Marathwada Shikshan Prasarak Mandal's

Sunderrao Solanke Mahavidyalaya, Majalgaon

INTERNALQUALITYASSURANCECELL

CRITERIA 2–TEACHING-LEARNING EVALUATION

2.6 Student Performance and Learning Outcome

2.6.1. Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on website and attainment of POs and COs are evaluated

Course Outcomes (COs)

Sr. No.	PARTICULARS
1	**COs: Marathi**
2	**COs: Hindi**
3	**COs: English**
4	**COs: Sanskrit**
5	**COs: Sociology**
6	**COs: Economics**
7	**COs: Public Administration**
8	**COs: Political Science**
9	**COs: History**
10	**COs: Physical Eucation**
11	**COs: Geography**
12	**COs: Physics**
13	**COs: Chemistry**
14	**COs: Mathematics**
15	**COs: Botany**
16	**COs: Zoology**
17	**COs: Computer Science**
18	**COs: BCA**
19	**COs: BCS (Computer Science)**
20	**COs: Commerce**

Course Outcomes (COs)

Department of Marathi

Sr. No.	Course	Course Objective	CourseOutcome
1.	B.A., B.sc, B.com. F.Y. (SL) भारतीय भाषा – मराठी भाग - १, २ (मायबोली)	१. मराठीतील वैविध्यपूर्ण सृजनाविष्कराचा आस्वाद घेण्याची अभिरुची निर्माण करून कलाकृतील सौंदर्यस्थळांचा शोध घेण्याची वृत्ती वाढीस लावणे. २. विद्यार्थ्यामध्ये नीतीमूल्यांचे व वैज्ञानिक जाणिवांचे संस्करण करणे . ३. राष्ट्रीय एकात्मता व बंधुभाव वाढीस लागण्यास मदत करणे. ४ . उपयोजित मराठी माध्यमातून रोजगाराभिमुख शिक्षण देऊन व्यावसायिक वृत्ती वाढविणे व स्वावलंबी बनण्यास मदत करणे. ५. भाषिक लेखनाचा स्तर उंचावण्यास मदत करणे. ६. निवडक गद्य व काव्याच्या अनुषंगाने मराठी साहित्यातील विविध प्रवाहंचा परिचय करून देणे . ७. सृजनासाठी विद्यार्थ्यांना उद्दुक्त करणे.	१. मराठीतील वैविध्यपूर्ण सृजनाविष्कराचा आस्वाद घेण्याची अभिरुची निर्माण करून कलाकृतील सौंदर्यस्थळांचा शोध घेण्याची वृत्ती वाढीस लागते. २. विद्यार्थ्यांमध्ये नीतीमूल्यांचे व वैज्ञानिक जाणिवांचे संस्करण केले जाते. ३. राष्ट्रीय एकात्मता व बंधुभाव वाढीस लागण्यास मदत होते. ४ . उपयोजित मराठी माध्यमातून रोजगाराभिमुख शिक्षण देऊन व्यावसायिकवृत्ती वाढविणे व स्वावलंबी बनण्यास मदत केली जाते. ५. भाषिक लेखनाचा स्तर उंचावण्यास मदत होते. ६. निवडक गद्य व काव्याच्या अनुषंगाने मराठी साहित्यातील विविध प्रवाहंचा परिचय होण्यास मदत होते. ७.सृजनासाठी विद्यार्थी उद्युक्त होतात.
2.	[अ] निवडक अभंग (अभंग अविष्कार) नियमित	१.संतसाहित्याचाआणि त्या प्रवाहाचा परिचय करून देणे. २.अभंग प्रकारचे स्वरूप विशेष (फॉर्म) लक्षात आणून देणे. ३.निवडक अभंग रचनेतील आशय व अभिव्यक्ती समजून सांगतानाचा अभंगातील मूल्याविचार उलघडून दाखवणे. ४.संताच्या अभंग रचनेतील पृथगात्मता व साम्य स्थळांचा उलगडा करणे. ५. आजच्या काळात अभंगाची उपुक्तता सांगतानाच अभंगाचे अक्षरत्व व कालातीतता सिद्ध करणे.	१.संतसाहित्याचाआणि त्या प्रवाहाचा परिचय होतो. २.अभंग प्रकारचे स्वरूप विशेष (फॉर्म) लक्षात येते. ३.निवडक अभंग रचनेतील आशय व अभिव्यक्ती समजून सांगतानाचा अभंगातील मूल्याविचार समजून येतो . ४.संताच्या अभंग रचनेतील पृथगात्मता व साम्यस्थळांचा उलगडा होतो. ५. आजच्या काळात अभंगाची उपुक्तता सांगतानाच अभंगाचे अक्षरत्व व कालातीतता सिद्ध होते.
	[ब] साहित्याचे विशेष अध्ययन : चरित्र-आत्मचरित्र पर्यायी	१.चरित्र- आत्मचरित्रप्रकारचेस्वरूप-विशेषयांची माहिती देणे. २.चरित्र- आत्मचरित्र परंपरा व प्रकारचा परिचय करून देणे.	१.चरित्र- आत्मचरित्रप्रकारचेस्वरूप-विशेषयांची माहिती होते. २.चरित्र- आत्मचरित्र परंपरा व प्रकारचा परिचय होतो.

		३. निवडक चरित्र- आत्मचरित्राच्या आधारे विद्यार्थ्यांना कलामुल्ये व जीवनमूल्ये यांचा परिचय करून देत मूल्यांचे संस्करण करणे . ४.निवडक चरित्र-आत्मचरित्राच्या माध्यमातून विद्यार्थ्यांच्या आकलन व आस्वादात्मक वाढीस चालना देणे . ५.वाङ्मयीन अभिरुची वाढीस लावून विद्यार्थ्यांना चरित्र- आत्मचरित्र सृजनाविष्कारास उद्दुक्त करणे. ६.चरित्र-आत्मचरित्र लेखनातील वाङ्मयीन मूल्ये व भाषिक रूपे लक्षात आणून देणे. ७. चरित्र- आत्मचरित्राच्या अनुषंगाने समकालीन जाणीवा व सामाजिक स्थिती जाणून घेण्यास मदत करणे.	३. निवडक चरित्र- आत्मचरित्राच्या आधारे विद्यार्थ्यांना कलामुल्ये व जीवनमूल्ये यांचा परिचय करून देत मूल्यांचे संस्करण केले जाते. ४.निवडक चरित्र-आत्मचरित्राच्या माध्यमातून विद्यार्थ्यांच्या आकलन अनुषंगाने व आस्वादात्मक वाढीस चालना मिळते. ५.वाङ्मयीन अभिरुची वाढीस लावून विद्यार्थी चरित्र-आत्मचरित्र सृजनाविष्कारास उद्दुक्त होतो. ६. चरित्र- आत्मचरित्र लेखनातील वाङ्मयीन मूल्ये व भाषिक रूपे लक्षात येतात. ७. चरित्र- आत्मचरित्राच्या अनुषंगाने समकालीन जाणीवा व सामाजिक स्थिती जाणून घेण्यास मदत होते.
३.	[अ] निवडक कथा (कथार्थी) नियमित	१.कथा वाङ्मय प्रकारचे स्वरूप – विशेष व प्रेरणा यांची माहिती देणे. २. कथा वाङ्मयाची परंपरा,विविध प्रवाह, प्रकारचा परिचय करून देणे. ३. निवडक कथांचा माध्यमातून विद्यार्थ्यांच्या आकलन व आस्वादात्मक वाढीला चालना देणे. ४. निवडक कथांच्या आधारे विद्यार्थ्यांना कलामुल्ये व जीवनमूल्ये यांचा परिचय देऊन मूल्यांचे संस्करण करणे. ५. वाङ्मयीन अभिरुची वाढीस लावून विद्यार्थ्यांना कथात्म सृजनाविकास उद्दुक्त करणे. ६. कथेची वाङ्मयीन मुल्ये व भाषिक रुपे लक्षात आणून देणे. ७. कथेच्या अनुषंगाने समकालीन जाणीवा व तत्कालीन सामाजिक स्थिती समजून घेण्यास मदत करणे .	१.कथा वाङ्मय प्रकारचे स्वरूप – विशेष व प्रेरणा यांची माहिती होते. २. कथा वाङ्मयाची परंपरा,विविध प्रवाह, प्रकाराचा परिचय होतो. ३. निवडक कथांचा माध्यमातून विद्यार्थ्यांच्या आकलन व आस्वादात्मक वाढीला चालना मिळते. ४. निवडक कथांच्या आधारे विद्यार्थ्यांना कलामुल्ये व जीवनमूल्ये यांचा परिचय देऊन मूल्यांचे संस्करण होण्यासमदत होते . ५. वाङ्मयीन अभिरुची वाढीस लावून विद्यार्थ्यांना कथात्म सृजनाविकासास उद्दुक्त केले जाते. ६. कथेची वाङ्मयीन मुल्ये व भाषिक रुपे लक्षात आणून दिले जाते. ७. कथेच्या अनुषंगाने समकालीन जाणीवा व तत्कालीन सामाजिक स्थिती समजून घेण्यास मदत होते .
	[ब] साहित्याचे विशेष अध्ययन : प्रवासवर्णन पर्यायी	१. प्रवासवर्णनयावाङ्मय प्रकारची माहिती देणे . २. लेखकाच्या काळातील स्पंदने व कलावंताची संवेदनशीलता उलघडून दाखवणे . ३. प्रवासवर्णनयावाङ्मय प्रकारच्या आकलन व आस्वादाची क्षमता वाढीला लावणे. तसेच रसिक,वाचक निर्माण करणे. ४. प्रवासवर्णनाच्या माध्यमातून	१. प्रवासवर्णनयावाङ्मय प्रकारची माहिती होते . २. लेखकाच्या काळातील स्पंदने व कलावंताची संवेदनशीलता उलघडून दाखवली जाते . ३. प्रवासवर्णनयावाङ्मय प्रकारच्या आकलन व आस्वादाची क्षमता वाढीला लावणे. तसेचरसिक, वाचक निर्माण होतो. ४. प्रवासवर्णनाच्या माध्यमातून सामाजिक

		सामाजिक बांधिलकीची मूल्ये रुजविणे. ५. . प्रवासवर्णनातील आशय व अभिव्यक्तीचे स्वरूप न्याहाळणे.	बांधिलकीची मूल्ये रुजतात. ५. . प्रवासवर्णनातील आशय व अभिव्यक्तीचे स्वरूप न्याहाळले जाते.
4.	[अ] निवडक ललित गद्य (ललित गध) नियमित	ललित गद्याचे स्वरूप विशेष व परंपरा यावर प्रकाश टाकणे . २. इतर वाड्मय प्रकारपेक्षा ललित गद्याचे वेगळेपणउलघडून दाखवणे. ३.ललित लेखकाच्या तरल, संवेदनशील, विचारशील, प्रवृत्तीचा शोध व त्या लेखनास झालेले स्पर्श आणि त्यातून निर्माण झालेले सौंदर्य याचा शोध घेणे. ४. निवडक लेखकाच्या ललित लेखांची भिन्न प्रकृती व त्यातील साम्यता यांचा उलगडा करणे . ५.लालित्याच्या अंगाने जाणाऱ्या विविध लेखांचा परिचय करून देवून विद्यार्थ्यांना ललित लेखनाच्या सर्जनशीलतेसाठी उद्युक्त करणे.	१.ललित गद्याचे स्वरूप विशेष व परंपरा यावर प्रकाश पडतो . २. इतर वाड्मय प्रकारपेक्षा ललित गद्याचे वेगळेपण उलघडून येते. ३.ललित लेखकाच्या तरल, संवेदनशील, विचारशील, प्रवृत्तीचा शोध व त्या लेखनास झालेले स्पर्श आणि त्यातून निर्माण झालेले सौंदर्य याचा शोध घेतला जातो. ४. निवडक लेखकाच्या ललित लेखांची भिन्न प्रकृती व त्यातील साम्यता यांचा उलगडा होतो . ५.लालित्याच्या अंगाने जाणाऱ्या विविध लेखांचा परिचय करून देवून विद्यार्थ्यांना ललित लेखनाच्या सर्जनशीलतेसाठी उद्युक्त केले जाते.
	[ब] साहित्याचे विशेष अध्ययन : विज्ञानकथा पर्यायी	१.विज्ञानकथा स्वरूप वैशिष्टे लक्षात आणून देणे . २.विद्यार्थ्यांमध्ये वैज्ञानिक जाणीवा निर्माण करणे. ३. विज्ञान कथेच्या माध्यमातून काल्पनिकता आणि वैज्ञानिकता यातील फरक लक्षात आणून देणे. ४.विज्ञानकथेचे आकलन व आस्वादाची क्षमता वाढीला लावणे. तसेच एक रसिक वाचक निर्माण करणे .	१.विज्ञानकथा स्वरूप वैशिष्टे लक्षात येतात. २.विद्यार्थ्यांमध्ये वैज्ञानिक जाणीवा निर्माण केल्या जातात . ३. विज्ञान कथेच्या माध्यमातून काल्पनिकता आणि वैज्ञानिकता यातील फरक लक्षात येतात देणे. ४.विज्ञानकथेचे आकलन व आस्वादाची क्षमता वाढीला लागते . तसेच अनेक रसिक वाचक निर्माण होतात .
5.	[अ] निवडक मराठी कविता (आधुनिक) नियमित	१.कविता वांग्मयप्रकारची माहिती करून देणे . २. कवितेच्या माध्यमातून कवितेच्या काळातील स्पंदने व कलावंताची संवेदनशीलता उलगडून दाखवणे. ३. मूल्याधारित कवितेच्या माध्यमातून सामाजिक बांधिलकीची मूल्ये रुजविणे . ४.कविता वांग्मय प्रकारच्या आकलन व आस्वादाची क्षमता वाढविणे . तसेच एक रसिक वाचक निर्माण करणे . ५.काव्याचे प्रवाह, प्रवृत्ती, अभिव्यक्ती यांचा परिचय करून देणे . ६. निवडक कवींच्या कवितेतील आशय व अभिव्यक्ती याचे स्वरूप न्याहाळणे.	१.कविता वांग्मयप्रकारची माहिती होते . २. कवितेच्या माध्यमातून कवितेच्या काळातील स्पंदने व कलावंताची संवेदनशीलता दिसून येते. ३. मूल्याधारित कवितेच्या माध्यमातून सामाजिक बांधिलकीची मूल्ये रुजविली जातात . ४.कविता वांग्मय प्रकारच्या आकलन व आस्वादाची क्षमता वाढते . तसेच एक रसिक वाचक निर्मान होतात . ५.काव्याचे प्रवाह, प्रवृत्ती, अभिव्यक्ती यांचा परिचय करून देणे . ६. निवडक कवींच्या कवितेतील आशय व अभिव्यक्ती याचे स्वरूप स्पष्ट होते.
	[ब] साहित्याचे विशेष	१.बालसाहित्याचे स्वरूप व वैशिष्टे लक्षात	१.बालसाहित्याचे स्वरूप व वैशिष्टे लक्षात

	अध्ययन: बालसाहित्य पर्यायी	आणून देणे . २. बालसाहित्याविषयी विद्यार्थ्यांमध्ये गोडी निर्माण करणे. ३. बालसाहित्य आकलन व आस्वादाची क्षमता वाढीस लावणे. ४.बालसाहित्याच्या माध्यमातून बालसाहित्य सर्जनाविष्कारास उद्युक्त करणे.	येतात . २. बालसाहित्याविषयी विद्यार्थ्यांमध्ये गोडी निर्माण होते. ३. बालसाहित्य आकलन व आस्वादाची क्षमता वाढीला लागते. ४.बालसाहित्याच्या माध्यमातून बालसाहित्य सर्जनाविष्कारास उद्युक्त होतात.
		Course Outcomes	
2.	B.A., B. Sc., B.Com. F.Y. (S.L.) ाद्य पद्य व उपयोजित मराठी	१. ाद्याच्या माध्यमातून सामाजि मूल्य रूजव ो २. तत् लिन समाजजीवनावर प्र ाश टा ो ३. भाषि ौशल्ये आत्मसात र ो ४. पद्याचे स्वरूप समजून घे ो ५. ले न ौशल्याचा वापर र ो	१. ाद्याच्या माध्यमातून सामाजि मूल्य रूजवले जातात २. तत् लिन समाजजीवनावर प्र ाश टा ला जातो ३. भाषि ौशल्ये आत्मसात ेली जातात ४. पद्याचे स्वरूप समजून घेतले जाते ५. ले न ौशल्याचा वापर ेला जातो
	B.A., B.Sc. S.Y. (S.L.) ाद्य पद्य व उपयोजित मराठी	१. साहित्यातील विविध प्रवाह आि प्र ार ल ात आ ून दे ो २. साहित्याचा आस्वाद घे याची मता वि सित र ो ३. प्रसार माध्यमांची ओळ रून दे ो ४. माहिती तंत्रज्ञानाचा परिचय रून दे ो	१. साहित्यातील विविध प्रवाह आि प्र ार ल ात आ ून दिले जातात २. साहित्याचा आस्वाद घे याची मता वि सित र यात येते ३. प्रसार माध्यमांची ओळ रून दिली जाते ४. माहिती तंत्रज्ञानाचा परिचय रून दे यात येतो
	B.Com.S.Y. (S.L.) वाि ज्य व्यवहार, व्यवसाय	१. वाि ज्य व्यवहारासाठी मराठी भाषेचे आ लन	१. वाि ज्य व्यवहारासाठी मराठी भाषेचे आ लन रून दिले जाते

	आणि मराठी भाषा	रून देणे २. भाषिक शैल्ये आत्मसात करणे ३. वाचन संस्कृती वृद्धींगत करणे ४. व्यवसायात मराठी भाषेला स्थान मिळवून देणे	२. भाषिक शैल्ये आत्मसात केली जातात ३. वाचन संस्कृती वृद्धींगत होते ४. व्यवसायात मराठी भाषेला स्थान मिळवून दिले जाते
	B.A.F.Y. (Opt.) काव्यात्म साहित्य, कथात्म साहित्य	१. साहित्य प्रकारांची ओळख करून घेणे २. साहित्य प्रकाराच्या पुर्वपिठीके वर प्रकाश टाकणे ३. निवडक कवींच्या कवितांचा परिचय करून देणे ४. निवडक कथांचा परिचय करून देणे	१. साहित्य प्रकारांची ओळख करून दिली जाते २. साहित्य प्रकाराच्या पुर्वपिठीके वर प्रकाश टाकला जातो ३. निवडक कवींच्या कवितांचा परिचय करून देणे यात येतो ४. निवडक कथांचा परिचय करून दिला जातो
	B.A.F.Y. (Opt.) नाटयात्म साहित्य, मुद्रित माध्यमांसाठी लेखन कौशल्ये	१. निवडक नाटकांचा परिचय करून देणे २. नाटकांच्या परंपरा, प्रेरणांचा शोध घेणे ३. वृत्तपत्रासाठी लेखन कौशल्ये आत्मसात करणे ४. वृत्तपत्राचे स्वरूप समजून घेणे	१. निवडक नाटकांचा परिचय करून दिला जातो २. नाटकांच्या परंपरा, प्रेरणांचा शोध घेणे यात येतो ३. वृत्तपत्रासाठी लेखन कौशल्ये आत्मसात केली जातात ४. वृत्तपत्राचे स्वरूप समजून घेतले जात
	B.A.S.Y. (Opt.) आधुनिक मराठी वाङमयाचा इतिहास (१८०० ते १९२०)	१. वाङमयीन इतिहासाचा सर्वांगीण अभ्यास करणे २. कालखंडाची सामाजिक व सांस्कृतिक पार्श्वभूमी समजून घेणे ३. वाङमयप्रकारनिहाय इतिहासाचा आढावा घेणे	१. वाङमयीन इतिहासाचा सर्वांगीण अभ्यास केला जातो २. कालखंडाची सामाजिक व सांस्कृतिक पार्श्वभूमी समजून घेतली जाते ३. वाङमयप्रकारनिहाय इतिहासाचा आढावा घेतला जातो

	B.A.S.Y. (Opt.) दृ -श्राव्य माध्यमांसाठी ले न शैल्ये, साहित्याचे प रांतर आ ा माध्यमांतर	१. दृ -श्राव्य माध्यमांसाठी ले न शैल्यांचा आभ्यास र ो २. दृ -श्राव्य रूपात र्य, मांची ओळ ा रून दे ो ३. साहित्याच्या प रांतराचे स्वरूप समजून घे ो ४. साहित्याच्या माध्यमांतरावर प ाश टा ो	१. दृ -श्राव्य माध्यमांसाठी ले न शैल्यांचा आभ्यास `ला जातो २. दृ -श्राव्य रूपात र्य, मांची ओळ ा रून दे यात येते ३. साहित्याच्या प रांतराचे स्वरूप समजून घेतले जाते ४. साहित्याच्या माध्यमांतरावर प ाश टा यात येतो
	B.A.T.Y. (Opt.) भारतीय, पाश्चात्य साहित्यविचार	१. साहित्याचे स्वरूप समजून घे ो २. साहित्याच्या प्रयोजनावर प ाश टा ो ३. साहित्याची निर्मितीप्रि या समजून घे ो ४. साहित्यातील रसविचाराचे आ लन र ो	१. साहित्याचे स्वरूप समजून घेतले जाते २. साहित्याच्या प्रयोजनावर प ाश टा ला जातो ३. साहित्याची निर्मितीप्रि या समजून घे यात येते ४. साहित्यातील रसविचाराचे आ लन `ले जाते
	B.A.T.Y. (Opt.) भाषाविज्ञान, व्या र ा व निबंध	१. भाषेचे स्वरूप समजून घे ो २. व र्नात्म भाषाविज्ञानाचा अभ्यास र ो ३. मराठी व्या र तील सं ल्पना समजून घे ो ४. निबंधाच्या स्वरूप व प राचा आढावा घे ो	१. भाषेचे स्वरूप समजून घेतले जाते २. व र्नात्म भाषाविज्ञानाचा अभ्यास `ला जातो ३. मराठी व्या र तील सं ल्पना समजून घे यात येते ४. निबंधाच्या स्वरूप व प राचा आढावा घेतला जातो
	B.A.T.Y. (Opt.) मध्ययु ीन मराठी वाङमयाचा इतिहास	१. मराठी भाषेच्या प्रारंभ ळाचा शोध घे ो २. महानुभाव संप्रदायातील द्य व पद्याचा आढावा घे ो	१. मराठी भाषेच्या प्रारंभ ळाचा शोध घेतला जातो २. महानुभाव संप्रदायातील द्य व पद्याचा आढावा घे यात येतो

		३. वार री संप्रदाय व त्याच्या वाङमयीन र्यांवर प्र श टा ो	३. वार री संप्रदाय व त्याच्या वाङमयीन र्यांवर प्र श टा ला जातो
		४. पंडिती वितेचे स्वरूप समजून घे ो	४. पंडिती वितेचे स्वरूप समजून घे यात येते
		५. शाहिरांच्या पोवाडा व लाव यांचा अभ्यास र ो	५. शाहिरांच्या पोवाडा व लाव यांचा अभ्यास ेला जातो
	B.A.T.Y. (Opt.) प्र ल्प र्य	१. संशोधनात्म दृष्टीचा वि ास र ो	१. संशोधनात्म दृष्टीचा वि ास होतो
		२. साहित्याचे सं लन व मूल्यमापन र ो	२. साहित्याचे सं लन व मूल्यमापन र यात येते
		३. संशोधनात्म ले न ौशल्ये आत्मसात र ो	३. संशोधनात्म ले न ौशल्ये आत्मसात होतात
		४. संदर्भ व साधनांचे उपयोजन र ो	४. संदर्भ व साधनांचे उपयोजन ेले जाते

Course Outcomes (COs)

Department of Hindi

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सामान्यहिंदी (SL- I & II) (बी .,ए .बी .,कॉम .बी .एस्सी .)

