	.Have an informed opinion about the society and culture of Ancient India

B.A.III-Semester V, Course No: VIII DSE E-62 History of Medieval India (1206-1526 AD]

The student who successfully completes this course will be able to……	
CO: 1	Describe the different types of historical sources available for writing the history of medieval India
CO: 2	Explain the contributions of medieval rulers like Allaudin Khilji, Muhammad-binTuqhlaq, Krishnadevraya, and Mahmud Gavan
CO: 3	Give an account of the administration and economy of the Delhi sultanate and Vijayanagar Empire
CO: 4	Elucidate the significant developments which took place in religion, society and culture

B.A.III-Course No. XIII DSE E-187 History of Medieval India (1526-1707 AD)

The students who successfully complete this course will be able to……	
CO: 1	Know about the various sources for writing Medieval Indian history
CO: 2	Explain the role of rulers like Babar, Akbar, Chandbibi and Ibrahim Adilshah II
CO: 3	Gain knowledge about the administrative and revenue system
CO: 4	Explain important developments in religion, society and culture

B.A.III- Semester V, Course No: IX DSE E-63 Age of Revolutions

The students who successfully complete this course will be able to……	
CO: 1	.Explain the causes and consequences of the Reformation
CO: 2	Explain the salient features of the Industrial revolution
CO: 3	Given an account of the American revolution
CO: 4	Explain the causes, effects and major events of French Revolution

B.A.III-Semester VI
Course No: XIV. DSE E-188 Making of the Modern World
(16th to 19th Century)

The students who successfully complete this course will be able to……	
CO: 1	Know the causes and consequences of the Glorious revolution in England
CO: 2	Explain the concept of Nationalism and account for its rise and spread.
CO: 3	Give an account of the rise, growth and impact of Imperialism
CO: 4	Know the life and thoughts of important leaders like Metternich, Karl Marx and Abraham Lincoln

B.A.III Semester V, Course No. X DSE E-64 Political History of the Marathas

The students who successfully complete this course will be able to……	
CO: 1	Describe the political conditions of the Marathas up to the year 1740
CO: 2	Explain the causes and effects of the Battle of Panipat
CO: 3	Critically analyze the causes for the decline of Maratha power.
CO: 4	Understand the political condition of the Marathas after 1761

B.A.III Semester VI, Course No. XV DSE E-189 Polity, Economy, and Society under the Marathas

The students who successfully complete this course will be able to……	
CO: 1	Know the various sources for writing the history of the Marathas
CO: 2	Explain the significant developments in the polity of the Marathas
CO: 3	Describe the economic conditions
CO: 4	.Explain the social conditions

B.A.III-Semester V, Course No. XI DSE E-65 History: Its Theory

The students who successfully complete this course will be able to……	
CO: 1	Understand the definition and scope of the subject of History
CO: 2	Know the process of acquiring historical data
CO: 3	Explain the process of presenting and writing history
CO: 4	Understand the methods of writing history

B.A.III-Semester VI, Course No. XVI DSE E-190 Methods and Applications of History

The students who successfully complete this course will be able to……	
CO: 1	Understand the nature of archival sources
CO: 2	Gain conceptual clarity about recent trends in history.
CO: 3	Know about the application of history in museums
CO: 4	Explain the concept and scope of heritage tourism

DEPARTMENT OF GEOGRAPHY

Course Outcomes (COs)

b) U.G. Course / Programm

Sr. No.	Title of Course	Course Outcomes (Statements)
1	CBCS B.A. I, Sem. I, (DSE-I) **Physical Geography**	CO 1: Student understands basic and latest concept in physical geography. CO 2: Student will observe the terrain feature of the Local environment. CO 3: Classification of observed landscape is possible.
2	CBCS B.A. I, Sem. II, (DSE-II) **Human Geography**	CO 1: Explanation of role of natural environment in human life. CO 2: Comparison of human development in different environment. CO 3. Student can find relationship between economic activity and natural Resources. CO 4: Develop the model of human development.
3	CBCS B.A. II, Sem. III, (DSE-III) **Soil Geography**	CO 1: Student will explain the basics and fundamental concepts of Soil Geography. CO 2: Student can find out the relationship between the soil types and Cropping patterns CO 3: Student could solve the problems of soil erosion and degradation. CO 4: Student can strengthen the productivity of soil.
4	CBCS B.A. II, Sem. III, (DSE-IV) **Resource Geography**	CO1: Classification and importance of resources on the Earth.. CO 2: Utilization of local resources for human needs. CO 3: Student can predict the threats and scarcity of resources.
5	CBCS B.A. II, Sem. IV, (DSE-V) **Oceanography**	CO 1: General information of Seas and Oceanography. CO 2: The students should understand the physical, chemical and biological Properties of oceanic water. CO 3:The student will invent the source of resources. CO 4: Remedies about pollution of oceans can find out.

6	CBCS B.A. II, Sem. IV, (DSE-VI) **Agricultural Geography**	CO 1: The basic knowledge of evolution of agriculture. CO 2: Student examines the regional variation of crop productions. CO 3: Students get innovations opportunities in different cropping pattern.
7	CBCS B.A. III, Sem. V, DCE: E-106 **Geographical Thoughts**	CO 1: The students will acquaint the evolution of Geographical thoughts. CO 2: Student will tell the paradigms and debates in Geographical studies. CO 3: Student should be able to use of various models of paradigms .
8	CBCS B.A. III, Sem. V, E-107 **Geography of India**	CO 1: The students acquaint with the distinct dimensions of India. CO 2: The students understand the land scape variation of the country. CO 3. To help the students to understand recent in regional geography. CO 4: The students get deferential information of their country. CO 5: The students evaluate the regional disparity.
9	CBCS B.A. III, Sem. V, DSE: E-108 **Population Geography**	CO 1: The knowledge of population composition. CO 2: Recognize the population dynamics. CO 3: The students compare the distribution of population CO 4: The observation of variation in population growth in the world. CO 5: The prediction of future population growth.
10	CBCS B.A. III, Sem. VI, E-109 **Urban Geography**	CO 1: The students recognize types of urban settlements, site and situation. CO 2: The realization relationship between human activities and urban Development CO 3: Student can find out extension of urban settlements. CO 4: The creation expansion model of unban morphology.
11	CBCS B.A. III, Sem. VI, DSE-E233 **Political Geography**	CO 1: Students will remember the distinct dimensions of political Geography. CO 2: Student can explain the relation of development of region and Unity of political leader. CO 3: To evaluate Geo-political issues in the world. CO 4: To find out the role of natural resources in political impact.
12	CBCS B.A. III, Sem. VI, DSE: E-231 **Economic Geography**	CO 1: The remembering of the basics of Economic Geography. CO 2: The understanding the resources and manufacturing industries. CO 3: Student should be able compare the regional variation in development.

13	CBCS B.A. III, Sem. VI, DSE-E-234 **Fundamentals of Map Making and Map Interpretation**	CO 1: The introduction of map making and map interpretation. CO 2: The analysis of landforms is possible. CO 3: Students should develop skill of interpretation. CO 4: Students can handle smoothly the weather instruments CO 5: Preparation of maps and diagrams.
14	CBCS B.A. III, Sem. VI, DSE-E-235 **Advanced Tools, Techniques and Field Work in Geography**	CO 1: Get the information of modern tools and techniques. CO 2: The realize the use of ICT to enrich the practical. CO 3: Students should prepare map of land survey. CO 4: Students able to plan and organize excursion tour with specific goal. CO 5: Students can create model of field work.

Subject- Psychology
Course Outcomes

B.A.I- Semester I- Paper I- Foundations of Psychology

The student who successfully completes this course will be able to……	
CO: 1	Understand basic principles of Psychology
CO: 2	Familiarity with the perception and sleep types
CO: 3	Familiarity with the Cognitive process and learning
CO: 4	Acquaintance with the knowledge of memory process

B.A.I- Semester II- Paper II- General Psychology

The student who successfully completes this course will be able to……	
CO: 1	Familiar with the field of general psychology
CO: 2	Acquaint with intelligence
CO: 3	Acquaint with motivation and emotion
CO: 4	Acquaint with personality

B.A.II- Semester III- Paper III- Psychology for Living

The student who successfully completes this course will be able to……	
CO: 1	Process of psychology for living
CO: 2	Concept of stress
CO: 3	Understanding mental disorders
CO: 4	Psychotherapies and there uses

B.A.II- Semester III- Paper IV- Social Psychology

The student who successfully completes this course will be able to……	
CO: 1	Process of social psychology
CO: 2	Concept of social perception
CO: 3	Self and self esteem
CO: 4	Concept of Attitude formation, Persuasion and Cognitive Dissonance

B.A.II- Semester IV- Paper V- Modern Social Psychology

The student who successfully completes this course will be able to……	
CO: 1	Process of liking (attraction) and sources of liking
CO: 2	Concept of social influence and compliance
CO: 3	Pro- social behaviour
CO: 4	Concept of aggression causes and control

B.A.II- Semester IV- Paper VI- Applied Psychology

The student who successfully completes this course will be able to……	
CO: 1	Process control, decision making and personal growth
CO: 2	Introduced the work, career, play and using leisure positively
CO: 3	Making and keeping friends
CO: 4	Concept of love and commitment

Subject- Political Science
Course Outcomes

B.A.I- Semester I- Paper I- Introduction to Political Science

The student who successfully completes this course will be able to……	
CO: 1	To understand the meaning and importance of Political Science.
CO: 2	To understand the sub-disciplines of Political Science.
CO: 3	Explaining Democracy and State.
CO: 4	To understand key concepts of political science

B.A.I- Semester II- Paper II- (Indian Constitution)

The student who successfully completes this course will be able to……	
CO: 1	Get knowledge about making and philosophy of Indian constitution
CO: 2	Become aware about Fundamental Rights, Directive Principles and Duties
CO: 3	Understand about working of Legislature, Executive in Indian constitution
CO: 4	Get knowledge about Indian Judiciary, Supreme court, Court of Record, Judicial Review

B.A.II (C.B.C.S.) SEM III PAPER III Political process in India

The student who successfully completes this course will be able to……	
CO: 1	Assessing the changing nature of Indian Federalism with focus on Union –State Relations.
CO: 2	Evaluating electoral process in India with focus on Election Commission and review of selected general elections.
CO: 3	Critically evaluating the Indian party system and looking at the Ideology of dominant national parties and rise and role of Regional parties.
CO: 4	To understand Major Issues in Indian politics.

B.A.II (C.B.C.S.) SEM III PAPER IV Indian Political Thought Part- I

The student who successfully completes this course will be able to……	
CO: 1	Analysing the selected thought of Kautilya.
CO: 2	Analysing the selected thought of Mahatma Phule.
CO: 3	Analysing the selected thought of Justice M.G.Ranade.
CO: 4	Analysing the selected thought of B.G. Tilak.

B.A.II (C.B.C.S.) SEM IV PAPER V Local Self Government

The student who successfully completes this course will be able to……	
CO: 1	To Understand historical background of local self government.
CO: 2	Examining the Institutions of Rural and Urban local self government.
CO: 3	Discussing the constitutional amendments and challenges before local self government.

B.A.II (C.B.C.S.) SEM IV PAPER VI Indian Political Thought Part- II

The student who successfully completes this course will be able to……	
CO: 1	Analysing the selected thought of M.K.Gandhi.
CO: 2	Analysing the selected thought of Jawaharlal Nehru.
CO: 3	Analysing the selected thought of Dr.B.R.Ambedkar.
CO: 4	Analysing the selected thought of M.N. Roy.

B.A.II (C.B.C.S.) SEM IV PAPER VI Indian Political Thought Part- II

The student who successfully completes this course will be able to……	
CO: 1	Analysing the selected thought of M.K.Gandhi.
CO: 2	Analysing the selected thought of Jawaharlal Nehru.
CO: 3	Analysing the selected thought of Dr.B.R.Ambedkar.
CO: 4	Analysing the selected thought of M.N. Roy.

DEPARTMENT OF COMMERCE

COURSE OUTCOMES

A) U.G. Course / Programme

B.Com. - I, SEM - I - CC-A3: Management Principles & Application – I (MPAP-1)	
The student who successfully completes this course will be able to ….	
CO:1	To understand Concept of Management and Significance of Management.
CO:2	To provide the student with an understanding of Principles and Practices.
CO:3	To know different Contributors towards Management Theories.

B.Com. - I, SEM - II - CC-A4: Management Principles & Application – II (MPAP-1I)	
The student who successfully completes this course will be able to ….	
CO:1	To know uses of Managerial Functions in the Organization.
CO:2	To understand Role of Manager.
CO:3	To understand Management of Change and Recent Trends in Management.

B.Com. - I, SEM - I - CC-A5: Financial Accounting – I (FANACC-I)	
The student who successfully completes this course will be able to ….	
CO:1	To understand financial accounting concept and branches of accounting.
CO:2	To study the Amalgamation of Partnership Firm.
CO:3	To know the procedure of Conversion of Partnership Firm in to Limited Company.
CO:4	To understand Accounting of Professionals.
B.Com. - I, SEM - II - CC-A6: Financial Accounting – II (FACC-II)	
The student who successfully completes this course will be able to ….	

CO:1	To know single entry and double entry system.
CO:2	To study the consignment and branch accounting.
CO:3	To know the accounting standards.

B.Com. - I, SEM - I - GEC-A1: Principle of Marketing – I (PRIOMAR - I)	
The student who successfully completes this course will be able to ….	
CO:1	To understand Core Concepts of Marketing, Importance of Marketing.
CO:2	To know Consumer Behaviour.
CO:3	To know the Relationship Marketing and Marketing Information System.
CO:4	To understand Concept of Segmentation, Targeting & Positioning.
CO:5	To understand the Rural Marketing.

B.Com. - I, SEM - II - GEC-A2: Principle of Marketing – I (POMP - II)	
The student who successfully completes this course will be able to ….	
CO:1	To Provide basic knowledge of 4P's of marketing and retailing.
CO:2	To Know & Understand the Channel of Distribution.
CO:3	To know the procedure of Conversion of Partnership Firm in to Limited Company.
CO:4	To understand Accounting of Professionals.

B.Com. - I, SEM - I - GEC- B3: Insurance – I (INS - I)	
The student who successfully completes this course will be able to ….	
CO:1	To understand concept of insurance, types of insurance and significance of insurance.
CO:2	To know the principles of insurance.
CO:3	To know the Procedure of taking various Life insurance policies.

CO:4	To know why privatization of insurance and IRDA act

B.Com. - I, SEM - II - GEC- B3: Insurance – I (INS - I)	
The student who successfully completes this course will be able to ….	
CO:1	To understand concept of insurance, types of insurance and significance of insurance.
CO:2	To know the principles of insurance.
CO:3	To know the Procedure of taking various Life insurance policies.
CO:4	To know why privatization of insurance and IRDA act

B.Com. - II, SEM - III - CC- C1: Corporate Accounting – I	
The student who successfully completes this course will be able to ….	
CO:1	To understand the accounting entries of issue and forfeiture of shares and re-issue of forfeited shares, discuss accounting treatment for redemption of preference shares and buyback of shares.
CO:2	To study the Demonstrate accounting for issue of debentures and redemption of debentures.
CO:3	To know Simulate practice of preparing financial statements as per the provisions of Indian Companies Act 2013.
CO:4	To Practice the fundamental accounting process on Tally ERP.

B.Com. - II, SEM - IV - CC- C2: Corporate Accounting – I	
The student who successfully completes this course will be able to ….	
CO:1	To know the accounting entries of profit/loss prior to incorporation.
CO:2	To understand Compute the value of shares as per distinct methods and differentiate between them.
CO:3	To know Simulate practice of accounting for liquidation of companies.
CO:4	To Practice the store accounting through Tally ERP.

B.Com. - II, SEM - III – GEC- 1: Fundamentals of Entrepreneurship – I	
The student who successfully completes this course will be able to ….	
CO:1	To know the impart theoretical knowledge of Entrepreneurship.
CO:2	To develop Entrepreneurship qualities and skills.
CO:3	To acquaint students with Steps involved in the formation of Small Enterprises.
CO:4	To enlighten students with Recent Trends and Concepts in Entrepreneurship.
CO:5	To understand the basic development of entrepreneurship as a profession.

B.Com. - II, SEM - IV - GEC- 2: Fundamentals of Entrepreneurship – I	
The student who successfully completes this course will be able to ….	
CO:1	To understand the concept of family business in India.
CO:2	To know impart conceptual knowledge of Service and Agro Entrepreneurship.
CO:3	To understand and aware students about Business Plan and Project Report.
CO:4	To inspire the students through successful stories of Entrepreneurs.

B.Com. - II, SEM - III - GEC- B4: Business Statistics – I	
The student who successfully completes this course will be able to ….	
CO:1	To know the scope of statistics in business, perform classification and tabulation, and represent the data by means of simple diagrams and graphs.
CO:2	To understand and how to apply sampling techniques in real life.
CO:3	To understand how summarize data by means of measures of central tendency and dispersion.
CO:4	To know the merits and demerits of various measures of central tendency and dispersion.
CO:5	To understand Perform analysis of bivariate data using simple correlation and simple linear regression.

B.Com. - II, SEM - IV - GEC- B4: Business Statistics – I	
The student who successfully completes this course will be able to ….	
CO:1	To understand Compute unconditional and conditional probabilities and apply laws of probabilities.
CO:2	To Identify the applications of Binomial and normal distributions.
CO:3	To understand Measure trend and seasonal variations in time series data.
CO:4	To know Compute and interpret simple and weighted index numbers.
CO:5	To understand Construct and apply variable and attribute control charts.

B.Com. - III, SEM - V – DSE-1- A1: Advanced Accountancy – I	
The student who successfully completes this course will be able to ….	
CO:1	To understand the preparation of financial statements of banks.
CO:2	To study Demonstrate accounting for farms and hire purchase system.
CO:3	To Simulate accounting situations of insurance claim.
CO:4	To Explain the accounting process on Tally with GST.
B.Com. - III, SEM - V – DSE-2- A1: Advanced Accountancy – II	
The student who successfully completes this course will be able to ….	
CO:1	To understand the concept and types of audit
CO:2	To identify the residential status and its implication on tax liability
CO:3	To understand the concept of exemption from income
CO:4	To know the computation of income from various sources as well as total income

B.Com. - III, SEM - VI – DSE-2- A3: Advanced Accountancy – III	
The student who successfully completes this course will be able to ….	
CO:1	To know the preparation of financial statements of banks.

CO:2	To study Demonstrate accounting for farms and hire purchase system.
CO:3	To Simulate accounting situations of insurance claim.
CO:4	To Explain the accounting process on Tally with GST.

B.Com. - III, SEM - VI – DSE-2- A4: Advanced Accountancy – IV	
The student who successfully completes this course will be able to ….	
CO:1	To understand the basic concepts of income tax and basis of charge
CO:2	To study identify the residential status and its implication on tax liability
CO:3	To understand the manner of computation of total income
CO:4	To know the basic concepts about GST

B.Com. - III, SEM - V – CC-C1: Modern Management Practice – I	
The student who successfully completes this course will be able to ….	
CO:1	To impart knowledge of modern management
CO:2	To understand concepts of CRM
CO:3	To know the concepts of emotional and social intelligence
CO:4	To understand the concept of lean and talent management

B.Com. - III, SEM - VI – CC-C2: Modern Management Practice – II	
The student who successfully completes this course will be able to ….	
CO:1	To impart knowledge of total quality management
CO:2	To understand the Japanese and Chinese Management Practices
CO:3	To know the concept of Event and Performance Management
CO:4	To understand the concept of time and stress management

B.Com. - III, SEM - V – CC-C3: Business Regulatory Framework – I	
The student who successfully completes this course will be able to ….	
CO:1	To understand the Business Regulatory framework of India.
CO:2	To know basic legal knowledge about Business Laws.
CO:3	To understand the Labour Laws & Employees Provident Fund Act – 1952
CO:4	To Provide Conceptual knowledge about Goods & Services Act - 2017

B.Com. - III, SEM - VI – CC-C4: Business Regulatory Framework – II	
The student who successfully completes this course will be able to ….	
CO:1	To understand the conceptual knowledge about Company Act- 2013.
CO:2	To know the Security Exchange Board of India Act – 1992, Consumer Protection Act – 1986 and Competition Act – 2002.
CO:3	To understand the Various Business Transactions & Cyber Laws.
CO:4	To know the Negotiable Instrument (Amendment) Act - 2015

DEPARTMENT OF PHYSICS

COURSE OUTCOME

.U.G. Course Outcome:

Title of course	Course Outcome Statements
B.Sc. Part –I, Semester –I Physics Paper –I DSC-1A Mechanices -I	1.Student can understand Basic Concept and its applications 2.Student can understand conservation in rotational Motion. 3. Student can understand MI of spherical Symmetry 4. Student can understand meaning of ordinary and partial differential equations. 5. Student can understand Newtons laws of motions. 6. Student can understand ideas of vector additions and subtractions. 7. Student can understand meaning of vector product. 8. Student can understand derivative of vectors with respect to time.
B.Sc. Part –I, Semester –I Physics Paper –II DSC-2A Mechanices -II	1.This course would empower the student to acquire engineering skills and practical knowledge, which help the student in their everyday life. This syllabus will cater the basic requirements for their higher studies. 2.This course will provide a theoretical basis for doing experiments in related areas as well as learning the basics concepts of elasticity, surface tension, gravitation, viscosity and sound 3.Study of the interaction of forces between solids in mechanical systems. 4 .To gain knowledge in the concepts of Gravitation and its different day to day applications 5. To know the basic of Kepler's three laws, geothermal orbits and applications. 6. To know about the Geostationary Satellites , different areas of their applications and know well about the basic idea of GPS and other related techniques. 7. Understand the effect of gravitation on objects and understand the principle of rocket . 8. Know the concept of weightlessness in Geostationary orbit or in satellite.

