

**Shri Shivaji Mahavidyalaya, Barshi.**  
**Course Outcomes**  
**Year: 2022-23**

**Department of English**

Sr. No.	Course Name	Semester	Paper No.	Subject Name	Course outcome
1	B.A.I	I	I	Introduction to English Literature	<ul style="list-style-type: none"> <li>• To acquaint students with literary forms and linguistic terms.</li> <li>• To initiate students and provide them a firsthand experience of reading and interpreting literary texts.</li> </ul>
		II	II	Introduction to English Literature (One Act Plays and Literary Terms)	<ul style="list-style-type: none"> <li>• To acquaint students with structural and analytical techniques in poetry.</li> <li>• To acquaint students with analysis of minor literary form i.e. short story.</li> </ul>
2	B.A.I	I&II	-	English(Com)	<ul style="list-style-type: none"> <li>• Understand the concepts of communication. Expand their vocabulary after reading the prescribed texts.</li> <li>• Attain writing, speaking, reading, &amp; listening competence.</li> <li>• Be aware of the correct usage of English grammar</li> <li>• Become familiar with selected literary forms, develop and strengthen their imaginative ability and the ability to analyze different literary forms.</li> </ul>
3	B.A.II	III	III	British Literature-I	<ul style="list-style-type: none"> <li>• Familiar with a few British writers</li> <li>• Familiar with some of the dramas and dramatists</li> <li>• Able to understand the features of the text</li> </ul>
			IV	British Literature-II	<ul style="list-style-type: none"> <li>• Familiar with a few British writers</li> <li>• Familiar with some of the dramas and dramatists •</li> <li>Able to understand the</li> </ul>

					features of the text
		IV	V	Indian Literature-I	<ul style="list-style-type: none"> <li>• Acquire language skills required for day to day and specific purpose.</li> <li>• Be able to interpret and illustrate concepts of Communication, Prose and Poetry.</li> <li>• Be able to analyze and interpret the text prescribed.</li> <li>• Develop certain life skills and strengthen strategies to develop vocabulary.</li> </ul>
			VI	Indian Literature-II	<ul style="list-style-type: none"> <li>• Acquire language skills required for day to day and specific purpose.</li> <li>• Be able to interpret and illustrate concepts of Communication, Prose and Poetry.</li> <li>• Be able to analyze and interpret the text prescribed.</li> <li>• Develop certain life skills and strengthen strategies to develop vocabulary.</li> </ul>
4	B.A.II	III&IV	-	English(Com)	•
5	B.A.III	V&VI	-	English (Com)	<p>Use oral and written English effectively</p> <ul style="list-style-type: none"> <li>• Appreciate literary language</li> <li>• Use English language in creative writing</li> <li>• Apply English language skills in clearing</li> </ul>
6	B.A.III	V	VII	Introduction to Literary Criticism	<p>□ Understand the basics of literary criticism.</p> <ul style="list-style-type: none"> <li>• Have a critical approach to literature.</li> <li>• Understand the major trends in literary criticism.</li> </ul>

			VIII	British Literature	<p>Gain knowledge, stylistic strategies and diction of British literature.</p> <ul style="list-style-type: none"> <li>• Be able to explore the creativity and the human experiences in fiction, poetry and drama.</li> <li>• Be able to cultivate aesthetic and ethical values in life</li> </ul>
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					through literary texts.
			IX	Indian English Literature	<p>Understand gradual development of Indian English literature from mid-twentieth century to post 2000 period.</p> <ul style="list-style-type: none"> <li>• Get acquainted with major genres/themes through the study of texts prescribed.</li> </ul>
			X	Literatures in English	<ul style="list-style-type: none"> <li>• Understand Afro-American fiction</li> <li>• Understand features of Postcolonial Fiction</li> </ul>
			XI	Introduction to the Structure & Function of Modern English	<p>Understand various concepts in linguists.</p> <ul style="list-style-type: none"> <li>• Get acquainted with various branches of linguistics.</li> </ul>
	VI		XII	Introduction to Literary Criticism	<p><input type="checkbox"/> Understand the basics of literary criticism.</p> <p><input type="checkbox"/> Have a critical approach to literature.</p> <p><input type="checkbox"/> Understand the major trends in literary criticism.</p>
			XIII	Indian English Literature	<p>Understand gradual development of Indian English literature from mid-twentieth century to post 2000 period.</p> <ul style="list-style-type: none"> <li>• Get acquainted with major genres/themes through the study of texts prescribed.</li> </ul>
			XIV	Literatures in English	<ul style="list-style-type: none"> <li>• Understand Afro-American fiction</li> <li>• Understand features of Postcolonial Fiction</li> </ul>
			XV	Introduction to the Structure & Function of Modern English	<p>Understand various concepts in linguists.</p> <ul style="list-style-type: none"> <li>• Get acquainted with various branches of linguistics.</li> </ul>

			XVI	Literary Mindscapes	Use oral and written English effectively <ul style="list-style-type: none"> <li>• Appreciate literary language</li> <li>• Use English language in creative writing</li> </ul>
4	M.A.I	I	I	British Literature	<input type="checkbox"/> Able to understand the western culture and traditions <input type="checkbox"/> Able to understand the British literary pieces.
			II	Indian Literature in English	<ul style="list-style-type: none"> <li>• At the end of the course the students will get acquainted with later phases of development of Indian English</li> </ul>

					<p>Literature and familiar with Indian ethos as reflected in texts prescribed.</p> <ul style="list-style-type: none"> <li>• At post-graduation level, students will enjoy reading of a number of authors and important literary genres as practiced by select Indian English figures.</li> <li>• As planned while designing the syllabus of this paper, students will get acquainted with thematic plurality, genres handled and style reflected in seminal texts of poetry, fiction drama and nonfiction.</li> </ul>
			III	Introduction to Language & Linguistics	<p>The students will be interested in the language • Familiar with some of the mechanism and theories of linguistics</p>

			IV	Comparative Literature	<ul style="list-style-type: none"> <li>• The students are introduced to different literary expressions written in English language.</li> <li>• The students understand thematic perspectives of the literatures written in different countries.</li> <li>• The students develop sensitivity and balanced responses to the complexity of human nature as portrayed in literary works.</li> <li>• The students develop understanding of the natures and functions of literatures in English.</li> <li>• The students develop an awareness of the relationship between texts and their cultural contexts.</li> </ul>
		II	V	British Literature	<input type="checkbox"/> Able to understand the western culture and traditions <input type="checkbox"/> Able to understand the British literary pieces.
			VI	Indian Literature in English	<ul style="list-style-type: none"> <li>• At the end of the course the students will get acquainted with later phases of development of Indian English Literature and familiar with</li> </ul>