CO1: साहित्य सुविधाओं का विकास कराना।

CO2: हिंदी कहानी का सामान्य परिचय कराना।

CO3: कहानी का रसास्वाद एवं सृजन क्षमता का विकास कराना।

CO4: भाषा कौशल्य का विकास कराना।

CO5: हिंदी कविता का सामान्य परिचय कराना।

CO6: कविता कारसास्वादन क्षमता का विकास कराना।

प्रश्नपत्र- I.   हिंदी साहित्य का इतिहास (आदि तथा मध्यकाल) भाग 1

CO1: साहित्य इतिहास लेखन तथा उसकी परंपरा का अध्ययनकराना।

CO2: साहित्य और युगबोध के संबंधों का अध्ययनकराना।

CO3: साहित्य अध्ययन की ऐतिहासिक दृष्टि का विकास छात्रों को कराना।

प्रश्नपत्र- III.   आधुनिक कविता

CO1: साहित्य सुविधाओं का विकास कराना

CO2: हिंदी कविता का सामान्य परिचय कराना

CO3: कविता का रसास्वादन क्षमता का विकास कराना

CO4: भाषा कौशल का विकास कराना

प्रश्नपत्र- II.   कथा साहित्य

CO1: साहित्य सुविधाओं का विकास कराना

CO2: हिंदी कहानी का सामान्य परिचयकराना

CO3: कहानी का रसास्वादन क्षमता का विकास कराना

CO4: भाषा कौशल का विकास कराना

प्रश्नपत्र- IV. मध्ययुगीन कविता

CO1: साहित्य सेवन का विकास कराना

CO2: हिंदी कविता का सामान्य परिचय कराना

CO3: कविता का रसास्वादनएवं सृजन क्षमता का विकास कराना

CO3: भाषा कौशल का विकास कराना

प्रश्नपत्र -3 सामान्यहिंदी(SL- III&IV) (बी .ए .बी .,कॉम .बी .एस्सी .)

CO1: साहित्यआस्वादनअभिरुचिकापरीसंस्कारकरना।

CO2: जीवनमूल्योंकेप्रतिआस्थानिर्माणकरना ।

CO3: हिंदीकेआधुनिकगद्यसाहित्यकीप्रतिनिधिरचनाओंकापरिचयकरना ।

CO4: अत्याधुनिकइलेक्ट्रॉनिकमाध्यमोंकापरिचयकरना ।

CO5:
व्यवहारिकप्रयोजनमूलकतथासंप्रेषणमूलकव्यवसायिकहिंदीभाषासेविद्यार्थीपरिचितहोऔररोजमर्राकीजिंदगीमें अपनीमांगोंकोपूराकरनेमेंसक्षमतापाएयहअपेक्षाभीइसपाठ्यक्रममें,कीरहीहै।

CO6: पत्रलेखनकेसारेप्रकारआवेदनपत्रबैंकिंगतथासरकारीकार्यालयोंकीप्रयोजनमूलकभाषासेविद्यार्थीपरिचितहोताहै,।

CO7:
हिंदीसाहित्यकीकहानी,कविता,निबंध,जीवनी,डायरीआत्मकथा,रेखाचित्र,संस्मरण,यात्रावृत,व्यंग,रिपोर्ताज,पत्रआ दिविधाओंकापरिचयभीविद्यार्थीकरचुकेहैंजीवनमूल्यभावभावनाओंसभीनामोंकेपरिचयकेसाथआधुनिकसाधनोंकाभाषाईप्र योगकैसेकरेंइसकाभीपरिचयविद्यार्थीपातेहैं।

CO8:
रेडियोवार्तालिकरसमाचारलेखनमीडियाकेविविधआयामहिंदीभाषाकीव्यवसायिकउपयोगिताबैंकोंमेंहिंदीवैश्वीकर णकेपरिप्रेक्ष्यमेंहिंदीभाषाकामहत्वउद्योगव्यापारमेंहिंदीकेसहारेकैसेआर्थिकप्रगतिकरसकतेहैंआदिबातोंकापरिचयकरवा ना।

प्रश्नपत्र -3 कथेत्तर गद्यसाहित्य

CO1: कथेत्तर गद्यसाहित्यपेपररखनेकाउद्देश्ययहीहैकिहिंदीकेविद्यार्थींहिंदीसाहित्यके,कथेत्तर विधाओंसेपरिचितहो ।

CO2:
'गद्यगौरव'और'गद्यप्रभाबकेमाध्यमसेविद्यार्थींकिता'रेखाचित्र
–लेखआदिविधाओंसेभली,यात्रावृतांत,आत्मकथाअंश,व्यंग,जीवनीपरलेख,संस्मरण,निबंध,भांतिपरिचितहो।

CO3: साहित्यकेविविधविधाओंकेआस्वादनकाआनंदलेनेकीआदतऔरअभिरुचि का विकासविद्यार्थियोंमेंकरना ।

CO4: हिंदीकथेत्तरगद्यसंवेदना कीपरंपराकापरिचयकरना।

CO5: जीवनमूल्योंकेप्रतिआस्थापैदाकरना।

प्रश्नपत्र -3   1 -प्रयोजनमूलकहिंदी

CO1: हिंदीभाषाकेप्रयोजनमूलकरूपकापरिचयकरना।

CO2: हिंदीभाषाकीव्यवहारिकतापरप्रकाशडालना।

CO3: भारतदेशकीराष्ट्रभाषाहोनेकेनातेहिंदीभाषाकीअहमियतकामूल्यांकनकरना।

CO4: हिंदीकेराष्ट्रीयऔरअंतरराष्ट्रीयस्वरूपकामूल्यांकनकरना।

CO5: आधुनिकतंत्रविज्ञानमेंहिंदीकीउपयोगितापरआकलनकरना।

प्रश्नपत्र -3   आधुनिकहिंदीकविता

CO1:

हिंदीसाहित्यकेपद्यकेउद्धवऔरविकासपरप्रकाशडालना
सपाठ्यक्रमकाइ,हिंदीकविताकेप्रतिविद्यार्थियोंकीअभिरुचिकीवृद्धिकरनामानवीयभावनाएंऔरसुविधाओंकाविकासकरना,
उद्देश॒यहै ।

CO2:

नागार्जुनद्वारालिखितखंडकाव्य'भूमिजारामायणकेकथाप्रसंगपरप्रकाशडालताहै'सीताकाऐतिहासिकमूल्यांकन
करतेहुएएकनारीकेनातेउसकीकौनसीशिकायतेंराजापुरुषऔरराज्यकेप्रतिरहीहै,पति,।इसकालंबामूल्यांकनकरनाअर्थात
नारीजीवनकेसंघर्षऔरविद्रोहकापरिचयइसखंडकाव्यकाउद्देश्यहै ।

CO3:

विद्यार्थीरामायणरामचरितमानसतथाअन्यरामायणकथापरकेंद्रितरचनाओंसेएकअलगरचनासेपरिचितहोगएहैं,जि
समेंसीताकाएकस्त्रीहोनेकेनातेपुरुषोंकेप्रतिविद्रोहहै इसकापरिचयकरवाना,।

CO4: 'चुनी हुई लंबी कविताएं' पढ़ाई हेतु रखी है। कविता और खंडकाव्य के बीच का साहित्यिक पद्यरूप के नाते लंबी कविताओं को जाना जाता है। इन कविताओं के माध्यम से विद्यार्थी विविध भाव, रस से परिचित हो गए हैं। साथ ही आधुनिक जीवन की परेशानियों, बाजारीकरण, अर्थ सत्ता का ताकतवर होना, शब्दों की अहमियत आदि बातों का परिचित करवाना।

प्रश्नपत्र -8 प्रयोजनमूलक हिंदी2 -

CO1: हिंदी भाषा के विभिन्न रूपों का परिचय कराना ।

CO2: राजभाषा हिंदी के विविध रूपों का परिचय कराना ।

CO3: प्रयोजनमूलक भाषा तथा अनुवाद की भूमिका का परिचय कराना।

CO4: हिंदी भाषा के प्रयोजनमूलक और व्यापारिक रूप का परिचय कराना।

CO5: भारत देश की राष्ट्रभाषा होने के नाते हिंदी भाषा की अहमियत का मूल्यांकन करना है।

CO6: हिंदी के राष्ट्रीय और अंतरराष्ट्रीय स्वरूप का मूल्यांकन करना।

CO7: आधुनिक तंत्र विज्ञान में हिंदी की उपयोगिता पर आकलन करना।

प्रश्नपत्र –9   प्रादेशिक भाषा साहित्य

CO1: साहित्य आस्वादन और अभिरुचि का परिष्कार करना।

CO2: जीवन मूल्यों के प्रति आस्था निर्माण करना।

CO3: प्रादेशिक भाषा के साहित्य से परिचित करवाना।

CO4: भारतीय साहित्य का अध्ययन करना।

प्रश्नपत्र –10   आदि तथा मध्यकालीन हिंदी साहित्य का इतिहास

CO1: हिंदी साहित्य के इतिहास तथा आरंभिक काल का परिचय करा।

CO2: हिंदी साहित्य के लेखन स्त्रोतों एवं परंपराओं पर प्रकाश डालना।

CO3: हिंदी साहित्य आदिकाल भक्तिकाल रीतिकाल का परिचय देना।

CO4: साहित्य आस्वादन और अभिरुचि का परिष्कार करना।

CO5: जीवन मूल्यों के प्रति आस्था निर्माण करना।

प्रश्नपत्र –11   साहित्य शास्त्र

CO1: साहित्य चिंतन परंपरा का अध्ययन करना।

CO2: साहित्य लोचन क्षमता का परिचय करना।

CO3: साहित्य सृजन के संस्कार करना।

CO4: साहित्य एक प्रकार से शास्त्र है उसका पढ़ना, चिंतन, आकलन, मूल्यांकन और सर्जन करना एक प्रकार की शास्त्रीय तकनीक है इसी तकनीक का विकास करना इस पाठ्यक्रम का उद्देश्य।

CO5: साहित्य का स्वरूप, तत्व, प्रयोजन, हेतु, शब्द शक्तियां ,अलंकार, छंद, स्वरूप,आलोचना , आदि अंगों का परिचय विद्यार्थियों को कराना।

CO6: साहित्य और हिंदी भाषा के विद्यार्थी होने के नाते एक परिपूर्ण इंसान बनने और मानवीय जीवन का आकलन और मूल्यांकन करने की क्षमता का विकास हो, यह इस पाठ्यक्रम का उद्देश्य

CO7: साहित्य का मूल्यांकन करने का नजरिया भी विकसित करना ।साहित्य के अंगों पर प्रकाश डालने की दृष्टि का विकास करना।

प्रश्नपत्र –12 व 11   प्रकल्प कार्य

CO1: पठन पाठन लेखन कौशलों का विकास करना।

CO2: आलोचनात्मक क्षमता का विकास करना।

CO3: अनुसंधात्मक दृष्टि का विकास करना।

CO4: प्रकल्प प्रस्तुति का तकनीक से परिचित कराना ।

प्रश्न पत्र - 13   मध्यकालीन काव्य

CO1: भारतीय भक्ति आंदोलन का अध्ययन करना।

CO2: रीतिकालीन संवेदनाओं का अध्ययन करना।

CO3: कविताओं के माध्यम से मध्यकालीन सांस्कृतिक संवेदना का अध्ययन करना ।

CO4: भक्ति तथा रीतिकालीन पृष्ठभूमि और प्रवृत्तियों से विद्यार्थियों को परिचित कराना।

CO5: साहित्य का चिंतन आकलन और मूल्यांकन करना एक प्रकार की शास्त्रीय तकनीक है। इसी तकनीक का विकास करना इस पाठ्यक्रम का उद्देश्य है ।

प्रश्न पत्र -14   आधुनिक हिंदी साहित्य का इतिहास

CO1: हिंदी साहित्य के आधुनिक काल का परिचय करना।

CO2: हिंदी साहित्य के आधुनिक काल की पृष्ठभूमि और प्रवृत्तियों पर प्रकाश डालना।

CO3: हिंदी साहित्य के आधुनिक काल में कविता और गद्य लेखन के विभिन्न प्रकारों का आकलन और मूल्यांकन ।

CO4: भारतीय स्वतंत्रता संग्राम में हिंदी साहित्यकारों ने कौन सी भूमिका निभाई और देशभक्ति से प्रेरित होकर कितना साहित्य लिखा इसका मूल्यांकन करना ।

CO5: हिंदी साहित्य के सामाजिक और आधुनिक पहलुओं पर प्रकाश डालना।

प्रश्न पत्र -15   साहित्य शास्त्र

CO5: साहित्य चिंतन परंपरा का अध्ययन करना।

CO5: साहित्यालोचन क्षमता का परिचय कराना ।

CO5: साहित्य सृजन के संस्कार करना।

CO5: साहित्य के रस, अलंकार, छंद, विविध विधाओं स्वरूप ,आलोचना आदि अंगों का परिचय छात्रों को करवाना ।

CO5: साहित्य की विभिन्न विधाओं से छात्रों को परिचित करवा कर उसका तात्विक अध्ययन करना ।

CO5: साहित्य का मूल्यांकन करने का नजरिया भी विकसित करना। साहित्य के कला पक्ष, अंगों पर प्रकाश डालने की दृष्टि का विकास करना ।

CO5: विद्यार्थियों में साहित्यालोचन की दृष्टि को विकसित करना।

Course Outcomes (COs)

Department of English

B. A. Optional English Paper I/II, III/IV: Forms of Literature

CO1: To make the students aware of basic concepts of literature;

CO2: To make them aware of forms of literature;

CO3: To help the students develop their taste for literature and its judgment;

CO4: To make the students realize creative language and arts;

B.A.Optional English Paper V/VI,VII/VIII Literature in English

CO1: To make the students aware of literature in English;

CO2: To make them aware of diverse cultures presented in literature;

CO3: To help the students develop their ability to compare different literary worlds

B.A. III Optional English

CO1: To introduce students to modern English Literature

CO2: To familiarize students with literary terms and introduce them with various literary evaluations.

CO3: To help learner to approach and appreciate Indian literature in English and make them see its place among world literature in English

CO4: American literature and its diverse cultures reflected in writing.

CO5: To make students able to understand the background of English literature

CO6: To understand how literature of modern period relates to the important trends of the period.

CO7: To make the students aware of the fact that all readers are critics and introduce them to basic texts in criticism while developing critical thinking in them.

CO8: To introduce students to the thematic concerns, genres and trends of both Indian writing in English and American literature

CO9: To lead the students to see how texts are affected by context

Paper IX & XIII: Twentieth Century English Literature Semester V Contents: Unit One: Poetry

On successful completion of the course, the student will be able to:

CO1: Understand how the literature of modern period relates to the important trends of 20th century.

CO2: Appreciate poem by T.S. Eliot and W.B. Yeats.

CO3: Comment on the themes of Osborne and G.B. Shaw plays.

CO4: Understand Character setting in the novel of Kingsley Amiss and D.H. Lawrence

Paper X & XVI: Introduction to Literary Criticism and Terms Semester

On successful completion of the course, students will be able to….

CO1: Identify and discuss classical Greek critics of literature.

CO2: Provide a brief overview of major critical theories by critics like Aristotle, Sir Philip Sidney, William Wordsworth and F.R. Levis

CO3: Learn the terms related to various genres of literature

CO4: cultivate an understanding of major critical and interpretive methods.

Paper XI & XV: Indian Writing in English

After studying the course, the learners will be able to…..

CO1: To understand nineteenth Century Reform – Movements in India; the Indian National Movement; Rise of the Indian Novel and Caste-Class.

CO2: To become aware of social, political, and cultural issues reflected in Indian Writing in English, with reference to Indian social reformations, freedom struggle, women education and empowerment in nineteenth century.

CO3: To appreciate artistic and innovative use of language employed by writers to install values and develop human concern through literary texts.

CO4: To familiarize students with emergence and growth of Indian Writing in English in the context of colonial experience.

CO5: To discuss issues concerning Indian Writing in English such as representation of culture, identity, history, constructions of nation, (post) national and gender politics, cross-cultural transformations.

Semester V Poetry:

On successful completion of the course, the students will be able to….

CO1: Understand background of Indian English literature and its development

CO2: Understand evaluate theme, plot, the plays of Girish Karnad and Vijay Tendulkar.

CO3: Appreciate the theme, setting, characters in the novels of Raja Rao and U.R. Anantha Murthy.

Paper XII & XVI: Project Work on History of English Literature

CO1:English literature and empower learners on its development.

CO2: To understand different aspects of research methodology.

CO3: To write research papers.

CO4: To understand new trends, movements in English literature.

Course Outcomes (COs)

Department of Sanskrit

Sr. No.	Course	Course Objective	Course Outcome
	संस्कृत (S.L.)	१. संस्कृत वैविध्यपूर्ण सृजनाविष्काराचा आस्वाद घेण्याची अभिरुची निर्माण करणे. २. विद्यार्थ्यांमध्ये नीतीमूल्यांचे व वैज्ञानिक जाणिवांचे संस्करण करणे. ३. राष्ट्रीय एकात्मता व बंधुभाव वाढीस लागण्यास मदत करणे. ४. उपयोजित संस्कृत माध्यमातून रोजगाराभिमुख शिक्षण देऊन व्यावसायिक वृत्ती वाढविणे व स्वावलंबी बनण्यास मदत करणे. ५. भाषिक लेखनाचा स्तर उंचावण्यास मदत करणे.	१. संस्कृत वैविध्यपूर्ण सृजनाविष्काराचा आस्वाद घेण्याची अभिरुची निर्माण करणे. २. विद्यार्थ्यांमध्ये नीतीमूल्यांचे व वैज्ञानिक जाणिवांचे संस्करण केले जाते. ३. राष्ट्रीय एकात्मता व बंधुभाव वाढीस लागण्यास मदत होते. ४. उपयोजित संस्कृत माध्यमातून रोजगाराभिमुख शिक्षण देऊन व्यावसायिकवृत्ती वाढविणे व स्वावलंबी बनण्यास मदत केली जाते. ५. भाषिक लेखनाचा स्तर उंचावण्यास मदत होते.

Course Outcomes (COs)

Department of Sociology

B.A.F.Y

PAPER Ist- INTRODUCTION TO SOCIOLOGY:

CO1 Students understand basic concepts of sociology.

CO2 Students know the emergence of Sociology.

CO3 Students understand the culture, inequalities and Social exclusions in India.

PAPER IInd: INDIAN SOCIAL INSTITUTIONS:

CO1 Students understand meaning and definitions of social institutions.

CO2 Students know about marriage and family institutions in India.

PAPER IIIrd: BASIC CONCEPS IN SOCIOLOGY:

CO1 Students introduce with basic concepts in Sociology.

CO2 Students familiarize with the theoretical aspect of different concepts.

CO3 Students understand the outline of Sociological background.

PAPER IVrd: TRANSFORMATION IN SOCIAL INSTITUTIONS:

CO1 Students know the transformation in social institutions.

CO2 Critical understanding develop among the students about functioning of social institutions.

B.A. S.Y.:

PAPER: V- Problems of Rural India

CO1 Students understand the problems of rural India.

CO2 Students study of rural economy.

CO3 Students know the major issues of development of rural India.

PAPER: VI Contemporary Urban Issues

CO1 Students know the contemporary urban issues.

CO2 Students study of urbanization process.

CO3 Students understand the urban planning

CO4 Students know the urban changes that happened due to globalization.

PAPER: VII- POPULATION IN INDIA:

CO1 Students understand dynamics of population.

CO2 Students understand basic concept of Demography.

CO3 Students study demographic transition.

CO4 Students study Indian population police

PAPER: VIII- SOCIOLOGY OF DEVELOPMENT:

CO1 Student study of conceptual perspectives on development.

CO2 Students know the development issues.

CO3 Student study various developmentapproaches.

CO4 Students know the Indian experience of development.

B.A.T.Y.

PAPER: IX- SOCIOLOGICAL TRADITIONS:

CO1 Students knows emergence of sociological thought.

CO2 Students understand thought of pioneers in Sociology.

CO3 Students study classical traditions.

PAPER: X- INTRODUCTION TO RESEARCH METHODOLOGY:

CO1 Students studied of basic concepts of Research Methodology.

CO2 Students understood Research process.

PAPER: XI- SOCIAL PROBLEMS IN INDIA:

CO1Students understand nature of corruption and crime in India.

CO2 Students understand problems related displacement and rehabilitation.

CO3 Students study of problems of inequality.

PAPER: XII- PROJECT WORK:

CO1 Students understand basic concepts in research methodology.

CO2 Students known the research methodology.

PAPER: XIII- SOCIOLOGICAL THEORIES:

CO1 Theoretical approaches develop among the students.

CO2 Sociological thinking developed among the students.

CO3 Students study different theories in sociology.

PAPER: XIV: SOCIAL RESEARCH MEHTODS:

CO1 Research approach develop among the students.

CO2 Students study of different techniques of sociological investigation.

CO3 Students understand basic statistical measures.

CO4 Students understand utility of social research.

PAPER: XV- SOCIAL DISORGANIZATION IN CONTEMPORARY INDIA:

CO1 Students know the social disorganization in India.

CO2 Students understand violence and social disorder in India.

CO3 Students study of regionalism in India.

PAPER: XVI- PROJECT WORK:

CO1 Research perspective develop among students

CO2 Students known the research methodology.

Course Outcomes (COs)

Department of Economics

Micro Economics:

CO1: To provide foundations of economics.
CO2: To understand scope of micro-economics, the behavior of an economic agents – namely, a consumer, a producer, a factor owner and the price fluctuation in a market.
CO3: To study behavior of a unit and analysis.

Price Theory:
CO1: To understand different components regarding price determination under various types of markets.
CO2: To understand theory of production, cost and revenue analysis, forms of market and factor pricing theories.

Indian Economy:
CO1: To study analytical factor of the students, by highlighting an integrated approach to be functioning aspects of the Indian economy, keeping in view the scope for alternative approaches.
CO2: To study social, political and economic environment influencing policy decisions.
CO3: To develop specific modules.

Macro Economics:
CO: To create awareness of basic theoretical frameworks underlying the field of macroecEconomic

Development Economics:
CO: To understand theories and developments underlying the field of development economics.

International Economics:

CO1: To understand the basic principles that trend to govern the free flow of trade in goods and services at global level.

CO2: To understand and analyze the difference between various economies of the world.

Agricultural Economics:

CO1: To study the treatment of issues in agriculture economics to those intending to specialize in the area.

CO2: To familiarize students with policy issues those are relevant to Indian agricultural economics.

CO3: To analyze the issues using basic micro economics.

History of Economic Thought:

CO1: To understand the basic ideas of classical, new classical and marginality economist.

CO2: To compare the basic economic ideas of various economic thinkers of the world.

Money Banking and Finance:

CO1: To understand role of money and banking as the components of modern economy.