	9.Understand the definition for centre of gravity in hemisphere, hollow hemisphere etc. Understand the dynamics and gravitation. 10.To learn the oscillatory motion, cause of it and different kinds of it. 11.Understand the role of the wave equation and appreciate the universal nature of wave motion and know the idea of superposition of harmonic waves. 12.Understand differential equation foe progressive wave. 13. Study the SHM and To differentiate Damped, undamped and forced oscillatory motions. 14. Student can understand concept of bending moment at the Centre. 15. Student can understand tortional Oscillation pendulum, determination of Y.K,E. 16. Student can understand S.T. Mobility, Jaegers method.
B.Sc. Part –I, Semester –II Physics Paper – III DSC-1B Electricity and Magnetism-I	1. Student can understand ideas of vector additions and subtractions. 2. Student can understand meaning of vector product. 3. Student can understand derivative of vectors with respect to time. 4. Student can understand concept of Gauss Divergent Theoerm. 5. Student can understand concept of Stoke Theoem. 6. Student can understand concept of Gradient of Scalar Field 7. Student can understand concept of Divergence of vector field 8. Student can understand concept of Curl of vector field. 9. Student can understand concept of Gravitational potential.

B.Sc. Part –I, Semester –II Physics Paper – IV DSC-2B Electricity and Magnetism-II	Electricity and Magnetism have the key role in the development of modern technological world. Without electric power and communication facilities, life on earth stands still. A course in electricity and Magnetism is thus an essential component of physics programme at graduate level. This course is expected to provide a sound foundation in electricity and Magnetism. Students will be able to: 1.Understand the relationship between electrical charge, electrical field, electrical potential and magnetism and solve numerical problems involving

	topics covered. 2.Define the magnetic field and magnetic flux, solve technical problems. 3.Calculate the magnitude and direction of the magnetic field for symmetric current distributions using the Law of Biot-Savart and Ampere's Law and their applications. 4.Study the unification of electric and magnetic phenomena. Understand the magnetic effects of electric current and compare the principles and working of different types of galvanometer 5. Apply and analyze the behavior of ac circuits based on L,C and R , LCR series and LCR parallel circuits and To determine Time constant of L-R and C-R circuit and its physical significances 6. To know the magnetic properties of matter and study the electric field using coloumbs inverse square law in electrostatics of current . analyse the relations between b, h and m also understand the faradays laws of electromagnetic induction by rayleigh's method. 7.Distinguish between different types of magnetic materials and different kinds of magnetism manifested in materials. 8. Analyze magnetic properties of a ferromagnetic solid by analyzing or recording its hysteresis behavior. Acquire knowledge on elementary ideas of electricity and magnetism .Emphasize the significance of laws involved in electric circuits.To understand basic concept of current and current density vector, susceptibility, permeability etc. 9.Understand the laws of electrostatics and magnetostatics . 10. To understand the concept of magnetism and and magnetic properties of materials such as Ferromagnetic, Anti ferromagnetic and Ferrimagnetic. 11. To understand the concept of electromagnetic induction, self induction of solenoid, mutual induction of coaxial solenoid.
B.Sc. Part –I, DSC-A Lab : Mechanics	1.Apply knowledge of mathematics and physics fundamentals and an instrumentation to arrive solution for various problems. 2.Understand the usage of basic laws and theories to determine various properties of the materials given. 3.Understand the application side of the experiments

	4.Use standard methods to calibrate the given low range voltmeter and ammeter and to measure resistance of the given coil and various physical quantities. 5.Use of basic laws to study the spectral properties and optical properties of the given prism.
B.Sc. Part –II, Semester –III Physics Paper – V DSC-C1 Thermal Physics and Statistical Mechanics	1. Student can understand Basic concept of kinetic theory of gases 2. Student can understand transport phenomenon 3. Student can understand application of law of equipartition of energy 4. Student can understand Principle of thermometry 5. Student can understand thermocouple and thermometer 6. Student can understand platinum resistance thermometer 7. Student can understand thermodynamics system and thermodynamics variable 8. Student can understand zeroth law, first and second law of thermodynamics 9. Student can understand isothermal and adiabatic processes 10. Student can understand equation of Carnot engine and cycle

B.Sc. Part –II, Semester –III Physics Paper – VI DSC-C2 Waves and Optics	1.To demonstrate Lissajous figures by mechanical, optical and electrical methods. 2. To understand composition of two S.H.M.s of equal frequencies along same line of vibration, at right angles (analytical method with different cases). Learn the fundamentals of harmonic oscillator model, including damped and forced oscillators 3. To understand Free and damped oscillations. To solve differential equation of damped harmonic oscillator and Energy equation. 4. Describe the production, detection of ultrasonic waves and applications **5.** To solve differential equation of forced oscillations and its solution, and to obtain amplitude, Energy of forced oscillations, Amplitude and Sharpness and Velocity of resonance, Power dissipation, Band width and quality factor. 6. Explain the absorption and reflection of sound by various materials and describe the requirements for good architectural acoustics 7. To understand concept of sound and to classify sound frequencies. 8. To understand piezoelectric effect, Magnetostriction effect . To acquire the knowledge on Ultrasonic waves and Acoustics To learn Generation, Detection and Applications of ultrasonic waves by Piezoelectric and Magnetostriction oscillator. 7. Understand optical phenomena such as polarization. 8. Through the lab course, understand the principles of measurement and error analysis and develop skills in experimental design
B.Sc. Part –II, Semester –IV Physics Paper – VII DSC-D1 Thermal Physics and Statistical	1. Student can understand Enthalpy, Gibbs, Helmholtz, Internal Energy functions 2.Student can understandMaxwell's thermodynamical relations, Joule-Thomson effect 3. Student can understandClausius- Clapeyron equation, Expression for ($C_P - C_V$),C_P/C_V, TdS equations. 4. Student can understand Blackbody radiation and its importance 5. Student can understand Derivation of Planck's law, Deduction of Wien's distribution law, Rayleigh-Jeans Law 6. Student can understand Bose-Einstein distribution law, photon gas,

Mechanics- II	Fermi-Dirac distribution law 7. Student can understand electron gas,comparison of M.B., B.E., and F.D. statistics.
B.Sc. Part –II, Semester –IV Physics Paper – VII DSC-D2 Wave and optics II	1. Student can understand Cardinal points of an optical system 2. Student can understand Newton's formula, relation between f and f ' for any optical system 3. Student can understand relation between lateral, axial and angular magnifications 4. Student can understand Resolution, Resolving power of optical instruments 5.Student can understand Rayleigh's criterion for the limit of resolution, Modified Rayleigh's criterion, 6. Student can understand comparison between magnification and resolution, resolving power of plane diffraction grating, resolving power of a prism 7. Student can understand Principle of Superposition ,Coherence and condition for interference 8. Student can understand Division ofamplitude and division of wave front 9. Student can understand Fraunhofer diffraction- Elementary theory of plane diffraction grating,
Physics Lab. DSC C1-D1, Paper V-VII Thermal Physics and Statistical Mechanics Physics Lab. DSC C2-D2, Paper V-VII Waves and Optics.	**Objectives :** 1. To analyze the effects of refractive index of a medium using optical instruments . 2. To estimate the specific resistance of any conductor 3. To calibrate a High range voltmeter Students in this course will be able – 4.To develop the basic knowledge and practical skills 5.To introduce pressure, level, flow & temperature measurement. 6.To do basic calibration of simple instruments. 7.Understand Basic of oscilloscope, signal and pulse generator **Course Outcomes:** Study the elastic behaviour of materials 1.Analyse the relationship between various types of experiments 2.Perform the procedure as per standard values. 3.Understan the applications 4.Measure the thickness of thin material using optical means 5.Determine the wavelength of Mercury spectrum

	6. Estimate the specific resistance of any conductor 7.To gain knowledge on diffraction and interference of light. 8.Explain the phenomenon of diffraction and interference of light. 9.Distinguish rigid/flexible materials by measuring module of elasticity. 10. To acquaint them with construction of basic electrical circuits 11. To analyze the effects of refractive index of a medium using optical instruments 12. To estimate the specific resistance of any conductor .
B.Sc. Part –III, Semester –V Physics Paper – IX. Mathematical physics	1. Student can understand Introduction to differential equations 2. Student can understand Form of two dimensional Laplace differential equation in Cartesian coordinates and its solution 3. Student can understand Singular points of second order differential equations, Application of singularity to Legendre and Bessel differential equation, Series solution 4. Student can understand Gamma function, Properties of Gamma function, Beta function 5. Student can understand Properties of Betafunction 6. Student can understand Relation between Beta and Gamma functions 7. Student can understand Revision of complex numbers and their graphical representation 8. Student can understand Logarithmic function of complex variables
B.Sc. Part –III, Semester –V Physics Paper – X. Quantum Mechanics	1. Student can understand Wave particle duality, De-Broglie hypothesis of matter waves 2. Student can understand Relation between group velocity - phase velocity and Group velocity 3. Student can understand Application of uncertainty principle non existence of free electrons in the nucleus. 4. Student can understand Wave function and its physical interpretation 5. Student can understand Probability current Density (continuity equation), Eigen values and Eigen functions 6. Student can understand Operators in Quantum Mechanics

	7. Student can understand Applications of Schrodinger Equation
B.Sc. Part –III, Semester –V Physics Paper – XI. Classical Mechanics and Classical Electrodynamics	1. Student can understandLagrangian Formulation 2.Student can understandD'Alembert's principle 3. Student can understandLagrange's equation from D'Alembert's principle, Applications of Lagrange's equation 4.Student can understand Techniques of Calculus of Variation 5. Student can understand Special Theory of Relativity 6. Student can understand Charged Particles Dynamics 7.Student can understandInertial and non-inertial reference frames 8.Student can understandLorentz transformation equations, 9. Student can understand Relativistic addition of velocities
B.Sc. Part –III, Semester – VPhysics Paper – XII. Digital and Analog Circuits and Instrumentation	1. Student can understand basic logic gates. 2.Student can understand Derived logic gates (NOR, NAND, XOR and XNOR gates), 3.Student can understand De Morgan's theorems, R-S flip flop, J-K flip-flop, Half adder, Full adder, 4 bit parallel binary adder. 4.Student can understandTransistorsAmplifier and Sinusoidal Oscillators 5.Student can understand Single stage transistor CE amplifier, 6. Student can understand Cathode Ray Oscilloscope 7. Student can understandOperational Amplifier 8. Student can understandtimer
B.Sc. Part –III, Semester –VI Physics Paper – XVI. Energy studies and Material Science	The aim of this course is to introduce the students to energy studies, atomic disorder and different types of materials based on their properties. 1. To gain knowledge in various energy sources . Comment on various energy sources. 2. To gain knowledge on environmental pollution . Compare the various types of pollution and their control measures 3. To understand the different environmental issues and the management . Identify the sources of solid wastes and various methods of disposal, Comprehend the causes, effects and control measures of global warming

	4. Conserve Natural resources **5.** After successfully studying this course, students will:□Explain the conventional and renewable energy and their primary applications. 6.Describe the challenges and problems associated with the use of various energy sources,including fossil fuels, with regard to future supply and the environment. 7.□Discuss remedies/potential solutions to the supply and environmental issues associated with fossil fuels and other energy resources. 8.Understanding of sociological and Economical analysis of renewable and hybrid systems 9.Students in this course will develop: Understanding of technologies available in renewables. 10.Comprehensive understanding of fundamentals of PV cells and systems. Upon completion of the course,. 11.students will have to:□ a)Understand basic of Nano science and nanotechnology. b)Understand synthesis and characterization of nanostructures materials. c)Understand quantum dots and electron transport. Get knowledge of Historical perspectives of materials science. d)Understand the applications of Nano science and nanotechnology e)Solve problems based on electron theory of solids and for different materials 12.To understand and learn the Mechanical Properties, Thermal Properties, Electrical Properties, and Magnetic Properties of materials. 13.To classify between advanced materials, Smart materials, Nano structured Materials. 14.To understand the basic concept of Dislocations and Plastic 15.Deformation. To understand Atomic Diffusions and its Mechanism. 16.To state Fick's Law (Ist and IInd Law) 17.Understand synthesis and characterization of nanostructures materials Find applications of the superconductors. 18**.** To understand basics of phase diagram, its classifications, and its

	interpretation and applications of superconductors. 19.Understand the applications of Nano science and nanotechnology
B.Sc. Part –III, Semester –VI Physics Paper – XIII Nuclear and particle physics.	1. Student can understand Constituents of nucleus and their intrinsic properties 2. Student can understand Quantitative facts about size, mass, Charge density (matter energy), binding energy 3. Student can understand average binding energy and its variation with mass number, Liquid drop model approach 4. Student can understand Semi empirical mass formula, Magic numbers. 5. Student can understand Ionization chamber, Geiger Muller counter-construction, working and theory 6. Student can understand Construction of photo-multiplier tube (PMT), Scintillation detector-principle, construction and working 7. Student can understand Particle interactions, Classification of elementary particles, Symmetries and conservation laws energy, momentum, 8. Student can understand angular momentum and parity, Baryon number, Lepton number, Concept of quark model.
B.Sc. Part –III, Semester –VI Physics Paper – XIV Solid state Physics.	1.The objective of this paper is to enable the students to have a physical understanding of matter from an atomic view point. Topics covered include the structure, X-ray diffraction by crystal ,lattice vibrations and free electron theory of solids. 2.Outline the importance of solid state physics in the modern society . Explore the relationships between chemical bonding & crystal structure and their defects. 3.Understand the basic properties of metals, insulators and semiconductors and their technological applications . 4.Extend their knowledge in theoretical fundamentals of electron theory and super conductivity . 5.Transfer their knowledge level from theoretical physical subjects towards the understanding of basic properties of solid state matter. 6.Understand the basic concepts of force between atoms and bonding

	between molecules. Analyse the relationship between conductors and insulators and super conductivity. Understand the properties of semi conductors. 7. Structures in solids and their determination using XRD. 8. Behavior of electrons in solids including the concept of energy bands and effect of the same on material properties. Magnetic and dielectric properties of solids.
B.Sc. Part –III, Semester –VI Physics Paper – XV Atomic and molecular physics.	1. Student can understand Observed hydrogen fine structure, Spectral notations and optical spectral series for doublet Structure 2. Student can understand Spectrum of sodium and its doublet fine structure 3. Student can understand Selection and intensity rules for fine structure doublets, Normal order of fine structure doublets 4. Student can understand Molecular bond, Electron sharing, H_2^+ molecular ion 5. Student can understand Vibrational spectra, Vibration –rotation spectra, Electronic spectra of diatomic molecules. 6. Student can understand Raman Effect,Characteristic properties of Raman lines 8. Student can understand Classical and quantum theory of Raman Effect,Difference between Raman spectra and infrared spectra. 9. Student can understand The H–R Diagram,Evolution of main sequence stars - Red giants and White dwarfs

DEPARTMENT OF CHEMISTRY

COURSE OUTCOMES

B.Sc. I

	Inorganic Chemistry (Semester-I ; Paper –I)
The students who Successfully completes this course students will be able to	
CO1 :	Understand the periodic properties of elements.
CO2 :	Understand the molecular orbital theory and to know the molecular orbital diagram.
CO3 :	Develop skill to filling electrons in various orbitals by using principle
CO4 :	Develop skill to calculate lattice energy and bond order of molecule
CO5 :	Find shape and geometry of the orbitals
	Organic Chemistry (Semester- I; Paper –II)
The Students who successfully completes this course students will be able to	
CO1:	Understand the three dimensional structure and symmetry
CO2:	Understand the nature, reactivity and catalytic action of aliphatic cyclic molecule.
CO3:	Learn different nomenclature system and necessary physiological conditions regarding cyclic molecules.
CO4:	Understand basic concepts of organic reaction mechanism, intermediates and stability.
CO5:	Develop skill in differentiation aromatic and anti-aromatic and reactivity of aromatic compound.
	Physical Chemistry (Semester –II ; Paper –III)
The Students who successfully completes this course students will be able to	
CO1:	Understand the idea about natural process and artificial process.
CO2:	Understand the work of engine and rate of reaction.
CO3:	Acquire the knowledge about free energy change in chemical reaction.
CO4:	Understand the difference between ideal and non-ideal gases.
CO5:	Develop problem solving skill, to calculate the efficiency of heat engine
CO6:	Understand to imagination of gases behavior.
	Analytical Chemistry (Semester- II ; Paper- IV)
The Students who successfully completes this course students will be able to	
CO1:	Understand the knowledge of terms, facts, concepts, processes, techniques and principles.
CO2:	Acquire the knowledge of basic idea of analysis.
CO3:	Explaining theories of chemical bonding and molecular structure.
CO4:	Illustrate the preparative methods of simple structure.
CO5:	Develop skill for sampling about solid liquid and gases.
CO6:	Understand to use of paper chromatography
CO7:	Calculate pH of solution using the pH meter.
Chemistry Practicals	

The Students who successfully completes this course students will be able to	
CO1:	Preparation and standardization of solution
CO2:	Identification of different organic compounds
CO3:	Understand Qualitative and quantitative analysis
CO4:	Understand spot test and chromatographic technique
CO5:	Calculation of enthalpy heat of ionization, Equivalent Weight

B.Sc. II

	Inorganic Chemistry (Semester –III ; Paper –V)
The Students who successfully completes this course students will be able to	
CO1 :	Understand the types of conductors and their conductivity and the idea about conductometric titration
CO2 :	Understand about physical and chemical adsorption
CO3 :	Develop skill to calculate equivalent and molar conductivity and surface tension
CO4:	Develop skill for detection and measurement of nuclear radiation
	Industrial chemistry (Semester-III ; Paper VI)
The Students who successfully complete this course students will be able to	
CO1 :	Understand difference between basic chemistry and industrial chemistry
CO2 :	Idea about raw material for the chemical industrial
CO3 :	Understand various chemical process and chemical operations.
CO4 :	Idea about corrosion and electroplating
CO5 :	Develop skill for handling various distillation flask
CO6 :	Prepare solution having different concentration
	Inorganic Chemistry (Semester- IV; Paper- VII)
The students who successfully completes this course students will be able to	
CO1 :	Understand the position of P & d black elements in periodic table
CO2 :	Understand various properties of p & d block elements
CO3 :	Know the idea about coordination compounds
CO4 :	Develop skill to Calculate crystal field stabilization energy identify acidic and basic radicals
CO5 :	Calculate coordination number of metal complexes
	Organic Chemistry (Semester-IV ; Paper- VIII)
The students who successfully completes this course students will be able to	
CO1:	Understand about 3-D study of molecules
CO2 :	Know about carbonyl compounds their nomenclature structure and reaction mechanism
CO3 :	In detail study of carbohydrate like glucose and fructose
CO4 :	Know various carboxylic acids and their derivatives
CO5 :	Develop reaction mechanism solving skill
CO6 :	Develop organic problem solving skill
Chemistry Practicals	
The students who successfully completes this course students will be able to	
CO1:	Understand chemical kinetic technique
CO2 :	Handling of instruments-conductometer, viscometer, refractometer
CO3 :	Understand Qualitative and quantitative analysis

CO4 :	Understand preparation technique of organic and inorganic compounds
CO5 :	Acquire skill of semi micro qualitative analysis technique
CO6:	Acquire skill of gravimetric analysis technique