					<p>Indian ethos as reflected in texts prescribed.</p> <ul style="list-style-type: none"> <li>• At post-graduation level, students will enjoy reading of a number of authors and important literary genres as practiced by select Indian English figures.</li> <li>• As planned while designing the syllabus of this paper, students will get acquainted with thematic plurality, genres handled and style reflected in seminal texts of poetry, fiction drama and nonfiction.</li> </ul>
			VII	Introduction to Language & Linguistics	<p>The students will be interested in the language</p> <ul style="list-style-type: none"> <li>• Familiar with some of the mechanism and theories of linguistics</li> </ul>

			VIII	Comparative Literature	<ul style="list-style-type: none"> <li>• The students are introduced to different literary expressions written in English language.</li> <li>• The students understand thematic perspectives of the literatures written in different countries.</li> <li>• The students develop sensitivity and balanced responses to the complexity of human nature as portrayed in literary works.</li> <li>• The students develop understanding of the natures and functions of literatures in English.</li> <li>•The students develop an awareness of the relationship between texts and their cultural contexts.</li> </ul>
5	M.AII	III	IX	Contemporary Critical Theories	<ul style="list-style-type: none"> <li>• Understand how various critical theories developed in the course of the 20th Century.</li> <li>• Read &amp; contextualize contemporary Theories to the best of their ability.</li> <li>•Develop competency to mark differences and similarities in these theories and schools.</li> <li>•Develop an ability to apply the</li> </ul>
					<ul style="list-style-type: none"> <li>critical theories to literary texts.</li> <li>•Acquire ability to understand their own theoretical/critical stance as readers.</li> </ul>

		III	X	Postcolonial Literature	<ul style="list-style-type: none"> <li>•Analyze and interpret the colonial and postcolonial texts applying the postcolonial literary theory.</li> <li>•Define the key concepts in postcolonial studies.</li> <li>•Read, comprehend and engage with postcolonial literary criticism.</li> <li>• Know how race, class, gender, history and identity are presented and problematized in the literary texts,</li> <li>•Know how a literary text, explicitly or allegorically represents various aspects of colonial oppressions.</li> </ul>
		III	XI	Translation Studies	<ul style="list-style-type: none"> <li>•Comprehend translation studies as a separate discipline of knowledge</li> <li>•Comprehend the nature, scope and theoretical issues in translation studies</li> <li>•Comprehend major issues and methods in literary studies</li> </ul>
		III	XII	21 <sup>st</sup> Century Skills	<ul style="list-style-type: none"> <li>•English is the world language. It is spoken worldwide. Students of the postgraduate level should use English in their future life.</li> <li>•With the help of soft skills students can develop their personality in an effective way for better life.</li> </ul>
		IV	XIII	Contemporary Critical Theories	<ul style="list-style-type: none"> <li>• Understand how various critical theories developed in the course of the 20th Century. • Read &amp; contextualize contemporary Theories to the best of their ability.</li> <li>•Develop competency to mark differences and similarities in these theories and schools.</li> <li>•Develop an ability to apply the critical theories to literary texts.</li> </ul>
					<ul style="list-style-type: none"> <li>•Acquire ability to understand their own theoretical/critical stance as readers.</li> </ul>

			XIV	Postcolonial Literature	<ul style="list-style-type: none"> <li>•Analyze and interpret the colonial and postcolonial texts applying the postcolonial literary theory.</li> <li>•Define the key concepts in postcolonial studies.</li> <li>•Read, comprehend and engage with postcolonial literary criticism.</li> <li>• Know how race, class, gender, history and identity are presented and problematized in the literary texts,</li> <li>•Know how a literary text, explicitly or allegorically represents various aspects of colonial oppressions.</li> </ul>
			XV	Translation Studies	<ul style="list-style-type: none"> <li>•Comprehend translation studies as a separate discipline of knowledge</li> <li>•Comprehend the nature, scope and theoretical issues in translation studies</li> <li>•Comprehend major issues and methods in literary studies</li> </ul>
			XVI	21 <sup>st</sup> Century Skills	<ul style="list-style-type: none"> <li>•English is the world language. It is spoken worldwide. Students of the postgraduate level should use English in their future life.</li> <li>•With the help of soft skills students can develop their personality in an effective way for better life.</li> </ul>
Sr. No.	Course Name	Semester	Paper No.	Subject	Course outcome
1	B.Sc. I	I&II	-	English Com.	Use oral and written English effectively <ul style="list-style-type: none"> <li>• Appreciate literary language</li> <li>• Use English language in creative writing</li> </ul>
2	B.Sc. III	V&VI	-	English Com.	<input type="checkbox"/> Use English language in creative writing <input type="checkbox"/> Apply English language skills in clearing competitive examinations