CO2: To understand the operations of money and banking.

CO3: To study interaction of money and banking with the rest of the economy.

CO4: To understand monetary and banking systems in India.

Public Finance:

CO1: To study the significance and scope of Public Finance.

CO2: To provide detailed information about the fiscal policy, public revenue, public debt and public expenditure.

Statistical Methods:

CO1: To understand techniques of statistical analysis which are commonly applied to economic problems.

CO2: To study the tools and techniques of statistical methods.

CO3: To understand data collection, its presentation, and analysis and making inferences.

Research Methodology:

CO1: To understand the concept of social science research.

CO2: To know the importance of social research, design of research problem, data collection and presentation of data.

CO3: To understand the idea of research in social sciences.

Industrial Economics:

CO1: To understand basics of industrial economics.

CO2: To study globalization and liberalization in contemporary world

Economy of Maharashtra:

CO1: To understand the basic features of economy of Maharashtra.

CO2: To study the problems related with agriculture, industries, cooperative sector and infrastructure in the Maharashtra state.

Course Outcomes (COs)

Department of Public Administration

B.A. F.Y.

Semester I

Principles and Concepts of Public Administration (Paper-I)

Upon completion of the course, the students will be able to-

CO1: Explain meaning, nature and scope of Public Administration.

CO2: Differentiate between Public and Private Administration.

CO3: Explain meaning and forms of Organization.

CO4: Describe different Principles of Organization.

CO5: Identify concepts of Public Administration like Leadership, communication, supervision etc.

Public Administration in India (Paper-II)

Upon completion of the course, the students will be able to-

CO1: Explain historical evolution and current global scenario of Indian Administration.

CO2: Explain the constitutional framework, fundamental rights and duties.

CO3: Discuss structure and function of Rajya sabha and Loksabha.

CO4: Explain the structure and function of Indian judiciary/Supreme courts.

Semester II

Maharashtra Administration (Paper-III)

Upon completion of the course, the students will be able to-

CO1: Discuss formation of Maharashtra State and its administrative features.

CO2: Describe structure and functions of the state Executive and legislative.

CO3: Analyze structure and functions of the state judiciary.

CO4: Identify relevance of Constitutional and Statutory bodies at the state level such as MPSC, Maharashtra Finance Commission, Election Commission etc.

District Administration (Paper-IV)

Upon completion of the course, the students will be able to-

CO1:Explain evolution and importance of District Administration.

CO2: Explain the various functions of District Collector.

CO3: Discuss changing role of district collector.

CO4: Identify various aspects of the concept Law and Order and it's Principles.

CO5: Understand functioning of revenue administration.

CO6: Understand functioning and issues of district police administration.

B.A. S. Y. B.A. Public Administration

Semester III

Personnel Administration (Paper-V)

Upon completion of the course, the students will be able to-

CO1: Explain the meaning and function personnel administration and public services in India.

CO2: Identify the role of personnel training institutions such as YASHDA, MPA and LBSNAA.

CO3: Discuss personnel grievance redressal mechanism in India CVC.

CO4: Comprehend with the problems of personnel administration in India.

CO5: Explain relevance of administrative tribunal mechanism in India CAT, MAT.

Panchayati Raj and Rural Development (Paper-VI)

Upon completion of the course, the students will be able to-

CO1: Discuss basic concept and history of Local Self Government in India.

CO2: Discuss on Panchayat Raj system structure and function in Maharashtra.

CO3: Explain composition and function of state Rural Development Ministry.

CO4: Acquaint concept and Program of Rural Development.

CO5: Describe Problems of Rural area.

CO6: Discuss the financial resources of local self government**.**

Semester IV

Financial Administration (Paper-VII)

Upon completion of the course, the students will be able to-

CO1: Explain basics of information financial administration as well as importance of the finance ministry.

CO2: Comprehend process and importance of budget.

CO3: Describe major accounts and audit mechanism in India.

CO4: Explain methods and importance of parliamentary control over financial administration in India.

CO5: Discuss concept of Liberalization, Privatization and Globalization.

Urban Local Self Government and Urban Development (Paper-VIII)

Upon completion of the course, the students will be able to-

CO1: Discuss basic concept of urban local self-Government in India.

CO2: Understand the causes of urbanization**.**

CO3: Explain urban local self-Government system in Maharashtra.

CO4: Acquaint Urban Development Agencies in Maharashtra.

CO5: Describe the problems of urban area.

CO6: Identify major Urban Development Program.

B.A. T.Y. Public Administration

Semester V

Human Resource Development (Paper-IX)

Upon completion of the course, the students will be able to-

CO1: Explain nature, scope, structure and processes of human resource development

CO2: Discuss changing paradigms of human resources development.

CO3: Understanding means of human resource development.

CO4: Explain the human resource management and its objective.

CO5: Discuss on recruitment process.

CO6: Explain importance of human resource planning.

Educational Administration in India (Paper-X)

Upon completion of the course, the students will be able to-

CO1: Discuss objectives and importance of Education.

CO2: Describe historical background of Education in the light of various Committee's recommendations and government policies.

CO3: Identify role of Quality Control Institutions, such as NAAC and AICTE, in Higher Education.

CO4: Describe structure, relevance and the present Scenario of Higher Education.

CO5: Analyze impact of Globalization on Higher Education in India.

Administrative Thinkers (Paper-XI)

Upon completion of the course, the students will be able to-

CO1: Discuss F.W.Taylors concept of Scientific Management.

CO2: Understand Feyols elements and Principles of Management.

CO3: Describe Max Weber's Ideal Model of Bureaucracy.

CO4: Explain Mary Follet's ideas of Authority, Conflict and Integration

CO5: Describe Elton Mayo's Hawthorn Experiment or Human Relation Theory.

CO6: Examine Herbert Saiman behavioural approach and Decision-Making approach.

CO7: Explain Ecological approach and concept of Prismatic Society by F. W. Riggs.

Semester VI

Public Policy and Development (Paper-XII)

Upon completion of the course, the students will be able to-

CO1: Explain concept of Public Policy.

CO2: Discuss role of internal determinants in the formulation of Public Policy.

CO3: Discuss role of Executive and Bureaucracy in the implementation of Public Policy.

CO4: Explain concept of Development and Sustainable development.

CO5: Understanding central government development policies – Food policy, Water policy, Land Reform.

CO6: Describe challenges before Development.

Health Administration in India (Paper-XIII)

Upon completion of the course, the students will be able to-

CO1: Explain organizational elements, structure, performance, and terminology and delivery modalities for India healthcare systems.

CO2: Understanding structure and interdependence of healthcare system elements and issues using critical thinking to formulate innovative system designs that improve healthcare delivery.

CO3: Explain the role and facilities of NRHM.

CO4: Explain the challenges before Indian health care system.

Recent Trends in Public Administration and Important Laws (Paper-IV)

Upon completion of the course, the students will be able to-

CO1: Discuss concept of New Public Administration and New Public Management.

CO2: Explain Public Choice Approach and the relevance and role of the Civil Society.

CO3: Explain meaning and importance of the Citizen Charter.

CO4: Discuss concept and it's relevance of Good Governance, E-Governance and Disaster Management.

CO5: Discuss important Laws such as Civil Rights Protection, Consumer Protection, Environment Protection, and Right to Public Services.

Project Work

Upon completion of the course, the students will be able to-

CO1: Develop problem solving abilities and communications skill.

CO2: Understanding of the social, political, economic, and cultural factors and its influence on public administration.

CO3: Develop ability to effectively communicate, both in research writing as well as terminology, facts, concepts, and theories used in the field of public administration.

CO4: Create awareness social, administrative issues and policies.

Coordinator
Internal Quality Assurance Cell (IQAC)
Sunderrao Solanke Mahavidyalaya,
Majalgaon, Dist.Beed (MS)

PRINCIPAL
Sunderrao Solanke Mahavidyalya
Majalgaon Dist. Beed (M.S.)

Course Outcomes (COs)

Department of Political Science

B. A. Political Science, First Semester

Pol-101, Basic Concept of Political Science

CO1: To understand the basics of political science.

CO2: To study the development of rights- state background of political history.

CO3: To analyze transitions in societal systems – the structure and order of the system.

Pol-102, Government and Politics of Maharashtra

CO1: To establish pattern of Maharashtra State.

CO2: To examine the government and non-government responses.

CO3: To understand history of the Freedom Movement in India collected from the Bombay Government Records.

CO4: To understand historical and political background of Maharashtra.

CO5: To explain structure and functions of state government in India.

CO6: To understand the political process of Maharashtra.

B. A. Political Science, Second Semester

Pol-103, Basic Concept of Political Science

CO1: To define terms in a social science outside their immediate area of expertise.

CO2: To create awareness among students about democracy.

CO3: To help students to understand social and political values in Indian political system.

CO4: To understand the concept of welfare state.

Pol-104, Government and Politics of Maharashtra

CO1: To study elections and election process.

CO2: To provide solution to social problems.

CO3: To study Panchayat raj History.

CO4: To orient the students about ideology and programme of political parties in Maharashtra.

B. A. Political Science, Third Semester

Pol-105, Indian Government and Politics

CO1: To study the prosperity of society.

CO2: To understand political events in government of India.

CO3: To understand basic principles of Indian constitution.

CO4: To study the Indian constitution.

Pol-106 International Relations

CO1: To understand the behavior of individual entrepreneurs and firms rather than world politics, liberalism.

CO2: To understand important implications for international law and international relations.

CO3: To explain basic concepts in international relations.

CO4: To understand the stages of development of international relation as a separate discipline.

B. A. Political Science, Forth Semester

Pol-107, Indian Government and Politics

CO1: To explain structure of union government and budgetary process in India.

CO2: To understand the framework of Indian supreme court.

CO3: To explain party system and electoral reforms.

CO4: To evaluate the federal structure and center state relation.

Pol-108, International Relations

CO1: To explore the nature of informal reasoning in international relations and to consider how instruction could help enhance.

CO2: To study various international and regional organization. CO3: To aware the students about major issues in internationalism. CO4: To evaluate critically the non-alignment movement.

B. A. Political Science, Fifth Semester

Pol – 109, Indian Political Thinkers

CO1: To understand modern political thinker's contribution.

CO2: To learn the problems in cultural transformation of Indians into non- Indians.

CO3: To study the religious, political, social and cultural thoughts of Indian political thinkers.

Pol – 110, Western Political Thinkers

CO1: To understand the views of western political thinkers.

CO2: To understand the ideas of western political thinkers and its relevance.

CO3: To understand the thoughts of Plato on various political concepts.

CO4: To know ideas of Aristotle and his role in western politics.

Pol – 111, Political Ideologies

CO1: To study the development and features of political ideologies.

CO2: To understand relevance of political ideology in contemporary period.

CO3: To study the origin of ideologies and clash of three political ideologies – liberalism, communism, and fascism.

CO4: To correlate the theoretical discussion and analysis of ideologies to the transformations.

B. A. Political Science, Sixth Semester

Pol – 112, Indian Political Thinkers

CO1: To study Dr. B. R. Ambedkar's thoughts on democracy, economy and society.

CO2: To evaluate critically M. N. Roy's radical humanism.

CO3: To understand Nehru's democratic and secular views and its Applicability.

CO4: To know of ideas of Maulana Azad views on religion and politics.

Pol – 113, Western Political Thinkers

CO1: To present thoroughly the wealth of historical and institutional materials.

CO2: To study the thoughts of J. S. Mill and its applicability.

CO3: To evaluate critically the thoughts of Karl Marx and its relevance.

CO4: To understand the theory of utilitarianism.

Pol – 114, Political Ideologies

CO1: To study of ideology of socialism.

CO2: To evaluate critically the ideology of fascism.

CO3: To study the development and features of communism.

CO4: To explain the ideology of feminism.

Course Outcomes (COs)
Department of History (UG)

B.A.History Shivaji and His Times (1630-1818)

CO1: TointroduceleanersabouttheinnovativestudytechniquesintheofHistoryofMarathas.
CO2: To provide value based conceptual and thought provocative.

CO3: To provide in sights in to the Mughal rulers and the Maratha Empire.

CO4: To introduce international elements in the study of Marathas to facilitate
comparative analysis of the history.

CO5: To highlight the importance of past in exploration of present context.

CO6: To understand the socio-economic, cultural and political background of
17th century of Maharashtra.

CO7: To provide spirit of healthy Nationalism & Secularism among the learners.

History of Modern Maharashtra(1818-1960)

CO1: To familiarize students to the study of Maharashtra.

CO2: To acquaint learners with the basic understanding of developmental stage
of Maharashtra.

CO3: To impart high quality education to the students with reference to
Maharashtra.

CO4: To prepare the students for a variety of challenging careers through
innovation in teaching and research.

CO5: To develop comprehensive understanding of interdisciplinary issues of the
society.

History of Early India (uptoB.C.300)

CO1: To understand the ancient Indian history.

CO2: To understand the nature of races and tribes in termingle dinearly India.

CO3: To evaluate Hinduism, Jainism, and Buddhism in ancient times.

CO4: To understand the nature of past and obstacles that impedes India's
progress a nation.

History General Paper-VIII History of Mughal India(A.D.1526-A.D.1757)CO1: To understand the Mugha lcontribution to the Indian history.

CO2: To know the Mughal period.

CO3: To study Persian art and culture amalgamated with native Indian art and culture.

CO4: To study the political unity provide by the Mughal rulers.

History General Paper–IX Historiography

CO1: To understand and evaluate the development of history as a discipline.

CO2: To understand writing of historical accounts.

CO3: To highlight the significance of thinking"historiographically".

CO4: To provide new angle store search and interpretations.

History General Paper-X History of Indian national Movement (A.D.1885-

A.D.1947)

CO1: To provide acomprehensive understanding of the transformations in the economy of colonial India.

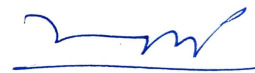**CO2:**To introduce land and agrarian policies under the British rule.

CO3: To develop nationalism in learner's mind.

CO4: To understand the British economic policy and India volts.

CO5: To understand the British parliamentary acts that led to the foundation for the Indian constitution.

Department of History (PG)
Course Outcome (M.A.)

History-I year Course Code-HIS-401: History of India up to 300B.C.

CO1: To understand the stage wise development of civilization, morals, ethics and culture.

CO2: To know the progression of cultural history in India.

CO2: To provide abroad overview of proto-historic developments in India.

CO3: To understnd historic cultural heritage of our country through archaeological context.

CO4: To provide details of the Harappan urbanisation and other Chalcolithic cultural developments in India followed by the Megaliths and their cultural background in peninsular India.

CO5: To learn developments of architecture and iconography in the early historic period.

CO6: To introduce students to archaeology and the method sused by archaeologists.

M.A. History-Iyear Course Code-HIS-402 CourseTitle- Twentieth century world (up to end of World War II)

CO1: To understand and critically analyze the nature and political discourses of the twentieth century world war.

CO2: To understand the trends in history during the first and second world war.

CO3: To study the historical perspectives of the developed, developing and under developed nations.

M.A.History-I year Course Code-HIS-421 Cours Title-Socio-Religious Movements in Maharashtra (1200-1700A.D.)

CO1: To study approaches of Bhakti movements by modern hinkers.

CO2: To understand the ideology and protests of religious sections towards social structure of medieval Indian society.

CO3: To provide insights into religious ideas, forms, nature of language and literature during ancient time.

CO4: To understand the rise of religious movements.

M.A.History-I year Course Code – HIS – 423 Course Title – History of the   Marathas 1600 to 1707

CO1: To understand political history of Chhatrapati Shivaji.

CO2: To orient learners to acquire proper understanding of Shivaji's administration and importance of his politics regarding agriculture, trade and religion.

M.A.History-II yearCourse Code- HIS-424 Course Title- Nineteenth century India

CO1: To understand the nature of politics, society, culture in India prior and

After the entry of British.

CO2: To study the policies of British East India Company.

CO3: To evaluate the impact of British East India Company on Indian society.

CO4: To evaluate political, cultural, circumstances during the nineteenth century in India.

M.A.History-II year Course Code-HIS-403 Course Title-State Society and Culture of India (300B.C.-500A.D.)

CO1: To inculcate skills among students regarding politics, economy and society.
CO1: Tounderstandthepastof300B.C.-500A.D.

M.A.History-II yearCourse Code-HIS-404 Course Title-Polity in Medieval India

CO1: To understand polity in Medieval Indian history.

CO2: To understand sources and historiography of medieval Indian history.

CO3: To evaluate the approaches of medieval Indian History by modern historians.

CO4: To understand the perspectives in Medieval administrations.

CO5: To evaluate the administration in Medieval Indian history.

M.A.History-II yearCourse Code-HIS-429-Polity in Medieval India

CO1: To understand the development of political and social ideas in history of India from ancient times to the colonial era.

CO2: To study the development of ideas that enables students to undertake the critically evaluation of political and social ideas through historical process.

M.A.History-II yearCourse Code-HIS-430CourseTitle-History of the Marathas (1707-1818)

CO1: To understand the 18th century political development of India and particular of Deccan.

CO2: To study the social and economic institutions expanded in Maharashtra.

CO3: To provide brief information about the political economy and architecture ofthe Marathas.

Course Outcomes (COs)

Department of Physical Education

Sr. No.	Course	Course Objective	Course Outcomes
	BAFY १०१ शारीरीक शिक्षणाचे तत्वज्ञान सामाजीक पाया आणि शारीरीक शिक्षणाचा इतिहास	१. शारीरीक शिक्षणातुन व्यायामाची आवश्यकता स्पष्ट करणे. २. शारीरीक विकासाबरोबर सामाजिक विकासाचे महत्व स्पष्ट करणे. ३. दैनंदीन जिवनात शारीरीक विकास निर्माण करुन शारीरीक क्षमता निर्माण करणे. ४. शारीरीक शिक्षणातील तत्वज्ञानाविषयी विद्याथ्यांना माहिती देणे. ५. शारीरीक शिक्षणातील सामाजीक पायाची माहिती करणे. ६. विसाव्या शतकातील शारीरीक शिक्षणाविषयी माहिती देणे.	१. शारीरीक शिक्षणाचे स्वरुप समजते. २. शारीरीक क्षमता विकसीत होते. ३. शारीरीक शिक्षणातुन चारित्राचा विकास होतो. ४. शारीरीक शिक्षणातुन आदर्श नागरीक निर्माण होतो. ५. शारीरीक शिक्षणातुन व्यक्ती चा सर्वांगिन विकास होतो. ६. शारीरीक शिक्षणातुन सामाजिक शिक्षणामुळे त्यांचा विकास होतो. ७. शारीरीक शिक्षणाचा इतिहास विद्याथ्यांना माहित केल्यास त्यांना खेळाविषयी आवड निर्माण होते.
	BAFY १०२ शारीरीक शिक्षणाचे तत्वे आणि विकास	१. शारीरीक प्रकारची माहिती देणे. २. व्यायामाच्या तत्वाविषयी माहिती देणे. ३. सामाजिक मुल्याविषयी माहिती देणे. ४. शारीरीक शिक्षणाच्या दर्जाविषयी माहिती देणे.	१. शारीरीक प्रकारची माहिती मिळते. २. व्यायाम कसा करावा हे माहित होते. ३. सामाजीक मुल्यांची ज्ञान होते. ४. शारीरीक शिक्षणाचा दर्जा कसा असावा या विषयीचे ज्ञान मिळते.
	BAFY १०३ शारीरीक शिक्षणाचे प्रात्यक्षिक	१. मुलांना मैदानावर आणणे. २. मुलांना मैदानी स्पर्धेचे ज्ञान देणे. ३. मुलांना १०० मी.उंच उडी, या कौशल्याची माहिती देणे.	१. मुलांना स्पर्धेचे ज्ञान मिळते. २. मुलांना खेळातील कौशल्याचे ज्ञान मिळते. ३. खेळाच्या इतिहासाची माहिती मिळते.
2	BASY १०१ शारीरीक शिक्षणातील आरोग्य शिक्षण आणि मनोरंजन व खेळ	१. शारीरीक शिक्षणातुन आरोग्य विषयक माहिती देणे. २. शारीरीक शिक्षणातुन विद्याथ्यांचे मनोरंजन करणे. ३. खेळाविषयी आवड निर्माण करणे. ४. मनोरंजनातुन विद्याथ्यांचे मानसीक जडणघडण करणे.	१. आरोग्य चांगले ठेवले जाते. २. विद्याथ्यांचे मनोरंजन होते. ३. मनोरंजनातुन मानसिक तनाव दुर केला जातो. ४. मनोरंजनातुन सामाजिक विकास होतो.
	BASY १०२ शारीरीक शिक्षणातील पंचगिरी, मार्गदर्शन पध्दती आणि खेळ	१. पंचगिरीचे महत्व सांगणे. २. पंचाचे कार्य सांगणे. ३. मार्गदर्शकाच्या पध्दतीविषयी ज्ञान देणे. ४. मार्गदर्शकाची तत्वाची माहिती देणे.	१. पंचगिरीचे महत्व लक्षात ठेवले जाते. २. पंचाच्या कार्याविषयी माहिती मिळते. ३. मार्गदर्शकाच्या तत्वाची माहिती मिळते. ४. मार्गदर्शकाच्या पध्दतीची माहिती मिळते.
	BASY १०३ शारीरीक शिक्षण प्रात्याक्षिक	१. मुलांना मैदानावर आणणे. २. वेगवेगळा खेळ खेळण्यास प्रवृत्त करणे. ३. व्यायामाची सवय लावणे. ४. प्रत्येक खेळाच्या कौशल्याची प्राप्ती करणे.	१. मैदानावर खेळ खेळण्यास प्रवृत्त होतात. २. कौशल्याचे ज्ञान मिळते. ३. व्यायामाची सवय लागते. ४. शारीरीक विकास होतो.
3	BATY ११३ प्राचिन भारताचा शारीरीक शिक्षणाचा	१. आर्यकालीन शारीरीक शिक्षणाविषयी माहिती देणे. २. वैदिक काळातील शारीरीक शिक्षणाविषयी माहिती देणे.	१. आर्यकालीन शारीरीक शिक्षणाविषयीचे ज्ञान मिळते. २. वैदिक काळातील शारीरीक शिक्षणाविषयीचे ज्ञान मिळते.