B.Sc.III

DSE-F5 Inorganic Chemistry (Semester-V; Paper No. IX)	
The students who Successfully completes this course students will be able to	
C01.	Students can understand thermodynamic and kinetic aspects.
C02.	Students should have the ability to understand role of metals & non-metals in our health.
C03.	Knowledge of preparation, structure and application of organo metallic compotes
C04.	Understand application of catalyst in industrial fields.
DSE-F6Organic Chemistry (Semester-V; Paper No. X)	
The students who Successfully completes this course students will be able to	
CO1.	Students should be able to understand energy associated with electromagnetic radiation and its use in analytical techniques.
C02.	Students will predict the structure of organic compounds using spectral data.
C03.	Knowledge of vibrational transitions in IR spectrum.
C04.	Knowledge of fragmentation pattern in mass spectroscopy.
DSE-F7Physical Chemistry (Semester-V; Paper No. XI)	
The students who Successfully completes this course students will be able to	
CO1.	Understand Photochemical reactions and applications.
CO2.	Understand type of solutions and properties.
CO3.	Know electrode and cells and their applications.
CO4.	Understand nature and energy of electron.
DSE-F8Analytical(Semester-V; Paper No. XII)	
The students who Successfully completes this course students will be able to	
C01.	Understand working & applications of optical methods.
C02.	Students have the ability to understand the techniques of Gravimetric analyst.
C03.	Understand basics of chromatographic techniques.
C04.	Understand nanotechnology concepts.
C05.	Understand the manufacturing process of heavy chemicals.
C06.	Enhance the ability to understand the concepts of polymers.
Chemistry Practical	
The students who Successfully completes this course students will be able to	
C01.	Handle laboratory instrument carefully
C02.	Develop skill to maintain optimum reaction conditions
C03.	Carry out organic preparation using green chemistry approach
C04.	Separate and analyse binary mixture
C05.	Develop problem solving skill in students
CO6:	Carry out gravimetric ,qualitative ,quantitative analysis
C07:	Develop skill required in chemistry laboratory like handling of chemicals,

	instruments, apparatus etc.
CO8:	Handling of instruments-conductometer, viscometer, refractometer, p^Hmeter, colorimeter.
CO9:	Acquire knowledge of chemical kinetics
C10:	Acquire skill of inorganic preparation with optimum use of chemicals

CH 1.1 Inorganic Chemistry (Semester -VI; Paper No. XIII)	
	The students who Successfully completes this course students will be able to
C01.	To understand role of isotopes in different fields.
C02.	To develop problem solving skill.
C03.	To understand the techniques, involve in ore extraction.
C04.	To understand the properties and separation of lanthanides and actinides.
CH 1.2 Organic Chemistry (Semester -VI; Paper No. XIV)	
	The students who Successfully completes this course students will be able to
CO1.	Ability to carry organic preparation using green chemistry approach.
C02.	Understand reaction mechanism for organic reaction
C03.	Knowledge reagent used in organic synthesis
C04.	Knowledge nature produce w.r.t. characteristics, isolation etc.
CH 1.3 Physical Chemistry (Semester -VI; Paper No. XV)	
	The students who Successfully completes this course students will be able to
CO1.	Know the laws of crystallography and to deduce the crystal structure.
CO2.	Understand solid- liquid phase equilibrium.
CO3.	Understand radioactive elements, properties and uses.
CO4.	Know thermodynamics functions and applications in various field.
CH 1.4 Industrial Chemistry (Semester -VI; Paper No. XVI)	
	The students who Successfully completes this course students will be able to
C01.	To understand the whole process of manufacture of sugar.
C02.	To understand the synthesis of polymers
C03.	To Know the need and uses of eco-friendly fuels.
C04.	To understand the concepts in nanotechnology.

DEPARTMENT OF MATHEMATICS

COURSE OUTCOMES

A) U.G. Course / Programme

B.Sc.Part-I Mathematics:Semester-I:Paper I DSC – 5Aand 6A 1.**Differential Calculus & 2.Calculus**	
The Student who successfully completes this course will able to --	
1.	acquire the knowledge of the basic ideas of Hyperbolic Functions
2.	acquire the knowledge of High order derivatives
3.	understand the concept of Mean Value Theorems and Indeterminate Forms
4.	know the concept of Limits and Continuity of Real Valued Functions.
B.Sc.Part-I Mathematics:Semester-II:Paper I DSC – 5Band 6B 1.**Differential Equations & 2.HOODE & PDE**	
1.	understand the concept of Differential Equations of First Order
2.	acquire the knowledge of solvingLinear Differential Equations
3.	acquire the knowledge of Second Order Linear Differential Equations and Simultaneous DifferentialEquations.
4.	acquire the knowledge of Partial Differential Equations
B.Sc.Part-II Mathematics: Semester-III 1. Real Analysis-I	
1.	acquire the knowledge of the basic ideas of Function.
2.	acquire the knowledge of mathematical induction
3.	understand the concept of real analysis
4.	know the order properties of real numbers, completeness property.
B.Sc.Part-II Mathematics: Semester-III 2. Algebra-I	
1.	understand the concept of properties of matrices
2.	acquire the knowledge of solving System of linear homogeneous equations and linear non-homogeneous equations.
3.	acquire the knowledge of finding Eigen values and Eigen vectors.
4.	acquire the knowledge of construction of permutation group and relate it to other groups.
B.Sc.Part-II Mathematics: Semester-IV 3. Real Analysis – II	
1.	acquire the knowledge of sequence and subsequence.
2.	acquire the knowledge of Bolzano-Weierstrass Theorem.
3.	understand the concept of Cauchy Convergence Criterion
4.	acquire the knowledge of convergence of series
B.Sc.Part-II Mathematics: Semester-IV 4.Algebra– II	
1.	acquire the knowledgeofLagrange's theorem.
2.	acquire the knowledge of Fermat's theorem
3.	understand the properties of normal subgroups, factor group.
4.	acquire the knowledge of homomorphism and isomorphism's in group and rings.

B.Sc.Part-III Mathematics: Semester-V 1. Real Analysis	
1.	acquire the knowledge of the basic ideas of Real Analysis.
2.	acquire the knowledge of sequence of real numbers
3.	understand the concept of series of real numbers
4.	know the idea of Riemann Integration
B.Sc.Part-III Mathematics: Semester-V 2.Modern Algebra	
1.	classify the various types of groups and subgroups.
2.	acquire the knowledge of normal subgroup, homomorphism and permutation of group
3.	understand the concept of ring
4.	acquire the knowledge of homomorphism and imbedding ring
B.Sc.Part-III Mathematics: Semester-V 3 PDE	
1.	classify the various types of PDE.
2.	acquire the knowledge of Linear and Nonlinear PDE
3.	understand the concept of Homogeneous and Non homogeneous LPDE
4.	acquire the knowledge of solution of PDE
B.Sc.Part-III Mathematics: Semester-V 4.Numerical Methods-I	
1.	acquire the knowledgeof nonlinear equations.
2.	acquire the knowledge of system of linear equations
3.	understand the concept of eigen values and eigen vectors.
4.	acquire the knowledge of methods of solution of nonlinear equations
B.Sc.Part-III Mathematics:Semester-VI 5.Metric Spaces	
1.	acquire the knowledge of the basic ideas of Metric Spaces.
2.	acquire the knowledge of continuous functions on metric spaces
3.	understand the concept of connectedness of metric spaces.
4.	know the idea of completeness of metric spaces
B.Sc.Part-III Mathematics:Semester-VI 6.Linear Algebra	
1.	acquire the knowledge of the basic ideas of Vector Spaces.
2.	acquire the knowledge of Linear Transformation
3.	understand the concept of Inner Product Spaces.
4.	know the idea of Eigen Values and Eigen Vector
B.Sc.Part-III Mathematics:Semester-VI 7.Complex Analysis	
1.	acquire the knowledge of the basic ideas of analytical functions.
2.	acquire the knowledge of complex integration.
3.	understand the concept of singularities and residues.
4.	know the idea of entire meromorphic functions
B.Sc.Part-III Mathematics: Semester-VI 8.Numerical Methods-II	
1.	acquire the knowledge of the basic ideas of equal interpolation.
2.	acquire the knowledge of unequal interpolation.
3.	understand the concept of numerical differentiation & integration
4.	know the idea of numerical solution of ODE.

DEPARTMENT OF BOTANY

COURSE OUTCOME

F.Y B.Sc. Botany **DSC – 13 A Biodiversity of Microbes, Algae and Fungi (Semester-I; Paper –I)**	
The students who successfully complete this course will be able to…..	
CO :1	study discovery, general characters and structure of viruses
CO :2	study and understand types of viruses
CO:3	aware about the economic importance of viruses
CO:4	study discovery, general characters and structure of bacteria
CO:5	understand different modes of reproduction includes vegetative, asexual and conjugation type of sexual reproduction
CO:6	aware about the economic importance of bacteria
CO:7	understand general characters , classification of algae with suitable examples
CO:8	aware about the economic importance of algae
CO:9	study morphology and life cycles of Cyanophyceae member-*Nostoc* and Chlorophyceae- *Spirogyra*
CO:10	study general characters, classification of fungi with suitable examples
CO:11	aware about the economic importance of fungi
CO:12	study morphology and life cycles of zygomycotina- *Mucor*Ascomycotina- *Penicillium*

F.Y B.Sc. Botany **DSC – 14 A Biodiversity of Archegoniate-Bryophyte, Pteridophytes, Gymnosperms (Semester-I; Paper –II)**	
The students who successfully complete this course will be able to…..	
CO :1	study general characters , adaptation of land habit of bryophytes
CO :2	study classification as per G.M.Smith up to order
CO:3	study life cycle of bryophytes

CO:4	study morphology and anatomy of life cycles of Hepaticopsida-*Riccia* Bryopsida- *Funaria*
CO:5	study general characters , adaptation of land habit of pteridophytes
CO:6	study classification as per G.M.Smith up to order
CO:7	study life cycle of pteridophytes
CO:8	study morphology and anatomy of life cycles of Lycopsida-*Selaginella* Pteropsida- *Pteris*
CO:9	study heterospory and seed habitat of pteridophytes
CO:10	study general characters of gymnosperms
CO:11	study classification as per Sporne up to classes
CO:12	Study different examples of gymnosperm which include *Gnetum*
CO:13	Study and understand morphology and anatomy of *Gnetum*

F.Y B.Sc. Botany **DSC – 13 B Plant Ecology (Semester-II; Paper –III)**	
The students who successfully complete this course will be able to…..	
CO :1	study introduction, definition and scope of ecology
CO :2	study different ecological factors like edaphic includes soil and water
CO:3	study climatic factors light and temperature
CO:4	study and understand ecological adaptation in plants like hydrophytes, xerophytes, epiphytes and parasite
CO:5	study of plant communities with respect to their introduction, general characters, forms,structure and Raunkier's life forms
CO:6	study terminology of succession and their types, characters, processes hydrosere and Xerosere
CO:7	study definition and related terminology of ecosystem and phyto-geography
CO:8	study introduction, composition of biotic and abiotic components
CO:9	study different types of ecosystems- aquatic and terrestrial

CO:10	study structure food chain and food web
CO:11	study structure of ecological pyramids with respect to number, biomass, energy with suitable example
CO:11	Study structure of biogeochemical cycle – Nitrogen and Phosphorous
CO:12	Aware of phytogeographical regions as per Chaterjii and Mani

F.Y B.Sc. Botany **DSC – 14 B Plant Taxonomy (Semester-II; Paper –IV)**	
The students who successfully complete this course will be able to…..	
CO :1	study introduction and importance of taxonomy
CO :2	study functions of taxonomy like identification, nomenclature, binomial nomenclature and classification
CO:3	study salient features of International Code of Botanical Nomenclature (ICBN)
CO:4	study concept of herbarium , introduction , role and significance
CO:5	study botanical gardens from India their role and significance
CO:6	understand different salient features of angiosperms
CO:7	study types of classification viz. natural, artificial, phylogenetic
CO:8	study Bentham and Hookers's system of classification
CO:9	Study morphological and floral characteristics of angiospermic families like Caesalpiniaceae, Solanaceae, Nyctaginaceae and Liliaceae

S.Y B.Sc. Botany **DSC – C13 Embryology of Angiosperms (Semester-III; Paper –V)**	
The students who successfully complete this course will be able to…..	
CO :1	identify typical structure of flower , their parts including accessory and essential whorls
CO :2	study structure of anther and pollen grain
CO:3	study structure of typical gynoecium which is female reproductive part of

	flower
CO:4	study typical structure of ovule specifically their different parts and types of ovules
CO:5	study definition of pollination and fertilization
CO:6	study mechanism of pollination in Maize (Anemophily), *Vallisneria* (Hydrohily) and *Calotropis* (Entemophily)
CO:7	understand mechanism of pollen germination and development of male gametophyte
CO:8	study structure of embryosac and their types-Monosporic,Bisporic and development of female gametophyte
CO:9	understand mechanism of fertilization , double fertilization and triple fusion
CO:10	study structure and development of embryo with respect to monocot and dicot
CO:11	Study development of embryo and types of endosperms
CO:12	Study definition and concepts related to polyembryony and apomixis
CO:13	Study types of polyembryony –True and false
CO:14	Study introductory part about apomixes , causes and their types

S.Y B.Sc. Botany **DSC – C14 Plant Physiology (Semester-III; Paper –VI)**	
The students who successfully complete this course will be able to…..	
CO :1	Study plant water relation with respect to physiological importance of water
CO :2	Study and understand water transport processes in plants
CO:3	Study active and passive theories of absorption
CO:4	Study and understand definition of transpiration their types and mechanism of stomatal movement
CO:5	Study structure of stomata and starch-sugar hypothesis
CO:6	Know the factors affecting transpiration and significance
CO:7	Study mineral nutrition, macro and micro elements from plants

CO:8	Study mechanism of mineral uptake i.e active and passive
CO:9	Know and study role, deficiency disorders of Macronutrients and micronutrients , recovery in plants
CO:10	Understand concept of photosynthesis
CO:11	Study structure and types of photosynthetic pigments
CO:12	Understand the mechanism of photosynthesis- light and dark reaction
CO:13	know and realize the significance of photosynthesis
CO:14	Study definition of growth , region of growth, different phases of growth
CO:15	Study definition plant growth regulators their role
CO: 16	know the concept and definition of photoperiodism , vernalisation their significance

S.Y B.Sc. Botany **DSC – D13 Plant Anatomy (Semester-IV; Paper –VII)**	
The students who successfully complete this course will be able to…..	
CO :1	study organization of higher plant body , plant organs and their development
CO :2	Study meristematic, permanent tissue characteristics and classification meristemic position
CO:3	Study types of tissues- Permanent and complex
CO:4	Understand structure of types of vascular bundles
CO:5	Study primary and secondary structure of monocotyledons and dicotyledons
CO:6	Study anomalous and secondary growth in plants
CO:7	Study different tissue system in plants

S.Y B.Sc. Botany **DSC – D14 Plant Anatomy (Semester-IV; Paper –VIII)**
The students who successfully complete this course will be able to…..

CO :1	Study classification and nomenclature of enzymes
CO :2	Study structure and properties of enzymes their lock and key mechanisms
CO:3	Study factors affecting enzyme activity
CO:4	Know the mechanism of biological nitrogen fixation
CO:5	Understand the concept of nitrate reduction, ammonia assimilation and nif genes
CO:6	Study respiration mechanisms in plants
CO:7	Understand types of respiration
CO:8	Study mechanism of seed dormancy and germination
CO:9	Know the concept, causes dormancy , factors affecting seed dormancy and biochemical changes during seed germination

T.Y B.Sc. Botany **DSE – E25 Genetics and Plant Breeding (Semester-V; Paper –IX)** T.Y B.Sc. Botany	
The student who successfully complete this course will be able to…..	
CO 1:	concept of genetics and relation between evolution.
CO 2:	know the basic terminologies in genetics and various principles of genetics along with types of genetic interactions.
CO:3	study of linkage and recombination along with phases of linkage, mechanism of crossing over and its significance must be known to the students.
CO:4	identify the term Mutation, types of mutagens and study of physical and chemical mutagens along with its significance.
CO:5	study structures of chromosomes and sudden change in it causing various effects on next generation must be known by students in relation with human diseases.
CO:6	understand the concept of Multiple allelism and self incompatibility in plants along with Polygenic inheritance and population genetics as well as cytoplasmic inheritance.
CO:7	genetic make of plants should be studied by students under different structural

	and numerical aberrations along with its significance and uses.
CO:8	concept of plant breeding and various terms involved in it like aims, objectives, methods of plant breeding, various selection methods and hybridization techniques

T.Y B.Sc. Botany **DSE – E26 Microbiology, Plant Pathology and Mushroom Culture Technology (Semester-V; Paper –X)** T.Y B.Sc. Botany	
The student who successfully complete this course will be able to…..	
CO 1:	the world of Microbes along with their characteristic features and difference between Phytoplasmas and Actinomycetes.
CO 2:	know various techniques of Bacterial staining , Methods of sterilization, Culture Media Preparation and Methods of pure culture
CO:3	They should be well acquainted with the methods of sexual reproduction in Bacteria like Transformation and Transduction.
CO:4	know various methods of Industrial Microbiology which includes Application of microbes in synthesis of Antibiotics, Organic acids, Alcohol etc.
CO:5	the concept, Types and significance of Bio-pesticides.
CO:6	classify plant diseases on the basis of Pathogens and Symptoms.
CO:7	transmission of Plant pathogens through various agents like soil, seed and soil borne diseases
CO:8	study various plant diseases on the basis of Symptoms along with disease causing agents and its control measures.
CO:9	understand various rural technologies like Mushroom culture and its types, differentiation between Poisonous and Edible Mushrooms etc.
CO:10	know various techniques like Pure culture, Spawn preparation, Sterilization, Mushroom bed preparation and harvesting of mushrooms.
CO:11	various techniques of Mushroom storage like Refrigeration, Long term storage like canning, Pickles, papads and drying in salt solution.