## Department Of Hindi

Sr.No	Course (का)	Semester	Paper No (नप)	PaperName नप का नाम	Course Outcomes (पायमकेपरणाम)
1	B.A -I	I	I	सा*ह,य र,न	१) छा *हदं 1 के लेखक एवं कवय7 से पार8चत होतेह<। २) छा 7 म? *हदं 1 सा*ह,य के @त अबभD8च संव8धतF होता है। ३) छा 7 म? राज के @त ेम एवं सामाजिक @तबNता कO भावना 6वकBसत होती ह<। ४) छा 7 Bलगं, वचन कO Tिट से वाVय शिYदकरण कO 6व8ध से ु अवगत होतेह<। ५) छा 7*हदं 1 भाषा के 6वBभन मुहावर7, कहावत7 से पार8चतहोते ह<। ६) छा 7 को देवनागर1 Bल6प म? Bलखे जानेवाले *हदं 1 अंके से पार8चत कराना।
		II	II	सा*ह,य र,न	१) छा *हदं 1 के लेखक एवं कवय7 से पार8चत होते ह<। २) छा 7 म? *हदं 1 सा*ह,य के @त अबभD8च संव8धतF होता है। ३) छा 7 म? राज के @त ेम एवं सामाजिक @तबNता कO भावना 6वकBसत होती ह<। ४) छा सा ा,कार 6व8ध से पार8चत होते ह<। ५) छा 6व_ापन लेखन कौशव्या आ,मसात होता है ६) छा *हदं 1 भाषा के 6वBभन मुहावर7, कहावत7 से पार8चत होते ह<।
	B.A -II	III	III	आध@नक *हदं 1 ु गCय कहानी एवं दयवहारक *हदं 1	1) आध@नक व6ैवYयपु ण F *हदं 1 कहा@नय7 से छा 2) अवगत होते हैं। आध@नकता बोध और नए मुाव7 के @त 3) छा अवगत होते हैं। ू कहानी कला के @त अबभDची और समी ा 4) छा ा 6वकBसत करते हैं।
		IV		मYययगीन *हदं 1 ु कादय, दयाकरण एवं लेखन	1) सामाजिक, सांकु@तक पाठभृमी मे क6वता के अYययन 6व लेषण कO जानकार1 लेते हैं। 2) भिवतकाल1न तथा र1तीकाल1न क6वता के माYयम से शंगार रस एवं वीर ूरस कO कथापना का मह,,व को अवगत करते हैं।
				आध@नक *हदं 1 ु गCय-एकांकO एवमं दयवहारक *हदं 1	1) आध@नु क *हदं 1 एकांकO 6वधा से छा अवगत होते हैं। 2) एकांकO कला के @त अबभDची और समी ा T।ट1 छा 6वकBसत करते हैं।
				आध@नक *हदं 1 ु कादय एवं लेखन	1) *हदं 1 सा*ह,य के आध@नक काल से छा पार8चत होते हैं। 2) छायाबाद तथा ग@तवाद के माYयम से कृ@त मानवीय पीडा संवेदना से छा अवगत होते हैं।
	B.A -III	V		*हदं 1 6वशेष लेखकभगवानदास मोरवाल	1) भगवानदास मोरवाल के दयिव,व से पार8चत होते हैं। 2) @त@न8ध कहा@नय7 के 6वषय 6व6वधता से पार8चत होते हैं।
		VI		*हदं 1 6वशेष लेखकभगवानदास मोरवाल	1) भगवानदास मोरवाल के उपज्यास संसार से पार8चत होते हैं। शंकुतला 2) उपज्यास कO 6वशेषताओं से पार8चत होते हैं।

		V		कादयशाक	1) सा*ह,य @नBमतF ी s या से अवगत होते है। 2) गCय तथा पदय त,,वोे से पार8चत होते है। 3) शपुद7 कO शिवत से पार8चत होते है।
		VI		आलोचना	1) छा सा*ह,य के उपकरणो से पार8चत होते है। रसानभु 2) @त कO सकय7 से अवगत होते हू <। 3) सा*ह,य के मायू , गण7 से पार8चत होते है।ु
		V		आ*दकाल1न और मययकाल1न *हदं 1 सा*ह,य का इ@तहास सं. 1050 से सं. 1900	1) *हदं 1 सा*ह,य के दाश@Fनसक पव6Fप*ठका से छा पार8चत होते है 2) *हदं 1 सा*ह,य कO आ*दकाल1न और मययकाल1न का कालजयी रचनाओ ं तथा रचनाओसं े छा अवगत होते है।
		VI		आध@नक *हदं 1 सा*ह,य का इ@तहास सवतं 1900 से 2010 तक	1) आध@नक *हदं 1 सा*ह,य कO दाश@Fनक पु वपF ी*ठका से 2) छा पार8चत होते है । आध@नक *हदं 1 सा*ह,य के इ@तहास के कालानु Dप 6वBभजन वाद एव ंु 6वधाओ ं के 6वकास को छा अवगत करते है।
		V		योजनमलक ू *हदं 1	1) योजनमलक *हदं 1 के kvDप एव ं 6वकास से छा पार8चत होते है 2) । योजनमलक *हदं 1 के माययम से रोजगारपरक कौशल छा 6वकBसत ू करते ह<।
		VI		दयवहारक *हदं 1	1) अनवाद का kvDप और मह,,व से छा अवगत होु ते ह<। 2) अनवाद एव ं 6व_ापन लेखन कO मता से छा 6वकBसत होते हु <।
		V		*हदं 1 भाषा	1) *हदं 1 भाषा ए व ं Bल6प से उ2व और 6वकास से छा पार8चत होते 2) है। मानक *हदं 1 वतनF ी और दयाकरण से छा अवगत होते है।
		V		भाषा 6व_ान	1) भाषा 6व_ान से छा पार8चत होते है। उचरण 2) कO शयदता के @त छा जागु त होते है।ृ
	M.A.	I	1.1	आध@नक *हदं 1 उ गCय सा*ह,य	1) *हदं 1 गCय सा*ह,य से छा पार8चत होते है। 2) *हदं 1 गCय सा*ह,य कO 6व6वध 6वधासो का अययन करत है।
		II	1.1	आध@नक *हदं 1 उ गCय सा*ह,य	1) ता,काल1न भारतीय सामाजिक सांकृ@त पारवेश से छा पार8चत होते 2) है। छा 7 से *हदं 1 गCय 6वधा के @त D8च @नमाFण होती है।
		I	1.2	भाषा 6व_ान	1) भाषा और भाषा 6व_ान से छा पार8चत होते ह<। 2) Dप 6व_ान, अथ F 6व_ान से छा अवगत होते ह<।
		II	1.2	*हदं 1 भाषा एव ं Bल6प	1) *हदं 1 कO ऐ@तहाBसक पाठभृBम से छा पार8चत होते है । 2) देवनागर1 Bल6प कO उ,पती एव ं उसकO 6वशेषतास7 से छा पार8चत होते है।
		I	1.3	योजनमलक ू *हदं 1	1) कामकाजी *हदं 1 से छा पार8चत होते ह<। 2) राजभाषा कO सं6वधा@नक िकथती से छा पार8चत होते ह<।
		II	1.3	संगणकOय *हदं 1 एवं दयवहारक	1) संगणक म? *हदं 1 के अनयोग से छा अवगत होते हु <। 2) म*त और इलेVJाँ@नक माययम से छा पार8चत होते हु <।