	इतिहास	३. वैदिक काळातील शारीरीक शिक्षणाविषयी महत्व सांगणे. ४. आर्यकाळातील शारीरीक शिक्षणाच्या उद्दीष्टांची माहिती देणे.	३. आर्यकालीन शरीरीक शिक्षणाचे महत्व कळते. ४. आर्यकालीन शारीरीक शिक्षणाच्या उद्दीष्टांची माहिती मिळते.
	BATY ११४ शारीरीक शिक्षणाचा अधुनिक इतिहास	१. बौध्द काळातील शारीरीक शिक्षणाविषयी माहिती देणे. २. अधुनिक काळातील शारीरीक शिक्षणाविषयी माहीती देणे. ३. जैन काळातील शारीरीक शिक्षणा विषयी माहिती देणे. ४. प्राचिन व अधुनिक काळातील शारीरीक शिक्षणाचे महत्व पटवुन देणे	१. बौध्द काळातील शारीरीक शिक्षणाविषयी माहिती मिळते. २. जैन काळातील शारीरीक शिक्षणा विषयी माहिती मिळते. ४. अधुनिक काळातील शारीरीक शिक्षणाविषयी माहिती मिळते. ५. प्राचिन व अधुनिक काळातील शारीरीक शिक्षणातील महत्व कळते.
	BATY Main ११५ शारीरीक शिक्षणातील आयोग्य व प्रथमोपचार	१. प्रथमोपचाराची माहिती देणे. २. व्यसनमुक्ती विषयी मार्गदर्शन करणे. ३. काविळ,मलेरिया विषयी माहिती देणे. ४. रक्तदाबाविषयी माहीती देणे.	१. जखमी खेळांडुंना प्रथमोपचाराविषयी माहिती मिळते. २. व्यसनाचे परिणाम लक्षात येतात. ३. काविळ, मलेरिया या सारख्या रोगांचे निर्मुलन कसे करावे या विषयी माहिती मिळते. ४. रक्तदाबाचे परिणाम काय होतात या विषयी माहिती मिळते.
	BATY Main ११६ प्रात्याक्षीक	१. विद्यार्थी मैदानावर आणणे. २. खेळाविषयी आवड निर्माण करणे. ३. खेळातील कौशल्या प्राप्त करणे. ४. खेळातुन सहकार्याची भावना वाढिस लागणे. ५. राष्ट्रप्रेम निर्माण करणे.	१. मैदानावर येण्याची सवय लागते. २. खेळाविषयी आवड निर्माण होते. ३. राष्ट्रप्रेम निर्माण होते.

Course Outcomes (COs)

Department of Geography

F.Y B.A

Geo.101   Paper NO. I   Elements of Physical Geography

CO1. Students will get the knowledge about branches Geomorphology andUnderstand the effect of rotation of revolution the Earth. Know the internal structure of the earth know the importance of longitudes & latitudes International Date line and Standard time.

Geo.102   Paper NO. II   Human Geography

CO1. Understand the relationship of man and environment. Studies of races of man kinds. Understand the modes of life of axiom, pigmy, gond, Bhil and nagas. Importance of Right to Information Acts.

Geo.103   Paper NO. III   Geography of Landforms

CO1. Understand Theory regarding of Origin of Continents and oceans 5. Study the formation of Rocks Understand the work of internal and external forces and their associated landforms.

Geo.104   Paper NO. IV   Regional Geography OfMaharashtra

CO1. Understand the Geographical Personality of Maharashtra, Study the Major river in Maharashtra and climate, majors crops and industries.

Geo.105   Paper NO. V   Practical Geography

CO1. Understand the mechanism function of topographical maps. Types of scale, Sign and symbols, Methods of showing relief.

S.Y. B.A

Geo.106   Paper NO. VI   Climatology

CO1. Understand the structure, composition of Atmosphere, weather phenomena winds, humidity and precipitation. Understand heat balance and forecasting methods

Geo.107   Paper NO. VII   Population Geography

CO1. Understand the history of population, types of data and Study of distribution and density of population. Get knowledge of population theories. Paper

Geo.108   NO. VIII   Oceanography

CO1 .Understand importance of ocean.

CO2 Knowledge about effect of ocean Currents.

CO3 Understand human impacts on Ocean.

CO4 Study about types of tides

CO5 To make aware about jadeites use of water.

Geo.109   Paper NO. IX   Settlement Geography

CO1. Understand the Nature and Scope of Settlement Geography Characteristics of Rural and Urban Settlements according to Indian Census and nature, scope, evolution and study methods.

CO2. Understand the settlement types, pattern and nature and process of urban settlement and some basic concept related to settlement geography

Geo.110   Paper NO. X Practical Geography

CO1. Introduce the student of top sheet, weather map.

CO2. Understand the mechanism function of topographical maps.

CO3. Understand interpretation if weather images.

CO4. Get knowledge about Graphs.

T.Y. B.A

Geo.111   Paper NO. XI   Physical Geography of India

CO1. Understand the location Physiographic, Drainage, Climate, and Vegetation of India

CO2. To know the silent feature, problems and prospects of Agriculture.

CO3. Study the Problems And Prospect of Industrial Area.

Geo.112   Paper NO. XII   Geography of Environment

CO1. Understand Structure, Components of Atmosphere.
CO2. Study about Nutrient cycling.
CO3. Acquire knowledge about biodiversity.
CO4. Understand the value of Resource.
CO5. Understand environmental problems there Cause, Effect and Remedies.
CO6. Get knowledge about environmental hazards and management.
CO7. Make aware about conservation of resources.

Geo.113   Paper NO. XIII   Industrial Geography of Maharashtra

CO1. Understand study about the industrial geography, its nature, scope, and different study methods in Maharashtra

CO2. To study the locations of industry and their activities primary and secondary and its factors responsible for same.

Geo.114   Paper NO. XIV   Agriculture Geography of India

CO1. Examining the introduction to agriculture, nature, scope, significance and development of agriculture geography, approaches to study.

CO2. Understand the fundamental concept, land use, crops, agricultural production and envelopment and study the determinants of agricultural activities, physical determinants, and socio-economic determinants.

Geo.115   Paper NO. XV   Geography of Natural calamity

CO1. Understand environmental problems there Cause, Effect and Remedies.

CO2. Get knowledge about environmental hazards and management.

CO3. To understand the environmental global problems such as deforestation, desertification, depletion of ozone, global warming,

Geo.116   Paper NO. XVI   Practical Geography

CO1. Understand the representation of Statistical data.
CO2. Know the Importance of Statistic in Geography.
CO3. Compute of Measures of Central tendency of dispersion
CO4. Compute the Correlation of Pearson's and Spearman's methods.
CO5. Statistical data Analysis of simple regression.

Geo.117   Paper NO. XVII   Bio- Geography

CO1. Understand about environment, Habitat and plant animal association.

CO2. Understand biome types and zoo geography

Geo.118   Paper NO. XVIII   Practical Geography

CO1. Understand the different surviving techniques.
CO2. Knowledge about preparation of layout.
CO3. Chain and tape survey
CO4. Prismaticcompass survey

Geo.119   Paper NO. XIX   Practical Project

CO1. Organize the field work and collect the authentic and appropriate data about selected village and analyzed that data help with Microsoft Excel, work sheet and prepare slide and the village report for presentation.

Course Outcomes (COs)

Department of Physics

Sr. No	Course Paper/Title	Course/Paper Outcomes
B.Sc. F Y Sem-I Phy101	**Mechanics Properties of Matter & Sound**	CO1. Explain the different Properties of matter CO2. To apply the laws of mechanics to solve the numerical CO3. explain the concept of Beam and their applications CO4. To Derive Kepler's laws. CO5. Explain the concept of Viscosity and Surface Tension with various Phenomena associated with it. CO6. To impart knowledge Acoustics and Ultrasonics and their use in daily life CO7. Explain Various effects associated with Applications of Sound CO8. Numerical Problems associated with above syllabus
B.Sc. F Y Sem-I Phy102	**Heat and Thermodynamics**	CO1. Understand the central concepts and basic formalisms of specific heat, entropy, quantum theory of radiation CO2. Use of tools needed to formulate problems in the thermodynamics of gases CO3. Solving problems based on heat transfer, entropy and thermal radiation CO4. Explain fundamental thermodynamic properties. CO5. Derive and discuss the first and second laws of thermodynamics. CO6. Solve problems using the properties and relationships of thermodynamic fluids. CO7. Analyze basic thermodynamic cycles

B.Sc. F Y Sem-II Phy105	**Geometrical & Physical Optics**	CO1. The course comprises of the study of superposition of wave optics, interference, diffraction, polarization. CO2. The course is important for the students to make their career in various branches of science and engineering, especially in the field of photonic engineering. CO3. Gain knowledge on various theories of light CO4. Acquire skills to identify and apply formulas of optics and wave physics CO5. Understand the properties of light like reflection, refraction, interference, diffraction etc. CO6. Understand the applications of diffraction and polarization. CO7. Understand the applications of interference in design and working of interferometers. 6. Understand the resolving power of different optical instrument.
B.Sc. F Y Sem-II Phy105	**Electricity and Magnetism Sem-IV**	CO1. Explain vector calculus with their problems CO2 Explain Various Theorems of Vectors with their use CO3. Understand and analyze the electrostatic properties of physical system CO4. Understand and analyze the magnetic properties of physical systems CO5. Understand the electrostatic properties of physical system CO6. Understand the electrical circuit CO7. Understand the various laws of electricity and magnetism
B.Sc. F Y Sem-I Phy103	**Practical**	CO1. Determination of acceleration due to gravity by Kater's pendulum. CO2. Y by bending of a beam loaded at center. CO3. Determination of Y by Cantilever (Oscillation method) CO4. η by Maxwell's needle. CO5. Determination of Y and η of the material of a flat spiral spring. CO6. S.I. by Jaeger's method CO7. Determination of coefficient of viscosity by Poiseuille's method.

B.Sc. F Y Sem-II Phy106	**Practical**	CO1. Y by Searle's apparatus. CO2. M.I. of fly wheel. CO3. Thermal conductivity of bad conductor CO4. by Lee's disc method. CO5. Study of CRO (Measurement of frequency and voltage sensitivity AC/DC.) CO6. Field along axis of circular coil. CO7. I-H curve. CO8. Calibration of spectrometer. 8. Dispersive power of prism
B.Sc. S Y Sem-III Physics 201	**Mathematical, Statistical physics and Relativity**	CO1. Explain statistical physics and thermodynamics as logical consequences of the postulates of statistical mechanics CO2. Apply the principles of statistical mechanics to selected problems CO3. Grasp the basis of ensemble approach in statistical mechanics to a range of situations CO4. To learn the fundamental differences between classical and quantum statistics and learn about quantum statistical distribution laws CO5. Study important examples of ideal Bose systems and Fermi systems
B.Sc. S Y Sem-III Physics 202	**Modern and Nuclear Physics**	CO1. Explain the different models of Nucleus CO2. Understand the detail theory of X-rays CO3. Understand the photoelectric effect with their applications CO4. Understand the basic concepts of nuclear physics CO5. Understand the Functioning of various nuclear detectors
B.Sc. S Y Sem-II Physics 205	**General Electronics**	CO1. Understand the basics of Semiconductors CO2. Explain the functioning of various types of transistors and amplifiers CO3. Understand the concept of biasing in Transistors CO4. Understand the oscillators and multivibrators with their functioning CO5. Understand the functioning of multivibrators

		CO6. Understand the concept of modulation and demodulation
B.Sc. S Y Sem-IV Physics 206	**Solid state Physics**	CO1. Students would be able to understand various types of crystal structures and symmetries CO2. understand the relationship between the real and reciprocal space CO3. learn the Bragg's X-ray diffraction in crystals. Would also learn about phonons and lattice CO4. Explore the relationships between chemical bonding & crystal structure
B.Sc. S Y Sem-III Physics 203	**Practical**	CO1. Find out plank's constant using photo cell CO2. Find out charge to mass ratio of electron using Thomson tube CO3. measurement low resistance using potentiometer CO4. to find Specific rotation using Lorentz half shade polarimeter CO5. To find out Cauchy's constant using spectrometer
B.Sc. S Y Sem-III Physics 204	**Practical**	CO1. Find out velocity of sound using helmotz resonator CO2. Find out surface tension of liquid using Ferguson method CO3. Find out resolving power of telescope CO4. measurement of wavelength of light using Newtons ring
B.Sc. S Y Sem-IV Physics 207	**Practical**	CO1. Find out energy band gap of semiconductor using thermistor CO2. Find out IV Characteristics of solar cell CO3. Calibration of bridge wire using Carry-Foster's bridge. CO4. Find out Viscosity of liquid using Searle's viscometer CO5. Viscosity of liquid by oscillating disc method

B.Sc. S Y Sem-IV Physics 208	**Practical**	CO1.　　Transistor characteristics in CE configuration. CO2.　　Transistor characteristics in CB configuration CO3.　　Hartly Oscillator using transistor CO4.　　Op-Amp as adder/subtractor CO5.　　Self-inductance by Owen's Bridge
B.Sc. T Y Sem-II Physics 301	**Classical & Quantum Mechanics**	CO1.　　Understand the Kinetic and Potential energy of the system CO2.　　Explain the Lagrangian and Hamiltonian of the system CO3.　　Understand the basic concepts of Quantum Mechanics CO4.　　explain the concept of wave function CO5.　　Understand the Schrodinger's Time dependent and time independent wave equation with their applications CO6.　　Understand the various operators associated with quantum mechanics.
B.Sc. T Y Sem-V Physics 302	**Electrodynamics**	CO1.　　use Maxwell equations in analyzing the electromagnetic field due to time varying charge and current distribution. CO2.　　describe the nature of electromagnetic wave and its propagation through different media and interfaces. CO3.　　explain charged particle dynamics and radiation from localized time varying electromagnetic sources. CO4.　　To impart knowledge on the concepts of electrostatics, electric potential, energy density and their applications. CO5.　　To impart knowledge on the concepts of magnetostatics, magnetic flux density, scalar and vector potential and its applications. CO6.　　To impart knowledge on the concepts of Faraday 's law, induced emf and Maxwell 's equations. CO7.　　To impart knowledge on the concepts of Concepts of electromagnetic waves and Transmission lines

B.Sc. T Y Sem-II Physics 305	**Atomic Molecular Physics and LASER**	CO1. Understand the Various Vector models CO2. Understand the Zeeman and Stark effect CO3. Understand the basic concepts Atomic and Molecular Physics CO4. explain various Coupling Schemes in two electron system CO5. Explain various types of molecular Spectra CO6. Discovery and experimental study of Raman effect. CO7. Understand the LASER With their Various types and applications in daily life
B.Sc. T Y Sem-VI Physics 306	**Non-Conventional Energy Sources and Optical Fiber**	CO1. Identify energy demand and relate with available energy resources CO2. Analyze harnessing of solar energy CO3. Analyze harnessing of wind energy CO4. Analyze harnessing of Biomass energy CO5. Analyze harnessing of Geothermal and Ocean energies. CO6. Analyze Magneto hydrodynamics and Fuel cell technology. CO7. Gain knowledge in optical fiber and their applications in communication
B.Sc. T Y Sem-V Physics 303	**Practical**	CO1. Measurement of the focal length of given convex lens using LASER CO2. Understand Diffraction of grating using laser beam CO3. To find the charge on electron using Millikan's oil drop experiment CO4. to find out Refractive index of optical fiber CO5. to find out the constant of Ballistic Galvanometer

B.Sc. T Y Sem-V Physics 304	**Practical**	CO1. Measurement of the diameter of thin wire using Laser CO2. Find out Youngs modulus by Koenig's method CO3. To demonstrate Edser's A Pattern CO4. to find out charge to mass ration of electron using excel
B.Sc. T Y Sem-VI Physics 307	**Practical**	CO1. Measurement of thermal conductivity by Forbes method CO2. Find out Reydberg constant using experiment and Excel CO3. determination of dielectric constant of solid and liquid material CO4. to find out I-H Curve using excel
B.Sc. T Y Sem-VI Physics 308	**Practical**	CO1. Measurement of temperature coefficient of resistance of semiconductor CO2. measurement of Temperature of sodium flame CO3. measurement of Inductance in Maxwell Bridge CO4. to understand transistorized regulated power supply using Zener diode

Course Outcomes (COs)
Department of Chemistry

B.Sc.ChemistryPaperIInorganicChemistry

CO1: To studythe basics of atomic structure-Atomic orbitals, Quantum numbers, Heisenberg uncertainty, Aufbau and Pauli exclusion principles, Hund'smultiplicity rule.Electronic configurations of the elements, Bohr'satomicmodel.

CO2: To understand some periodic properties-atomic and ionic radii, ionization energy, electron affinity and electro negativity with reference totrends in periodictable andapplication in predicting chemical behavior.

CO3: To studys-and p-block elements.

Paper No.II OrganicChemistry

CO1: To understand the basic concepts inorganic chemistry-reactions, reagents and mechanisms of organic reactions.

CO2: To study stereochemistry and its importance.

CO3: To familiar izeopen chain compounds like alkanes, alkenes and aromatic compounds chemistry and thei rimportance.

PaperV Physical Chemistry

CO1: To understand basic mathematical concepts - logarithmic relations, curve sketching, linear graphs and calculation of slopes, differentiation of functions simple mathematical functions ,maxima and minima,partial differentiation.

CO2: To understand kinetic theory of gases, kinetic gase quation, and gaslaws Boyles Law, Charles Law, Grahams Law of diffusion, Avogadro's hypothesis, deviation from ideal behavior, vander Waals equation of state.

CO3: Critical Phenomena: PVisotherms of real gases.

CO4: To study chemical kinetics: Factors influencing the rate of reaction, rate law and characteristics of simple chemical reactions-zeroorder, firstorder, second order, Pseudo order, half-life. Arrhenius equation,

concept of activation energy. Catalysis: Definition, types, and characteristics, Enzyme catalysis.

CO5: To understand basics of liquid and solid state -Intermolecular forces, structures, liquid crystals:Classification, structure of nematic and cholestricphases.

CO6: To study solids, Miller Indices, laws of crystallography, X-ray diffraction by crystals. Derivation of Bragge quation.

CO7: To familiar izelearners with colloidal state.

Paper VI Inorganic Chemistry-II

CO1: To understand chemical properties of the noble gases, chemistry of xenon, structure and bonding in xenon compound.

CO2: To understand types of bonds- ionic, covalent and coordinate, Hydrogenbonding, Van-der-Waals forces, Metallic bond Theories of bonding - VBT, VSEPR, MOTwith form ationand shapes of molecules.

CO3: To understand the basics of nuclear chemistry-Isotopes, Isobars mass, Binding Energy, Packing fraction N/Z ratio, Radio activity, properties of fundamental particles, Artificial transmutation. Applications with respecttotrans-uranicelements, carbondating.

CO4: To study theory of volumetric analysis - Types of titrations, volumetric apparatus, calibration of pipette and burette, in dicatorsusedin pH-titrations, oxidizing agents used in titrations. Theory of internal, external and self-indicators forredox titration.

(Organic Chemistry) Paper IX

CO1: To understand structure, reactivity, methods of preparation and chemical reactions of different types of compound - alcohols, Phenols, aldehydes-ketones, amines and carboxylic acids.

CO2: To study named reactions-Pinacol-Pinacolone rearrangement, FriesRearrangement, Claisen Rearrangement, Gatterman Synthesis and

Reimer Tiemann Reaction, Baeyer-Villeger Oxidation, Benzoin, AldolKnoenenagel condensations, Mannich Reactions. Hoffmann BromamideReactions, Gattermann Koch synthesis, Hell-Volhard-

Zelinsky Reaction. Regents inorganic chemistry–LiAIH4, LTA, PTC.

CO3: To understand the basic functional group transformations, aromatic electrophilic substitution reactions, nucleophilic additions.

(Physical Chemistry-I) Paper X

CO1: To understand the basic concepts in thermodynamics.

CO2: To understand the laws of thermodynamics and terms like W, q, du and dH for the expansion of ideal gase sunder isothermal and adiabatic conditions for reversible process, Hess'slaw.

CO3: To study Carnot cycle, its applications, concept of entropy, Gibbsand Helmholtz Functions, Criteria for thermodynamic equilibrium and spontaneity, their advantage over entropy change. Variation A with P, VandT.

CO4: To understand equilibrium constant and free energy - law of mass action, LeChatelier's principle, Reaction isothermand reaction isochore, Clapeyron equation, Clausius-Clapeyron equation.

(Physical Chemistry-II) PaperXIV

CO1: To study the basic terms and laws-Henry law, Raoults law in phase equilibrium and thei rapplications.

CO2: To understand different systems- Water, Pb-Ag, Mg-Zn, $FeCl_3$-H_2O, phenol-water, trimethyl amine - water, nicotine- water system, acetone-dryice.

CO3: To understand the concept of ideal behavior and deviations from ideality.

CO4: To understand the concept of conductivity and its types, Kohlrausch'slaw, Arrhenius Theory of Electrolyte Dissociation, Ostwald's dilutionlaw,

Transport number:anditsdetermination, Conductometric titrations.

CO5: To familiarize with types of reversible electrodes, Nernst Equation, CellE.M.F., single electrode potential, Reference electrodes, Electro-chemicalseries, Electrolytic and galvanic cells, types of cells, Thermodynamic quantities of cell reactions, Concepts - pH, pKa and their determination, Buffers-types, and mechanism of action, Henderson-Hassel balch equation.Corrosion:Concept, types and electrochemical theory.

(Inorganic Chemistry) PaperXIII

CO1: To familiar izestudents with transition elements, lanthanide sand actinides with reference to characteristics, position in periodic table and variation in periodic properties.

CO2: To understand concepts and the oriesin coordination compounds-Werner'sco-ordination theory, EANrule, VBT, isomerism, chelates.

CO3: To understand the concepts of acids and bases - Arrhenius, Bronsted-Lawry, Lux-Flood, Solvent Systemand Lewis Concept of Acids and Bases

CO4: To studychemicalreactioninnon-aqueoussolvents.

PaperXVIIPhysicalChemistry

CO1: To understand concepts in Quantum Mechanics - Black body radiation, Planck's radiation law, photoelectric effect, Bohr's modes of hydrogenatom, Compton Effect. De Broglie Hypothesis, Heisenberg's uncertaintyprinciple, Harmiltonian operator, Schrödinger wave equation

postulatesofquantummechanics.SchrödingerwaveequationforH-atom.

CO2: To study the basics of spectroscopy - Electromagnetic radiation, regionsofthespectrum, Born-Oppenheimer approximation, Rotational Spectrum

-Diatomic molecules, energy levels of arigidroto (semi classical principles), selection rule, rotational spectrao frigid diatomic molecule, determination of bond length.

CO3: To understand photochemistry-Photochemical processes,laws of photochemistry,Grothus-Drapperlaw,Stark-Einsteinlaw, Jablonsiki diagram qualitative description of fluorescence, phosphorescence, non radiative processes,quantum yield and photosensitized reactions.

CO4: To study some physical properties and their relation with the assingment of molecular structure-Optical activity, dipole moment, magnetic property.

CO5: To introduce nano-materials-Properties, methods of synthesis and applications.

CO6: To enable students to solv enumerical problems.

PaperXVIII Organic Chemistry

CO1: To introduce learnersto organic spectroscopy-^{1}HNMR, shielding and deshielding, chemical shifts, interpretation of PMR spectra of simpleorganic molecules, combined problems on UV, IR and PMR spectroscopic techniques.

CO2: To familiarize students with organo metallic compounds-Structure, methods of synthesis and synthetic applications of Grignard reagents, Organozinc and organolithiumcompounds.

CO3: To understand organic synthesis via enolates-Active methylene compound, Claisen condensation, Acidity of alpha hydrogen and its synthetic applications.

CO4: To introduce fats, oil and detergents - Saponification value, iodine value, and acid value .Detergents preparation of sodiumalkylsulphonate, alkyl benzene sulphonate, and amide sulphonate, cleansing action of detergent.

Paper XIX Organic Chemistry

CO1: Tounderstand nature of metal-ligand bonding in transition metal complexes - crystal field theory with respect to octahedral, tetrahedral and square planer complex.

CO2: To familiarize with electronic spectra of transition metal complexes.

CO3: To introduce organometallic compounds-classification, nomenclature, synthesis and reactions.

CO4: To study therolesand biological functions of metals in biological systems.

CO5: To introduce chromatography-types, classification and applications.