T.Y B.Sc. Botany **DSE – E27 Cytology and Research Techniques in Biology (Semester-V; Paper –XI)** T.Y B.Sc. Botany	
The student who successfully complete this course will be able to…..	
CO 1:	understand knowledge of cell as a unit of life along with difference between Eukaryotic and Prokaryotic cells, cell cycle and theory of Apotosis.
CO 2:	understand Methods of Cell division and their significance.
CO:3	the structure, function, role, biogenesis of various cell organelles like Nucleus, DNA Packing, Mitochondria, ribosomes and their role in cell life cycle etc.
CO:4	study various cell organs like ER, Golgi complex,Lysosomes, Peroxisomes, Glyoxysomes, Cell membrane and their role.
CO:5	various techniques in study of Research techniques in biology like Microscopy and its types, Colorimetry, Spectrophotometry, Micrometry and Photomicrography.
CO:6	introduce terms and their significance of IPR and Patents

T.Y B.Sc. Botany; **DSE – E28 Horticulture and Gardening (Semester-V; Paper –XII)** T.Y B.Sc. Botany	
The student who successfully complete this course will be able to…..	
CO 1:	know importance of horticulture techniques
CO 2:	aware about different branches of horticulture viz. Pomology, Olericulture, Floriculture and landscape gardening
CO:3	understand cultivation of flowers and management of pest and diseases on Rose, Gerbera and Marigold
CO:4	arrangement of flowers, packing and marketing
CO:5	techniques in fruit preservation like drying, freezing and heat
CO:6	know the scope of Nursey- Propagation practices
CO:7	study vegetative propagation like cutting, grafting and budding
CO:8	know the concept landscape gardening scopes

CO:9	recognize indoor and outdoor gardening types
CO:10	know the importance aesthetic value of gardens located on Delhi and Mysore

T.Y B.Sc. Botany **DSE – F 25 Plant Biochemistry and Molecular Biology (Semester-VI; Paper –XIII)** T.Y B.Sc. Botany	
The student who successfully complete this course will be able to…..	
CO 1:	understand the classification of carbohydrates
CO 2:	understand different types, structure and properties of monosaccharide, diasaccharides and oligosachharides
CO:3	Recognize structure of isomers
CO:4	know the significance of carbohysrates
CO:5	study structure, classification and properties of lipids
CO:6	understand structure and properties of saturated and unsaturated fatty acid
CO:7	know the significance of lipids
CO:8	recognize structure, properties, characteristics and classification of different amino acids
CO:9	study protein biosynthesis in Eukaryotes i.e transcription and translation
CO:10	understand structure and composition of nucleic acids i.e DNA and RNA
CO:11	study replication in eukaryotic DNA
CO:12	understand concept of gene regulation and its expression
T.Y B.Sc. Botany **DSE – F 26 Bioinformatics, Biostatistics and Economic Botany (Semester-VI; Paper –XIV)** T.Y B.Sc. Botany	
The student who successfully complete this course will be able to…..	
CO 1:	understand introduction, aim and scope of different branches of bioinformatics
CO 2:	know concept of biological databases which includes NCBI and BLAST

CO:3	understand concept, resources, data bases and data retrieval
CO:4	know applications of bioinformatics
CO:5	understand introduction and terminology of biostatistics
CO:6	study different types of data collection their techniques and how to present data
CO:7	understand different methods of data analysis like mean, mode , median , standard deviation etc.
CO:8	understand different methods of statistical analysis like testing hypothesis, student t test and chi square test
CO:9	know different centers of origin like cereals, legumes and oils
CO:10	aware about botanical name, morphology , sources and economic importance of wheat, gram, soyabean etc.
CO:11	aware about botanical name, morphology , sources and economic importance of oil plant Ground nut
CO:12	know the different spices and condiments, their origin, botanical name, morphology, plants part used particularly clove and black pepper
CO:13	understand beverages and fibers yielding plant like origin, botanical name, morphology, plants part used of Tea and Cotton respectively

T.Y B.Sc. Botany **DSE – F 27 Plant Biotechnology and Paleobotany (Semester-VI; Paper –XV)** T.Y B.Sc. Botany	
The student who successfully complete this course will be able to…..	
CO 1:	know history, definition, scope and areas of applications in various relevant sectors in Biotechnology .
CO 2:	understand various methods involved in Recombinant DNA Technology. It requires Principles and various enzymes required DNA technology.
CO:3	understand various cloning vectors in Prokaryotes like Plasmid, Lambda Phase, cosmids and incase of Eukaryotes importance of Yeast Artificial Chromosomes (YAC) is very much essential.
CO:4	expected that various Blotting techniques and their application along with use

	of Molecular probes should be practically understood by the students
CO:5	study various techniques of DNA figure printing along with Molecular DNA markers should be known to the students.
CO:6	understand concept of Gene Bank and methods of DNA sequencing like PCR
CO:7	know the various Principles and terminologies along with laboratory requirements in this era of Modern biotechnology Plant Tissue Culture
CO:8	prepare the culture media, concept of Totipotency and Cellular differentiation etc.
CO:9	understand concept of Micropropagation along with stages of it, callus formation, Root and Shoot initiation, Hardening of plants and advantages and disadvantages of plants
CO:10	know Applications of Plant tissue culture along with protoplast culture, Cybrid formation and Somaclonal variation
CO:11	study role of palaeobotany in the oil and coal exploration should be taught to the students along with Geological Time Scale
CO:12	study types of fossils along with genera ,their systematic position, external morphology and its affinities with living fossils

T.Y B.Sc. Botany **DSE – F 28 Biofertilizers and Herbal Drug Technology (Semester-VI; Paper –XVI)** T.Y B.Sc. Botany	
The student who successfully complete this course will be able to…..	
CO 1:	understand introduction, Importance, Types and study of various biofertilizers,
CO 2:	Aware of different bacterial fertilizers like *Rhizobium, Azotobatcor, Azospirillum* and their doses and applications in various crops.
CO:3	aware about algal biofertilizer includes Blue Green Algae like *Nostoc* and *Anabaena* along with Vesicular Arbiscular Mycorrhiza and economical important fungus like *Trichoderma.*
CO:4	understand various organic manures which includes Farm yard manure, Green Manure and compost along with vermicompost and vermiwash
CO:5	understand importance of Herbal Drugs Industry gaining much more importance

	in curing various ailments.
CO:6	study types of classifications like Taxonomical, Morphological and Chemical of herbal drug technology
CO:7	get knowledge of identification, authentication, collection, processing and storage of medicinal plants
CO:8	understand various methods of extraction, isolation and purification of phytoconstituents.
CO:9	know the different use the herbs in preparation of various Shampoos, Hair Dyes, Face Masks, Bath oils and perfumes.
CO:10	understand importance and procedures of preparation of various cosmeceuticals and their positive effect on health of human beings
CO:11	get knowledge of Definition, Medicinal uses of herbal drugs, Adulteration of Natural herbal drugs and their types of evaluation
CO:12	get basic knowledge of Neutraceuticals, their sources, uses, importance of diet and role maintaining health with their practical applications

DEPARTMENT OF ZOOLOGY

COURSE OUTCOME

b) U.G. Course / Programme	
CBCS, B.Sc -I	
PO:1	Students of B.Sc. zoology can define animal kingdom in concern with the classification, animal's taxonomy, evolutionary theories of animals, they also retrieve information about nerve physiology, kidney physiology, digestive system physiology of vertebrates and invertebrates. animals they also define the cell structure cell organelle, Mendel's experiments, human reproductive physiology,
PO:2	They can discuss the epidemiology of the diseases like Typhoid Tuberculosis AIDS, they knew about insect bio-control of pests methods, general pests occurring in the surrounding fields.
PO:3	They knew about the lipid, protein and carbohydrate metabolism, enzymes and enzyme activities, students can report about the comparative study of animal anatomy and bio-statistics, cell culture technology, the student can differentiate the physiological disorders among animals,
PO:4	Students can demonstrate an aquatic, lake, grassland ecosystem, pollution and its effect on animals, they can also interpret endocrinology and its disorders and treatments, they can create model related to the human system, they can analyze the results obtained in an immunologically related disorders
PO:5	They can guide farmers and producers in concern with the agriculture, fish farming, animal husbandry, goat farming, they can design the standard models about the apiculture culture, prawn culture, Pearl culture. shreds of evidence of vertebrate Evolutions
PO:6	They can collect and preserve insect vectors related to human diseases and diseases related to animal husbandry, students can compile information regarding the embryological study and embryological
Title of course and Course Outcomes (Statement)	

CBSC B. Sc I Sem. I Paper No. I Animal diversity I DSC-15A **The student who successfully completed this course will be able to**	
CO1	To classify Phylum Porifera with taxonomic Keys
CO2	To describe the Phylum Coelenterata and its Polymorphism
CO:3	To identify the given Mollusca with respect to economic importance
CO:4	To describe general characters of Nemathelminthes and their parasitic Adaptation
CO:5	To explain the classification of protozoa and diseases caused by them

CBSC B. Sc I Sem. I Paper No. II Animal Physiology DSC-16B **The student who successfully completed this course will be able to**

CO1	Student will retrieve knowledge of Human body physiology they can able to define various terms in Physiology. They can identify minor disorders of human body physiology and their basic causes.
CO2	Students can understand and classify the problems related to human body physiology and animal physiology they also deserve the ability to discuss various issues related to body and animal physiology.
CO3	Students can use the acquired knowledge to apply and explain complicated body physiology and animal physiology; they are also able to interpret the physiological terms diagrams related to animal physiology. Students will develop to analyze the working of animal organs and organ systems.
CO4	They can differentiate the healthy and diseased organs and organ systems of animals. Students can be appraised a healthy diet and healthy environmental characters and standardize it.
CO5	Students can design standard dietary charts and norms for the healthy life of animals.
CBSC B. Sc I Sem. II Paper No. III Cell biology and evolutionary biology DSC-15BB The student who successfully completed this course will be able to	
CO: 1	Recall diagram of Cell structure and structure of the nucleus.
CO:2	Categories Structure of Chromosomes.
CO:3	Explain the Structure and functions of cell organelles.
CO:4	Justify History of life.
CO:5	Analyse Evolutionary Theories.
CO:6	Classify Evidences of Evolution.
CO:7	State the process of Extinction.
CBSC B. Sc I Sem. I Paper No. IV Genetics DSC-16B The student who successfully completed this course will be able to	
CO1	Students can define the Genetics they can genetically distinguish the variety of animals and plants, crop plants species.
CO2	They can interpret results obtained from the process of animals and plants crosses.
CO3	Students can manipulate the crop plant for desired characters they can relate the results obtained from the process of plant and animal crosses.
CO4	They can genetically evaluate the results obtained from the different crosses
CO5	They can create a new desired variety of animals and plants by manipulating plants and animals genetically.
CBSC B. Sc II Sem. III Paper No. V Animal diversity II biology DSC- The student who successfully completed this course will be able to	

CO1	General classification up to classes and its locomotion.
CO2	General classification up to classes in phylum Porifera canal system in sycon.
CO3	General classification up to classes in phylum cnidaria, polymorphism in hydrozoa.
CO4	General classification up to classes in phylum platyhelminths.
CBSC B. Sc II Sem. III Paper No. VI Biochemistry DSC- The student who successfully completed this course will be able to	
CO1	Students can define the desired and narrate biochemical reactions that occur in the living cells, they can abstract, categorize, classify the biochemical occurs in the living world.
CO2	Students can apply knowledge occurred about biochemistry in the understanding working of the cell.
CO3	They can implement knowledge in their daily life, they can demonstrate identify various biochemical disorders occurred in the human and animal body.
CO4	They explain the structure of complicated enzymes and bio-molecules working in the cells, they can collect and combine information about the biochemistry construct models to interpret biochemical reactions.
CBSC B. Sc II Sem. IV Paper No. VII Reproductive Biology DSC- The student who successfully completed this course will be able to	
CO1	Outline of the female reproductive system of rat and human.
CO2	Reproductive cycle and their regulation.
CO2	Hormonal control in pregnancy.
CO3	Mechanism of parturition and its control.
CO4	Functional anatomy of the male reproductive system.
CO5	Discuss modern contraceptives.
CBSC B. Sc II Sem. IV Paper No. VIII Applied Zoology I DSC- The student who successfully completed this course will be able to	
CO1	To study Apiculture.
CO2	Discuss animal husbandry.
CO3	Study pearl culture.
CO4	To study fish-farming technology.
CO5	To study freshwater prawn culture technology.
CBSC B. Sc III Sem. V Paper No. IX Comparative anatomy of vertebrates DSE-E2 The student who successfully completed this course will be able	
CO1	Students can recall knowledge learn about the comparative study of vertebrates organs and organ systems.
CO2	They can define diagrams related to a comparative study of vertebrates. They can compare the anatomical structure of vertebrates.
CO3	They can apply their knowledge to explain the evolutionary developmental sequence of vertebrates.
CO4	They can evaluate the way of Evolution and confirms connecting links among them; they can create models of the evolution of vertebrates.

CBSC B. Sc III Sem. V Paper No. X Molecular Cell Biology and Animal Biotechnology DSE-F29The student who successfully completed this course will be able	
CO: 1	Discuss Mechanism of DNA replication, Damage, Repair, regulation of gene and properties of the codon.
CO:2	Describe the mechanism of protein synthesis in living things.
CO:3	clarify molecular techniques.
CO:4	Diferenciateoll of enzymes in gene manipulations
CO:5	Explain gene editing, DNA libraries etc.
CBSC B. Sc III Sem. V Paper No. XI Bio-techniques and biotechnology DSE-F30 The student who successfully completed this course will be able	
CO: 1	Gain knowledge to prepare solutions of different concentrations.
CO:2	Learn the procedure of preparing permanent histological slides.
CO:3	Student is able to illustrate the working of microscopes.
CO:4	Student is able to analyse the dimensions of the biological samples.
CO:5	Explain the applications of the various biochemical techniques.
CO:6	Explain the importance of tools and techniques in biology.
CBSC B. Sc III Sem. V Paper No. XII Aquatic Biology DSE-F31 The student who successfully completed this course will be able	
CO1	Discuss freshwater ecosystem.
CO2	Describe study of estuaries.
CO3	Clarify lake as an ecosystem.
CO4	Differentiate stages of stream development.
CO5	Explain the study of endocrine glands.
CBSC B. Sc III Sem. VI Paper No. XIII Developmental biology of vertebrates DSE-F30 The student who successfully completed this course will be able	
CO: 1	State Embryonic development of some vertebrates.
CO:2	Determine the gametogenesis process of vertebrates.
CO:3	Cary out early embryonic development of frog.
CO:4	Judge early pre and post embryo development process of Chick.
CO:5	State process of human embryo implantation in uterus and placenta.
CBSC B. Sc III Sem. VI Paper No. XIV Immunology DSE-F32 The student who successfully completed this course will be able	
CO: 1	Students can successfully maintain cultures of animal cells and established cell lines with good viability, minimal Contamination and appropriate documentation.
CO:2	They can recognize and troubleshoot problems common to routine cell culture

CO:3	They can develop basic aseptic skills for mammalian cell culture and their applications.
CO:4	They can perform supportive or episodic tasks relevant to cell culture including preparation and evaluation of media, Cryopreservation and recovery, and assessment of cell growth.
CO:5	They can understand media constituents and media formulation Strategies for mammalian cell culture
CBSC B. Sc III Sem. VI Paper No. XIV Applied Zoology II DSE-F31 The student who successfully completed this course will be a	
CO: 1	Explain the basic biology and life cycle of parasites including epidemiology, diagnosis and treatment.
CO:2	Recognize morphological characteristics for identification of parasites and their developmental stages
CO:3	Explain animal associations and their types.
CO:4	Illustrate transmission routes of animal and zoonotic parasites Justify the control measures of arthropod vectors.
CO:5	Gain knowledge to define the concepts of the applied subjects like Poultry science
CBSC B. Sc III Sem. VI Paper No. XIV Insect Vectors and Histology DSE-F3 The student who successfully completed this course will be a	
CO: 1	Explain the basic biology and life cycle of parasites including epidemiology, diagnosis and treatment.
CO:2	Recognize morphological characteristics for identification of parasites and their developmental stages
CO:3	Explain animal associations and their types.
CO:4	Illustrate transmission routes of animal and zoonotic parasites
CO:5	Justify the control measures of arthropod vectors.
CO:6	Discuss the life cycle and importance of major parasites
CO:7	Define the basic terms in histology
CO:8	Identify the histological peculiarities in various organs

DEPARTMENT OF BIOCHEMISTRY
COURSE OUTCOMES

A) U.G. Course / Programme

B.Sc.I Biochemistry : Semester-I

Sem I : Paper I DSC 29 A, Basics of Cell Biology (CBCS)	
After studying this paper, Biochemistry students will be able to:	
CO:1	Understand cell biology with special reference to cell organization of prokaryotic and eukaryotic cells
CO:2	Structural and functional capitalization of various cell organelles
CO:3	Study the cell cycle indetails
CO:4	A detail description of composition, structure and function of other cellular components.
B.Sc.I Biochemistry : Semester I : Paper II DSC 30 A Introduction to Amino acids and carbohydrates	
After studying this paper, Biochemistry students will be able to:	
CO:1	Be able to define the structure and colligative properties of water, concept of pH, physiologically important buffer system and itsregulation.
CO:2	Draw or describe the structure of amino acids and carbohydrates.
CO:3	Understand in detail about amino acid structures, types of amino acids and carbohydrates
CO:4	A detail description of composition, structure and function of other cellular components.
B.Sc.I Biochemistry : Semester II : Paper III DSC 29 B Introduction to Lipids and Nucleic acids	
After studying this paper, Biochemistry students will be able to:	
CO:1	Understand biochemistry at the atomic level, draw molecules and reaction mechanisms perfectly.
CO:2	Describe/recognize lipid, waxes, phospholipids and cholesterol
CO:3	Understand the structure of DNA and RNA with its function.
CO:4	Understand the Watson- Crick model of double stranded DNA
B.Sc.I Biochemistry : Semester II : Paper IV DSC 30 B, Introduction to Proteins and Enzymes	
After studying this paper, Biochemistry students will be able to:	
CO:1	Understand biochemistry at the atomic level, draw molecules and reaction mechanisms perfectly.
CO:2	Recognize the structural levels of organization of proteins,3D structure of proteins, its functions, denaturation (hemoglobin, myoglobin etc.).
CO:3	Have a deeper insight in to the fundamentals of enzyme structure and function and kinetics
CO:4	To gain knowledge on enzyme catalysis and isoenzymes and on multienzyme

B.Sc.II Biochemistry : Semester III : Paper V, Metabolism of carbohydrates and Lipids

After studying this paper, Biochemistry students will be able to:	
CO:1	Demonstrate the metabolic processes through which the energy is produce,utilized.
CO:2	Describe what happens: - when lipids are metabolized
CO:3	Illustrate the metabolism of carbohydrates through various anabolic and catabolic pathways like glycolysis, Kreb's cycle, Glycogen metabolism, glucuronic acid cycle etc.
CO:4	Describe the physiology of Digestion in mammals.
B.Sc.II Biochemistry : Semester III : Paper VI, Metabolism of Amino acids and Nutrition	
After studying this paper, Biochemistry students will be able to:	
CO:1	Learn how amino acids and proteins are metabolized, emphasizing the role of few intermediates of their metabolism,
CO:2	monitoring the deficiency and abundance disorders of amino acid metabolisms and the role of enzymes
CO:3	To learn glycemic index, balanced diet and RDA.
CO:4	Understand the concept of BMR and its measurements and biological oxidation.
B.Sc.II Biochemistry : Semester IV : Paper VII. Gene organization ,Replication and Repair	
After studying this paper, Biochemistry students will be able to:	
CO:1	Understand the central dogma and process of gene expression and replication in prokaryotesand its regulation.
CO:2	To learn the genetic code.
CO:3	Understand the genome organization in chromosome and types of chromosomes
CO:4	To learn basic concepts of mutations, DNA damage and repair.
B.Sc.II Biochemistry : Semester IV : Paper VIII, Biochemical techniques	
After studying this paper, Biochemistry students will be able to:	
CO:1	Understanding the principles of Electrophoresis, Spectrophotometry and their applications in biological investigations/experiments.
CO:2	Understanding the applications of centrifugation and chromatography in biologicalinvestigations.
CO:3	The students will obtain hands-on training in basic separation techniques in biochemistry like chromatography.
CO:4	To learn basic concepts of enzyme immobilizations.

B.Sc.III Biochemistry : Semester V : Paper IX (DSE-E 57), Molecular Biology	
After studying this paper, Biochemistry students will be able to:	
CO:1	Explain the structure and organization of genome in thecell.
CO:2	Explain various types ofMutation.