				*हदं 1	
	I	1.4	दयावसा@यक वगFप कारता	1) पारकारता के kvDप कार और मह,,व से छा पार8चत होते ह<। प 2) कारता के मल त,,व7 से छा अवगत होते ह<।	
	II	1.4	दयावसा@यक वगFप कारता	1) 6 टं प कारता और मणकला के सदं भ F जानकार1 छा अवगत करते 2) हु <। भारतीय सं6वधान म? द,त मौBलक अ8धकार सचना और मानवा8धकार ू से छा पार8चत होते ह<।	
	I	1.2	अनवादु	1) अनवाद कO सामाजिक उपदयेयता से छा पार8चत होते हु 2) <। अनवाद सु ? रोजगार के े ो छा अवगत होते ह<।	

		II	1.2	*हदं 1 सा*ह,य और Bसनेमा	1) *हदं 1 सा*ह,य एव ं Bसनेमा से छा पार8चत होते ह<। 2) *हदं 1 सा*ह,यीक कृ@तय7 के sफामांतरण कO s या से छा अवगत होते ह<।
	M.A. II	III	3.1	*हदं 1 सा*ह,य का इ@तहास	1) छा *हदं 1 सा*ह,य के मह,,व से पार8चत होकर उसका 6व लेषण करते ह<। 2) छा 7 को आ*दकाल1न, भिवतकाल1न, !र@तकाल1न सा*ह,य कO जानकार1 होती ह<।
		IV	4.1	*हदं 1 सा*ह,य का इ@तहास	1) आध@नककाल1न पारवु श एव ं 6वBभूज दशनF 7 से छा 2) पार8चत होते ह<। 6वBभूज 6वमश से छा पार8चत होते ह<।
		III	3.2	कादयशाक एव ं सा*ह,यालोचन	1) कादयशाक को लेकर भारतीय 8चतं न से छा पार8चत होते ह<। 2) संकृत कादयशाक के 6वकास म से छा पार8चत ह<।
		IV	4.2	कादयशाक एंव सा*ह,यालोचन	1) पा चा,य कादयशाक के इ@तहास से छा पार8चत होते ह<। पा चा,य 2) कादयशाक के BसYदांतो के kvDप अवधरणास? छा पार8चत होते ह<।
		III	3.3	अनसंधान 6व8ध ु और s या	1) छा अनसंधान s या और 6वधी से पार8चत हौंु ते ह<। 2) सा*हि,यक अनसंधान के 6वBभूज े 7 से छा अवगत होते हु <।
		IV	4.3	अनसंधान 6व8ध ु और s या	1) छा अनसंधान पारयोजना कौशल आ,मसात करने मु ? स म होते 2) ह<। छा को अनसंधान संशोधन पयद@त और 6व8ध मु ? D8च @नमाणF होती ह<।
		III	3.1	ाचीन एव ं मYयकाल1न कादय	1) ाचीन कादय परंपरा से छा पार8चत होते ह<। नाथ 2) सा*ह,य और सsफ कादय से छा पार8चत होते हु <।
		IV	4.1	ाचीन एव ं मYयकाल1न कादय	1) उ, मYयकाल1न कादय से छा पार8चत होते ह<। 2) छा बहार1 और घनानदं के दयिवत,व एव ं कृ@त,,व से पार8चत होते ह<।
		III	3.2	sफाम Bममांसा	1) *हदं 1 sफाम उzv एव ं 6वकास से छा पार8चत होते ह<। 2) sफाम @नBमतF ी एव ं पा 7 से छा पार8चत होते ह<।
		IV	4.2	दBलत एंव आ*दवासी सा*ह,य	1) दBलत सा*ह,य एव ं अ*दवासी सा*ह,य से छा पार8चत होते ह<। 2) आध@नक *हदं 1 सा*ह,य मु ? वा*हत 6वचारधारा से छा अवगत होते ह<।

## Department Of Marathi

अभ्यासक्रमाची उद्दिष्टे :-

अ. क्र.	वर्ग	सत्र	अभ्यासपत्रिका क्रमांक आनि नाव	अभ्यासक्रम उद्दिष्टे
१	बी. ए. भाग - १	I & II	आवश्यक मराठी - साहित्यदर्पण	१) मराठी भाषा समर्पणे वारण्याची क्षमता दवद्यार्थ्यांमध्ये दिमापण व्िावी २) साहित्याचे दवदवध प्रकारांचे व प्रवािाांवे आकलि, आस्वाद, व दवश्लेषण करता यावे. ३) साहित्यात मांडलेल्या दवषयाच्या अिषांगािेु जीवातील प्रश्न समजाविू देणे ४) मराठी भाषेचे वभै व दृष्टीर्ात यावे, व त्यातु सामादजक दृष्टी दवकदसत िोण्याची प्रेरणा दमळावी
	बी. ए. भाग - १	I & II	ऐदव्िक मराठी - साहित्यरांग	१) दवद्यार्थ्यांमध्ये मराठी भाषा आदण साहित्याची जाणीव समदृ करणे २) दवद्यार्थ्यांिा मराठी साहित्यातील दवदवध प्रकार व प्रवािाांची ओळख करुि देणे. ३) दवद्यार्थ्यांिा कर्ा व कदवता या साहित्यप्रकाराची सांकव्िा, स्वरु व ररर समजाविू सांगणे. ४) दवद्यार्थ्यांिा भाषेचे उर्योजि दिकवतािा बातमीलेखि व दिबांधलेखि कौिल्य दिकदवणे
२	बी. ए. भाग - २	III	र्ेई क्रमांक - तीि मराठी वाङ्मयप्रकार आदण उर्योदजत मराठी	१) कादांबरी या साहित्यप्रकाराचे वेगळेण लक्षात घेणे. २) कादांबरी दिदमपतीतील लेखकाचे मित्व अधोरेदखत करणे. ३) कादांबरीतील आय व अभवु समजाविू देणे. ४) दवद्यार्थ्यांचे व्यक्तीमत्व कलागणु सांर्न्ि करणारी कौिल्ये दवकदसत करणे
	बी. ए. भाग - २	III	र्ेई क्रमांक - चार कदवता आदण काव्यास्वाद :-	१) कदवता या साहित्यप्रकाराची ओळख करुि देणे २) मराठी कदवतेची वाटवाल समजिू घेणे ३) मराठी कदवतेतील दवत्रणाचा आढावा घेणे. ४) कदवतेतील प्रदतमा, प्रदतके, व दमकांचे मित्व समजिू देणे
		IV	र्ेई क्रमांक - र्ाव आत्मकर्ि आदण उर्योदजत मराठी	१) आत्मकर्ि म्िणजे काय ते समजिू घेणे. २) आत्मकर्िाचे सादिदत्यक मल्यू तर्ासणे. ३) आत्मकर्िाची मराठी वाटवाल समजिू घेणे. ४) उर्योदजत मराठीचे व्याविररक मल्यू समजाविू देणे.
		IV	र्ेई क्रमांक - सिा	१) िाटक या साहित्यप्रकाराची ओळख करुि देणे.