Paper No.XVII Organic Chemistry

CO1: Curriculum benefits to study the heterocyclic compounds in details, theiraromatic characters and importance in medicinal chemistry, structure elucidation of five and six member heterocyclic compounds using molecular orbital theory.

CO2: To understand synthesis and properties of some five andsix member heterocyclic compound.

CO3: To studycarbohydrate chemistry and its importance.

CO4: To understand synthesis and properties of some polymers, polymerization reactions.

CO5: To know constitution, classification, synthesis and properties of someyes.

CO6: To understand constitution, classification, synthesis, properties and applications of some drugs.

M.Sc.-IOrganic Chemistry

CHE-101: Analytical Chemistry

CO1: To understand basic concepts in analytical chemistry - Role of analyticalchemistry, qualitative and quantitative analysis, analytical processes of validation of method.

CO2: To understand the methods of statistical treatment of analytical data.

CO3: To study the basic separation techniques in analytical chemistry.

CO4: To familiarize with different chromatographicte chniques-theory, experimental and different parameters-TLC, column, liquid-liquid partition, gelpermeation, ion exchange, gas and HPLC.

CHE-102: Inorganic Chemistry

CO1: To familiarize with different spectroscopic term symbols, Orgel diagrams and Tanabe Sugano diagrams for different configurations.

CO2: To understand the interpretatione lectronic spectra of metal complexes.

CO3: To study preparations, reactions and structure sof metalcarbonyls and nitrosyls and EANrule.

CO4: To understand the chemistry of dioxygen, dinitrogen complexesandnon-carbonyl metal clusters.

CO5: To understand bioinorganic chemistry involved in biological systems.

CHE-103: Organic Chemistry

CO1: To study aromatic electrophilic and nucleophilic substitutions with reference to orientation and reactivity, energy profile diagram, ortho/pararatio, IPSO substitution, orientation in other ring system, Recapitulation of halogenation, nitration, sulphonation and FriedelCraft' sreaction, diazonium coupling.

CO2: To understand nucleophilic substitution-$S_N{}^{Ar}$,$S_N{}^1$,benzynemechanisum

CO3: Effect of substrate structure, leaving group and attacking nucleophile onreactivity.

CO4: To study reaction mechanism and reaction intermediates- carbocations,

carbanions, freeradicals.

CO5: To study mechanism and stereochemical as pects of addition reaction involving electrophile, nucleophile and free radicals.

CO7: To understand regioselectivity andchemoselectivity, orientation and reactivity in addition to carbon-carbon multiple bond; Michael addition, Sharplessasymmetric epoxidation.

CO8: Study of elimination and rearrangement reactions.

CHE-104: Physical Chemistry

CO1: To understand ionic equilibrium and biological reactions.

CO2: To study the oriesofreactionrates, kinetic so freactions, methods of determiningrate so freactions.

CO3: To study classical and statistical thermodynamics.

CO4: To understand model sinvolvedin surfacechemistry.

CO5: Tounderstandadvanced conceptsinelectrochemistry.

CHE205: Spectroscopic methods of analysis

CO1: General introduction to spectral methods.

CO2: Basic concepts, instrumentation and applications of Microwave, Vibrational and Ramanspectroscopy.

CO3: To understand photoelectronspectroscopy.

CO4: To study thermal methods of analysis–TGA, DTA.

CO5: To understand the principle instrumentation, applications of UV, IR and NMR spectroscopy.

CO6: To enable students to structure elucidation of compounds using combined spectral data.

CHE-206: Inorganic chemistry

CO1: To understand spectrosco picterm symbols, microstates, Orgeldiagram.

CO2: Study of electronic spectra and magnetic properties of transition metalcomplexes.

CO3: To understand the preparation, properties and reactions of metalcarbonylsandnitrosyls.

CO4: Inorganicchemistryofhaemoglobinandmyoglobin.

CHE-207: Organic chemistry

CO1: To understand aliphatic and aromatic electrophilic as well as nucleophilic substitutions reactions.

CO2: Mechanisms and sterochemical aspects of additions to C-Cdoublebondsand carbon-heteroatommultiple bonds.

CO3: To understand various named reactions with their mechanisms.

CHE-208: Physicalchemistry

CO1: To understand basics and advanced concepts in quantum mechanics.

CO2: To understand phaseruleandits applications to different systems.

CO3: To study laws in crystallography, symmetry elements, and principles of crystal structure.

CO4: To understand concepts in photochemistry, photochemical processes and mathematical equations.

M.Sc.II-Organic Chemistry Structural elucidation by spectral methods [CHEO-313]

CO1: To understand spin-spin and different types of couplings.

CO2: To study principles and applications of mass and NMR Spectroscopy.

CO3: To study the basic principles and applications of Mossbauerand ESR spectroscopy.

CO4: Tounderstandstructureelucidationoforganicmoleculesbyanalysisofspectral data.

Organic Synthesis [CHEO-314]

CO1: Tostudyapplicationsofdifferentoxidizingreagents.

CO2: Tostudyapplicationsofvariousreducingreagents.

CO3: To understand methods of synthesis and synthetic applications of organic

reagents in synthetic organic chemistry.

CO4: To studycarbon-carbon and carbon-heteroatombond formingreactions.

CO5: Studyofylidesandenamines.

Asymmetric synthesis of and bio-organic chemistry [CHEO-315]

CO1: To understand classification and extractionofenzymes.

CO2: Tointroducethestudentstoenzymecatalysis.

CO3: Tostudychemicalstructureofco-enzymesandcofactors.

CO4: TostudychiralpollandFalkinanhmodel.

Photochemistry, free radical and pericyclic reaction [CHEO-316]

CO1: To study the principles and applications of pericyclic reactions.

CO2: To understand electro-cyclic reactions and their applications.

CO3: To study importanc eofcyclo-addition reactions with examples.

CO4: To understand applications of photochemistry.

CO5: To understand free radical reactions.

Organic Synthesis retrosynthetic Approach [CHEO-417]

CO1: To study importance and applications o fdisconnection approach.

CO2: To understand protecting groups for different functional groups in organic synthesis.

CO3: To study disconnection approach ofcycloadition reactions.

CO4: To study disconnection strategies forring synthesis.

CO5: To understand retro-synthesisof complex organic molecules.

Advanced organic and heterocyclic chemistry [CHEO-418]

CO1: To study structure, synthesis and reactions of monoand fused ring heterocyclic compound.

CO2: To understand advanced named reactions inorganic chemistry.

CO3: To study rearrangement reactions and their applications.

CO4: To study nomenclature and classification of heterocyclic compound.

Chemistry of Natural product [CHEO-419]

CO1: To study terpenoides and carotenoids.

CO2: To understand chemistry of natural products and it sapplications.

CO3: To study sources, synthesis and applications of steroids.

CO4: To understand the biogenesis of natural products.

Medicinal Chemistry [CHEO-420]

CO1: To understand classification of drugs.

CO2: To study synthesis and applications of antibiotics drugs in common medicines.

CO3: To understand basic principles and applications of medicinal chemistry.

CO4: To study concepts in pharmacokinetics.

CO5: To understand synthetic pathways for the synthesis of common drugs.

Coordinator
Internal Quality Assurance Cell (IQAC)
Sunderrao Solanke Mahavidyalaya,
Majalgaon, Dist.Beed (MS)

PRINCIPAL
Sunderrao Solanke Mahavidyalya
Majalgaon Dist. Beed (M.S.)

Course Outcomes (COs)

Department of Mathematics

Sr.No.	Course	Course Outcomes
1	**B.Sc.FY (Sem-I) MAT-101 Differential Calculus.**	On completion of this course students will be able to : 1. Explain the relation between the derivative of a function as a function and notion of the derivative as slope of tangent line to a function at a point. 2. Compare and contrast ideas of continuity and differentiability. 3. To find the hyperbolic function and inverse hyperbolic functions, Logarithmic differentiation, implicit function. 4. Find the nth Derivative of the function, evaluate its indeterminate form and way to expand a function in series form using Taylors and Maclaurin theorem. 5. Solve the partial derivative of higher order homogeneous function, total differentials and implicit function. 6. Scalar and vector valued point functions, limit and continuity, directional derivative. 7. Find and interpret the Gradient curl, divergence for a function at a given point.
2	**B.Sc. FY (Sem-I) MAT-102 Differential Equation.**	On completion of this course students will be able to : 1. The main aim of the course is to introduce the student to the technique of solving various problem of engineering and science. 2. Distinguish between linear, non linear, partial and ordinary differential equation. 3 .Solve basic application problem by second order linear differential equation with constant coefficients. 4. Obtain an appropriate set of solution of homogenous linear equation, equation reducible to homogenous linear form. 5. Find the exact differential equation and equation of particular form. 6 .Ordinary differential equation with more than two variables. 7 .Definition, derivation of partial differential equation by the elimination of constants and arbitrary function.
3	**B.Sc. FY (Sem-II) MAT-201 Integral calculus**	On completion of this course students will be able to : 1. Apply the principal of integral to solve a variety of practical problem in science and engineering. 2. Equip the students with standerd concepts and tools at an intermediate to advanced level that will serve them well towards tackiling more advanced level of mathematics. 3 .Solve the problem of methods of integration ,integration of Algebraic Functions and Trigonometric Functions. 4. Find the Areas of plane Region bounded by a curve. 5. Solve the problem Rectification, length of plane curve. 6. Interpret Line, surface and volume integrals. 7. Evaluate integrals by using Gauss theorem, Greens theorem, and Stooks

		theorem.
4	**B Sc.FY (Sem-II) MAT-202 GEOMETRY.**	On completion of this course students will be able to : 1. Describe the various forms of equation of a plane, straight line .sphere .cone and cylinder. 2. Find the angle between planes, Bisector planes, perpendicular distance from apoint to a plane, Image of a line on a plane, Intersection of two lines. 3. Define coplanar lines and illustrate. 4. Compute the angle between a line and plane, length of perpendicular from a point to line. 5. Define skew lines. 6. Calculate the shortest distance between two skew lines. 7. Find the nature of general cone.
5	**B.Sc.SY (Sem-III) MAT-301 Number Theory**	On completion of this unit successful students will be able to: 1. Define and interpret the concepts of divisibility, congruence, greatest common divisor, prime, and prime-factorization. 2. Apply the Law of Quadratic Reciprocity and other methods to classify numbers as primitive roots, quadratic residues, and quadratic non-residues. 3. Prove results involving divisibility and greatest common divisors. 4. Solve systems of linear equations; 5. Find integral solutions to specified linear Diophantine Equations; 6. Apply Euler-Fermat's Theorem to prove relations involving prime numbers; 7. Apply the Wilson's theorem. 8. Polynomial addition, subtraction, division, multiplication, roots of polynomials. 9. Define and interpret the concept of divisibility, congrunces, gcd divisor, prime and prime factorization.
6	**B.Sc. SY (Sem -III) MAT-302 Integral Transforms**	On completion of this unit successful students will be able to: 1. Able to understand the Laplace transform of elementary functions. 2. Able to use the rules of integration & definition of Laplace transform students to prove the properties of Laplace transform. 3. Learns the topics inverse Laplace transform, application of Laplace transform helps to solve linear higher order differential equation, system of differential equations. 4. Understand the concept of Fourier series which gives the idea of expanding the sectionally continuous functions in to infinite series.
7	**B.Sc.SY (Sem-III) MAT-303 Mechanics.**	On successful completion of this course unit students will be able to 1. Understand the basic ideas of Forces acting on a partical 2. To find the magnitude and direction of the resultant of any number of coplanar forces acting at a point. 3. Obtain the trangle law of forces, polygon of forces, lamis theorem and Trignometric theorem. 4. To find the centroid of weighted points, center of gravity of some uniforms bodies.

8	**B.Sc. SY (Sem-IV) MAT -401 Numerical Methods**.	On completion of this unit successful students will be able to : 1. Solve an algebraic or transcendental equation using an appropriate numerical method. 2. Define basic concepts of operators 3. Find the difference of polynomial. 4. Solve problems using Newton,Lagranges,Hermite interpolation formula 5. Determine the Least Square curve fitting procedure 6. Solve the linear system of equation using numerical method. 7. Find the solution of ordinary differential equation of first by Eulers, Taylor and Runge –Kutta methods.
9	**B.Sc. S Y (Sem –IV) MAT -402 Partial Differential Equation.**	Upon successful completion of this course, students will be able to: 1. Explain the concepts and language of partial differential equations. 2. Understand the difference between ordinary & partial differential equation 3. Classify the partial differential equations 4.T o find the Lagrange linear partial differential equation. 5. Solve the partial differential equation using charpits method, Jacobis method. 6. Solve the problem of Linear Homogeneous and Non-Homogeneous partial differential equation with constant coeficents. 7. To find the partial differential equation of second order using Monges method.
10	**B.Sc. S Y (Sem –IV) MAT -403 Mechanics.**	Upon successful completion of this course, students will be able to: 1. Definition of velocity and acceleration in terms of vector derivatives. 2. To find the Tangential and normal components of velocity and acceleration. 3. Solve the problem in kinetics of a partical, Newtons Law of motion . 4. Demonstrate their understanding of motion of a projectilel and motion in resting medium. 5. Definitions of Areal velocity in central orbit and find the differential equation of central orbit.
11	**B.Sc. TY (Sem-V) MAT -501 Real Analysis I**	By the end of the course, students will be able to: 1. Discribe the basic difference between the rational and real numbers. 2. Give the definition and concepts related to the sequences of real numbers. 3. Evaluate the limit of wide class of real sequences. 4. Determine whether or not real series are convergent by comparision with standard series bring the ratio test. 5. Understand and perform simple proof of sequence and series of real numbers. 6. Students will be able to demonstrate basic knowledge of key topics in real analysis. 7. Demonstrate the knowledge of Jacobian of implicit functions. Necessary and sufficient condition for a Jacobian vanish. 6. Solve the problem of convergent and divergent of sequence and series.

12	**B.Sc. TY (Sem-V) MAT -502 Algebra I**	On completion of this unit successful students will be able to: 1. Assess properties implied by the definitions of groups and rings. 2. Use various canonical types of groups including cyclic groups and groups of permutation and canonical type of rings 3. Determine possible subgroups of a group. 4. Identify normal subgroups of a group. 5. Examine symmetric and permutation groups. 6. Explain group and subgroup orders using Lagrange's theorem. 7. Identify cyclic subgroups and their generators. 8. Identify factor group. 9. Analyse and demonstrate example of ideals and quotient rings . 10.Use of concept of isomorphism and homomorphism for groups and rings 11. Provide rigorous proofs of propositions arising in the content of abstract algebra.
13	**B.Sc. TY (Sem-V) MAT -504 Ordinary Differential Equation-I**	On completion of this unit successful students will be able to: 1. Main aim of the course to introduce the students to the techniques of solving varius problem of engineering and science. 2. Distinguish between linear, nonlinear, partial and ordinary differential equations. 3. Recognize and solve a homogeneous differential equation. 4. Find particular solutions to initial value problems. 5. Solve basic application problems described by second order linear differential equations with constant coefficients. 6. Find power series solution about ordinary point and singular points. 7. Find transforms of derivatives and integrals. 8. Obtaine an appropriate set of solution function value to a second order boundary value problem using a finite difference equation. 9. Solve a homogeneous linear equation.
14	**B.Sc. TY (Sem-VI) MAT -601 Real Analysis II**	Upon successful completion of this course, students will be able to 1.Give the definition and concept of metric spaces and limit in metric spaces. 2. Determine whether or not functions continuos on metric spaces. Define open sets and closed sets . 3. determine the given sets are either open sets ,connected sets, bouded sets and totally bounded sets 4. Define compact metric space and check out given function is continuous or uniformly continuous on compact metric space. 5. Define Riemann integral and Riemann sums 6. Prove a theorem about Riemann sums and Riemann integrals 7. understand the fundamental theorem of calculus.
15	**B.Sc. TY (Sem-VI) MAT -602 Abstrac Algebra-II**	Upon successful completion of this course, students will be able to 1.Define vector space and subspace and study the examples 2. To write precise and accurate mathematical objects in vector spaces. 3. For checking the linearly independence or linearly dependence. 4. To understand the concepts of dual spaces and inner product spaces. 5. To understand the concept of modules and sub modules. 6..Provide rigorous proofs of propositions arising in the content of abstract

		algebra.
16	**B.Sc. TY (Sem-VI) MAT -604 Ordinary Differential Equation-II**	On completion of this unit successful students will be able to: 1. Main aim of the course to introduce the students to the techniques of solving varius problem of engineering and science. 2. Recognize and solve intial value problem for homogeneous equation. 3.Understand the wronskian method of linearly dependence and independence 4. Find the solutions of non-homogeneous equations. 5. Understand the Legendre equation and Eulers equation. 6 .solve second order equation with regular singular point . 7. Understand the Bessel equation.

Course Outcomes (COs)

Post Gradute (PG) Department of Mathematics

M. Sc. Mathematics M.Sc. F. Y. (Mathematics) Abstract Algebra I & II CO1:
Students can solve a wide variety of problems based on Sylow theorems.

CO2: Students can understand fundamental theorem of finitely generated Abelian group.

CO3: Students can find order of a group and an element.

CO4: Students can evaluate basis and dimension of vector spaces.

CO5: Students can understand Galois theory.

Real Analysis I & II

CO1: Students will be able to know the extension of a measure.

CO2: Students can use technology tools to solve the problems of Riemann and Lebesgue integrals.

CO3: Students will be able to apply analytical and theoretical skills to models and solve problems based on measure spaces.

CO4: Students understand findings of derivatives.

CO5: Students can solve examples of general integral.

Topology (I & II)

CO1: Students will know the difference between open and closed sets on different topological spaces.

CO2: Students can know indiscrete and discrete topologies.

CO3: Students can understand when two topological spaces are Homeomorphic.

CO4: Students can identify the concept of connectedness, compactness and separation axioms.

CO5: Students can understand concepts of Bases, Sub-bases, Nets, Filters and Ultra filter.

Complex Analysis I & II

CO1: Students will know the basic concept of complex numbers.

CO2: Students can follow metric spaces and topology with respect to complex planes.

CO3: Students can learn the topics of Power series, Cauchy-Riemann equations and harmonic functions.

CO4: Student can understand complex integrations.

CO5: Students can learn the functions like Gamma function, Riemann Zeta function together with Weistrass factorization theorem.

Differential Equations (I & II)

CO1: Students will understand linearly dependence or independence of functions by using Wronskian of the functions.

CO2: Students can solve simple harmonic motion problems and damped motions problems.

CO3: Students can understand the concept of existence and uniqueness of solutions.

CO4: Students can solve the initial value problems and boundary value problems.

CO5: Students can apply the concept of maximum and minimum principle.

Functional Analysis

CO1: Students can apply many principles of real-analysis.

CO2: Students understand reflexivity of a Hilbert Space.

CO3: Students are able to learn projection and self-adjoin operators.

CO4: Students can define inner-product spaces and solve problems on it.

CO5: Students know normed linear spaces and Banach spaces.

Partial Differential Equations

CO1: Students can classify whether the second order partial differential equation is elliptic, hyperbolic or parabolic.

CO2: Students understand the concept of four fundamental equations. i. e. Laplace equations, transport equations, heat equations and wave equations.

CO3: Students understand mean value theorems, Green's theorem and Poison's equation.

CO4: Students can find solution of heat equation and wave equation.

CO5: Students can understand the Burger equation.

Numerical analysis

CO1: Students can apply the numerical methods. i.e. Bisection, False position, Newton-Raphson to solve nonlinear equations.

CO2: Students are able to find the errors and the rates of convergence.

CO3: Students can recognize iterative methods i.e. Jacobi- Gauss Seidel methods.

CO4: Students can understand numerical differentiation and numerical integration.

CO5: Students can apply the interpolation methods for solving the problems numerically.

CO6: Students will know the concepts of generalized co-ordinates and generalized momentum.

CO7: Students can find the isoperimetric problems and geodesic.

CO8: Students understand the planar and spatial motion of a rigid body.

CO9: Students understand the motion of a mechanical system using Lagrange-Hamiltonian Formulae.

Fuzzy Mathematics

CO1: Students know the concepts of Crips set and Fuzzy set theory.

CO2: Students understand the methods of fuzzy logic.

CO3: Students can recognize Fuzzy logic membership functions.

CO4: Students know the concepts of alpha- cuts and strong alpha- cuts.

CO5: Students understand the first and second characterization theorems.

Linear Integral Equations

CO1: Students can find solutions to initial value problems and boundary value problems.

CO2: Students can distinguish between point wise and uniform convergence.

CO3: Students can find derivatives of higher order.

CO4: Students can apply Laplace & Fourier transforms.

CO5: Students can identify whether given kernel is symmetric or separable.

Fluid Mechanics I & II

CO1: Students will know the types of fluids and Euler's equation, equation of continuity and Bernoulli's equation.

CO2: Students will understand the sources and sink.

CO3: Students can learn Blasius and Milne Thomson circle theorem.

CO4: Students can understand viscous flows.

CO5: Students will learn Navier-Stokes equations and its applications.

Operation Research I & II

CO1: Students can learn simple methods.

CO2: Students can handle transportations and assignments of problems.

CO3: Students will understand game theory.

CO4: Student can understand the sequencing problems of different types.

CO5: Students will be able to learn non-linear programming problems.