CO:3	Compare and contrast the basic DNA replication/ DNA recombination/ DNA repairprocess
CO:4	Describe the process of Protein Synthesis
B.Sc.III Biochemistry : Semester V : Paper X (DSE-E 58), Genetic Engineering	
After studying this paper, Biochemistry students will be able to:	
CO:1	Acquire learning to isolate RNA, DNA, total nucleic acids and total RNA from bacteria, yeast and plant tissues and to characterize them.
CO:2	To produce insulin using recombinant DNA technology.
CO:3	Explain the function of various enzymes used in r-DNA technology
CO:4	Explain how to construct the DNA libraries and how to screen for clones that contain a desired genefragment.
B.Sc.III Biochemistry : Semester V : Paper XI (DSE-E 59) Biomembrane transport and cytoskeleton	
After studying this paper, Biochemistry students will be able to:	
CO:1	Classify the structure of biomembranes illustrate the significance of fluid mosaic model
CO:2	Relate to transport of various biomolecules across biomembrane, and concept of active passive, facilitated and receptor mediatedendocytosis.
CO:3	Classify cellular cytoskeleton
CO:4	Interplay of microtubule, micro filaments and intermediaryfilaments.
B.Sc.III Biochemistry : Semester V : Paper XII (DSE-E 60) Biochemical techniques and Bioinformatics	
After studying this paper, Biochemistry students will be able to:	
CO:1	Illustrate the general scheme for purification ofbio-components.
CO:2	Demonstrate various chromatography techniques: affinity, HPLC and reverse phase chromatography, gas chromatography
CO:3	Describe electrophoresis with respect to basic techniques, poly acrylamide/ starch/ agarose gel electrophoresis, use of SDS/urea, isoelectric focusing, capillary electrophoresis. Pulse field gel electrophoresis
CO:4	Understand various databases and tools of Bioinformatics
B.Sc.III Biochemistry : Semester VI : Paper XIII (DSE-F 57), Neurochemistry	
After studying this paper, Biochemistry students will be able to:	
CO:1	Demonstrate organization of human nervous system
CO:2	Be able to relate the process of Neurotransmission
CO:3	Describe the concept of neurotransmitters, cholinergic receptors, Agonists and Antagonists
CO:4	Be able to demonstrate molecular basis of Parkinson's disease, Alzheimer'sdisease
B.Sc.III Biochemistry : Semester VI : Paper XIV (DSE-F 58), Cancer Biology	

After studying this paper, Biochemistry students will be able to:	
CO:1	Be able to interpret the role of chemical carcinogens in mutagenesis
CO:2	Understand molecular mechanism involved in cancer development.
CO:3	To learn different classes and mechanisms of oncogenes and tumor markers
CO:4	Outline changes in cell behavior ontransformation
B.Sc.III Biochemistry : Semester VI : Paper XV (DSE-F 59) Clinical Biochemistry and Immunochemistry	
After studying this paper, Biochemistry students will be able to:	
CO:1	Understand laboratory setup.
CO:2	To learn enzymes used in diagnosis.
CO:3	Classify fundamentals and anatomy of immunesystem
B.Sc.III Biochemistry : Semester VI : Paper XVI (DSE-F 60), Fermentation Technology	
After studying this paper, Biochemistry students will be able to:	
CO:1	Be able to demonstrate microbial cell growth
CO:2	Utilize the process and instrumentation involved in fermentation operations
CO:3	Apply the process of batch, fed-batch and continuous fermentation, scale up and scale down of processes and types of fermenters.
CO:4	Understanddown-stream processing: isolation and purification of various metabolites from fermented media

INDUSTRIAL MICROBIOLOGY
Course Outcome (CO)

F.Y B.Sc. INDUSTRIAL MICROBIOLOGY **DSC – 27A INTRODUCTION TO INDUSTRIAL MICROBIOLOGY (Semester-I; Paper –I)**	
The students who successfully complete this course will be able to…..	
CO :1	study and understand definition and scope of Microbiology
CO :2	Understand the contribution of various scientist in industrial microbiology
CO:3	Study the Introduction to industrially important product
CO:4	Enhance the knowledge about Pharmaceutical products
CO:5	Understand different types of Agricultural products
CO:6	Study the different types of food products
CO:7	understand the other Industrial products
CO:8	Study the Concept of fermentation
CO:9	Understand the brief meaning of Fermentation
CO:10	Study the Primary and secondary Metabolites
CO:11	Study the Types of Fermentation
CO:12	Understand the Screening of Industrially important Microorganisms
Co :13	Study the Primary and Secondary Screening of microorganisms
Co : 14	Enhance the knowledge about Industrially Important Microorganisms
Co : 15	Study the Characteristics and aware about Industrial importance of microorganisms

F.Y B.Sc. INDUSTRIAL MICROBIOLOGY **DSC –28A BASICS OF FERMENTATIONS**	
The students who successfully complete this course will be able to…..	
CO :1	study the Components of fermentation media
CO :2	Understand the special ingredients
CO:3	study the types of media used
CO:4	Aware the use of wastes
CO:5	study the industrial waste

CO:6	study the Agricultural wastes
CO:7	Understand the Sterilization Technique
CO:8	study the principles of Sterilization
CO:9	Understand the Sterilization of Equipments
CO:10	study the Sterilization of Production Media
CO:11	Understand the sterilization of Air
CO:12	Study the Validation of Sterilization Processes

F.Y B.Sc. . INDUSTRIAL MICROBIOLOGY DSC – 27 B INTRODUCTION TO FERMENTATION TECHNOLOGY(Semester-II; Paper –III)	
The students who successfully complete this course will be able to…..	
CO :1	Understand the Basic Fermenter design
CO :2	Study the different parts and function of conventional stirred tank fermenter
CO:3	Understand the types of fermenters
CO:4	study the working of Airlift fermenter
CO:5	Understand the Fluidized bed fermenter
CO:6	study the Packed bed fermenter
CO:7	study the Bubble cap fermenter
CO:8	Understand the fermenter control system
CO:9	study the introduction and importance of control system
CO:10	Understand the Design ,Principles and Working of System
CO:11	Understand the control of Temperature
CO:11	Understand the control of Pressure
CO:12	Understand the control of Foam
CO :13	Understand the control of PH
CO :14	Aware about Factors affecting Fermentation processes
CO :15	Study the brief concept of Fermentation
CO :16	Understand the Preparation of Inoculum

CO :17	Aware about the stock culture maintenance
CO :18	Understand the Factors affecting fermentation process
CO :19	Study the control of Temperature, PH, Foam, Pressure, Aeration, Agitation

S.Y B.Sc. INDUSTRIAL MICROBIOLOGY **DSC – 27A. INDUSTRIAL PRODUCTION AND SPOILAGE OF FOOD PRODUCTS (Semester-III; Paper –V)**	
The students who successfully complete this course will be able to…..	
CO :1	Understand the process of industrial production of Dairy product
CO :2	Understand the process of industrial production of cheese, yogurt, curd and butter
CO:3	Study the process of industrial production of Alcoholic beverages
CO:4	Understand the process of industrial production of wine and beer
CO:5	Study the different types of Beer
CO:6	Understand the process of industrial production of Red table wine and sparkling wine
CO:7	Understand the process of industrial production of Ale and Lager
CO:8	Study the different types of Pickles
CO:9	Study the concept of Sauerkraut
CO:10	Understand the process of Industrial production of pickes like sauerkraut, Cucumber and olives
CO:11	Understand the concept of spoilage of fermented food and their types
CO:12	Study the spoilage of Dairy Product
Co :13	Study the spoilage of Alcoholic Beverages
Co : 14	Study the spoilage of Spoilage
Co : 15	Understand the different methods of preservation of fermented food product

S.Y B.Sc. INDUSTRIAL MICROBIOLOGY **DSC –28 QUALITY CONTROL OF FOOD PRODUCTS (Semester-III; Paper –VI)**	
The students who successfully complete this course will be able to…..	
CO :1	Understand need of microbiological quality control of food

CO :2	Understand different methods used for analysis of food product
CO:3	Study the concept of SPC
CO:4	Detect the pathogenic bacteria from food sample
CO:5	Understand various media and biochemical tests performed to check quality of food product
CO:6	Study detection of pathogen like E.coli, Staph. aureus, Pseudomonas, Salmonella etc.
CO:7	Study detection of Yeast and mold
CO:8	Study basic concept of Quality Assurance of food products
CO:9	Understand rules and regulations of PFA, FDA,FPO
CO:10	Understand standards and norms of ISO,BIS,AGMARK
CO:11	Study the concept of TQMS,HACCP, AND ICMSF
CO:12	Study steps of TQMS of milk product

S.Y B.Sc. INDUSTRIAL MICROBIOLOGY DSC – 27 FERMENTATION TECHNOLOGY(Semester-IV; Paper –VII)	
The students who successfully complete this course will be able to…..	
CO :1	Study industrial production of Antibiotic and Organic acid
CO :2	Study industrial production of Amino acids and Enzymes
CO:3	Understand detailed information of process of production
CO:4	Understand raw material requirement for production process
CO:5	Study recovery of product during fermentation
CO:6	Study production of Antibiotic like streptomycin , tetracycline and rifampicin
CO:7	Study production of Organic acid like Lactic acid and Citric acid
CO:8	Understand process of industrial production of Amino acids like Lysine and Glutamic acids
CO:9	Study Industrial production of Enzymes
CO:10	Understand process of industrial production of Amylase and Lipase
CO:11	Understand process of industrial production of enzyme Protease

S.Y B.Sc. INDUSTRIAL MICROBIOLOGY **DSC –28 MICROBIAL FERMENTATIONS AND ECONOMICS (Semester-IV; Paper –VIII)**	
The students who successfully complete this course will be able to…..	
CO :1	Study the concept of biofertilizers and its need in organic farming
CO :2	Study the nitrogen fixing biofertilizers
CO:3	Study the production of Rhizobium biofertilizer
CO:4	Understand the association between Host and bacteria.
CO:5	Study nitrogen fixation in root nodule
CO:6	Understand method of application of biofertilizer
CO:7	Study Azotobacter biofertilizer
CO:8	Study process of biofertilizer production
CO:9	Study Azospirillum biofertilizer
CO: 10	Understand the concept of Phosphate solubilizing bacteria
CO: 11	Understand the information of VAM
CO: 12	Study Quality control of bioferetilizer as per FCO
CO: 13	Study biostability of biofertilizer

P.G. COURSE /PROGRAMME

DEPARTMENT- MARATHI

M. A. I Marathi Sem-I (CBCS) Marathi Paper no. I भाषिक आविष्काराची रूपे **The Student who Successfully Completes this Course Will be able to….**	
CO-1	भाषिक आविष्काराचे स्वरूप समजण्यास मदत झाली.
CO-2	भाषेची सर्जनशील प्रक्रिया समजली.
CO-3	भाषा आणि साहित्य यांचा संबंध कळाला.
CO-4	भाषा आणि साहित्यप्रकार यातील अनुबंध लक्षात आला.
M. A. I Marathi Sem-I (CBCS) Marathi Paper no. 2.1 विशेष साहित्यकृतींचा अभ्यास **The Student who Successfully Completes this Course Will be able to….**	
CO-1	लेखकाचे वांग्मयीन व्यक्तिमत्व व लेखक यांचा समकाल समजून घेण्यास मदत झाली.
CO-2	लेखक अभ्यासपदधतीचा उपयोग कसा करावा हे समजले.
CO-3	साहियकृतीतून लेखकाच्या समकालाचे प्रतिबिंध कशाप्रकारे प्रकट होते ते समजले.
CO-4	साहित्यकृती व लेखकाच्या वाडमयीन जडणघडण लक्षात आली.
M. A. I Marathi Sem-I (CBCS) Marathi Paper no. 3 आधुनिक मराठी वाडमयाचा इतिहास (स्वातंत्र्यपूर्व काळ) **The Student who Successfully Completes this Course Will be able to….**	
CO-1	स्वातंत्र्यपूर्व काळातील सामाजिक, राजकीय, सांस्कृतिक जीवनाची पार्श्वभूमी समजण्यस मदत झाली.
CO-2	विविध वाडमयप्रवाहांचे वेगळेपण व वैशिष्ट्ये समजले.
CO-3	साहित्यप्रवाहांचा इतिहास लक्षात आला.
CO-4	स्वातंत्र्योत्तर काळातील साहित्यप्रवाह कळाले.
M. A. I Marathi Sem-I (CBCS) Marathi Paper no. 4.2 लोक्साहित्य व लोककला **The Student who Successfully Completes this Course Will be able to….**	
CO-1	लोकसाहित्याची संकल्पना, स्वरूप समजण्यास मदत झाली.
CO-2	लोकसाहित्याच्या परंपरेची ओळख झाली.
CO-3	लोकसाहित्य व लोककला यातील परस्पर संबंध कळाला.
CO-4	लोकसाहित्याचा उगम व व्याप्ती यासंबंधी माहिती झाली.
M. A. I Marathi Sem-II (CBCS) Marathi Paper no. 5 **साहित्यप्रकारांचा सूक्ष्म विचार**	

The Student who Successfully Completes this Course Will be able to….	
CO-1	विद्यार्थ्यांना भाषिक आविष्काराचे रूप समजण्यास मदत झाली.
CO-2	भाषेचे विविध सूक्ष्म रूपे लक्षात येण्यास मदत झाली.
CO-3	भाषा आणि साहित्यप्रकार यातील अनुबंध लक्षात आला.
CO-4	साहित्यातील भाषिक चमत्कृती समजण्यास मदत झाली.
M. A. I Marathi Sem-II (CBCS) Marathi Paper no. 6.1 विशेष साहित्यकृतींचा अभ्यास **The Student who Successfully Completes this Course Will be able to….**	
CO-1	लेखकाचे वांग्मयीन व्यक्तिमत्व व लेखक यांचा समकाल समजून घेण्यास मदत झाली.
CO-2	लेखक अभ्यासपदधतीचा उपयोग कसा करावा हे समजले.
CO-3	साहियकृतीतून लेखकाच्या समकालाचे प्रतिबिंध कशाप्रकारे प्रकट होते ते समजले.
CO-4	साहित्यकृती व लेखकाच्या वाडमयीन जडणघडण लक्षात आली.
M. A. I Marathi Sem-II (CBCS) Marathi Paper no. 7 आधुनिक मराठी वाडमयाचा इतिहास (स्वातंत्र्योत्तर काळ ते २००७ पर्यंत) **The Student who Successfully Completes this Course Will be able to….**	
CO-1	स्वातंत्रोत्तर काळातील सामाजिक, राजकीय, सांस्कृतिक जीवनाची पार्श्वभूमी समजेल
CO-2	साहित्यप्रवाहाचा इतिहास अभ्यासणास मदत झाली..
CO-3	विविध साहित्यप्रवाहाचे असलेले वेगळेपण समजले.
CO-4	विविध साहित्यप्रवाह व समकाल यांचा सहसंबध समाजाला.
M. A. I Marathi Sem-II (CBCS) Marathi Paper no. 8.2 लोक्साहित्य व लोककला **The Student who Successfully Completes this Course Will be able to**	
CO-1	लोकसाहित्य व लोककला परंपरा व संकल्पना यांची ओळख झाली.
CO-2	लोकसाहित्य व लोकसंस्कृती यातील परस्पर संबंध लक्षात आला.
CO-3	लोककला व त्यातून झालेली सास्कृतिक जडणघडण कळली.
CO-4	मराठी लोककला, लोकनाट्य, लोककथा यांचा परिचय झाला.
M. A. II Marathi Sem-III (CBCS) Marathi Paper no. 9 समाजभाषाविज्ञान **The Student who Successfully Completes this Course Will be able to….**	
CO-1	समाजभाषाविज्ञानाचे स्वरूपाचा परिचय झाला.
CO-2	समाजभाषाविज्ञानातील विविध सिध्दात संकल्पना समजल्या.
CO-3	समाज, संस्कृती आणि भाषा यामधील परस्पर संबंध समजण्यास मदत झाली.

CO-4	समाजभाषाविज्ञानाची व्याप्ती लक्षात आली.
M. A. II Marathi Sem-III (CBCS) Marathi Paper no. 10.1 वाडमयीन संस्कृती **The Student who Successfully Completes this Course Will be able to….**	
CO-1	वाडमय संस्कृती ही संकल्पना समजून घेण्यास मदत झाली.
CO-2	समाज आणि संस्कृती यातील अनुबंध लक्षात आला.
CO-3	मौखिक आणि लिखित परंपरेत वाडमयीन परंपरेला संघटित करणाऱ्या घटकांचे महत्त्व लक्षात आले.
CO-4	वाडमयीन संस्कृतीचे स्वरूप समजण्यास मदत झाली.
M. A. II Marathi Sem-III (CBCS) Marathi Paper no. 11 समीक्षा सिद्धांत आणि उपयोजन **The Student who Successfully Completes this Course Will be able to….**	
CO-1	समीक्षा तंत्राचा परिचय करून घेण्यास मदत झाली.
CO-2	समीक्षा पद्धतींचा परिचय झाला.
CO-3	साहित्य आणि समीक्षा यांचा अनुबंध लक्षात आला.
CO-4	प्राचीन ते आधुनिक समीक्षा ग्रंथातून सामिक्षविषयक विचारांचा आढावा घेता आला.
M. A. II Marathi Sem-III(CBCS) Marathi Paper no. 12.1 संस्कृती अभ्यास **The Student who Successfully Completes this Course Will be able to….**	
CO-1	संस्कृती या ज्ञानशाखेचा परिचय झाला.
CO-2	बदलत्या सामाजिक आणि राजकीय संदर्भात साहित्य संस्कृती यांच्या संबंध तपासता आला.
CO-3	आंतरविद्याशाखीय अभ्यास पध्दतीची ओळख झाली.
CO-4	साहित्य आणि इतर अभिव्यकोरूपाच्यापरस्परसंबंधाचा संस्कृती अभ्यासावरील प्रभाव समजला.
M. A. II Marathi Sem-IV (CBCS) Marathi Paper no. 13 समाजभाषाविज्ञान **The Student who Successfully Completes this Course Will be able to….**	
CO-1	समाजभाषाविज्ञानाची व्याप्ती समजण्यास मदत झाली.
CO-2	समाजभाषाविज्ञानातील विविध सिध्दांत, संकल्पनांचा परिचय झाला.
CO-3	मराठी भाषेतील, वाक्यविचार व प्रयोग समजण्यास मदत झाली.
CO-4	भाषा व्यवहाराची विविधता लक्षात येण्यास मदत झाली.

M. A. II Marathi Sem-IV (CBCS) Marathi Paper no. 14.1 वाडमयीन संस्कृती **The Student who Successfully Completes this Course Will be able to….**	
CO-1	विद्यार्थ्यांना वाडमय संस्कृती ही संकल्पना समजली.
CO-2	समाज आणि संस्कृती यातील अनुबंध लक्षात आले.
CO-3	मौखिक आणि लिखित परंपरेत वाडमयीन परंपरा कळण्यास मदत झाली.
CO-4	वाडमयीन संस्कृतीचे स्वरूप कळाले.
M. A. II Marathi Sem-IV (CBCS) Marathi Paper no. 15 मराठी समीक्षेची वाटचाल **The Student who Successfully Completes this Course Will be able to….**	
CO-1	विद्यार्थ्यांना पाश्चात्य आणि पौर्वात्य समीक्षापद्धतींची ओळख झाली.
CO-2	तत्वज्ञान आणि चळवळी विचारांचा साहित्यकृतीवरील प्रभाव लक्षात आला.
CO-3	विविध समीक्षा पद्धतीनुसार साहित्यकृतीची मीमांसा करता आली.
CO-4	पाश्चात्य आणि पौर्वात्य सामोक्षांच्या वाटचालीचा आणि दृष्टीकोनाचा परिचय झाला.
M. A. II Marathi Sem-IV (CBCS) Marathi Paper no. 16.1 संस्कृती अभ्यास **The Student who Successfully Completes this Course Will be able to….**	
CO-1	संस्कृती या ज्ञानशाखेचा परिचय झाला.
CO-2	बदलत्या सामाजिक आणि राजकीय संदर्भात साहित्य संस्कृती यांच्या संबंध तपासता आला.
CO-3	आंतरविद्याशाखीय अभ्यास पध्दतीची ओळख झाली.
CO-4	साहित्य आणि इतर अभिव्यकोरूपाच्यापरस्परसंबंधाचा संस्कृती अभ्यासावरील प्रभाव समजला.

P.G. COURSE /PROGRAMME

DEPARTMENT- HISTORY

SEMESTER I (Core Courses)/ (Compulsory Papers) HIST-101 Early India (from the beginning to 3rd Century B.C)

The students who successfully complete this course will be able to……	
CO: 1	Understand the transition from hunting to civilization
CO: 2	Clarify the causes for the first and second urbanizations
CO: 3	Account for the rise of heterodox religions
CO: 4	Describe the rise and growth of the Mauryan Empire

HIST- 102 Aspects of Medieval Indian History (1206-1750)

The students who successfully complete this course will be able to……	
CO: 1	Identify foreign and indigenous sources of history
CO: 2	account for the major developments in the polity, economy, and society of India under the Delhi sultans
CO: 3	Explain the contribution of the Mughals towards making of composite culture
CO: 4	Elucidate the rise and growth of Vijaynagar state

HIST - 108
Rise of Nationalism in India (1858-1905)

The students who successfully complete this course will be abal to……	
CO: 1	Understand the concept of nationalism and the historiography of Indian nationalism
CO: 2	Elucidate the causes and events which led to the formation of Indian National Congress
CO: 3	Know the contribution of the Moderates and Extremists
CO: 4	Evaluate the work of the Moderates and the Extremists

HIST - 110 Making of 19th Century Maharashtra

The students who successfully complete this course will be able to……	
CO: 1	Understand the social and economic condition in the early 19th century
CO: 2	Explain the causes and objectives of administrative changes done by the British
CO: 3	: Critically analyze the nature of social reforms
CO: 4	Explain important changes taking place in the economy of Maharashtra

M.A. Part I : SEMESTER II Core Courses/ Compulsory papers
HIST- 201 Institutions under the Marathas

The students who successfully complete this course will be able to……	
CO: 1	Understand the nature of kingship in the Maratha polity
CO: 2	Explain the salient features of Central, Provincial and Village administration
CO: 3	Understand the complexity of caste system
CO: 4	Explain the influence of Bhakti movement and Maharashtra Dharma

HIST - 202 National Movement in India (1905- 1947)

The students who successfully complete this course will be able to……	
CO: 1	Understand the concept of Nationalism and various approaches adopted by historians to study Indian nationalism
CO: 2	Explain the contributions of the Extremists
CO: 3	Understand the vision of Mahatma Gandhi and the importance of Gandhian movements
CO: 4	Know the contributions of other strands of National movement

Elective Courses/ Optional papers HIST- 203 Art and Architecture of Ancient India

The students who successfully complete this course will be able to……	
CO: 1	Know about the origins of art and architecture of India
CO: 2	Study the contribution of the Mauryas, Satvahanas- Sungas, and Kushanas
CO: 3	Explain the salient features of the art of the Gupta – Vakataka period
CO: 4	Explain the developments in art and architecture during the Early ChalukyaRashtrakuta period.