			िाटक वाङ्मय प्रकार आहण उर्योदजत मराठी	<p>२) िाटकाचे दवदवध घटक समजावू देणे.</p> <p>३) मराठी िाटकाची वाटवाल समजावू देणे.</p> <p>४) उर्योदजत मराठीतील घटक समजावू देणे.</p>
३	बी. ए. भाग - तीि	V	र्ेई क्रमांक - सात साहित्यास्त्र	<p>१) साहित्यलक्षणाच्या दवदवध दसध्दांतांवा ररचय करूि देणे.</p> <p>२) साहित्याचे स्वरू समजावू सांगणे.</p> <p>३) साहित्याच्या दवदवध प्रयोजांवा ररचय करूि देणे</p> <p>४) साहित्यदिदमपतीच्या कारणांची माहिती करूि देणे</p>
		V	र्ेई क्रमांक - आठ भाषादवज्ञाि व व्याकरण	<p>१) मािी जीवातील भाषेचे स्वरू व मित्व दवदार्थयांिा समजावू सांगणे</p> <p>२) दवदार्थयांमध्ये वज्ञै ादिक दृष्टीकोि दवकदसत करणे.</p> <p>३) भादषक सांप्रेषणाचा ररचय करूि घेणे.</p> <p>४) भाषा ररवतपािचे स्वरू रूढ करणे.</p> <p>५) मराठी भाषेच्या व्याकरणाचे स्वरू समजावू सांगणे.</p>
		V	र्ेई क्रमांक - िऊ मध्ययगीिु मराठी वाङ्मयाचा इहतास ( इ. स. ११०१ ते १८०० )	<p>१) मध्ययगीिु मराठी वाङ्मयाची ररर व इहतास यांचा ररचय करूि देणे.</p> <p>२) मध्ययगीिु मराठी साहित्यातील दिदमपतीच्या प्रेरणांचा ररचय करूि देणे.</p> <p>३) मध्ययगीिु मराठी साहित्याचे स्वरू व वद्वैिष्ट्य यांचा ररचय करूि देणे.</p> <p>४) मध्ययगीिु मराठी वाङ्मयाची सास्ांकृ दतक र्ाशुर्भमीू समजु देणे.</p>
		V	र्ेई क्रमांक - द्वा उर्योदजत मराठी	<p>१) दवदार्थयांिा र्ारभादषक िबदांवा ररचय करूि देणे.</p> <p>२) ई - मराठी लेखाचे मित्व समजावू सांगणे</p> <p>३) महितु िोधाचे मित्व सांगू त्याचा सराव करूि घेणे</p> <p>४) स्थाप रीक्षेतील मराठी भाषेचे मित्व लक्षात आणू देणे.</p>
		V	र्ेई क्रमांक - ११ आधदिकु मराठी साहित्यातील दवदवध प्रवाि ( ग्रामीण व ददलत )	<p>१) आधदिकु मराठी साहित्यातील प्रवािाांच्या दिदमपतीची र्ाशुर्भमीू समजावू सांगणे.</p> <p>२) ग्रामीण व ददलत साहित्य प्रवािाची सांकव्िा, प्रेरणा स्वरू व वद्वैिष्ट्ये दविद करणे.</p> <p>३) ग्रामीण व ददलत साहित्यप्रवािाांचा उदगम व दवकास रूढ करणे.</p> <p>४) ग्रामीण कहवतेची आयसत्रे, भाषावद्वैिष्ट्ये दविद करणे.</p> <p>५) ददलत कर्ेचा आय, सामादजकता, वचै ाररकता रूढ करूि सांगणे</p>

	बी. ए. भाग - ती	VI	र्ेई क्रमांक - बारा	१) साहित्यलक्षणाच्या दृढवध दसध्दांतांचा रचय करुि देणे.
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			रसदृवचार	२) साहित्याचे स्वरु समजावु सांगणे. ३) साहित्याच्या दृढवध प्रयोजांचा रचय करुि देणे ४) साहित्यदृढमपतीच्या कारणांची माहिती करुि देणे
		VI	र्ेई क्रमांक - तरे ा भाषादृवज्ञाि व व्याकरण DSE - 8	१) मािी जीवातील भाषेचे स्वरु व मित्व दृढवधार्थ्यांिा समजावु सांगणे २) दृढवधार्थ्यांमध्ये वज्ञै ादिक दृष्टीकोि दृढकदसत करणे. ३) भादृषक सांप्रेषणाचा रचय करुि घेणे. ४) भाषा रचवतपिाचे स्वरु रूढ करणे. ५) मराठी भाषेच्या व्याकरणाचे स्वरु समजावु सांगणे
		VI	र्ेई क्रमांक - वौदा मध्ययगीिु मराठी वाङ्ग्याचा इदृतास ( इ. स. ११०१ ते १८०० )	१) मध्ययगीिु मराठी वाङ्ग्याची ररि व इदृतास यांचा रचय करुि देणे. २) मध्ययगीिु मराठी साहित्यातील दृढमपतीच्या प्रेरणांचा रचय करुि देणे. ३) मध्ययगीिु मराठी साहित्याचे स्वरु व वदृैिष्य यांचा रचय करुि देणे. ४) मध्ययगीिु मराठी वाङ्ग्याची सास्ांकृ दृढक र्ाशृभमीू समजु देणे.
		VI	र्ेई क्रमांक - र्ांधरा उर्योदृजत मराठी	१) मराठी भाषेचे दृढवध क्षेत्रातील मित्व व उर्योजि दृढवधार्थ्यांिा समजावु सांगणे. २) जादृरात कलेची उर्यक्तताु रूढ करुि सांगणे. ३) दृढवधार्थ्यांमध्ये दिवेदि कौिल्ये दृढकदसत करणे. ४) ग्रारृक्षणाचे मित्व व स्वरु समजावु सांगणे