Course Outcomes (COs)

Department of Botany

PaperNo.	PaperName	Outcomes
Semester-I		
I	Diversity ofCryptogams-I	1. Develop understanding on theconceptofmicrobialnutrition. 2. Classify viruses based on theircharacteristicsandstructures. 3. Develop critical understanding ofplantdiseasesandtheirremediation. 4. Examinethegeneralcharacteristicsof bacteria and their cellreproductionand Recombination. 5. Increase the awareness andappreciation of human friendlyviruses,bacteria, Algae and their economicimportance
II	Morphologyof Angiosperms	1. Develop understanding of the angiosperm 2. Classify plants based on theircharacteristicsandstructures. 3. Develop critical understanding ofplant morphology . 4. Examinethegeneralcharacteristicsof root, stem leaves and flower . 5. Increase the awareness and economicimportance
III	Practicalbased onPaper-IandII	1. Developpracticalunderstandingontheconceptofmicrobialnutrition. 2. Classify viruses based on theircharacteristicsandstructures. 3. Develop critical practicalunderstandingofplantdiseasesandtheirremediation. 4. Examinethegeneralcharacteristicsof bacteria and their cellreproductionand Recombination. 5. Conductexperimentsusingskillsappropriateto subdivisions
Semester-II		
IV	Diversity ofCrypt	1. Developcriticalunderstandingonmorphology, anatomy andreproduction ofBryophytes andPteridophytes. 2. Understanding of plant evolution andtheirtransition toland habitat.

	ogams-II	
V	Histology, Anatomyand Embryology	1. Develop an understanding ofconceptsandfundamentalsofplantanatomy. 2. Examinetheinternalanatomyofplantsystems andorgans. 3. Develop critical understanding onthe evolution of concept oforganizationofshootandrootapex. 4. Analyzethecompositionofdifferentparts of plants and theirrelationships. 5. Evaluatetheadaptiveandprotectivesystemsofplants.
VI	Practicalba sedonPaper - IandII	1. Demonstrate proficiency in theexperimentaltechniquesandmethodsofappropriateanalysis of Bryophytes andPteridophytes. 2. Analyzethecompositionofdifferentparts of plants and theirrelationships. 3. Evaluatetheadaptiveandprotectivesystemsofplants.
Semester-III		
VII	Taxon omy ofAngi osper ms	1. Classify Plant systematics andrecognize the importance ofherbariumandVirtualherbarium. 2. EvaluatetheImportantherbariaandbotanicalgardens. 3. Interpret the rules of ICN inbotanicalnomenclature. 4. AssesstermsandconceptsrelatedtoPhylogeneticSystematics. 5. Generalize the characters of thefamilies according to Bentham &Hooker'ssystemofclassification
VIII	PlantEcology	1. Understand core concepts of bioticand abioticClassify the soils on thebasis of physical, chemical andbiologicalcomponents. 2. Analysis the phytogeography orphytogeographicaldivisionofIndia. 3. Evaluateenergysourcesof ecologicalsystem. 4. Assess the adaptation of plants inrelation to light, temperature, water, wind and fire.
IX	PracticalbasedonTax onomy ofAngiosperms	1. Practically Classify Plantsystematics and recognize theimportance of herbarium andVirtualherbarium. 2. PreparationofHerbaria. 3. Practically Assess terms andconceptsrelatedtoPhylogeneticSystematics. 4. Generalize the characters of thefamiliesaccordingtoBenthamandHooker
X	PracticalbasedonPlan tEcology	1. Understand core concepts ofbioticandabioticClassifythesoilsonthe basis of physical, chemical andbiologicalcomponents. 2. Analysis the phytogeography orphytogeographicaldivisionofIndia. 3. Evaluate energy sources ofecologicalsystem.
Semes		

ter-IV		
XI	Gymnosperms andUtilizationofplants	1. Developcriticalunderstandingonmorphology, anatomy andreproductionofGymnosperm. 2. Understandingofgymnospermplantevolution and their transition to landhabitat. 3. Understand core concepts ofEconomicBotanyandrelatewithenvironment, populations,communities,andecosystems. 4. Develop critical understanding onthe evolution of concept oforganization of apex newcrops/varieties, importance ofgermplasmdiversity,issuesrelatedtoaccessandownership. 5. Develop a basic knowledge oftaxonomicdiversityandimportantfamiliesofusefulplants. 6. Increasethe awarenessandappreciation of plants & plantproducts encountered in everydaylife. 7. Appreciate the diversity of plantsandtheplantproductsinhumanuse.
XII	PlantPhysiology	1. Understand Water relation of plantswithrespecttovariousphysiologicalprocesses. 2. Explainchemicalpropertiesanddeficiencysymptomsin plants. 3. Classifyaerobicand anaerobicrespiration. 4. Explain the significance ofPhotosynthesisandrespiration. 5. Assess dormancy and germinationinplants.
XIII	Practical based onGymnosperms andUtilizationofplants	1. Demonstrate proficiency in theexperimentaltechniquesandmethodsofappropriateanalysisofGymnosperm. 2. Develop a basic practical knowledgeof taxonomic diversity and importantfamiliesofuseful plants. 3. Increasethepracticalawarenessandappreciation of plants & plantproducts encountered in everydaylife.
XIV	PracticalbasedonPlantPhysiology	1. PracticalunderstandWaterrelationof plants with respect to variousphysiologicalprocesses. 2. Explainchemicalpropertiesanddeficiencysymptomsin plants. 3. Practicalexplanationaerobicandanaerobicrespiration. 4. ExplainthepracticalsignificanceofPhotosynthesisandrespiration.
Semester-V		

X V	Cell Biology andMolecularBiology	1. Studytheprokaryoticand eukaryoticcell. 2. Tostudydifferentcellorganell 3. AnalysethestructuresandchemicalpropertiesofDNAand RNA. 4. Comprehend the effect ofchromosomal abnormalities innumerical as well as structuralchangesleadingto geneticdisorders. 5. Developcriticalunderstandingofchemical basis of genes and theirinteractions at population andevolutionarylevels. 6. Analyze the effect of mutations ongenefunctions and dosage. 7. Examine the structure, function and replication of DNA.
X VI	Diversityof	1. Classify Plant systematicsand
	Angiosperms- I	recognize the importance ofherbariumandVirtualherbarium. 2. EvaluatetheImportantherbariaandbotanicalgardens. 3. AssesstermsandconceptsrelatedtoPhylogeneticSystematics. 4. Generalize the characters of thefamilies according to Bentham &Hooker'ssystemofclassification
XVII	Practical based onCell Biology andMolecularBiology	1. Examinerhestructureofcellandcellorganelle 2. Analyzethestructures andchemicalpropertiesofDNAand RNA. 3. Examinethestructure,functionandreplicationofDNA.
XVIII	PracticalbasedonDiversity ofAngiosperms- I	1. Practically Classify Plantsystematics and recognize theimportanceofherbariumandVirtualherbarium. 2. PreparationofHerbaria. 3. Practically Assess terms andconceptsrelatedtoPhylogeneticSystematics. 4. Generalize the characters of thefamiliesaccordingtoBenthamandHooker
Semester-VI		

XIX	Genetics andBiotechnology	1. Have conceptual understanding oflaws of inheritance, genetic basis oflociandallelesandtheirlinkage. 2. Understand the core concepts andfundamentals of plant biotechnologyandgeneticengineering 3. Have conceptual understanding oflaws of inheritance, genetic basis oflociandallelesandtheirlinkage. 4. Comprehend the effect ofchromosomal abnormalities innumerical as well as structuralchangesleadingto geneticdisorders. 5. Developcriticalunderstandingofchemical basis of genes and theirinteractions at population andevolutionarylevels. 6. Analyze the effect of mutations ongenefunctions and dosage.
XX	Diversity ofAngiosperms-II	1. Classify Plant systematics andrecognizetheimportance of herbariumandVirtualherbarium.
		2. Assesstermsandconceptsrelatedto PhylogeneticSystematics.
XXI	PracticalbasedonGenetics andBiotechnology	1. Examinethestructure,function and replication of DNA. 2. Developpracticalunderstandingofchemical basis of genes and theirinteractions at population andevolutionarylevels.
XXii	PracticalbasedonDiversity ofAngiosperms-II	1. Practically Classify Plantsystematics and recognize theimportanceofherbariumandVirtualherbarium. 2. PreparationofHerbaria. 3. Practically Assess terms andconceptsrelatedtoPhylogeneticSystematics. 4. Generalize the characters of thefamiliesaccordingtoBenthamandHooker

Course Outcomes (COs)

Department of Zoology

Animal diversity-I Protozoa to Echinodermata

CO1: To know the general characters and classification of invertebrate's animals.
CO2: To understand the diversity and complexity of life from protozoa to Echinodermata,
CO3: on completion of the course the students will be able to understand the general organization, diversity and adaptation of non-chordates
CO4: The students will learn the importance of biodiversity conservation

Cell Biology

CO1: To understand structure and functions of cell organelles in animal cells.
CO2: To study cell structure and the process of cell division.
CO3: The student will understand the architecture and function of cell

Animal diversity-II Protochordata to Mammals

CO1: To familiarize students with basic terminology and animal systematics
CO2: To know the general characters and classification of chordates animals.
CO3: To understand the diversity and complexity of life from chordates animals,
CO4: on completion of the course the students will be able to understand the general organization, diversity and adaptation of chordates
CO5: The students will learn the importance of biodiversity conservation of chordates phyla

Genetics

CO1: To understand important terminology in   genetics, laws, & its applications.
CO2: To observe and calculate probabilities in cross, heredity and variations in genetics.
CO3: To study the hereditary biology and mechanism involved in hereditary diseases and disorders
CO4: The student will understood genetics and heredity

Vertebrate Zoology

CO1: To familiarize students with basic terminology and animal systematics
CO2: To know the general characters and classification of chordates animals.
CO3: To understand the diversity and complexity of life from chordates animals,

Genetics-II

CO1: To create awareness of mechanism of protein synthesis, DNA finger printing, recombinant DNA technology and rDNA.

CO2: To understand mechanism of protein synthesis and solve problems in genetics.

Animal physiology

CO1: To study animal processes.

CO2: To understand life processes through experiments.

Biochemistry & Endocrinology

CO1: To focus on biochemical processes - metabolism and catabolism process.

CO2: To inculcate advance study in biochemical reactions, principle, functioning and & uses of instruments.

Ecology

CO1: To study basic terms and subject applications in life sciences.

CO2: To understand basic information of types of ecosystems, role of living things in ecosystems and basic ecological concepts.

CO3: To analyse biotic, abiotic factors and animal interactions.

Fishery Science-I

CO1: To familiarize students with basic of ichthyology, capture and culture fisheries and fishes their classification.

CO2: To understand capture fisheries of India, Culture in local places.

CO3: To understand usefulness of fishes and their role in human beings.

CO4: To enable students to participate in field study for their project and also visit to local fish seed centre for aware to develop self-occupation or industry

Evolution

CO1: To study basic terms and subject applications in life sciences.

CO2: To participate in laboratory experiments for understanding the basic principles of evolution through models and helpful for gaining primary information.

Fishery Science-II

CO1: To understand the local culture fishes.

CO2: To familiarize students with basic terminology fish culture.

CO3: students are visited to local fish farm and observe the culture practices and management.

CO4: To know value added products and fishing crafts and gears and preservative and processing methods.

Course Outcomes (COs)

Department of Computer Science

Computer Fundamental Course code: CSO1

CO1: To make the students familiar with computer environment.

CO2: To familiarize with   the basics of Operating System and business communication tools

CO3: To identify parts of a computer system.

CO4: To explain adequately the functioning of computer components.

CO5: To understand problem solving using computers.

CO6: To design an algorithmic solution for a given problem.

Digital Electronics: Course code: CSO2

CO1: To familiarize with basic concepts of digital electronics.

CO2: To learn number systems and their representation.

CO3: To understand the basic logic gates, Boolean algebra and K-maps.

CO4: To study arithmetic circuits, combinational circuits and sequential circuits.

CO5: Study comparative aspects of logic families.

Operating System (CSO4)

CO1: To understand structures, functions and history of operating systems

CO2: To understand designs and issues associated with operating systems.

CO3: To understand process management concepts including scheduling, Synchronization, and deadlocks.

CO4: To familiarize learners with multi-threading.

CO5: To study master concepts of memory management including virtualmemory.

CO6: To understand master system resources sharing among the users.

CO7: To understand issues related with system interface, implementation, and disk management.

CO8: To familiarize with protection and security mechanisms.

Programming in C (CSO5):

CO1: To understand a programming language.

CO2: To apply problem solving techniques.

CO3: To enable learners to write programs in C-programming and to solveproblems.

CO4: To read, understand and trace the execution of programs written in C language.

CO5: to write the C code for a given algorithm.

CO6: To implement programs with arrays and functions.

Course code: CS07: Advance C-Programming.

CO1: To create user defined functions for specific task in C language.

CO2: To understand the functions, types and working in C programming.

CO3: To understand use of user defined data types such as structures &unions.

CO4: Students will be able to deal with memory using pointers.

CO5: To understand library functions and storage classes in C language.

CO6: To learn pre-processor directives and operators in C language.

CO7: To study files stored on computer memory using file handling.

Course code: CS08 - Data Structure:

CO1: Student will be able to choose appropriate data structure as applied to specified problem definition.

CO2: Student will be able to handle operations like searching, insertion,deletion and traversing mechanism on various data structures.

CO3: Students will be able to apply concepts learned in various domains like DBMS, compiler construction etc.

CO4: Students will be able to use linear and non-linear data structures likestacks, queues, linked list etc.

Course Code: CS011 - Programming in CPP:

CO1: To understand basic object oriented concepts & issues involved ineffective class design.

CO2: To write C^{++} programs involving the use object oriented concepts such as information hiding, constructors, destructors, inheritance etc.

Course Code: CS012 - DBMS Using SQL:

CO1: Understanding the database system basic concepts, architecture, features, purpose, and advantage of DBMS.

CO2: Learning about the component of a DBMS: Users, facilities & structure.

CO3: Learning about data modeling & design.

CO4: Learning about entity-relationship and data model.

CO5: Understanding the basics of relational model, normalization, relational algebra.

CO6: Introduction to oracle.

CO7: Student will able to deal with database system using SQL to manipulatedata.

CO8: Understanding of physical storage of data.

CO9: Learning architecture of database system.

CO10: Learning about transaction processing and concurrency control.

CSO15- Software Engineering:

CO1: To manage selection and initiation of individual projects and of portfoliosof

projects in enterprise.

CO2: To conduct project planning activities that accurately forecast projectcosts, timelines, and quality.

CO3: To implement processes for successful resource, communication, riskand change management.

CO4: To demonstrate effective project execution and control techniques thatresult in successful projects.

CO5: To conduct project closure activities and obtain formal project acceptance.

CO6: To demonstrate a strong working knowledge of ethics and professional responsibility.

CO7: To demonstrate effective organizational leadership and change skills for managing projects, project teams, and stakeholders.

CSO16-VB .Net:

CO1: To understand the structure and model of programming language V B . N e t

CO2: To use the programming language VB.Net for programming technologies.

CO3: To develop software in VB.Net.

CO4: To evaluate user requirements for software functionality required to decide whether the programming language VB .Net can meet user requirements.

CO5: To solve the given problem by applying technologies using implementation of VB.Net programming language.

CO6: To choose an engineering approach for solving problems, starting from acquired knowledge of programming and operating systems.

CSO19 -Data Communication and Networking:

CO1: Understand types of networks, technologies and application of networks.

CO2: Understand types of addresses and data communication.

CO3: Understand the concept of networking models, protocols and functionality of each layer.

CO4: Learn basic networking hardware and tools.

CO5: Understand wired and wireless networks, its types, functionality of layer.

CSO20- Ethics and Cyber Law:

CO1: To describe laws governing cyberspace and analyze the role of internet governance in framing policies for internet security.

CO2: To discuss different types of cybercrimes and analyze legal frameworks of different countries to deal with these cybercrimes.

CO3: To explain the importance of jurisdictional boundaries and identify the measures to overcome cross jurisdictional cyber-crimes.

CO4: To illustrate the importance of ethics in legal profession and determine the appropriate ethical and legal behavior according to legal frameworks.

CO5: To identify intellectual property right issues in cyberspace and design strategies to protect intellectual property.

CO6: To assess legal issues with online trading, analyze applicable e-contracting and taxation regulations.

CO7: To create security policy to comply with laws governing privacy and develop policies to ensure secure communication.

Course Outcomes (COs)

Department of BCA

Course Outcomes B.C.A. (Science)

BCA (Science) CA101-T-Computer Fundamental:

CO1: To familiarize students with computer environment.

CO2: To familiarize learners with the basics of Operating System and business communication tools.

CO3: To identify parts of computer system.

CO4: To explain functioning of computer components.

CO5: To explain the process of problem solving using computers.

CO6: To design an algorithmic solution for a given problem.

CA102-T- Digital Electronics:

CO1: To familiar with concepts of digital electronics.

CO2: To learn number systems and their representation.

CO3: To understand basic logic gates, Boolean algebra and K-maps.

CO4: To study arithmetic circuits, combinational circuits and sequentialcircuits.

CO5: To study comparative aspects of logic families.

CA103-T- 8086 Microprocessor:

CO1: To understand basic architecture of 16 bit microprocessors.

CO2: To understand interfacing of 16 bit microprocessor with memory andperipheral chips involving system design.

CO3: To understand techniques for faster execution of instructions and improve speed of operation and performance of microprocessors.

CO4: To understand microprocessor instruction sets, assembly language programming.

CO5: To write programs to run on 8086 microprocessor based systems.

CA104-T-Programming in C –I:

CO1: To enable students to learn a programming language.

CO2: To apply problem solving techniques.

CO3: To write programs in C language.

CO4: To read, understand and trace the execution of programs written in C language.

CO5: To write the C code for a given algorithm.

CO6: To implement programs with pointers, arrays, perform pointer arithmetic, and apply the pre-processor.

CO7: To write programs using derived data types.

CA105-T -Communication skills:

CO1: To demonstrate preparation and research skills for oral presentations.

CO2: To develop proper listening skills.

CO3: To articulate and enunciate words and sentences clearly and efficiently.

CO4: To enhance confidence and clarity in public speaking projects.

CO5: To demonstrate ability to gather information and apply it to persuade or articulate one's own point of view.

Goal Two: Written Communication

CO1: To understand the rules of spelling and grammar.

CO2: To read, analyze text and apply ideas in writing.

CO3: To organize thoughts in a manner that emphasizes flow and paragraph development.

CO4: To acquire proper footnoting and bibliography skills.

CO5: To understand writing techniques and styles based on the communication medium.

Course code: CA106-T - Mathematical Foundation:

CO1: To distinguish between statement logic and predicate logic.

CO2: To visualize data numerically and/or graphically.

CO3: To evaluate mathematical principles and logic design.

CO4: To apply induction, proof techniques towards solving recurrences and problems in elementary algebra, adapt, and design elementary deterministic and randomized algorithms to solve computational problems.

CO5: To illustrate the basic terminology of functions, relations, and sets and demonstrate knowledge of their associated operations and understanding of mathematical modeling with appropriate examples.

CO6: To demonstrate effectively mathematical ideas/results verbally or in writing and apply the knowledge of computing and mathematics.

CO7: To understand functions and distinguish different types of functions.

CO8: To identify and describe different relations.

CO9: To explain graphs to formulate computational problems.

CO10: To develop ability to solve recurrence relations.

107P - Office Suite Practical (LAB):

CO1: Demonstrate mechanics and uses of word tables to organize and present data.

CO2: Demonstrate working knowledge of using Word's themes and clip art to create a variety of visual effects.

CO3: Demonstrate working knowledge of Word's advanced formatting techniques and presentation styles.

CO4: Demonstrate applicable knowledge and uses of accepted business style formatting conventions.

CO5: Create and design a spreadsheet for general office use.

CO6: Demonstrate the basic mechanics of creating a power point presentation.

CA107P - Digital Electronics Practical (LAB)

CO1: Understand and apply use of analog signals to represent digital values in logic families, including characterization of the noise margins.

CO2: Create appropriate truth table from a description of a combinational logic function.

CO3: Create a gate-level implementation of a combinational logic function described by a truth table using and/or/in gates.

CO4: Evaluate combinational and sequential logic designs using metrics.

CA109-P - Microprocessor-I (8086) Practical (LAB):

A student is able to understand …..

CO1: Intel 8086 microprocessor architecture and real mode memory addressing.

CO2: Intel microprocessor addressing modes.

CO3: Assembly language programming and debugging.

CO4: Arithmetic calculations using 8086 microprocessor kit.

CO5: Transfer of data and exchange of data between various memory units.

CA110-P - C Programming-I Practical (LAB)

CO1: Understand the fundamentals of C-programming.

CO2: Choose loops and decision making statements to solve the problem.

CO3: Implement different operations on arrays.

CO4: Basic mathematical calculations.

CA201-T - Data Structures:

CO1: Students are able to choose appropriate data structure as applied to specified problem definition.

CO2: Students can handle operations such as searching, insertion, deletion, traversing mechanism etc. on various data structures.

CO3: Students can apply concepts learned in various domains like DBMS,compiler construction etc.

CO4: Students can use linear and non-linear data structures like stacks,queues, linked list etc.

CA202-T -Operating System:

CO1: To understand functions, structures and history of operating systems.

CO2: To understand design issues associated with operating systems.

CO3: To understand process management concepts including scheduling, synchronization, and deadlocks.

CO4: To familiarize with multithreading.

CO5: To study concepts of memory management including virtual memory.

CO6: To understand resources sharing among the users.

CO7: To   understand   master   issues   related   with   file   system   interface, implementation and management.

CO8: To familiarize with protection and security mechanisms.

CO9: To familiarize with various types of operating systems including UNIX.

CA203-T – I.T. Tools & Web Designing –I:

CO1: To learn understand the basics of internet and web designing.

CO2: To understand architecture of browser, server, web page, web sites &clients.

CO3: To   know   about   internet   domains,   protocols,   browser   and   server communication.

CO4: To know the basic knowledge of HTML and DHTML language for web page development.

CO5: To understand concepts of internet programming using JavaScript.

CA204-T - C-Programming-II:

CO1: To understand creation of user defined functions for specific task in C language.

CO2: To understand about functions and its types and working.

CO3: To understand use of user defined data types such as structures &unions.

CO4: To enable students for dealing with memory using pointers.

CO5: To get information about library functions and storage classes in Clanguage.

CO6: To get knowledge about preprocessor directives and different operatorsused in C-language.

CO7: To deal with files stored on computer memory using file handling.

CA205-T - Communication Skill –II:

CO1: To demonstrate preparation and acquire skills for oral presentations.

CO2: To develop proper listening skills.

CO3: To articulate and enunciate words and sentences clearly and efficiently.

CO4: To show confidence and clarity in public speaking projects.

CO5: To demonstrate ability to gather information and apply it to persuade or articulate.

Goal Two: Written Communication

CO1: To understand the rules of spelling and grammar.

CO2: To read and analyze text and enable learner to summarize ideas inwriting.

CO3: To organize thoughts in a manner that emphasizes flow and paragraph development.

CO4: To learn proper footnoting and bibliography skills.

CO5: To understand different writing   techniques and styles base on
        Communication medium being used.

CO6: To develop group communication skill.

CO7: To develop listening comprehension, reading   comprehension   and vocabulary.

CA206-T -Numerical Methods:

CO1: To demonstrate understanding of common numerical methods and their application to obtain approximate solutions to intractable mathematical problems.

CO2: To apply numerical methods to obtain approximate solutions to mathematical problems.

CO3: To derive numerical methods for various mathematical operations and tasks, such as interpolation, differentiation, integration, the solution of linear and nonlinear equations, and the solution of differential equations.

CO4: To analyze and evaluate the accuracy of common numerical methods.

CA207-P -Data Structure (LAB):

CO1: To understand the concepts of dynamic memory management, datatypes, algorithms, big O notation.

CO2: To understand basic data structures such as arrays, linked lists, stacksand queues.

CO3: To describe hash function and concepts of collision and its resolution methods.

CO4: To solve problem involving graphs, trees and heaps.

CO5: To apply algorithm for solving problems like sorting, searching, insertionand deletion of data.

CA208-P -I.T. Tools & Web Designing – I (LAB):

CO1: Explain the history of internet and related internet concepts that are vitalin understanding web development.

CO2: Discuss the insights of internet programming and implement complete applications over the web.

CO3: Demonstrate important HTML tags for designing static pages andseparate design from content using Cascading Style sheet.

CA209-P- C Programming – II (LAB):

CO1: Implement programs 0with pointers and arrays, perform pointerarithmetic, and the use of pre-processor.

CO2: Write programs that perform operations using derived data types.

CO3: Use pointers and user defined data types.

CO4: Use functions used in C language.

CA210-P - Numerical Method (LAB):

CO1: Identify different mathematical problems and reformulate appropriatelyfor numerical data treatment.

CO2: Choose appropriate numerical methods for treatment of a given problem.

CO3: Explain choice of method by accounting for advantages and limitations.

CO4: Choose an algorithm that implies efficient calculations and implement ina programming language, suited for calculations.

CO5: Estimate reliability of results.

CO6: Use functions from the programming language library for efficient calculations and visualization.

CO7: Apply computer science for the solution of practical problems.

CA301-T - Database Management System:

CO1: To understand database system, basic concepts, architecture, features,purpose, advantage of DBMS.

CO2: To learn about component of a DBMS: Users, facilities & structure.