HIST-209 Social Reform Movements in 19th Century India

The students who successfully complete this course will be able to……	
CO: 1	Understand the nature and methods of the social reform movements
CO: 2	Explain the causes and impact of prominent social reform movements in Bengal
CO: 3	Explain the salient features of social reform movements in Western India
CO: 4	Critically evaluate the contribution of reform movements in North and South India.

M.A. Part II (History) SEMESTER III 301 Traditions of History Writing

The students who successfully complete this course will be able to……	
CO: 1	Describe salient features of the tradition of history writing during the ancient, medieval and modern periods
CO: 2	Explain the Modern European Traditions of History Writing like Positivist, Marxist and Annals traditions
CO: 3	Critically examine Modern Indian Traditions of History Writing
CO: 4	Understand the tradition of writing 'History from Below' in India

302 Twentieth-Century World (1900 to 1950)

The students who successfully complete this course will be able to……	
CO: 1	Critically explain the legacy of 19th Century
CO: 2	Analyse the emergence of the World Order up to 1919
CO: 3	Understand the nature and effects of World War I
CO: 4	Explain the developments in World History during the period between the two World War

SEMESTER III ELECTIVE GROUP E 320 Economic History of 19th Century India

The students who successfully complete this course will be able to……	
CO: 1	Understand the nature of Indian Economic history
CO: 2	: Understand the impact of Agrarian settlements of British on the peasants
CO: 3	Examine the changing nature of Indian trade
CO: 4	Understand the role of Colonial state

Fort of Maharashtra

The students who successfully complete this course will be able to……	
CO: 1	To introduce Plenitude of Forts' is a characteristic feature of the landscape of Maharashtra.
CO: 2	The forts have a special place in the minds and hearts of the people because they are connected in one way or other with the history of Chhatrapati Shivaji Maharaj and his successors
CO: 3	.. The Marathi people have a historical and emotional attachment with the forts because they are the cultural and monumental heritage of the Marathas.
CO: 4	This course is designed to teach students to look at the forts from multiple viewpoints- as sources of history, as centres of control, as sites of historical events, and as heritage sites

M.A. Part II (History) SEMESTER IV 401 Recent Trends in History Writing

The students who successfully complete this course will be able to……	
CO: 1	Understand the recent developments in the conception of history
CO: 2	Know the relationship of history with its allied disciplines
CO: 3	Critically comprehend new approaches adopted by historians
CO: 4	Know the new tools used by historians to write history

402 Twentieth-Century World (1950 to 2000)

The students who successfully complete this course will be able to……	
CO: 1	Explain the concept of Cold war and its impact on the history of the world
CO: 2	Critically analyze and compare the movements for social justice in USA and Africa
CO: 3	Have informed opinion about the 20th century as an age of progress
CO: 4	Knowledge of major developments after the end of the Cold War

412 Dalit Movements in Colonial India

The students who successfully complete this course will be able to……	
CO: 1	Understand how historians of the nationalist and subaltern schools write the history of Dalit movements CO3: course of peasant revolts in 19th century CO4: Understand the complex role played Critically analyze the causes and by peasants in India's freedom struggle
CO: 2	Clarify the impact of colonial rule on the peasants
CO: 3	course of Dalit movement in 19th century
CO: 4	Understand the complex role played Critically analyze the causes and by dalit in India's freedom struggle

Princely state of Kolhapur: Glimpses of cultural history

The students who successfully complete this course will be able to……	
CO: 1	To introduce The princely state of Kolhapur emerged as cultural centre during the reign of Chhatrapati Shahu (1894 -1922). region..
CO: 2	The patronage of Chhatrapati Shahu, Chhatrapati Rajaram and Shri. NarayanraoGhorpade, the jagirdar of Ichalkaranji, to activities of culture and art gave a distinct "Kolhapuri" cultural identity to the region
CO: 3	The growth of Marathi Cinema, Marathi literature, Fine arts and indigenous Sports transformed the cultural landscape of the princely state
CO: 4	This course is introduced to acquaint the students with the broad developments in the cultural history of the princely state of Kolhapur

P.G. COURSE /PROGRAMME

DEPARTMENT- ECONOMICS

c) P. G. Course / Programme Title of course and Course Outcomes (Statement)	
M.A.-I, Sem.- I, Micro Economic Analysis EC- 1, (Core/Compulsory Paper)	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Define the theory of consumer behavior, theory of production and theory of cost.
CO.3	Describe the theory of consumer behavior.
CO.4	Students understand the price and output determination under the various type of markets.
M.A.-I, Sem.- I, Monetary Economics EC- 2, (Core/Compulsory Paper)	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Classify various aspect of money supply.
CO.3	Defend various approaches to demand of money.
CO.4	Importance of money multiplier in banking sector.
CO.5	Distinguish between monetary and fiscal policy.
M.A.-I, Sem.- I, Agricultural Economics EO- 2 (Elective / Optional Paper-)	
CO.1	The student who successfully complete this course, students will be able to-
CO.2	Analyse the issue related with agriculture and economic development.
CO.3	Importance of agriculture sector in Indian economy development.
CO.4	Define agricultural problems according to Indian farmers.
M.A.-I, Sem.- I Agricultural Economics EO- 2 (Elective / Optional Paper-)	
CO.1 CO.2 CO.3 CO.4	The objective of this course is to provide a detailed treatment of issues in agricultural economics to those intending to specialize in this area. The trade and business practices through international trade and other relevant concepts. It intends to familiarize students to analyze the issues related with agricultural and economic development. It intends to familiarize students to analyze the issues related with agricultural production function, agricultural demand and supply, farm management and agricultural risk management.
M.A.-I, Sem.- I, Principles and Practices of Cooperation EO- 4 (Elective / Optional Paper-)	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Importance of cooperation in modern era.
CO.3	Classify different types of credit and non credit cooperatives.
CO.4	Examine progress and problem of sugar and dairy cooperative in India.
CO.5	Define principle of cooperation according to Indian society.

M.A.-I, Sem. II, Public Economics EC-3, (Core/Compulsory Paper)	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Students will understand role of government in economic.
CO.3	Differentiate between public goods, private goods and merit goods.
CO.4	Importance of public finance in modern era.
CO.5	Describe the theory of public choice and public expenditure in his/her own words.
M.A.-I, Sem.- II, Ecological and Resources Economics EC-4, (Core/ Compulsory Paper)	
CO.1	Students will understand Ecological and Resources Economics.
CO.2	Define the resources, rational use of resources, various theoretical approaches
CO.3	Students understand Natural resources and their various measures to control quality and quantity of Natural resources
M.A.-I, Sem.- II, Agricultural Development in India EO-11 (Elective / Optional Paper-)	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Examine the development of agriculture after the independence.
CO.3	Define the role of technology biotechnology trade agricultural marketing and price policy has studied with reference to Indian economy.
M.A.-I, Sem.- II, Agricultural Development in India EO-11(Elective / Optional Paper-)	
CO.1 CO.2 CO.3 CO.4	The paper analyses the development of Indian agriculture after the independence. The efforts made by the Government in the five year plans are included in this course. The role of technology, bio-technology, trade, agricultural marketing and price policy has to be studied with reference to Indian economy. The input services such as agricultural credit, irrigation, and changing crop pattern like organic and contract farming are included in the present syllabus
M.A.-I, Sem.- II, Financial Markets and Institutions EO-15 (Elective / Optional Paper-)	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Importance of Financial institutions in growth and development of economy.
CO.3	Importance of NBFIs in economic development.
CO.4	Discuss various types of financial leakages and its solutions.
M.A.-II, Sem.- III, Statistics In Economic Analysis EC- 5 Core/Compulsory Paper	
O.1	The student who successfully complete this course, students will able to-
CO.2	Demonstrate to use of the technique of statistical analysis.
CO.3	Students will understand economic with help of quantitative techniques.
M.A.-II, Sem.- III, Macro Economic Analysis EC-6, (Core/Compulsory Paper)	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Describe conception theory in his /her own words.
CO.3	Discuss various types of interest rate theories in his/her own words.
CO.4	Explain various types of trade cycles theory in his/ her own words.
M.A.-II, Sem.- III, Economics of Labour	

EO- 21 (Elective / Optional Paper-)	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Students will understand the role of labour market in modern era.
CO.3	Examine various reason of labour migration in India.
CO.4	Describe various labour reforms law in India and its impact on social life of labour in his/ her own words.
M.A.-II, Sem.- III, Demography EO- 25 (Elective / Optional Paper-)	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Students will understand importance of population in economic development.
CO.3	Explain various theory of population in his/ her onwards.
CO.4	Define changing characteristics of the population in modern Indian era.
M.A.-II, Sem.- IV, International Economics EC- 7 (Core/Compulsory Paper)	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Students will understand broad principle and theories related to goods services and capital in international trade.
CO.3	Examine the impact of trade policy after since 1991 according to import and export.
CO.4	Interpret various issues of trade and consequences on income employment and social standards in in 21st century.
M.A.-II, Sem.- IV, Economics of Growth and Development EC- 8 (Core/Compulsory Paper)	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Students will understand theories of growth and development and interpret social and sect oral aspects of development.
CO.3	Importance of agriculture sector in various kind industrialization in India.
CO.4	Examine important issues related to development surcharge policy environment, infrastructure, infrastructure linkages, international trade, monetary and fiscal policies, investment criteria etc.
M.A.-II, Sem.- IV, Cooperative Thoughts and Administration EO- 32 (Elective / Optional Paper-)	
CO.1	Importance of cooperative movement, now a day has become a part of total economic activities.
CO.2	Assemble cooperative movement with social, political and ethical movement enriching total human life.
CO.3	Status understand Administrative pattern in co-operation.
M.A.-II, Sem.- IV, Advanced Banking EO- 36 (Elective / Optional Paper-)	
CO.1	The student who successfully complete this course, students will able to-
CO.2	Define information about the advancement in Indian banking system.
CO.3	Students will understand new banking technology ,recent trends in banking sector.
CO.4	Achieve a specific skill which are required for daily working banking sector.

P.G. COURSE /PROGRAMME

DEPARTMENT- CHEMISTRY

MSc.I Semester- I	
CC 101; CH1.1	**Inorganic Chemistry-I (Paper I)**
The student who successfully completes this course students will be able to	
CO1	Acquire the knowledge of basic of chemistry of transition elements
CO2	Acquire the knowledge of basic of metal carbonyls and related compounds
CO3	Understand concept of organometallic chemistry
CO4	Understand the concept of metal-ligand equilibrium in solution & the knowledge of nuclear and radio-chemistry
CC102; CH 1.2	**Organic Chemistry-I (Paper II)**
The student who successfully completes this course students will be able to	
CO1	Classify the various type of aliphatic and nucleophilic substitution reaction
CO2	Understand the concept of aromaticity in benzoate and non-benzoate compound
CO3	Understand the mechanism of various name reaction
CO4	Acquire knowledge of stereochemistry optical activity and racemic modification
CC103; CH 1.3	**Physical Chemistry-I (Paper III)**
The student who successfully completes this course students will be able to	
CO1	Acquire the knowledge of various concept in thermodynamics.
CO2	Understand the concept of statistical thermodynamics.
CO3	Acquire the knowledge of colloids and surface phenomena.
CO4	Acquire detail knowledge of macromolecules.
CC104; CH 1.4	**Analytical Chemistry-I (Paper IV)**
The student who successfully completes this course students will be able to	
CO1	Acquire the knowledge errors and sampling
CO2	Acquire the knowledge of fundamental of quantitative analysis
CO3	Acquire the knowledge of various chromatographic methods
CO4	Understand the concept of different electro analytical technique

MSc I, Semester II	
CC201; CH 2.1	**Inorganic Chemistry-II (Paper V)**
The student who successfully completes this course students will be able to	
CO1	Acquire the knowledge non transition element and their compound.
CO2	Acquire the knowledge of geometry shape and structure of coordination compound.
CO3	Understand the concept of F-block element
CO4	Acquire the knowledge of solid state and bioinorganic chemistry.
CC202; CH 2.2	**Organic Chemistry-II (Paper VI)**
The student who successfully completes this course students will be able to	
CO1	Understand the mechanism of various arrangement and application.
CO2	Acquire the knowledge of photochemical reaction
CO3	Acquire the knowledge of reduction and protection of functional group.
CO4	Understand the concept of organometallic compound.

P.G. COURSE /PROGRAMME

DEPARTMENT- MATHEMATICS

M.Sc.Part-I Mathematics:Semester-I Paper-CC-101 Advanced Calculus	
1.	acquire the knowledge of convergence of sequences and series of functions
2.	acquire the knowledge of differentiability of functions of several variables
3.	acquire the knowledge of inverse and implicit function theorems for functions of several variables
4.	acquire the knowledge of Green's theorem, Stoke's Theorem, Gauss divergence Theorem.
M.Sc.Part-I Mathematics: Semester-I Paper-CC-102Algebra - I	
1.	acquire the knowledge of the group theory
2.	acquire the knowledge of the ring theory
3.	understand the concept of modules over a ring
M.Sc.Part-I Mathematics: Semester-I Paper-CC-103 Complex Analysis	
1.	understand fundamental concepts of complex analysis.
2.	identify analytic functions, Conformal maps.
3.	construct Taylor and Laurent series.
4.	classify singularity and apply Residue Theorem to evaluate real integrals.
5.	enjoy the beauty of analytic functions and related concepts.
M.Sc.Part-I Mathematics: Semester-I Paper-CC-104 Classical Mechanics	
1.	discuss the motion of system of particles using Lagrangian and Hamiltonian approach.
2.	solve extremization problems using variational calculus.
3.	discuss the motion of rigid body.
4.	construct Hamiltonian using Routh process.
5.	use infinitesimal and finite rotations to analyze motion of rigid body.
M.Sc.Part-I Mathematics: Semester-I Paper-CC-105 ODE	
1.	study basic notions in Differential Equations and use the results in developing advanced mathematics.
2.	solve problems modeled by linear differential equations
3.	use power series methods to solve differential equations about ordinary points and regular singular points.
4.	construct approximate solutions using method of successive approximation.
5.	establish uniqueness of solutions.
M.Sc.Part-I Mathematics: Semester-II Paper-CC-201Functional Analysis	
1.	understand the fundamental topics, principles and methods of functional analysis. demonstrate the knowledge of normed spaces, Banach spaces, Hilbert space.
2.	define continuous linear transformations between linear spaces, bounded linear
3.	functionals.
4.	apply finite dimensional spectral theorem.
5.	identify normal, self adjoint, unitary, Hermit ion operators.
M.Sc.Part-I Mathematics: Semester-II Paper-CC-202 Algebra	

1.	study group theory and ring theory in some details.
2.	introduce and discuss module structure over a ring.
3.	apply Sylow theorems.
4.	use homomorphism and isomorphism theorems.
5.	check irreducibility of polynomials over Q using Eisenstein criteria.
M.Sc.Part-I Mathematics: Semester-II Paper-CC-203 General Topology	
1.	built foundations for future study in analysis, in geometry, and in algebraic topology.
2.	introduce the fundamental concepts in topological spaces.
3.	acquire demonstrable knowledge of topological spaces, product spaces, and continuousfunctions on topological spaces.
4.	identify compact and connected sets in topological spaces.
5.	use Separation and countability axioms, Urysohn lemma, Urysohnmetrization theorem andthe Tychonoff theorem.
M.Sc.Part-I Mathematics: Semester-II Paper-CC-204 Numerical Analysis	
1.	apply the methods to solve linear and nonlinear equations.
2.	find numerical integration and analyze error in computation.
3.	solve differential equations using various numerical methods.
4.	determine eigen values and eigen vectors of a square matrix.
5.	construct LU decomposition of a square matrix
M.Sc.Part-I Mathematics: Semester-II Paper-CC-205 Partial Differential Equations	
1.	classify partial differential equations and transform into canonical form
2.	solve linear partial differential equations of both first and second order.
3.	solve boundary value problems for Laplace's equation, the heat equation, the wave equation byseparation of variables, in Cartesian, polar, spherical and cylindrical coordinates.
4.	apply method of characteristics to find the integral surface of a quasi linear partial differentialequations.
5.	establish uniqueness of solutions of partial differential equations.
M.Sc.Part-II Mathematics: Semester-III Paper-CC-301Real Analysis	
1.	generalise the concept of length of interval.
2.	analyse the properties of Lebesgue measurable sets.
3.	demonstrate the measurable functions and their properties.
4.	understand the concept of Lebesgue integration of measurable functions.
5.	characterize Riemann and Lebesgue integrability.
M.Sc.Part-II Mathematics: Semester-III Paper-DSE-302 Advanced Discrete Mathematics	
1.	classify the graphs and apply to real world problems.
2.	simplify the graphs using matrix.
3.	study Binomial theorem and use to solve various combinatorial problems.
4.	simplify the Boolean identities and apply to switching circuits.
5.	locate and use information on discrete mathematics and its applications.
M.Sc.Part-II Mathematics: Semester-III Paper-CCS-303 Number Theory	

1.	learn more advanced properties of primes and pseudo primes.
2.	apply Mobius Inversion formula to number theoretic functions.
3.	explore basic idea of cryptography.
4.	understand concept of primitive roots and index of an integer relative to a given primitive root.
5.	derive Quadratic reciprocity law and its apply to solve quadratic congruences.
M.Sc.Part-II Mathematics: Semester-III Paper-CCS-304 Fuzzy Mathematics-I	
1.	acquire the knowledge of notion of crisp sets and fuzzy sets,
2.	understand the basic concepts of crisp set and fuzzy set,
3.	develop the skill of operation on fuzzy sets and fuzzy arithmetic,
4.	demonstrate the techniques of fuzzy sets and fuzzy numbers.
5.	apply the notion of fuzzy set, fuzzy number in various problems.
M.Sc.Part-II Mathematics: Semester-III Paper-CCS-305 Combinatorics	
1.	describe Pigeonhole principle and use it to solve problems.
2.	use definitions and theorems from memory to construct solutions to problems
3.	use Burnside Frobenius Theorem in counting's.
4.	use various counting techniques to solve various problems.
5.	apply combinatorial ideas to practical problems.
M.Sc.Part-II Mathematics: Semester-IV Paper-CC-401 Field Theory	
1.	determine the basis and degree of a field over its subfield.
2.	construct splitting field for the given polynomial over the given field.
3.	find primitive nth roots of unity and nth cyclotomic polynomial.
4.	make use of Fundamental Theorem of Galois Theory and Fundamental Theorem
5.	of Algebra tosolve problems in Algebra.
M.Sc.Part-II Mathematics: Semester-IV Paper-DSE- 402Integral Equations	
1.	classify the linear integral equations and demonstrate the techniques of converting the initial andboundary value problem to integral equations and vice versa.
2.	develop the technique to solve the Fredholm integral equations with separable kernel.
3.	develop and demonstrate the technique of solving integral equations by successive approximations,using Laplace and Fourier transforms
4.	to analyze the properties of symmetric kernel.
5.	toprove Hilbert Schmidt Theorem and solve the integral equation by applying it.
M.Sc.Part-II Mathematics: Semester-IV Paper-CCS- 403 Algebraic Number Theory	
1.	deal with algebraic numbers , algebraic integers and its applications,
2.	concept of lattices and geometric representation of algebraic numbers.
3.	Understand the concept of fractional ideals.
4.	relate Finitely generated abelian groups and modules
5.	derive Minkowski's theorem.
M.Sc.Part-II Mathematics: Semester-IV Paper-CCS- 404 Fuzzy Mathematics-II	
1.	acquire the concept of fuzzy relations.
2.	understand the basic concepts of fuzzy logic and fuzzy algebra.
3.	develop the skills of solving fuzzy relation equations.
4.	construct approximate solutions of fuzzy relation equations.
5.	solve problems in Engineering and medicine.
M.Sc.Part-II Mathematics: Semester-IV Paper-CCS- 405 Operations Research – II	

1.	decide policy for replacement.
2.	calculate economic lot size.
3.	derivePoission distribution theorem and compute attributes of distribution model.
4.	construct Shannon Fano codes.
5.	identify optimal path by using CPM and PERT.