		VI	२ेरे क्रमांक - सोळा आधदिकु मराठी साहित्यातील हवहवध प्रवाि, ( स्त्रीवादी, महस्लमु )	१) आधदिकु मराठी साहित्यातील प्रवािाांच्या दिहमपतीची २ा१र्षभमीू समजाविू सांगणे. २) स्त्रीवादी व महस्लमु साहित्यप्रवािाांची सांकव्िा, स्वरू, प्रेरणा हविद करणे. ३) वरील साहित्यप्रवािाांचा उदगम व हवकास रूट करणे. ४) कादांबरीतील आियसत्रे, समाजहवत्रण, घटाप्रसांग, व्यहकरेखा व भाषा हविद करणे. ५) आत्मवरत्राचा आिय, जीविसांधषप, सामाहजकता, ववै ारकता, भाषा रूट करूि सागां णे
४	एम. ए. भाग - १	I	अभ्यासर्हत्रका क्रमांक - १ साहित्यहवचार	१) साहित्य दिहमपतीप्रदकयेची माहिती देणे. २) साहित्यकृ ती अभ्यासतािा साहित्य हवचाराचे उर्योजि करणे. ३) लहलत साहित्याचे मत्यमार्िू करणे. ४) साहित्यकृ तीचे सवांकष समीक्षण करणे.
		I		१) भाहषक सांवादाचे मित्व लक्षात आणू देणे.

			अभ्यासर्हत्रका क्रमांक - २ मराठी भाषा सांवाद व उर्योजि	२) वकृ त्व तत्रां व कौिल्ये समजाविू सांगणे. ३) वतर्नीयू लेखि, बातमीलेखि, सां्रादकीय लेखांचे हवश्लेषण करणे. ४) जाहिरात दिहमपती करता येणे.
		I	HCT - १.३ आधदिकु मराठी वाङ्गयाचा इहतिास ( १८०० ते १९२० )	१) साहित्य व साहिहत्यक याांचे कालखांडािसारु ज्ञाि देणे २) वाङ्गय इहतिासाची र्शर्य समजिू घेणे. ३) साहित्यकृ तीच्या प्रभावाची कारणे समजिू घेणे. ४) १८०० ते १९२० या कादांबरीतील साहित्याचे मत्यमार्िू करणे.
		I	२ेरे क्रमांक - SCT - १.१ एका लेखकाचा अभ्यास ( मध्ययगीिु सांत तकारामु )	१) मध्ययगीिु साहित्य समाज आहण सस्ांकृ ती अभ्यासणे. २) लेखक र्दती समजिू घेणे. ३) सांत तकारामु याांच्या अभांगांचा सखोल अभ्यास करणे. ४) सांत तकारामु याांच्या अभांगांचे साहिहत्यक मत्यमार्िू करणे.
		II	अभ्यासर्हत्रका क्रमांक - ६ साहित्यहवचार समीक्षा	१) समीक्षेच्या प्रकारांचे ज्ञाि देणे २) समीक्षा सांकव्िा समजिू घेणे. ३) समीक्षा र्दतीचा वार करणे. ४) वतर्नीयू समीक्षा हलिता येणे.

		II	अभ्यासदर्शिका क्रमांक - ७ मराठी भाषा सांवाद व उर्योजि	१) आकांवाणी उद्घोषणा, बातमी देता येणे. २) दरदिपू बातमी, मादलकांवे दवश्लेषण करता येणे. ३) समाजमाध्यमावरील सांवादाचे उर्योजि करणे. ४) youtube साठी लघुर्तु द्दहमपती करणे.
		II	अभ्यासदर्शिका क्रमांक - ८  आधदिकु मराठी वाङ्गयाचा इहतास इ. स. १९२० ते १९६०	१) साहित्य व साहित्यक यांचे कालखांडांसारु ज्ञांि देणे २) वाङ्गय इहतासाची र्शरं समजुं घेणे. ३) साहित्यकृ तीच्या प्रभावाची कारणे समजुं घेणे. ४) इ. स. १९२० ते १९६० या कादांबरीतील साहित्याचे मत्यमार्ुू करणे.
		II	एका लेखकाचा अभ्यास आधदिकु - मिात्मा जोतीशव फु ले	१) मिात्मा फु ले यांच्या समब्र साहित्याचा सखोल अभ्यास करणे. २) मिात्मा फु ले यांचे सामादजक व िक्षै दणक कायप समजवुं घेणे. ३) मिात्मा फु ले यांच्या कायपकतपत्वाचे वाङ्गयींि कायपकतपत्वाचे वेगळेण लक्षात घेणे. ४) मिात्मा फु ले यांच्या कायापची कालसमर्पकता समजावुं घेणे.

एम. ए. भाग - दोि		III	अभ्यासदर्शिका HCT - ३.१ आधदिकु भाषादवज्ञांि	१) मांिी जीवातील भाषेचे स्वरु व मित्व दवद्यार्थ्यांिा समजावुं सांगणे २) दवद्यार्थ्यांमध्ये वज्ञै ादिक दृष्टीकोि दवकदसत करणे. ३) भादषक सांप्रेषणाचा र्शचय करुंि घेणे. ४)भाषा र्शवतपिाचे स्वरु रूट करणे. ५) मराठी भाषेच्या व्याकरणाचे स्वरु समजावुं सांगणे.
		III	आधदिकु मराठी वाङ्गयाचा इहतास १९६० ते १९९०	१) मराठी वाङ्गयाची र्शरं व इहतास यांचा र्शचय करुंि देणे. २) मराठी साहित्यातील दिहमपतीच्या प्रेरणांचा र्शचय करुंि देणे. ३) मराठी साहित्याचे स्वरु व वद्वैिष्ट्य यांचा र्शचय करुंि देणे. ४) मराठी वाङ्गयाची सांस्कृ दतक र्ाश्र्पभमीू समजुं देणे
		III	भाषा व साहित्य : सांिोधिाचे द्वृतींिास्र	१) सांिोधिाचे मित्व समजुं घेणे. २) भाषा आदण साहित्य सांिोधिाचे स्वरु व वगे ळेण समजुं घेणे. ३) भाषा व साहित्याच्या सांिोधिाचे द्वृतींिास्र समजुं घेणे. ४) भाषा व साहित्य सांिोधिात्मक लेखाचा र्शचय करुंि घेणे.