CO3: To learning about data modeling & design.

CO4: To learn about entity-relationship data model.

CO5: To understand basics of relational model, normalization, relationalalgebra.

CO6: To introduce students to oracle s/w.

CA302-T - Mobile Maintenance -I:

CO1: To study basic electronics and microcomputers.

CO2: To enable learners to handle mobile phones with the knowledge of testing batteries and battery charger.

CO3: To gain the knowledge of different mobile phones and also able to handle it.

CO4: To identify different chips and crystals on mobile PCB board.

CO5: To understand motherboard and different softwares for mobile repairing.

CA303-T - Principle of Management:

CO1: To understand basic concepts, scope, importance and evaluation of management.

CO2: To handle administrative section by applying work authority and responsibility.

CO3: To learn functions of management such as planning, organizing, staffing and so on.

CO4: To understand human   factors in business administration and organization.

CO5: To enable learners to control and coordinate with colleagues.

CA304-T -Programming in CPP:

CO1: To acquire an understanding of basic object oriented concepts and issues involved in effective class design.

CO3: To write C^{++} programs that use object oriented concepts such as information hiding, constructors, destructors and inheritance.

CA305-T - Personality Development:

CO1: To develop and exhibit and accurate sense of self.

CO2: To develop and nurture a deep understanding of personal motivation.

CO3: To develop an understanding of practice of personal and professional responsibility.

CO4: To enhance self-confidence.

CO5: To identify, understand, and apply contemporary theories of leadership to a wide range of situations and interactions.

CO6: To develop and articulate personal philosophy of leadership.

CO7: To understand concepts of democratic leadership and processes.

CA306-T -Statistical Method:

CO1: To prepare for competitive examinations.

CO2: To apply statistics in real life.

CO3: To understand and calculate various types of averages and variations.

CO4: To understand application of discrete & continuous probability distributions to various business problems.

CO5: To understand organization, management, and data presentation.

CO6: To carry out exercises and small projects incorporating data presentation.

CO7: To demonstrate ability to write reports of statistical analysis giving summaries and conclusions using nontechnical language.

CA307-P - Programming in C^{++} & a DBMS (LAB):

CO1: Use C^{++} functions and concepts related to good modular design.

CO2: Apply one-dimensional and two-dimensional arrays.

CO3: Use C^{++} Structures.

CO4: Understand pointers and reference parameters.

CO5: Use text file input/output

CO6: Understand C^{++} Classes.

CO7: Explain features of database management systems.

CO8: Design conceptual models of a database using ER modeling.

CO9: Understand basics of relational model, normalization, relational algebra.

CO10: Understand basics of oracle s/w.

CA308P- Mobile Maintenance-I & SM using Excel (LAB):

CO1: To understand the basic internal structure of mobile phones.

CO2: To learn how to connect the mobile chips and battery.

CO3: To explain different types of mobile phones with its IC's

CO4: To learn applications and security issues of mobile phones.

CO5: To draw the different graphical representation of the raw data in statistical method using excel.

CO6: To differentiate graphs.

CO7: To describe the quantitative results easily.

CO8: To handle statistical functions of excel.

CA401-T - Advance Database Management System:

CO1: Student will able to deal with database system using SQL to manipulate data.

CO2: Understanding of physical storage of data.

CO3: Understanding of architecture of database system.

CO4: Learning about transaction processing and concurrency control.

CA402-T - Advance Mobile Repairing:

CO1: Student will understand of mobile phone technology.

CO2: Student will be familiarized with microchip and microprocessor technology.

CO3: Student will get practical training of handling various components of mobile phone.

CO4: Learning of circuit diagram of mobile phone with complete software installation.

CO5: Student will be able to find the fault in hardware and software.

CO6: Student can read the track of mobile phone.

CA403-T - Software Project Management:

CO1: To manage selection and initiation of individual projects and of portfolios of projects in enterprise.

CO2: Implement processes for successful resource, communication, risk and change management.

CO3: To conduct project planning activities that accurately forecast project costs, timelines, and quality.

CO4: To demonstrate effective project execution and control techniques that result in successful projects.

CO5: To conduct project closure activities and obtain formal project acceptance.

CO6: To demonstrate a strong working knowledge of ethics and professional responsibility.

CO7: To demonstrate effective organizational, leadership and skills
    For managing projects, project teams, and stakeholders.

CA404-T - Core Java

CO1: To implement object oriented programming concepts.

CO2: To use and create packages and interfaces in a Java program.

CO3: To use graphical user interface in Java programs.

CO4: To create applets.

CO5: To implement exception handling in Java.

CO6: To implement multithreading.

CO7: To use Input/output streams.

CO8: To handle security implementations in Java.

CA405-T - Aptitude and Logical Reasoning:

CO1: To prepare for competitive examinations.

CO2: To evaluate critically various real life situations by resorting to analysis of key issues and factors.

CO3: To read in between the lines and understand language structures.

CO4: To demonstrate principles involved in solving mathematical problems and reducing the time taken for performing job functions.

CA406-T - Linear Programming Problem (LPP):CO1: To know the role of linear programming.

CO2: To understand applications of linear programming.

CO3: To define LPP and formulate the LPP in general and graphical form.

CO4: To understand methods of LPP.

CO5: To learn transportation and assignment problems using simple steps.

CA407-T - Programming in Java &Adv. DBMS using SQL (LAB):

CO1: Understand structure and model of Java programming language.

CO2: Use the Java programming language for various programming technologies.

CO3: Evaluate user requirements for software functionality required to decide whether the Java programming language can meet user requirements.

CO4: Propose the use of certain technologies by implementing in Java programming language to solve a given problem.

CO5: Choose an engineering approach to solve problems, starting from the acquired knowledge of programming and knowledge of operating systems.

CO6: Define database system concepts and apply normalization to the database.

CO7: Explain the basic processing and optimization techniques for high level query.

CO8: Describe different transaction processing concepts and use different concurrency control techniques.

CO9: Discuss different types of databases such as object oriented and distributed databases.

CO10: Identify different types of database failures and techniques to recover from such failures.

CO11: Discuss advanced database technologies and products used in enterprise.

CA408-T - Mobile Maintenance-II & Mini project (LAB):

CO1: Know various features of mobile phones.

CO2: Handle internal part of mobile.

CO3: Handle software's of mobile phones.

CO4: Formulate a real world problem and develop its requirements.

CO5: Develop a design solution for a set of requirements.

CO6: Test and validate conformance of the developed prototype against the original requirements of problem.

CO7: Work as a responsible member and possibly a leader of a team in developing software solutions.

CO8: Express technical and behavioral ideas and thought in oral settings.

CO9: Prepare and conduct oral presentations.

CO10: Self learn new tools, algorithms, and/or techniques that contribute to software solution of the project.

CO11: Generate alternative solutions, compare them & select optimum one.

Code: CA501-T - Software Project Management II:

CO1: To recognize, trace and resolve IT related crises using project management software.

CO2: To identify the impact of IT projects on the performance of organizations.

CO3: To manage the phases and infrastructure of IT projects.

CO4: To develop strategies to calculate risk factors involved in IT projects.

CO5: To use project management software to control the design, implementation, closure, and evaluation of IT projects.

CO6: To estimate, plan, calculate, and adjust project variables.

CA502-T - Computer Graphics-I:

CO1: To learn basic concepts in computer graphics which includes different input-output devices and graphics file formats.

CO2: To use different functions of graphics for creating objects.

CO3: To be able to move an object from one place to another, rotate, scale, reflect the object easily.

CO4: To generate character / alphabets using various methods.

CA503-T- Core Java-II:

CO1: To understand input/output stream used in java.

CO2: To learn different utilities in java language.

CO3: To have an overview of database access and details for managing information using JDBC API.

CO4: To enable learners to write simple GUI interfaces for a computer program, to interact with users, and understand event-based GUIhandling principles.

CO5: To learn use of Java applets for creating interactive web programs: Fonts, color, graphics, and animation.

CO6: To understand use of Java applets to create interactive web programs by sending and receiving parameters in an applet.

CA504-T- Data Warehousing:

CO1: To evaluate models of OLAP and data pre-processing.

CO2: To enlist algorithms used in information analysis of data mining techniques.

CO3: To demonstrate the knowledge retrieved through solving problems.

CA506-T - Data Communication & Networks

CO1: To understand types of networks, technologies and applications ofnetworks.

CO2: To understand types of addresses and data handling.

CO3: To understand networking models, protocols and functionality of eachlayer.

CO4: To learn basics of networking hardware and tools.

CO5: To understand wired and wireless networks, their types, functionality oflayer.

CO6: To understand the importance of network security and cryptography.

Course Code: CA507-T- Beginners Programming with PHP

CO1: To understand server-side programming works on the web.

CO2: To learn PHP Basic syntax for variable types and calculations.

CO3: To create conditional structures.

CO4: To store data in arrays.

CO5: To use PHP built-in functions for creating custom functions.

CA509-P - Pr. Based on Comp. Graphics & Pr. Based on Core Java-II (LAB):

CO1: To study and make an object based on graphical functions.

CO2: To learn drawing of different shapes using various algorithms.

CO3: To handle various movements of an object for animation - translate,rotate, scaling and reflection.

CO4: To understand input/output stream in Java.

CO5: To learn utilities in Java language.

CO6: To have an overview of database access and details for managing information using the JDBC API.

CO7: To write simple GUI interfaces for a computer program, interact with users, and understand the event-based GUI handling principles.

CO8: To learn use of Java applets to create interactive web programs: Fonts,color, graphics, and animation.

CO9: To learn use of Java applets to create interactive web programs bysending and receiving parameters in an Applet.

CA510-P -Pr. Based on DCN & Pr. Based on PHP (LAB):CO1: To describe standard network models.

CO2: To understand guided transmission media.

CO3: To analyze error detection and error correction codes.

CO4: To understand the concepts behind medium access control sub layer.

CO5: To understand working of server-side programming on the web.

CO6: To learn PHP basic syntax for variable types and calculations.

CO7: To create conditional structures.

CO8: To store data in arrays.

CO9: To use PHP built-in functions and creating custom functions.

CA601-T - Software Testing and Quality Assurance:

CO1: Students will be able to identify benefits and the needs to enforce software quality.

CO2: Students will be able to differentiate between quality control, quality management and quality assurance.

CO3: Students will be able to discuss different software quality factors models.

CO4: Students learn systematic approach to the development, operation,maintenance, and retirement of software.

CO5: To understand methods and tools of testing and maintenance of software's.

CO6: Student can understand the use of resources to develop software, reducecost of software and quality maintenance of software.

CA602-T - Computer Graphics-II

CO1: Student will understand three dimensional (3-D) basic concepts.

CO2: Students will be able to perform different operations on an object such as3D-rotation, scaling and translation.

CO3: Students can clip objects using different methods/algorithms.

CO4: To understand curves and fractals concept.

CO5: To enable students to identify and describe different color models fordefining an object.

CO6: To understand the concept of animation and implement in real time

applications.

CA603-T- Java Server Pages (JSP)

CO1: Students will understand Java server pages by its life cycle.

CO2: Students can learn different scripting tags.

CO3: Students can understand different tags helpful to the server pages such as directive tags, action tags and also depth knowledge of Java Beans.

CO4: To handle database access to JSP page.

CO5: To understand JSTL, Core and XML tag library.

Code: CA604-T - Data Mining:

CO1: To build basic terminology.

CO2: To display a comprehensive understanding of different data mining tasks and the algorithms most appropriate for addressing them.

CO3: To evaluate models/algorithms with respect to accuracy.

CO4: To demonstrate capacity to perform a self-directed piece of practical work that requires the application of data mining techniques.

CO5: To analyze critically the results of data mining exercise.

CO6: To develop hypotheses based on the analysis of results and test them.

CO7: To understand a data mining solution to a practical problem.

CA606-T - Cloud computing:

CO1: Students can learn cloud computing fundamentals with cloud services.

CO2: Students can learn different cloud computing technologies and their applications.

CO3: Students can understand key enabling technologies for virtual private clouds and their applications.

CO4: Students can understand different role of networks in cloud computing.

CO5: Students can learn architecture of cloud and data-intensive technologies along with their characteristics and system architecture for cloud computing.

Course Code: CA607-T - Advanced Programming with PHP:

CO1: To maintain state using cookies, session variables, hidden form fieldsand query strings.

CO2: To use PHP to manipulate files.

CO3: To identify and handle errors that can occur while programming with PHP.

CO4: To introduce to OOP (Object Oriented Programming) in PHP.

CO5: To understand use of an object-oriented API to access SQL to SELECT, INSERT, UPDATE and DELETE data from tables.

CO6: To use PHP My Admin utility to administer the MySQL database.

CO7: To use OOP in PHP to define and use classes.

Code: CA609-P - Pr. Based on PHP & JSP (LAB)

CO1: To identify and handle the types of errors that can occur while programming with PHP.

CO2: To introduce learners to OOP (Object Oriented Programming) in PHP.

CO3: To use an object-oriented API to access SQL to SELECT, INSERT, UPDATE and DELETE data from tables.

CO4: To use php MyAdmin utility to administer the MySQL database.

CO5: To use OOP in PHP to define and use classes.

CO6: To choose an engineering approach to solve problems, starting from theacquired knowledge of programming and knowledge of operatingsystems.

CO7: To implement programming using various action tags in JSP.

CO8: To understand scripting tag manipulations.

CO9: To learn JSP & Java beans.

CO10: To study session API in JSP.

CO11: To understand database access to JSP page.

CO12: To study SQL tagged library and function tag library in JSP.

CA610P - Major Project:

CO1: To formulate a real world problem and develop its requirements.

CO2: To develop a design solution for a set of requirements.

CO3: To test and validate conformance of the developed prototype against the original requirements of a problem.

CO4: To work as a responsible member and a leader of a team in developing software solutions.

CO5: To express technical, behavioral ideas and thought in oral settings.

CO6: To participate in and possibly moderate, discussions that lead to make decisions.

CO8: To express technical ideas, strategies and methodologies in written form.

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CO10: To learn new tools, algorithms, and/or techniques those contributes to software solution of the project.

CO11: To generate alternative solutions, compare them and select the optimumone.

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Course Outcomes (COs)

Department of BCS (Computer Science)

B.Sc. [CS] Semester-I

CS101-T -Computer Fundamentals:CO1: To introduce learners to computers.

CO2: To write algorithms and draw flowcharts which are the first step towards the computer programming.

CO3: Students will understand history of computers.

CO4: Students will learn different programming languages.

CO5: Students will be introduced with memory and storage devices.

CO6: Students will understand input and output devices.

CS102-T - Digital Electronics:

CO1: Students will understand computer number system, arithmetic operations, and Boolean algebra and logic gates.

CO2: Students will learn K-maps and combinational and arithmetic logic circuits.

CO3: Students will understand flip-flops, counters, registers, their types and their functions.

CS103-T - Microprocessor:

CO1: To understand microprocessors, microcomputers and 8086 hardware specifications.

CO2: To learn the working of 8086 microprocessor.

CO3: To learn addressing modes of 8086.

CO4: To learn instruction set and write programs on 8086 kit.

CS104-T - 'C' Programming - I:

CO1: Students will be introduced to C-programming language.

CO2: Students can use C-character set, basic elements and operators used inC-programming.

CO3: Students will learn the data types of C and input/output statements.

CO4: Students will be able to write the programs using C-language.

CO5: Students can use programs and array.

CS105-T - Communication Skill –1:

CO1: To enhance communication skills of students.

CO2: Students can apply types and methods of communication.

CO3: Students will able to communicate in English properly.

CO4: Students will learn English grammar and vocabulary.

CO5: Students will be able to express speeches and presentations in English.

CO6: To acquaint practice to read, write and speak in English.

CS106-T - Mathematical Foundation:

CO1: Students will learn set theory useful for higher studies.

CO2: Students will learn graph theory.

CO3: Students will understand different binary relations and functions.

CO4: Students will learn Boolean algebra.

CS107-P - Practical based on Office Suite:

CO1: To use basic computer operations.

CO2: To use internet.

CO3: To demonstrate the mechanics and uses of Word tables to organize and present data.

CO4: To demonstrate working knowledge of Word's themes and clip art.

CO5: To demonstrate Word's advanced formatting techniques and presentation of styles.

CO6: To demonstrate accepted business style formatting conventions.

CO7: To create documents using Microsoft word in writing applications, letters and office use.

CO8: To create and design a spreadsheet for general office use.

CO9: To enable students for delivering presentations using computer.

CO10: To create visual effects.

CS108-P - Practical based on Digital electronics:

CO1: To express use of analog signals to represent digital values in logic families, including characterization of the noise margins.

CO2: To create appropriate truth table from a description of a combinational logic function.

CO3: To create a gate-level implementation of a combinational logic functiondescribed by a truth table using and/or/in gates.

CO4: To evaluate combinational and sequential logic designs using metrics.

CS109-P - Practical based on Micro Processor - I:

A student will be able to …..

CO1: Understand Intel-8086 microprocessor architecture and real mode memory addressing.

CO2: Apply Intel microprocessor addressing modes.

CO3: Assemble language programming and debugging.

CO4: Perform arithmetic calculations using 8086 microprocessor kit.

CO5: Transfer and exchange data among memory units.

CS110-P- Practical based on 'C' Programming:

CO1: To understand the fundamentals of C programming.

CO2: To choose loops and decision making statements for solving problems.

CO3: To implement different operations on arrays.

CO4: To understand the basic mathematical calculations.

B.Sc. [CS] Semester-II CS201-T- Data Structure:

CO1: Students will understand basics of data structure.

CO2: Students will learn the use of arrays in data structure.

CO3: Students will understand working of linked list, stacks and queues.

CS202-T- Operating System:

CO1: Students will learn the working of operating system.

CO2: Students can processes and manage operating systems.

CO3: Students can understand storage and device management.

CO4: Students can handle file structure managed by operating system.

CS203-T-Micro Processor - II:

CO1: Students will learn the logic and control instructions of 8086.

CO2: Students will be familiarized to modular programming, assembler, linker and macros.

CO3: Students will understand interrupts, their types, DMA and DMA control I/O.

CS204-T- 'C' Programming – II

CO1: Students can write user defined functions.

CO2: Students will be able to use structures and union within C-programs.

CO3: Students will able to use pointers within program to access the computer memory location directly.

CO4: Students will learn to use preprocessor directives and miscellaneous features.

CO5: Students will be able to work on files using C-programs.

CS205-T- Communication Skill-II

CO1: Apply communication skills to write letters, notices, minutes, manual, leaflet, complaints & suggestion and job application.

CO2: Write reports.

CO3: Discuss in groups and enhance communication skills.

CO4: Write CV for interview.

CO5: Prepare for interview.

CS206-T - Numerical Computation Methods:

CO1: Students will understand types of errors in mathematics.

CO2: Students can understand the matrix and determinants.

CO3: Students can understand the roots of linear and nonlinear equations.

CO4: To learn interpolation and regression methods.

CS207-P-Practical based on Data Structure:

CO1: To understand the concept of dynamic memory management, data types, algorithms and big O notation.

CO2: to understand the basic data structures.

CO3: To describe the hash function, concepts of collision & resolution methods.

CO4: To solve problem involving graphs, trees and heaps.

CO5: To apply algorithm for solving problems.

CS208-P-Practical based on Micro Processor - II:

CO1: Students will learn to implement arithmetic operations on 8-bit numbers.

CO2: Students will learn to write 8086 program to find smallest/largest number.

CO3: Students will learn to write 8086 program for sum of array elements, reverse of array elements.

CO4: Students can design programs over 8086.

CS209-P- Practical based on C Programming-II:

After studying the course, a student will be able to ….

CO1: Implement programs with pointers, arrays, perform pointer arithmetic, and use the pre-processor.

CO2: Write programs that perform operations using derived data types.

CO3: Use pointers and user defined data types.

CO4: Use functions used in C-language.

CS210-P- Practical based on Numerical Computational Method:

CO1: Identify mathematical problems and reformulate them with appropriate numerical treatment.

CO2: Choose appropriate numerical method for treatment of a given problem.

CO3: Explain choice of method by accounting for advantages and limitations.

CO4: Choose an algorithm that implies efficient calculations and implement inprogramming language, suited for calculations.

CO5: Estimate the reliability of results.

CO6: Use functions from the programming language library for efficient calculations and visualization.

CO7: Apply computer science for the solution of practical problems.

B.Sc.[CS] Semester-III Advance Data Structure (CS301-T)CO1:
Students can use graph theory.

CO2: Students can understand sorting techniques.

CO3: Students can apply searching techniques.

Unix Operating System (CS302-T)

CO1: Students will be able to understand UNIX operating system.

CO2: Students will learn the basic commands to work on UNIX operating system.

CO3: Students can create and use files on UNIX operating system.

CO4: Students can learn shell script in programming on UNIX.

110 PC Maintenance (CS303-T)

CO1: Students will learn computer hardware and its maintenance.

CO2: Students will learn s/w installations for PC and its settings.

CO3: Students will understand networking, settings and antivirus installation.

CO4: Students will understand laptop and its components.

Programming in CPP (CS304-T)

CO1: To acquire basic object oriented concepts in oriented programming for software development.

CO2: To learn history, structure of C++ language and functions in C++.

CO3: To learn use of class, object and friend function.

CO4: To apply programming in C++ to solve the real world problem using class and objects.

CO5: To learn constructors, destructors and operator overloading Database management System (CS305-T)

CO1: To understand database, architecture, features, purpose and advantages of DBMS.

CO2: To understand components of a DBMS: Users, facilities & structure.

CO3: To learn data modeling & design.

CO4: To learn entity-relationship data model.

CO5: To understand the basics of relational model, normalization, relational CO algebra.

CO6: To introduce to oracle s/w.

Statistical methods (CS306-T)

CO1: To enable learners for competitive examinations.

CO2: To apply statistics in real life.

CO3: To understand and calculate types of averages and variations.

CO4: To apply discrete and continuous probability distributions in business problems.

CO5: To organize, manage, and present data.

CO6: To exercise small projects that incorporate data presentation.

CO7: To write reports on the results of statistical analysis, summarize and conclude using non-technical language.

Practical based on data structure using CPP. (CS307-P)

CO1: To apply sorting techniques using C-language.

CO2: To apply searching techniques using C-language.

Practical based on DBMS (CS307-P)

CO1: To explain the features of database management systems.

CO2: To draw a scheme for their database.

CO3: To design conceptual models of a database using ER modeling.

CO4: To understand basics of relational model, normalization, relational algebra.

CO5: To introduce to oracle s/w.

Practical based on PC Maintenance (CS308-P)

CO1: To understand computer hardware and motherboard.

CO2: To learn connecting of input, output and storage devices.

CO3: To understand installation of software on PC.

CO4: To learn formatting of hard disk and creating partitions on HD.

CO5: To study installation of device drivers and antivirus.

Practical based on UNIX (CS308-P)

CO1: To understand working with UNIX Operating System (OS).

CO2: To execute commands of UNIX OS.

CO3: To create and access files on UNIX OS.

CO4: To write and execute shell script for UNIX OS to get the desired result.

B.Sc. [CS] Semester-IV Software Engineering (CS401-T)

CO1: To understand software development process.

CO2: To learn different types of s/w.

CO3: To study different models of s/w.

Fedora (CS402-T)

CO1: Introduction to fedora operating system.

CO2: Understanding of basic commands of Linux and fedora installation.