P.G. COURSE /PROGRAMME

DEPARTMENT- ZOOLOGY

CBSC M.Sc.I Sc Sem. I Paper No. I Biosystematics & Biodiversity **The student who successfully completed this course will be a**	
CO: 1	Students after completion of the course understand the concept of Biodiversity & Systematic.
CO: 2	Students will be able to demonstrate critically & systematically the perspectives of a particular landscape in concern with biodiversity.
CO: 3	They can analyze, assess & deal with complex biological problems in concern with biosystematics and biodiversity of a particular area.
CO: 4	Students can demonstrate the Biological, social & ethical consequences of biodiversity.
CBSC M.Sc. I Sem. I Paper No. I Paper-II Ecology & Environmental Pollution **The student who successfully completed this course will be a**	
CO:2	Students can understand complex environmental issues concerned with ecology and environmental pollution.
CO:2	Students can understand master core concepts & methods of ecological & environmental sciences & their application.
CO:3	Students can able to define pollution & pollutants, causes & their relationship to the ecosystem. Students will understand the complex interactions of human health & the environment

CBSC M.Sc.I Sc Sem. I Paper No. III Molecular Cell Biology **The student who successfully completed this course will be a complete**	
CO:1	Students will understand the structures & purposes of basic components of prokaryotic & eukaryotic cells, especially macromolecules, membranes & organelles.
CO:2	Students will understand how these cellular components are used to generate & utilize energy in cells. Students will apply their knowledge of cell biology to selected examples of changes in cell function
CO:3	These can include responses to environmental or physiological change on alterations of cell function brought about by mutation.
CBSC M.Sc. I Sem. I Paper No. IV Applied Entomology **The student who successfully completed this course will be a**	
CO:1	Students can recall of knowledge & control of insect pests in nearby fields, they can understand the effect of insect pests on crops & effect of different pesticides,
CO:2	They can interpret problems related to insect pests, they can manipulate pesticides to use in the field, they can differentiate damage caused by insect's pest & other pests infield & in go-down & silos.

CO:3	They can consider, convince & evaluate the damage caused by insect pests, they can build a standard model of IPM which will be useful in infields for better results.

CBSC M.Sc. I Sem. II Paper V Physiological Chemistry **The student who successfully completed this course will be a**	
CO:1	Students will have a firm foundation in the fundamentals & application of current chemical & scientific theories including those in Analytical, about animal physiology.
CO:2	Students can define the desired & narrate biochemical reactions that occur in the living cells, they can abstract, categorized, classify the biochemical occurs in the living world.
CO:3	Students can apply knowledge occurred about physiological chemistry in understanding the working of the cell.
CO:4	They implement knowledge in their daily life, they can demonstrate identify various biochemical disorders that occurred in human & animal bodies.
CO:5	They explain the structure of complicated enzymes &bio-molecules working in the cells, they can collect & combine information about the physiochemical construct models to interpret physiochemical reactions.
M.Sc. I Sem. II Paper VI. Anatomy and physiology **The student who successfully completed this course will be a**	
CO:1	At the end of the course, a student will be able to explain the anatomy, physiology and function of various tissue and cell organizations of the cellular system.
CO:2	They can Classify the different types of tissues and explain the anatomy &physiology of the skeleton system and joints.
CO:3	They explain the anatomy & physiology of cardiovascular & respiratory system disorders.
M.Sc. I Sem. II Paper VII. Anatomy and physiology **The student who successfully completed this course will be a**	
CO:1	At the end of the course, a student will be able to explain the anatomy, physiology and function of various tissue and cell organizations of the cellular system.
CO:2	They can Classify the different types of tissues and explain the anatomy & physiology of the skeleton system and joints.
CO:3	They explain the anatomy & physiology of cardiovascular & respiratory system disorders
M.Sc.I Sem. II Paper VIII Bioinstrumentation and Biostatistics **The student who successfully completed this course will be a**	
CO:1	The course is designed to make the student capable of testing, calibration of various medical electronic equipments.

CO:2	After completing the course the student knowledge about working of different Biomedical instruments, and Biostatistics provide direction for the future, if we examine certain diseases, biostatistics should be guiding students on the right path. Biostatistics uses the application of statistical methods to conduct research in the areas of biology, public health, & medicine
M.Sc. II Sem. III Paper IX Biology of parasite **The student who successfully completed this course will be a**	
CO:1	At the end of the course, student will get knowledge about some parasitic diseases that could be transmitted between animals & human,
CO:2	They will be able to know that to protect man & domestic animals from parasites they also knew t treatment in case of infection.
CO:3	Student will knew basic knowledge of parasitism and the different biological inter-relationships and the host parasite relationship.
M.Sc. Sem. III Paper IX Genetics **The student who successfully completed this course will be**	
CO: 1	Student can define the Genetics they can genetically distinguish the variety of animals and plants, crops plants species.
CO:2	They can interpret results obtained from the process of animal's crosses.
CO:3	They can understand of the inheritance and expression of human blood groups
CO:4	They can understand the genetic terminology required for laboratory work.
CO:5	They can understand of the Clinical relevance of genetic concepts
CO: 6	Student can understand principal genetics and genetic disorders in animal and plant species
M.Sc.II Sem. III Paper X Enzymology **The student who successfully completed this course will be**	
CO: 1	At the end of the course, student can able to explain theories of enzyme kinetics, the mechanism of enzyme catalysis, & the mechanism of enzyme regulation in the cell.
CO:2	They recognize the biologic coenzyme center, recognize catalytic center, and define factors that affect enzyme activity.
CO:3	They able to explain relationship between the structure & function of enzymes, and also explain how enzymes are able to increase speed of on biochemical recall reactions in sense of thermodynamics, kinetics & molecular interaction
M.Sc.II Sem. III Paper XI Enzymology **The student who successfully completed this course will be**	
CO: 1	At the end of the course, student can able to explain theories of enzyme kinetics, the mechanism of enzyme catalysis, & the mechanism of enzyme regulation in the cell.
CO:2	They recognize the biologic coenzyme center, recognize catalytic center, and define factors that affect enzyme activity.
CO:3	They able to explain relationship bet^{n} the structure & function of enzymes, and also explain how enzymes are able to increase speed of on biochemical recall reactions in sense of thermodynamics, kinetics & molecular interaction.

M.Sc.II Sem. III Paper XII Basic Entomology **The student who successfully completed this course will be**	
CO: 1	After completion of the course student will understand insect biology, basic systematic, morphology, physiology and biodiversity of insects.
CO:2	The student will be able to read and interpret scientific papers of entomology, and they can critically assess content.
CO:3	They will develop skills in writing scientific communication. Develop the ability to design and perform scientific models to study insects
M.Sc.II Sem. IV Paper XIII Basic Entomology **The student who successfully completed this course will be able**	
CO: 1	After completion of the course student will understand insect biology, basic systematics, morphology, physiology and biodiversity of insects.
CO:2	The student will be able to read and interpret scientific papers of entomology, and they can critically assess content.
CO:3	They will develop skills in writing scientific communication. Develop the ability to design and perform scientific models to study insects,
M.Sc.II Sem. IV Paper XIV Agricultural Entomology **The student who successfully completed this course will be able**	
CO: 1	The student will understand the ecological and physiological aspects that pertain to the field of agricultural entomology and pest management
CO:2	Students can develop an awareness of the impacts of insects on agriculture usefulness of pest management.
CO:3	They can able to collect information which will useful for agricultural practices
M.Sc.II Sem. IV Paper XV Animal cell culture. **The student who successfully completed this course will be**	
CO: 1	Students can successfully maintain cultures of animal cells and established cell lines with good viability, minimal Contamination and appropriate documentation.
CO:2	They can perform supportive or episodic tasks relevant to cell culture including preparation and evaluation of media, Cryopreservation and recovery, and assessment of cell growth.
CO:3	They can understand media constituents and media formulation Strategies for mammalian cell culture.
CO: 4	They can develop basic aseptic skills for mammalian cell culture and their applications
CO:5	They can recognize and troubleshoot problems common to routine cell culture

Career Oriented Courses (COC)

Sr. No	Title of the course	Course Outcomes
1.	**Art Of Translation**	**Knowledge Domain:** 1) To prepare the students to be proficient in their spoken and written communication skills in English. 2) To help the students to learn and practice both language and soft skill. 3) To develop the students employability skills. **Skill Domain:** 1) To enable the students to develop communication skill. 2) To make the students active in spoken and written English
2.	**Certificate Course in Tourism**	**Knowledge Domain** 1. To create awareness among the students about this growing industry of World. 2. To generate opportunities of self employment 3. To make an assessment of few destinations to obtain practical experiences **Skill Domain** 1. Students can organize tours. Students can consult about different destinations of Tourism Interest
3.	**Certificate Course in Banking**	**Knowledge Domain** 1. Student will be able to use of e-banking service. 2. Learners will understand the nature of banking business. 3. To make an assessment of few destinations to obtain practical experiences **Skill Domain** 1. Use of e-banking Service. 2. Able to provide financial consultancy. 3. Ability to explain monetary system in India.
4.	**Retailing**	1) To create awareness among the students regarding the concept of retail, retailing, retailer and salesmanship. 2) To create awareness among the students regarding the self – employment. 3) To Study the consumption habits of the customers.
5.	**Insurance**	1) This course familiarizes the learners with the fundamentals of insurance. 2) The course enables the learns to know the procedural and documentation part of insurance.
6.	**Information and Communication Technology.**	1) Awareness of basic knowledge of Computer concept. 2) To develop idea for creation of Website. 3) To develop Programming skill.

7.	**Biotechnology**	1. To develop skill, 2. Improving self awareness 3. Developing strength 4. Building up self confidence **5.** Different techniques used in biotechnology
8.	**Certificate Course in Sericulture**	**Knowledge Domain** 1. To increase employability of Student. 2. To train the student from to poor economic backgrounds so as to take Sericulture as aself employment. 3. To develop an expert manpower to handle the Sericulture units. **Skill Domain** 2. Students can organize tours. 3. To train the student in silk production technique.

PROGRAM OUTCOMES (POs)

UNDER-GRADUATE PROGRAM

1.	**Bachelor of Arts**
The students who successfully complete this course will be …….	
PO: 1	Able to communicate in Mother tongue Marathi, National Language Hindi and English, in oral and written modes, in their day-to-day lives as well as at workplaces.
PO:2	Able to acquire soft skills required at workplaces and in real life.
PO: 3	Able to face competitive examinations confidently and efficiently with adequate Confidence.
PO: 4	Able to trace the development of the poetry in Regional language Marathi National Language Hindi and English from the days of Shakespeare to the contemporary India
PO: 5	Able to have a fairly comprehensive view of the Western and Eastern tradition and they will be able to relate it to various literary movements.
PO: 6	Able to engage as curious readers of literature and subjects introduced in Humanities.
PO: 7	Able to understand that poetry to derive intellectual, moral and linguistic pleasures
PO: 8	Able to understand different Major and Minor forms of literature.
PO: 9	Able to improve their creative and imaginative faculties through the reading of Literature and the prescribed courses in Humanities.
PO: 10	Able to understand the major trends in criticism.
PO: 11	Able to familiarize students with the major critical concepts.
PO: 12	Able to understand the meaning and appreciate the literary forms critically.
PO: 13	Able to understand different forms of poetry, drama and novel in prescribed literatures in Marathi, Hindi and English.
PO: 14	Able to relate literature and subjects in humanities ideological or socio-political contexts.
PO: 15	Able to improve their creative and imaginative faculties through the reading of literatures, and prescribed subjects in Humanities.

2.	**Bachelor of Commerce**
The students who successfully complete this course will be …….	
PO: 1	Able to understand and application of basics of commerce, accounting and economics
PO:2	Able to understand Effective business communicators
PO: 3	Able to understand the preparation of financial statements of banks
PO: 4	Able to study Demonstrate accounting for farms and hire purchase system
PO: 5	Able to know basic legal knowledge about Business Laws
PO: 6	Able to explain the accounting process on Tally with GST
PO: 7	Able to understand the concept and types of audits
PO: 8	Able to identify the residential status and its implication on tax liability
PO: 9	Able to understand the concept of exemption from income
PO: 10	Able to know the computation of income from various sources as well as total income
PO: 11	Able to impart knowledge of modern management
PO: 12	Able to understand concepts of CRM
PO: 13	Able to impart knowledge of total quality management
PO: 14	Able to understand the Japanese and Chinese Management Practices
PO: 15	Able to understand the Business Regulatory framework of India

3.	**Bachelor of Science**
The students who successfully complete this course will be …….	
PO: 1	Able to understand, read, write, and communicate in English.
PO:2	Aware regarding moral values, ethics and social responsibilities.
PO: 3	Aware about social, educational, and political issues.
PO: 4	Able to think rationally on various issues and will develop their own opinion about it.
PO: 5	Able to understand the basic concepts regarding the subjects of study.
PO: 6	Able to understand and represent the concepts, hypothesis, and principles of science.
PO: 7	Able to develop scientific temper by keen observations, critical thinking, and interpretation of natural phenomenon
PO: 8	Able to apply the basic knowledge of the subjects as and when required
PO: 9	Able to create ideas based on scientific principles and setup the experiments to test it.
PO: 10	Able to interpret the situation and will be able to find out solutions on it.
PO: 11	Able to apply practical skills to create job opportunities, and entrepreneurial opportunities
PO: 12	Competent to opt for higher education and carry out research work in the field of their specialization.

POs: POST-GRADUATE PROGRAM

1.	**Master of Arts (M.A.) - Marathi**
The students who successfully complete this course will be …….	
PO: 1	मराठीभाषा, साहित्याभ्यासवसंशोधनासप्रोत्साहनदेणे.
PO:2	विद्यार्थ्यांनासाहित्यिककौशल्यांनाचालनादेणे.
PO: 3	राष्ट्रासाठीसंवेदनशील. विद्वान, सुसंस्कृतआणिआदर्शनागरिकबनविणे.
PO: 4	सेट/नेटपरीक्षांच्यातयारीसाठीमार्गदर्शनकरणे.
PO: 5	मराठीच्याविविधबोलीभाषेतीलसंशोधनासप्रोत्साहनदेणे.
PO: 6	सर्जनशीललेखनआणिभाषिककौशल्यांच्याउपयोजनासाठीप्रोत्साहनदेणे.

2.	**Master of Arts (M.A.) - Economics**
The students who successfully complete this course will be …….	
PO: 1	An ability to understand economic theories and functioning of basic microeconomic and macroeconomic systems.
PO:2	Statistical and Mathematical Skills: Acquaint with collection, organization, tabulation and analysis of empirical data.
PO: 3	The role of government in economy.
PO: 4	Define the resources, rational views of resources and theoretical background of various approaches.
PO: 5	How to play vital role Agree industry in economic development.

3.	**Master of Arts (M.A.) - History**
The students who successfully complete this course will be …….	
PO: 1	Able to learn basic narrative of historical events, chronology, personalities and turning points of the history of the India & World.
PO:2	Able to distinguish primary and secondary sources of History.
PO: 3	Able to understand and evaluate historical concept, Ideas & arguments.
PO: 4	Aware about social, economical, political and cultural issues in history
PO: 5	Able to familiar with the Traditional as well as the Recent trends in history writing.
PO: 6	Able to apply practical skill to create a job opportunities in Museum, Archives, Tourism industries.
PO: 7	Able to Build critical ability through competing interpretations and multiple narratives of the past.
PO: 8	Able to understand and evaluate of historical concept, Ideas & arguments.
PO: 9	Able to acquire basic historical research skills, including, effective use of libraries, archives, and databases

4.	**Master of Science (M.Sc.) - Chemistry**
The students who successfully complete this course will be …….	
PO: 1	Able to understand, read, write, and communicate in English.
PO:2	Aware regarding moral values, ethics and social responsibilities.
PO: 3	Aware about social, educational and political issues.
PO: 4	Able to think rationally on various issues and will develop their own opinion about it.
PO: 5	Able to understand the basic concepts regarding the subjects of study.
PO: 6	Able to understand and represent the concepts, hypothesis, and principles of science.
PO: 7	Able to develop scientific temper by keen observations, critical thinking, and interpretation of natural phenomenon
PO: 8	Able to apply the basic knowledge of the subjects as and when required
PO: 9	Able to create ideas based on scientific principles and setup the experiments to test it.
PO: 10	Able to interpret the situation and will be able to find out solutions on it.
PO: 11	Able to apply practical skills to create job opportunities, and entrepreneurial opportunities
PO: 12	Competent to opt for higher education and carry out research work in the field of their specialization.

5.	**Master of Science (M.Sc.) - Mathematics**
The students who successfully complete this course will be …….	
PO: 1	able to understand the concepts of different branches of Mathematics.
PO:2	able to enhance the level of reasoning, logics, skills and shall be able to understand the needs of the society
PO: 3	able to develop the ability to think critically, logically and analytically and hence use mathematical reasoning in everyday life.
PO: 4	able to student with the skills and knowledge leading to enhanced career opportunities in industry, commerce, education, finance and research.
PO: 5	develop the ability to think critically, logically and analytically and hence use mathematical reasoning in everyday life.
PO: 6	able to gauge the hypothesis, theories, techniques and proofs provisionally
PO: 7	able to create mathematical ideas from basic axioms.
PO: 8	Able to utilize mathematics to solve theoretical and applied problems by critical understanding, analysis and synthesis.
PO: 9	able to engage in lifelong learning and adapt to changing professional and social needs.
PO: 10	able to develop human resource with knowledge, abilities and insight in Mathematics and related fields required for career in academia and industry.

6.	**Master of Science (M.Sc.) - Zoology**
The students who successfully complete this course will be …….	
PO: 1	The study of Zoology gives the students an understanding of the entomology and their study and how the knowledge of this subject is useful for enriching life.
PO:2	The study ofEntomology(Zoology) helps in gaining knowledge and develop technology in various agro-based professions and helps in enriching life through business growth.
PO: 3	Exhibit Skills in areas related to their individual specialization like insect taxonomy, insect anatomy morphology, genetics in relation to current developments and related fields in the domain; helps to apply the knowledge of internal structure of cell, its functions in control of various metabolic functions of organisms.
PO: 4	A study of entomology and developments in related disciplines can lead to expertise in, for example, biological control of insect pest , IPM, Entomophagy , and control over various metabolic functions.
PO: 5	Student of M. Sc Entomology able to communicate the perceptions constructs and techniques involved in with simplicity and in a clear manner based on the pest control , bio-pesticides , insect development and insect ecology topics.
PO: 6	Techniques and Methodologies studied in the very important topics like Cell Biology, Genetics, and Molecular Biology, Entomology. Students of entomology can clear the knowledge in research-specific areas and studies
PO: 7	Understand the environmental conservation processes and its importance, pollution control, protection of endangered species, Wildlife Management, Climatic changes and Global Management are discussed as a paper to manage the subject knowledge for identifying any problems related and in helping the impacted environment and biodiversity.
PO: 8	AppliedEntomology discipline helps in adding Benefits by providing in-depth information regarding the socio-economic, bio-economic, and economical branches to use the fundamental concepts and core knowledge in enabling the industrial, social, and environmental benefits;
PO: 9	Subject M. Sc . Zoology can help advancement in the job, trades, and employment with the help of knowledge about Agro-based Small Scale industries like sericulture, apiculture, butterfly farming, and IPM. It also helps to create various opportunities in the educational, research, and developmental, social entrepreneurial sectors.
PO: 10	Improve the observational, computational, and analytical ethical skills required for the research and development fields discussed for evolving trends in insect Genetics, insect molecular biology, insects embryology , cell biology, etc

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSOs for B.A. - Marathi	
The students who successfully complete this course will be ….	
PSO: 1	विद्यार्थ्यांची भाषिक संरचना आणि साहित्याभिरूची विकसित होईल.
PSO: 2	विद्यार्थ्यांना मराठी भाषेतील वाड.मयीन परंपरा तसेच विविध साहित्य प्रवाहाचे सखोल ज्ञान होईल.
PSO: 3	विद्यार्थ्यांच्या भाषिक आणि सर्वांगीण विकासाला चालना मिळेल.
PSO: 4	विद्यार्थ्यांमध्ये अंतर्गत मूल्यमापन, विद्यापीठीय आणि स्पर्धा परीक्षेसाठी आवश्यक असलेल्या कौशल्यांचा विकास होईल.
PSO: 5	विद्यार्थ्यांमध्ये विविध साहित्य प्रकारात लेखन करण्याचे कौशल्ये व समाजात, व्यवहारात संवाद कौशल्ये यांचे सुयोग्य उपयोजन करता येईल.
PSO: 6	विद्यार्थी प्रसार माध्यमांमध्ये उपलब्ध असलेल्या संधी आत्मसात करण्यासाठी प्रोत्साहित होतील.
PSO: 7	कार्यक्रम संयोजनातील सूत्रसंचालन, मनोगत, आभार प्रदर्शन इ. भाषिक कौशल्ये विकसीत होतील.