		III	अभ्यासद्वत्रका OET :- ३.१मराठी भाषा व स्थाप र्क्षा	१) भाषेचे स्वरू हविष समजू घेणे. २) भाषेतील स्तरभेद व बोलीचा अभ्यास करणे. ३) लोकसाहित्याचे स्वरू हविष समजू घेणे. ४) लोकसाहित्याचे प्रकार भेद समजू घेणे.
		IV	अभ्यासद्वत्रका HCT ४.१ समाजभाषाहवज्ञाि	१) समाजभाषाहवज्ञािाच्या हवहवध हसधदांतांवा ररचय करूि देणे. २)समाजभाषाहवज्ञािाचे स्वरू समजावि सांगणे. ३) समाजभाषाहवज्ञािाच्या हवहवध प्रयोजांवा ररचय करूि देणे ४) समाजभाषाहवज्ञािाची माहिती करूि देणे
		IV	आधदिकु मराठी वाङ्ग्याचा इहतिास १९९० ते २०१०	१) मराठी वाङ्ग्याची ररर व इहतिास यांवा ररचय करूि देणे. २) मराठी साहित्यातील दिहमपतीच्या प्रेरणांवा ररचय करूि देणे. ३) मराठी साहित्याचे स्वरू व वदैिष्ट्य यांवा ररचय करूि देणे. ४) मराठी वाङ्ग्याची सांस्कृ हतक र्ाशर्भमीू समजू देणे.
		IV	अभ्यासद्वत्रका HCT - ४.३ िोधप्रबांध लेखि	१) भाषा व साहित्य सांिोधि र्दती समजू घेणे. २) िोधप्रबांध लेखाचे स्वरू लक्षात घेणे. ३) िोधप्रबांध लेखाची िास्त्रीय माहिती देणे. ४) प्रत्यक्ष िोधप्रबांध सादर करणे.
		IV	र्ेई क्रमांक - ४. ४	१) लोकहप्रय साहित्याचे स्वरू समजू घेणे.
			लोकहप्रय साहित्य	२) लोकहप्रय साहित्याचा उगम, व वाटवाल लक्षात घेणे. ३) लोकहप्रय साहित्याच्या भाषेचे वेगळेण समजू घेणे. ४) लोकहप्रय साहित्य आहण वाचकांची अहभरुची यांवा सिसांबांध रूष्ट करणे.

## Department of Political Science

Sr. No	Year	Course Name	Sem.	Paper No.	Paper Name	Course Outcome
1.	2021-22	B.A.I	I	I	Constitutional Government and Democracy in India	<ol style="list-style-type: none"> <li>1) Student understands making of Indian Constitution, It's features &amp; Philosophy</li> <li>2) It extends the consciousness of the student about the fundamental rights &amp; duties of citizen.</li> </ol>
			II	II	Constitutional Government and Democracy in India	<ol style="list-style-type: none"> <li>1) Course gives analytical perspectives about federal structure of India and actual functioning of Union- State governments.</li> <li>2) Course introduces to student nature, ideology &amp; role of national political parties in India.</li> </ol>
2.	2021-22	B.A.II	III	III	Introduction To Political Theory	<ol style="list-style-type: none"> <li>1) Students will understand certain key aspects of conceptual analysis in political theory.</li> <li>2) Students will apply concepts to contemporary political issues</li> </ol>
				IV	Modern Indian Political Thought	<ol style="list-style-type: none"> <li>1) Students will understand to the concepts, ideas and theories that developed in India.</li> <li>2) Students will compare thinkers on similar concept</li> </ol>
			IV	IDS	Public Administration	<ol style="list-style-type: none"> <li>1) Students will understand the governing philosophy into programs, policies and activities and making it a part of community living.</li> <li>2) Develop a deeper understanding of the personnel public administration.</li> </ol>
				V	Introduction To Political Theory	<ol style="list-style-type: none"> <li>1) Students will understand to the concepts, ideas and theories</li> <li>2) Student explains significance of liberty, equality and justice.</li> </ol>
			VI	Modern Indian Political Thought	<ol style="list-style-type: none"> <li>1) Students will use concepts to analyze new situations.</li> <li>2) Students will explain the nature and value of normative thinking</li> </ol>	

				IDS	Public Administration	1) Students will understand the governing philosophy into programs,
						policies. 2) Develop a deeper understanding of the financial administration.
3.	2021-22	B.A.III	V	VII	Government & Politics of Maharashtra	1) Students will have a summary understanding of formation of Sanyukta Maharashtra & determinants of politics of Maharashtra. 2) Develop a deeper understanding of the structure and policy of Maharashtra Government.
				VIII	Political Sociology	1) Develop a deeper understanding of the concepts in modern political theory. 2) Students will apply certain key aspects of conceptual analysis in modern political theory.
				IX	Introduction to International Politics	1) To understand some important theoretical approaches in international relations & a history from 1945 onwards to the present. 2) To evaluate the foreign policy of Indian since independence and its possible future trajectory.
				X	Comparative Government & Politics	1) Develop a deeper understanding of the structures and politics of United Kingdom, USA and Switzerland. 2) To understand the politics in United Kingdom, USA and Switzerland government comparatively and to know the principles of good governance.

				XI	Western Political Thought	<ol style="list-style-type: none"> <li>1) Develop consciousness of the concepts, ideas and theories that developed in Western country. &amp; western political tradition.</li> <li>2) To understand seminal contribution of western political Thinker to the evolution of political theorizing in western country.</li> <li>3) To understand concepts of classical political thinker.</li> </ol>
		VI		XII	Government & Politics of	<ol style="list-style-type: none"> <li>1) Develop a deeper understanding of the structure and policy of Panchyat Raj</li> </ol>

					Maharashtra	<ol style="list-style-type: none"> <li>Sansthas and Local Self Government.</li> <li>2) Develop a deeper understanding of the structure and policy of Maharashtra Government, Panchyat Raj Sansthas and Local Self Government.</li> </ol>
				XIII	Political Sociology	<ol style="list-style-type: none"> <li>1) Develop a deeper understanding of the concepts in political theory.</li> <li>2) Students will apply certain key aspects of conceptual analysis in contemporary political theory.</li> </ol>
				IVX	Introduction to International Politics	<ol style="list-style-type: none"> <li>1) To understand some important theoretical approaches in international organization &amp; a history from 1945 onwards to the present. To evaluate the foreign policy of Indian since independence and its possible future trajectory.</li> <li>2) To evaluate the foreign policy of Indian since independence and its possible future trajectory.</li> </ol>
				XV	Comparative Government & Politics	<ol style="list-style-type: none"> <li>1) Develop a deeper understanding of the structures and politics of United Kingdom, USA and Switzerland.</li> <li>2) To understand the politics in United Kingdom, USA and Switzerland government comparatively and to know the principles of good governance.</li> </ol>