CO3: Understanding of software package administration, user and group administration.

CO4: Learning file system and file permissions.

Basics of Networking (CS403-T)

CO1: Learn networks, topologies and applications of networks.

CO2: Learn types of transmission media used in data communication.

CO3: Introduction to mobile telephone system, generations and its working.

Core Java (CS404-T)

CO1: To implement object oriented programming concepts.

CO2: To study inheritance and interfaces.

CO3: To study packages.

CO4: To create package in java.

CO5: To implement exception handling in Java.

Implement Multithreading: Adv. DBMS (CS405-T)

CO1: Deal with database system using SQL to manipulate data.

CO2: Extract information on physical storage of data.

CO3: Architect database system.

CO4: Learn transaction processing and concurrency control.

Web Fundamental (CS406-T)

CO1: To understand HTML, XHTML, HTML5 and its elements.

CO2: To create static web pages.

CO3: To code program in web age.

CO4: To create dynamic web ages.

CO5: To study CSS3 for designing web page.

CO6: To design web pages using cascaded style sheets.

Practical based on Java in fedora OS (CS407-P):

CO1: To understand structure and model of Java programming language.

CO2: To use Java programming language.

CO3: To evaluate and analyze user requirements for software functionality.

CO4: To propose the use of certain technologies by implementing in Java programming language to solve problems.

CO5: To apply engineering approach for solving problems.

CO6: To create user defined packages and handle the errors.

Practical based on Web Fundamentals (CS407-P)

CO1: To understand higher level of HTML, CSS using HTML5 and CSS3.

CO2: To validate web pages/ web sites as per requirement.

CO3: To develop HTML forms and different attributes.

CO4: To work with drag and drop event handling.

CO5: To use JavaScript in HTML.

Practical based on Adv. DBMS and N/W (CS408-P)

CO1: To define database system concepts and apply normalization to the database.

CO2: To explain basic processing and optimization techniques for high level query.

CO3: To describe transaction processing concepts and use different concurrency control techniques.

CO4: To discuss databases such as object oriented and distributed databases.

CO5: To identify database failures and techniques.

CO6: To discuss advanced database technologies and products used in enterprise.

Practical based on Mini Project (CS408-P)

CO1: To formulate a real world problem and develop its requirements.

CO2: To develop a design solution for a set of requirements.

CO3: To test and validate conformance of developed prototype against the requirements of the problem.

CO4: To work as a responsible member and possibly a leader of a team in developing software solutions.

CO5: To express technical and behavioral ideas and thoughts in oral settings.

CO6: To prepare and conduct oral presentations.

B.Sc. [CS] Semester-V Software Cost Estimation (CS501-T)

CO1: To learn software planning process, software scope and feasibility, types of resources, project estimation.

CO2: To study documentation techniques.

CO3: To study estimation of models.

Basic of Android O. S. (CS502-T)

CO1: To study environmental setup for android development.

CO2: To understand application components used in android development.

CO3: To learn the basic components of an android application.

CO4: To study resource organization, filters and user interface controls.

CO5: To understand event handling in android.

CO6: To describe the basics of graphics and multimedia support in android.

CO7: To demonstrate basic skills using an integrated development environment (android studio) and android software development kit (sdk) for implementing android applications.

CO8: To demonstrate a simple application of the understanding of basic concepts of android.

Core Java-II (CS503-T):

CO1: To understand input/output system in java.

CO2: To understand utilities in java language.

CO3: To provide an overview of database access and details of managing information using the JDBC API.

CO4: To learn use of Java applets to create interactive web programs: Fonts, color, graphics, and animation.

CO5: To understand the use of Java applets to create interactive web programs by sending and receiving parameters in an applet.

Basic of Computer Graphics (CS504-T)

CO1: To understand basic concepts of computer graphics.

CO2: To create graphics using C-programming.

CO3: To perform 2D transformation.

CO4: To create algorithms.

CO5: To apply character generation techniques.

Beginners Programme with PHP (CS505-T)

CO1: Introduction to PHP.

CO2: To understand working of server-side programming on the web.

CO3: To use PHP basic syntax for variable, data types, operators and expressions and constant.

CO4: To create conditional structures.

CO5: To store data in arrays.

CO6: To use PHP built-in functions and create custom functions.

CO7: To use class and objects in PHP.

Advanced Networking (CS508-T)

CO1: To understand OSI reference model.

CO2: To study data link layer, data link controls and protocols.

CO3: To understand network layer and its protocols.

CO4: To study transport layer and application layer.

Pr. Based on Adv. Java (CS509P -A)

CO1: To learn input/output stream used in java.

CO2: To learn utilities in java language.

CO3: To provide an overview of database access and details for managing information using the JDBC API.

Practical Based on Computer Graphics (CS509P -B)

CO1: Students can understand graphical functions of C-Language.

CO2: Students can perform 2D transformation, translation, scaling, and rotation of 2D object using C-Language.

CO3: Students can implement algorithms to draw line and circle.

Practical Based on Android O.S. (CS510P -A)

CO1: To appreciate mobility landscape.

CO2: To design and develop mobile apps, using android as development platform, with key focus on user experience design.

CO3: To understand native data handling and background tasks and notifications.

CO4: To appreciate nuances such as native hardware play, location awareness, graphics, and multimedia.

CO5: To perform testing, signing, packaging and distribution of mobile apps.

Practical Based on PHP (CS510P -B)

CO1: PHP basic syntax for variable types and calculations.

CO2: To create conditional structures.

CO3: To store data in arrays.

CO4: To use PHP built-in functions and create custom functions.

B.Sc. [CS] Semester-VI Software Quality & Testing (CS601-T)

CO1: To understand software quality concepts.

CO2: To understand quality assurance.

CO3: To understand software testing strategies, verifications and validations.

CO4: To validate conventional applications.

CO5: To test web applications.

Android Application Development (CS602-T)

CO1: To familiarize learners with android development tools.

CO2: To apply advanced features of Android SDK.

CO3: To develop android apps with different tools.

CO4: To use location services APIs to get information about device location, receive periodic location updates, and turn geographic coordinates into physical addresses.

CO5: To integrate Google maps into apps and use features such as location markers, map styling, street view, and location tracking.

CO6: To learn messaging services used by android apps.

CO7: To learn data storage, retrieval, and sharing.

CO8: To use Bluetooth, Wi-Fi in android applications.

Theory of Computation (CS603-T)

CO1: To study sets, relations, functions, graphs, trees and mathematical inductions.

CO2: To study regular expressions.

CO3: To learn finite automate, NFA and DFA.

CO4: To learn formal languages, classification of languages, their relation andautomaton.

CO5: To understand programming languages.

Advanced Computer Graphics (CS604-T)

CO1: To understand 3D transformations.

CO2: To create curves and fractals.

CO3: To understand basics of color models.

CO4: To create animations.

Advanced Programming with PHP (CS605-T)

CO1: To handle HTML forms in PHP.

CO2: To maintain state using cookies, session variables, hidden form fieldsand query strings.

CO3: To use PHP to manipulate files.

CO4: To use database in PHP.

CO5: to use an object-oriented API to access SQL to SELECT, INSERT, UPDATE and DELETE data from tables.

CO6: To use MySQL functions.

Ethics and Cyber Law (CS608-T)

CO1: To understand the of scope of cyber laws, cyber jurisprudence and digital contracts.

CO2: To identify intellectual property right issues in the cyberspace and design strategies to protect intellectual property.

CO3: To describe laws governing cyberspace and analyze the role of internet governance in framing policies for internet security.

CO4: To understand cybercrimes and analyze legal frameworks of different countries to deal with these cybercrimes.

CO5: To explain the importance of jurisdictional boundaries and identify the measures to overcome cross jurisdictional cybercrimes.

CO6: To illustrate the importance of ethics in legal profession and determine appropriate ethical and legal behavior according to legal frameworks.

Study of Information Technology Act 2000 Cyber Law Practical Based on Android Development (CS609 P -A)

CO1: To understand advanced features of Android SDK.

CO2: To familiarize with android development tools.

CO3: To develop android apps.

CO4: To use location services of APIs to get information about device location, receive periodic location updates, and turn geographic coordinates into physical addresses.

CO5: To integrate Google Maps into apps and use features such as location markers, map styling, Street View, and location tracking.

CO6: To understand messaging services used by android apps.

Practical Based on PHP (CS609 P -B)

CO1: To identify and handle types of errors while working with PHP.

CO2: To introduce Object Oriented Programming.

CO3: To understand the use of object-oriented API, SELECT, INSERT, UPDATEand DELETE data from tables.

CO4: To use MySQL database.

CO5: To use OOP in PHP to define and use classes.

CO6: To choose an engineering approach to solve problems, starting from the acquired Knowledge of programming and operating systems.

Major Project (CS610P)

CO1: To formulate a real world problem and develop its requirements.

CO2: To develop a design solution for a set of requirements.

CO3: To test and validate the conformance of the developed prototype against the original requirements of a problem.

CO4: To work as a responsible member and a leader of a team in developing software solutions.

CO5: To express technical and behavioral ideas and thoughts in oral settings.

CO6: To participate in and possibly moderate, discussions that lead to making decisions.

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Course Outcomes (COs)

Department of Commerce

B. Com First Year, First Semester (CBCS Pattern)
Financial Accounting-I (Paper–I)
CO1: It clears the basic concepts of accounting and enables students to prepare journal, ledger and balance sheet of the sole trader.
CO2: To enable the students to calculate depreciation, accounts of non-trading concern and royalty account.
CO3: It makes aware about hire purchase and installment purchase system.
CO4: It clears the concepts of royalty and makes aware students to calculate royalty.

Business Mathematics and Statistics-I (Paper–II)
CO1: It clears the basic concepts of statistics, data collection, sampling and tabulation of data.
CO2: It provides basic knowledge of positional averages and enabled to calculate it.
CO3: To understand measures of dispersion- mean deviation & standard deviation.
CO4: To provide knowledge to student of determinants and matrices.

Business and Industrial Economics-I (Paper–III)
CO1: This course exposes the students to the significance and scope of business economics.
CO2: To provide the knowledge about indifference curve, consumer's equilibrium, elasticity of demand.
CO3: It provides knowledge regarding the elasticity of demand and demand forecasting.
CO4: To understand the knowledge of various market structures and factors pricing.

I.T. Application in Business–I (Paper–IV)
CO1: It provides basic knowledge of computer, computer codes and languages; Computer Codes; Different number systems, Binary, Octal, Hexadecimal, and Decimal.
CO2: To equip the students with the ability to analyze, Interpret and use Computer Application in business enterprise.
CO3: Different Input / Output and storage devices, modern computing devices and Technologies.
CO4: It enables students to work in MS Word with different office documents.
CO5: To provide the knowledge of MS-EXCEL, formatting and layout of worksheet, Excel Templates.

Optional Group Entrepreneurship Development-I (Paper–VII)
CO1: It provides the basic knowledge of entrepreneurship with functions of successful entrepreneur.
CO2: To equipthe students with the ability to analyze and interpret Entrepreneurship in Economic Development.
CO3: It clear the concepts of different mechanisms help to start-up.

CO4: This Course provides students how to Set-up a new Venture.
CO5: This course provides Knowledge about essentials of entrepreneurship in 21st century.
CO6: It inform to students regarding different start-up schemes of government and non-government agencies.
CO7: It enhances the ability of students regarding project identification and provides information about different information centre in India.

Optional Group Office Management (Paper–VII)
CO1: To make students learn and understand the Modern office & its Functions
CO2: Student is expected to have knowledge about office system and role of manager in system
CO3: This course provides Knowledge about office services.
CO4: To understand the procedure of record management and reporting.
CO5: This Course provides knowledge for EDP Environment for effective office management.

B.Com First Year, Semester II (CBCS Pattern)
Financial Accosting II (Paper–III)
CO1: To provide knowledge of basic accounting concepts, accounting standards and accounting principles the aim is also to provide the practical accounting knowledge.
CO2: To enable the students about depreciation and royalty account.
CO3: To make an ability to understand accounts of non-trading concern and branch accounts.
CO4: To enrich students in financial accounting
CO5: To enhance the ability to solve practical sums of departmental accounts and consignment accounting.

Business Mathematics and Statistics II (Paper–IV)
CO1: To make students learn and understand the concept of Co-relation.
CO2: Student is expected to have knowledge of the types and methods of estimating regression lines.
CO3: This course provides Knowledge about Index Numbers, its types and
`Uses.
CO4: To understand the procedure of application of Probability.
CO5: This Course provides knowledge & ability among students for using statistical tools with Computer.

Business Organization and Management (Paper –V)
CO1: To make students learn and understand the foundation of Indian Business & emerging opportunities in Business.

CO2: Student is expected to have knowledge of the forms of organization.
CO3: This course provides Knowledge about processof Management & Organization.
CO4: To understand the procedure of Leadership, Motivation & Control.
CO5: This Course provides knowledge of functional areas of management.

I.T. Application in Business-II (Paper–VI)
CO1: To make students learn and understand Business communication.
CO2: Student is expected to have knowledge about the Business correspondence i.e. letter writing, preparing the resume and job application letter.
CO3: This course provides Knowledge about report writing.
CO4: To understand the procedure of oral presentation.
CO5: This Course provides knowledge & ability among students for modern forms of communicating.

Optional Group Entrepreneurship Development-I (Paper-VII)
CO1: To make students learn and understand the role of Entrepreneurship in Economic Development.
CO2: Student is expected to have knowledge of the emerging trends in Entrepreneurship Development
CO3: This course provides Knowledge about Project identification and Resource Management.
CO4: To understand the procedure of Entrepreneurship Development Program.
CO5: This Course provides knowledge for students how to Selection, Preparation & what are the requirement for the project.

Office Management (Paper–VII)
CO1: To make students learn and understand the Modern office & its Functions
CO2: Student is expected to have knowledge about office system and role of manager in system
CO3: This course provides Knowledge about office services.
CO4: To understand the procedure of record management and reporting.
CO5: This Course provides knowledge for EDP Environment for effective office management.

B.Com. S. Y. III Semester III (CBCS Pattern)
Corporate Account-I (Paper - III)
CO1: To create awareness about Corporate Accounting in conformity with the provisions of Companies Act and as per Indian Accounting Standards.

CO2: To make aware about the conceptual aspect of corporate accounting. CO3: To acquaint about issue and forfeiture of shares with re-issue procedure. CO4: To make practice the final account of Joint Stock Company.

CO5: To enable students to acquire the knowledge of redemption of debentures and preference shares.

CO6: To understand the knowledge of profit prior to incorporation.

Cost Account-I (Paper -IV)

CO1: To create ability of students to understand basic cost accounting concepts and the classification of cost.

CO2: To provide the knowledge of material handling methods such as LIFO, FIFO, simple average and weighted average.

CO3: To explain the labor costing methods like incentive scheme, wage payment, time and piece rate etc.

CO4: Awareness will be received about costing methods and techniques.

CO5: To develop overheads knowledge and its methods of distribution.

I.T. Application in Business I (Paper -V)

CO1: To aware about C-Language and relevant software.

CO2: To acquaint the student about importance of operators in C and use of computer for it.

CO3: To enhance the knowledge of control benchmarking and decision making in C.

CO4: To guide students about loop and its type.

CO5: To make practice arrays and strings.

CO6: To encourage students to learn practical application of C- Language.

GST Account-I (Paper -VI)

CO1: Creating ability of students to learn tax concepts, procedure and legislation pertaining to GST in India.

CO2: To make perfection in learning of GST Registration process.

CO3: To understand practical online GST registration process and filling GST returns.

CO4: To provide knowledge of supply under GST and valuation of supply.

CO5: Ability of student is to be existed to learn input tax credit.

CO6: Understand GST accounting with their documentation and keeping process of records in GST.

Optional Group Banking (VII)

CO1: To familiarize student with banking and practices of banking.

CO2: To equip the students with the knowledge of modern banking.

CO3: To develop employability of student in banking, financial and other economic sector.

CO4: This course enables the students to know Fundamental of Insurance.

Financial Management-(Paper -VII)

CO1: To enhance financial literacy of students.

CO2: To make aware students about financial planning and financial sources.

CO3: To analyses budgeting and learned different methods or techniques of capital structure.

CO4: To acquaint about working capital management of a firm and its importance.

CO5: To learn how to analyze leverages.

CO6: To enlighten students regarding the dividend policy and decision making in finance.

Indian Economy (Paper -VII)

CO1: To orient the students about the recent trends in Indian Economy.

CO2: To create awareness about economic reforms in India since 1991.

CO3: To inculcate knowledge of various aspects of Indian Economy through practical approach like calculation of GDP, national income etc.

CO4: To provide detail information of causes, effects and government measures to reduce unemployment in India.

CO5: To acquaint the knowledge of five years plans and budget.

B.Com. S. Y. IV Semester (CBCS Pattern)

Corporate Account-I (Paper - III)

CO1: To create awareness about Corporate Accounting in conformity with the provisions of Companies Act and as per Indian Accounting Standards.

CO2: To make aware about the conceptual aspect of corporate accounting. CO3: To acquaint about issue and forfeiture of shares with re-issue procedure. CO4: To make practice the final account of Joint Stock Company.

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CO6: Understand GST accounting with their documentation and keeping process of records in GST.

Optional Group Insurance-(VII)

CO1: To familiarize student with banking and practices of banking.

CO2: To equip the students with the knowledge of modern banking.

CO3: To develop employability of student in banking, financial and other economic sector.

CO4: This course enables the students to know Fundamental of Insurance.

Human Resource Management-(Paper -VII)

CO1: To Educate about importance of Human Resource in the organization.

CO2: To aware students about Human Resource Management Practices followed by organization.

B.Com. T.Y. Semester V
Advanced Financial Accounting-I (Paper No. I)

CO1: To equip the students with the ability to analyze, Interpret and use financial account in business enterprise.

CO2: To introduce stock market, Electricity Company, insolvency accounts of local government and farm accounting.

CO3: To provide the knowledge of social accounting, departmental accounting, investment accounting, bank final account and accounts of insurance companies.

Management Accounting-I (II)

CO1: To equip the students with the ability to analyze interpret accounting information in managerial decision making.

CO2: To have a good working knowledge of the subject.

CO3: To understand the application of management accounting techniques.
CO4: To provide the knowledge of budgeting and responsibility accounting.

Auditing (III)
CO2: To enable the students to understand the auditing concepts and new auditing trends.
CO3: To explore the knowledge Cost and Management Audit, Human Resource Audit, Investigation, Trends in Cooperative Audit and Tax Audit are explained throughout the subject work.

Business Regulatory Framework (Paper No. IV)
CO1: To help students to understand the regulatory environment in which the business operates.
CO2: To educate students about different acts associated with business operations.

Computerized Accounting-I (Paper No. V)
CO1: To make students familiar with the computerised accounting software and help them to understand the application of accounting software in recording business transactions.

CO2: To Make students understand the application of Tally to solve the real business problems.

Optional Group MSME Management (Paper No. VI)
CO1: To familiarize student with MSME Sector in India.
CO2: To equip the students with the knowledge of Medium, Small, and Micro Enterprises
CO3: This course enables the students to know Fundamental MSME Sector.

Rural Development & Agricultural Business (Paper No. VI)
CO1: To familiarize the students with Rural Economy & its importance in Indias economic development.
CO2: To familiarize the student with all initiatives & promotional policies for agri businesses.
CO3: To provide the knowledge of different policy programmes implemented for rural development.

B.Com. T.Y. Semester VI
Advanced Financial Accounting-II (Paper No, I)
CO1: To equip the students with the ability to analyze, Interpret and use financial account in business enterprise.
CO2: To introduce stock market, Electricity Company, insolvency accounts of local government and farm accounting.
CO3: To provide the knowledge of social accounting, departmental accounting, investment accounting, bank final account and accounts of insurance companies.

Management Accounting-II (Paper No. II)

CO1: To equip the students with the ability to analyze interpret accounting information in managerial decision making.

CO2: To have a good working knowledge of the subject.

CO3: To understand the application of management accounting techniques.

CO4: To provide the knowledge of budgeting and responsibility accounting.

Direct Taxes (Paper No.III)

CO1: To expose students to the basic tax concepts, procedure and legislation pertaining to direct tax.

CO2: To provide the basic Information of Income tax act 1961.

CO3: To understand practical knowledge of all heads of income..

CO4: To provide knowledge to student of all direct sources of income tax.

Business Regulatory Framework-II (Paper No. IV)

CO1: To help students to understand the regulatory environment in which the business operates.

CO2: To educate students about different acts associated with business operations.

Computerized Accounting-II (Paper No. V)

CO1: To make students familiar with the computerized accounting software and help them to understand the application of accounting software in recording business transactions.

CO2: To Make students understand the application of Tally to solve the real business problems.

Optional Group Capital Market (Paper No.VI)

CO1: To Help Student to understand the concept of capital market.

CO2: To help students to gain practical understanding of functioning of capital market in India.

CO3: To aware students about the code of conduct while participating in the capital market.

CO4: To understand students about role of SEBI in the capital market.

Advertising & Salesmanship (Paper No.VI)

CO1: To help students to understand the importance of advertising in today's parlance.

CO2: To make students aware about different advertising strategies.

CO3: To help students to understand the advertising ethics.

M. Com. First Year (First Sem.)
Management Process and Organizational Behavior
CO1: To understand the basic organizational process of management.
CO2: To study organizational behavior.

Managerial Economic
CO1: To help students to understand managerial economic and cost benefit analysis.
CO2: To help students in the performance of job.

Corporate Financial Accounting
CO1: To acquaint student corporate accounting system in corporate and global level.

Business Environment
CO1: To understand the various aspects of business environment and their impact on industry, international trade.
Statistical Analysis.
CO1: To make students learn and understand the various application of statistical tools and techniques.

Marketing Management
CO1: To understand the policies and procedures market and market research and analysis.

Financial Managements
CO1: To understand basics of financial transitions applied in business and industry.
CO2: To understand various crucial decisions regarding financial aspects of business.

Strategic Management
CO1: To acquaint students as enhance the decision making abilities of students in situations of uncertainty in dynamic business environment.
CO2: To aware students about best practices followed by business.

Coordinator
Internal Quality Assurance Cell (IQAC)
Sunderrao Solanke Mahavidyalaya,
Majalgaon, Dist.Beed (MS)

PRINCIPAL
Sunderrao Solanke Mahavidyalya
Majalgaon Dist. Beed (M.S.)

M.COM. II YEAR (Third Sem)

Research Methodology
CO1: To understand research work concepts of research and practical implication of knowledge acquired through subject's data collection and analysis, sampling, report writing etc.

Human Resources Planning and Development.
CO1: To expose students to the Human Resources Planning methodologies and the various aspects of HR Practices.

Business Legislation
CO1: To update the knowledge of different business legislation in practice.

International Marketing
CO1: To understand the importance of international marketing, entry strategies, foreign market selection, product development and distribution.

M. COM. II YEAR (Fourth Sem)

Quantitative Techniques
CO1:   To understand Operational Research

Securities Analysis
CO1: To update the subject knowledge among the students at corporate level about Security and Portfolio Management.

Advertisement
CO1: To expose students to the advertising basics and the various methodologies to develop, implements and measure the effect of advertisement.

Project Report
CO1: To help students to understand the research process.
CO2: To enable them to apply research principals to solve real life problems.
CO3: To help students to organize their research study in the form of systematic research report.

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