PSOs for B.A. - Hindi	
The students who successfully complete this course will be ….	
PSO: 1	हिंदीमें जानकारी को समझने, पढ़ने, लिखने और संप्रेषित करने में सक्षम
PSO: 2	छात्र रोजगार उन्मुख शिक्षा एवं कौशल से परिचित होता है।
PSO: 3	हिंदीमें जानकारी को समझने, पढ़ने, लिखने और संप्रेषित करनेमें सक्षम
PSO: 4	नैतिकमूल्यों, नैतिकताऔरसामाजिकजिम्मेदारियोंकेबारेमेंजागरूक।
PSO: 5	छात्रसाहित्यनिर्मितीकीप्रक्रियाकाबोधकरताहै।
PSO: 6	छात्रआदिकालसेलेकरआधुनिककालकेकवियोंकीविचारधाराकोजीवनमेंइस्तेमालकरताहै।
PSO: 7	छात्रकारचनाविशेषकामहत्वसमझनेएवंमूल्यांकनकरनेकीक्षमतारखताहै।
PSO: 8	छात्रपाठ्यक्रममेंनिर्धारितउपन्यासकीप्रासंगिकताकोस्पष्टकरताहै।
PSO: 9	छात्रसमीक्षासिद्धांतकासाहित्यमेंप्रयोगकरताहै।

PSO: 10	छात्ररोजगारउन्मुखशिक्षाएवंकौशल्यप्राप्तकरताहै।
PSO: 11	छात्रविचारविनिमयकेलिएभाषा-व्याकरणकामहत्वस्पष्टकरताहै।
PSO: 12	छात्रमेंनैतिकमूल्यऔरराष्ट्रीयमूल्यएवंउत्तरदायित्वकेप्रतिआस्थानिर्माणहोतीहै।

PSOs for B.A. - English	
The students who successfully complete this course will be ….	
PSO: 1	Able to orient students to the concept of communication
PSO: 2	Able to make the students familiar with varieties of the English language
PSO: 3	Able to know different levels of study of the English language
PSO: 4	Able to know basic units of grammar.
PSO: 5	Able to familiar with varieties of the English language
PSO: 6	Able to acquire essential communication skills in English
PSO: 7	Able to study the original contributions made in the field of literary criticism.
PSO: 8	Able to know about various aspects of the drama
PSO: 9	Able to have an insight into poetry and they will be able to make a lively and interesting reading.
PSO: 10	Able to have a fairly comprehensive view of the Western and Eastern poetic tradition and they will be able to relate it to various literary movements
PSO: 11	Able to face competitive examinations confidently and efficiently with adequate linguistic confidence
PSO: 12	Able to enjoy reading poetry and prose passages
PSO: 13	Able to hear and read poems aloud and to memorize lines
PSO: 14	Able to relate drama to their ideological or socio-political contexts
PSO: 15	Able to understand different technique of novel.

PSOs for B.A. - Economics	
The students who successfully complete this course will be ….	
PSO: 1	Able to read, understand and write various information on economics subject in Marathi.
PSO: 2	Understanding of green development sustainable development international trade subject issues.
PSO: 3	To understand the basic concept related to Macro Economics.
PSO: 4	Micro Economics Research Methods Science Development Economics.
PSO: 5	Able to understand economic problems selection hypotheses and research objectives and study accordingly.
PSO: 6	To provide various kinds of financial services.

PSOs for B.A. - Sociology	
The students who successfully complete this course will be ….	
PSO: 1	Students can evaluate development of sociology as social science.
PSO: 2	Students are able to work as good researcher in any project related to social issues.
PSO: 3	Students can relate political theories with development in societies. Students can evaluate difference between state and civil society.
PSO: 4	Students will be able to analyze interrelation of Indian Constitution and human rights.

PSOs for B.A. - History	
The students who successfully complete this course will be ….	
PSO: 1	Able to write the historical events in a scientific and secular temper and objectively.
PSO: 2	Able to distinguish primary and secondary sources of History.
PSO: 3	Able to understand and evaluate historical concept, Ideas & arguments.
PSO: 4	Able to evaluate competing interpretations and multiple narratives of the past.
PSO: 5	Able to analyze and evaluate events of situations from an interdisciplinary approach.
PSO: 6	Students will have the ability to apply historical methods to evaluate critically the past and how historians and other have interpreted it.
PSO: 7	Able to acquire basic historical research skills, including the effective use of libraries.
PSO: 8	Able to organise and express their thoughts clearly and coherently both in writing and orally.
PSO: 9	Able to demonstrate broad knowledge of historical events and periods and their significance.

PSOs for B.A. - Geography	
The students who successfully complete this course will be ….	
PSO: 1	Able to realize importance of land, water, climate in the development of human life
PSO: 2	Able to understand the available natural resources and its application.
PSO: 3	Able to find out the correlation and interactions between man and nature.
PSO: 4	Aware about the regional variations according to geographical features.
PSO: 5	Able to realize the environmental problems such as pollution, global warming, Ozone depletion etc.
PSO: 6	Able to invent the remedies about social, economic, environmental problems through critical thinking.
PSO: 7	Aware about the geographical locations and its role in strategic planning.

PSO: 8	Able to handle the new tools and techniques about the map making, area measuring, identification of objects etc.
PSO: 9	Aware about the development of civilization according to developmental stages of human being.

PSOs for B.Com.	
The students who successfully complete this course will be ….	
PSO: 1	Able to provide Conceptual knowledge about Goods & Services Act - 2017
PSO: 2	Able to understand the conceptual knowledge about Company Act- 2013
PSO: 3	Able to understand the Various Business Transactions & Cyber Laws
PSO: 4	Able to know the Negotiable Instrument (Amendment) Act - 2015
PSO: 5	Able to understand the Labour Laws & Employees Provident Fund Act – 1952
PSO: 6	Able to understand the concept of time and stress management
PSO: 7	Able to know the concept of Event and Performance Management
PSO: 8	Able to understand the Japanese and Chinese Management Practices
PSO: 9	Able to understand the concept of lean and talent management
PSO: 10	Able to know the concepts of emotional and social intelligence
PSO: 11	Able to know the basic concepts about GST
PSO: 12	Able to understand the manner of computation of total income
PSO: 13	Able to understand the concept of exemption from income
PSO: 14	Able to Instil abilities and skills related to business ideas
PSO: 15	Able to functioning of various components of business environment

PSOs for B.Sc. - Physics	
The students who successfully complete this course will be ….	
PSO: 1	Identifying and describing physical systems with their professional knowledge.
PSO: 2	Developing their scientific intuition, ability and techniques to tackle problems either theoretical or experimental in nature.
PSO: 3	Knowledge of general physics like sound, wave, friction, forces and laws of motion and use of mathematics.
PSO: 4	Information of electrical current, circuits, construction and their use.
PSO: 5	Learning about concepts of nuclear physics and nuclear energies and importance of their use for mankind.
PSO: 6	Knowing about the light and its importance in life, its characteristics, properties and use in various instruments
PSO: 7	Understand the core concept of Physics subjects
PSO: 8	Acquire analytical and logical skill for higher Education.
PSO: 9	Excel in Experimental and Theoretical Physics.
PSO: 10	Trained to take up jobs in allied fields.

PSOs for B.Sc. - Chemistry	
The students who successfully complete this course will be ….	
PSO: 1	Able to understand, read, write, and communicate chemical information.
PSO: 2	Aware regarding moral values, ethics, and social responsibilities.
PSO: 3	Aware about sustainable development. Environmental, social, educational and political issues.
PSO: 4	Able to think rationally on various issues related to environment, society and agriculture, and will develop their own opinion about it.
PSO: 5	Able to understand the basic concepts regarding the Chemistry
PSO: 6	Able to understand and represent the concepts, hypothesis and principles of chemical science.
PSO: 7	Able to develop scientific temper by keen observations, critical thinking and

	interpretation of natural phenomenon.
PSO: 8	Able to apply the basic knowledge of the chemistry as and when required on field.
PSO: 9	Able to create ideas based on scientific principles and setup the experiments to test it.
PSO: 10	Able to interpret the issues related to environment, agriculture, and will be able to find out solutions on it by applying knowledge gained from chemistry.
PSO: 11	Able to apply practical skills like qualitative and quantitative analysis techniques to create job opportunities, and entrepreneurial opportunities.
PSO: 12	Competent to opt for higher education and carry out research work in the field of chemical sciences.

PSOs for B.Sc. - Mathematics	
The students who successfully complete this course will be ….	
PSO: 1	able to know the geometrical meaning of functions, limits, continuity, derivatives, mean value theorems.
PSO: 2	able to gauge the hypothesis, theories, techniques and proofs provisionally
PSO: 3	able to create mathematical ideas from basic axioms.
PSO: 4	Able to utilize mathematics to solve theoretical and applied problems by critical understanding, analysis and synthesis.
PSO: 5	able to understand the fundamental concepts of differential and integral calculus.
PSO: 6	able to understand the applications of derivatives and sketching of curves
PSO: 7	able to apply the knowledge of Differential and Integral Calculus
PSO: 8	able to visualize the importance knowledge of the basic ideas of Differential Calculus
PSO: 9	able to acquire the knowledge of the basic ideas of Calculus.
PSO: 10	able to identify applications of mathematics in other disciplines and in the real-world, leading to enhancement of career prospects in a plethora of fields and research.

PSOs for B.Sc. Botany	
The students who successfully complete this course will be ….	
PSO: 1	Able to understand, read, write, and communicate botanical information in English.
PSO: 2	Aware regarding moral values, ethics, and social responsibilities.
PSO: 3	Aware about sustainable development. Environmental, social, educational, and political issues.
PSO: 4	Able to think rationally on various issues related to environment, agriculture and will develop their own opinion about it.
PSO: 5	Able to understand the basic concepts regarding the morphology, anatomy, physiology, cytology of plants.
PSO: 6	Able to understand and represent the concepts, hypothesis and principles of plant science.
PSO: 7	Able to develop scientific temper by keen observations, critical thinking and interpretation of natural phenomenon with respect to plants.
PSO: 8	Able to apply the basic knowledge of the botany as and when required in the field of floriculture, pomoculture, agriculture, mushroom cultivation, biotechnology, nursery techniques etc.
PSO: 9	Able to create ideas based on scientific principles and setup the experiments to test it.
PSO: 10	Able to interpret the issues related to environment, agriculture, and will be able to find out solutions on it.
PSO: 11	Able to apply practical skills like nursery techniques, plant propagation, cultivation of medicinal plants, plant tissue culture, bio-fertilizer to create job opportunities, and entrepreneurial opportunities.
PSO: 12	Competent to opt for higher education and carry out research work in the field of biological sciences.

PSOs for B.Sc. - Zoology	
The students who successfully complete this course will be ….	
PSO: 1	The study of Zoology gives the students an understanding of the various branches of Zoology and their study and how the knowledge of this subject is useful for enriching life.
PSO: 2	The study of various branches of Zoology and practical tests helps in gaining knowledge and develp technology in various professions and helps in enriching life through business growth.
PSO: 3	Exhibit Skills in areas related to their individual specialization like genetic engineering, in relation to current developments and related fields in the domain; helps to apply the knowledge of internal structure of cell, its functions in control of various metabolic functions of organisms.
PSO: 4	A study of zoology and developments in related disciplines can lead to expertise in, for example, genetic engineering, cell biology, self-physiology, and control over various metabolic functions.
PSO: 5	Student of zoology able to communicate the perceptions constructs and techniques involved in with simplicity and in a clear manner based on the animal evolution, animal behavior, animal development and animal ecology topics.
PSO: 6	Techniques and Methodologies studied in the very important topics like Cell Biology, Genetics, and Molecular Biology Students of zoology can clear the knowledge in research-specific areas and studies by correlating the physiological processes of animals and their relationship with cellular structure.
PSO: 7	Understand the environmental conservation processes and its importance, pollution control, protection of endangered species, Wildlife Management, Climatic changes and Global Management are discussed as a paper to manage the subject knowledge for identifying any problems related and in helping the impacted environment and biodiversity.
PSO: 8	Applied Zoology discipline helps in adding Benefits by providing in-depth information regarding the socio-economic, bio-economic, and economical branches to use the fundamental concepts and core knowledge in enabling the industrial, social, and environmental benefits;
PSO: 9	Subject B. Sc. Zoology can help advancement in the job, trades, and employment with the help of knowledge about Agro-based Small Scale industries like sericulture, fish farming, butterfly farming, and vermicompost preparation. It also helps to create various opportunities in the educational, research, and developmental, social entrepreneurial sectors.

PSO: 10	Improve the observational, computational, and analytical ethical skills required for the research and development fields discussed for evolving trends in Genetics, molecular biology, embryology , cell biology, etc

PSOs for B.Sc. - Biochemistry	
The students who successfully complete this course will be ….	
PSO: 1	Understand the nature and basic concepts of cell biology, Biochemistry, Molecular Taxonomy and Microbiology
PSO: 2	They will have clear view about how to design a fermentor for production purposes and scale up processes.
PSO: 3	Understand the applications of biological sciences in Aquaculture, Genomics and Proteomics
PSO: 4	Perform procedures as per laboratory standards in the areas of Biochemistry, Bioinformatics, Molecular taxonomy and Molecular biology
PSO: 5	Facilitate placement in various clinical laboratories and biological research institutes
PSO: 6	Procure hands on real time experience in industries
PSO: 7	Comprehend fundamental concepts in modern biology to meet the emerging trends

PROGRAM SPECIFIC OUTCOMES FOR POST-GRADUATE PROGRAMS

PSOs for M.A. - Marathi	
The students who successfully complete this course will be ….	
PSO: 1	विद्यार्थ्यांनामराठीसाहित्यआणिभाषेचेविविधप्रवाह, वाड.यीनपरंपरेचेज्ञानहोईल.
PSO: 2	विद्यार्थ्यांनासमाजआणिसंस्कृतीकडेपाहण्याचेवैविध्यपूर्णवनवेदृष्टीकोनप्राप्तहोतील.
PSO: 3	विद्यार्थ्यांनामराठीभाषावसाहित्यातीलसंशोधनाचीमाहितीअसेल.
PSO: 4	विद्यार्थीयोग्यभाषावापरण्याससक्षमअसतील.
PSO: 5	विद्यार्थीसर्जनशीललेखनकरूशकतील.
PSO: 6	नेटवसेटपरीक्षांसहसर्वस्पर्धापरीक्षांचेप्रशिक्षणविद्यार्थ्यांकडेअसणारआहे.
PSO: 7	भारताच्याचांगल्याभविष्यासाठीसर्जनशील, संवेदनशील, आदर्श,सुसंस्कृत,नागरिकतयारकरणे

PSOs for M.A. –Economics	
The students who successfully complete this course will be ….	
PSO: 1	understanding about how market for goods and services Function and how income is generated and distributed.
PSO: 2	Develop the ability to explain core economic terms, concepts, and theories.
PSO: 3	Explain the function of market and prices as allocate mechanisms.
PSO: 4	Apply the concept of equilibrium to both microeconomics and macroeconomics.
PSO: 5	Identify key macroeconomic indicators and measures of economics change, growth, and development.
PSO: 6	Adopted depth knowledge into special fields of choice like agricultural economics, industrial economics, financial market, development economics, International trade, statistical economics, urban economics econometrics, mathematical economics etc.

PSOs for M.A. - History	
The students who successfully complete this course will be ….	
PSO: 1	Able to write research articles on historical topics.
PSO: 2	Able to distinguish between primary and secondary sources and identify and evaluate evidence.
PSO: 3	Able to develop interests in the study of history and activities relating to history. Students can collect coins and other historical objects, visit to historical places, archaeological sites, museums and archives.
PSO: 4	Through completion of a combination of courses, students become familiar with the Administrative structures, society and culture, political Ideas and institutions of history.
PSO: 5	Able to a sense of patriotism and contribute to nation building.
PSO: 6	Able to produce their own historical analysis of documents and develop the ability to think critically and historically when discussing the past.
PSO: 7	Able to apply practical skill to create a job opportunities in Museum, Archives, Tourism industries.
PSO: 8	Aware regarding moral values, ethics and social responsibilities.
PSO: 9	Able to identify the role of theory and methodology in the production of historical knowledge.

PSOs for M.Sc. - Mathematics	
The students who successfully complete this course will be ….	
PSO: 1	able to visualize the importance knowledge of the basic ideas of Differential Calculus
PSO: 2	able to acquire the knowledge of the basic ideas of Calculus
PSO: 3	able to identify applications of mathematics in other disciplines and in the real-world, leading to enhancement of career prospects in a plethora of fields and research.
PSO: 4	able to understand the fundamental relation between differential and Integral Calculus
PSO: 5	able to gauge the hypothesis, theories, techniques and proofs provisionally
PSO: 6	able to create mathematical ideas from basic axioms.
PSO: 7	able to utilize mathematics to solve theoretical and applied problems by critical understanding, analysis and synthesis.
PSO: 8	able to know the geometrical meaning of functions, limits, continuity, derivatives, mean value theorems.
PSO: 9	able to gauge the hypothesis, theories, techniques and proofs provisionally.
PSO: 10	able to understand the fundamental concepts of ODE and PDE.

PSOs for M.Sc. - Chemistry	
The students who successfully complete this course will be ….	
PSO: 1	Able to understand, read, write, and communicate chemical information.
PSO: 2	Aware regarding moral values, ethics, and social responsibilities.
PSO: 3	Aware about sustainable development. Environmental, social, educational and political issues.
PSO: 4	Able to think rationally on various issues related to environment, society and agriculture, and will develop their own opinion about it.
PSO: 5	Able to understand the basic concepts regarding the Chemistry
PSO: 6	Able to understand and represent the concepts, hypothesis and principles of chemical science.
PSO: 7	Able to develop scientific temper by keen observations, critical thinking and interpretation of natural phenomenon.
PSO: 8	Able to apply the basic knowledge of the chemistry as and when required on field.
PSO: 9	Able to create ideas based on scientific principles and setup the experiments to test it.
PSO: 10	Able to interpret the issues related to environment, agriculture, and will be able to find out solutions on it by applying knowledge gained from chemistry.
PSO: 11	Able to apply practical skills like qualitative and quantitative analysis techniques to create job opportunities, and entrepreneurial opportunities.
PSO: 12	Competent to opt for higher education and carry out research work in the field of chemical sciences.

PSOs for M.Sc. - Zoology	
The students who successfully complete this course will be ….	
PSO: 1	The study of Zoology gives the students an understanding of the entomology and their study and how the knowledge of this subject is useful for enriching life.
PSO: 2	The study ofEntomology(Zoology) helps in gaining knowledge and develop technology in various agro-based professions and helps in enriching life through business growth.
PSO: 3	Exhibit Skills in areas related to their individual specialization like insect taxonomy, insect anatomy morphology, genetics in relation to current developments and related fields in the domain; helps to apply the knowledge of internal structure of cell, its functions in control of various metabolic functions of organisms.
PSO: 4	A study of entomology and developments in related disciplines can lead to expertise in, for example, biological control of insect pest , IPM, Entomophagy , and control over various metabolic functions.
PSO: 5	Student of M. Sc Entomology able to communicate the perceptions constructs and techniques involved in with simplicity and in a clear manner based on the pest control , bio-pesticides , insect development and insect ecology topics.
PSO: 6	Techniques and Methodologies studied in the very important topics like Cell Biology, Genetics, and Molecular Biology, Entomology. Students of entomology can clear the knowledge in research-specific areas and studies
PSO: 7	Understand the environmental conservation processes and its importance, pollution control, protection of endangered species, Wildlife Management, Climatic changes and Global Management are discussed as a paper to manage the subject knowledge for identifying any problems related and in helping the impacted environment and biodiversity.
PSO: 8	AppliedEntomology discipline helps in adding Benefits by providing in-

	depth information regarding the socio-economic, bio-economic, and economical branches to use the fundamental concepts and core knowledge in enabling the industrial, social, and environmental benefits;
PSO: 9	Subject M. Sc . Zoology can help advancement in the job, trades, and employment with the help of knowledge about Agro-based Small Scale industries like sericulture, apiculture, butterfly farming, and IPM. It also helps to create various opportunities in the educational, research, and developmental, social entrepreneurial sectors.
PSO: 10	Improve the observational, computational, and analytical ethical skills required for the research and development fields discussed for evolving trends in insect Genetics, insect molecular biology, insects embryology , cell biology, etc