				XVI	Western Political Thought	<ol style="list-style-type: none"> <li>1) Students will explain their relevance of Classical Political Thoughts to contemporary times.</li> <li>2) Students will explain their relevance of Western Political Thoughts to contemporary times.</li> </ol>
4	2021-22	M.A. I	I	HCT-1.1	Political Theory	<ol style="list-style-type: none"> <li>1) Student explains nature &amp; significance of political theory.</li> <li>2) To understand modern theories of state &amp; democracy.</li> </ol>
				HCT-1.2	Major Ideas in Public Administration	<ol style="list-style-type: none"> <li>1) To understand some important theoretical approaches &amp; views in Public Administration.</li> <li>2) To deeper understanding the bases of organization.</li> <li>3) To understand the principles of organization.</li> </ol>
				HCT-1.3	Constitution of India	<ol style="list-style-type: none"> <li>1) Student explains understanding making of Indian Constitution, its features &amp;</li> </ol>

						<ol style="list-style-type: none"> <li>1) Philosophy.</li> <li>2) Student explains understanding making of Indian Constitution, its features &amp; Philosophy.</li> </ol>
				DSC-1.2	Modern Indian Political Thought	<ol style="list-style-type: none"> <li>1) Student explains the concepts, ideas and theories that developed in Modern India.</li> <li>2) To understand history of Indian Renaissance.</li> <li>3) Students will have a summary understanding of New Humanism, Communism &amp; Socialism in the view of Indian Thinkers.</li> </ol>
				SCT-1.2	Financial Administration in India	<ol style="list-style-type: none"> <li>1) Student explains nature &amp; significance of financial Administration.</li> <li>2) Develop a deeper understanding of the personnel &amp; financial administration.</li> </ol>
			II	HCT-2.1	Contemporary Political Theory	<ol style="list-style-type: none"> <li>1) Student explains nature &amp; significance of contemporary political theory.</li> <li>2) Deeper understanding of the liberalism.</li> </ol>
				HCT-2.2	Issues in Public Administration	<ol style="list-style-type: none"> <li>1) Develop a deeper understanding of the Issues in Public Administration.</li> <li>2) Develop a deeper understanding of the Good Governance, E-Governance</li> </ol>

				HCT-2.3	Political Process in India	<ol style="list-style-type: none"> <li>1) To understand theories of federalism.</li> <li>2) Develop a deeper understanding of the various ideologies of political party.</li> </ol>
				DSC-2.1	Electoral Politics in India	<ol style="list-style-type: none"> <li>1) To understand Electoral Politics under Colonial Rule.</li> <li>2) Develop a deeper understanding of the Electoral System in India since 1950</li> </ol>
				SCT-2.1	Human Rights	<ol style="list-style-type: none"> <li>1) Students will explicate analyze concepts &amp; some Theories of Human Rights.</li> <li>2) Develop a deeper understanding of the Women's and Child Rights, Rights of Minorities and Rights of SC and ST.</li> </ol>
5.	2021-22	M.A. II	III	HCT-3.1	International Relations	<ol style="list-style-type: none"> <li>1) Students will explicate analyze concepts &amp; some Theories of International relations.</li> <li>2) Students will explicate analyze key concepts of International relations.</li> </ol>
				HCT-3.2	Government & Politics of Maharashtra	<ol style="list-style-type: none"> <li>1) Maharashtra &amp; determinants of politics of Maharashtra.</li> <li>2) Students will analyze and critically assess the Demand for separate Vidarbha State</li> </ol>
				HCT-3.3	Research Methodology	<ol style="list-style-type: none"> <li>1) Students will learn research methods and hypothesis writing, testing.</li> <li>2) Demonstrate critical thinking and writing skills related to Report Writing.</li> </ol>
				DSC-3.1	Western Political Thought	<ol style="list-style-type: none"> <li>1) Develop consciousness of the Classical &amp; Christian political thought.</li> <li>2) Student will demonstrate understanding of secularization of political thought.</li> </ol>
				SCT-3.1	International Organizations	<ol style="list-style-type: none"> <li>1) Students will explicate analyze concepts &amp; some Theories of International organizations.</li> <li>2) Student will demonstrate understanding of Regional Organizations</li> </ol>
			IV	HCT-4.1	Indian Foreign Policy	<ol style="list-style-type: none"> <li>1) To understand the nature, scope and objective of foreign policy</li> <li>2) To understand the India's Relations with South Asian Countries.</li> </ol>
				HCT-4.2	Local Self Government in Maharashtra	<ol style="list-style-type: none"> <li>1) Student explains the composition and policy making of Maharashtra Government.</li> <li>2) Student explains the composition and policy making of Panchyat Raj Sansthas and Local Self Government.</li> </ol>

			HCT-4.3	Dissertation	<ol style="list-style-type: none"> <li>1) Students will have a stronger and more informed perspective on Research Methodology in Political Science.</li> <li>2) Demonstrate critical thinking and writing skills related to Report Writing.</li> </ol>
			DSC-4.1	Western Political Thinkers	<ol style="list-style-type: none"> <li>1) To understand theories of Social Contract. Develop a deeper understanding of the</li> <li>2) various ideologies.</li> </ol>
			SCT-4.1	Foreign Policy & Diplomacy	<ol style="list-style-type: none"> <li>1) To understand the Foreign Policy &amp; Diplomacy.</li> <li>2) To understand the Process and Administration of Foreign Policy</li> </ol>

## Department of History

Sr. No	Course Name	Sem. No.	Paper No.	Paper Name	Course Outcome
1	B.A.I	I	I	Chhatrapati Shivaji and his Times	1. Students will be able to examine institutional basis of Maharashtra. 2. Students will be able to examine the real history of Chh. Shivaji Maharaj and his Times.
		II	II	Chhatrapati Shivaji and his Times	1. Students will be able to examine social, economic and religious condition in Medieval Maharashtra. 2. Students will be able to analyse civil administration, military administration and judicial system during the 1630-1707 A.D.
2	B.A.II	III	III	History of Modern Europe	1. Students will be able to understand the contemporary Europe in the light of its background history. 2. Students will be able to understand the various Revolutions and basis of development of European countries.
			IV	History of Indian Freedom Movement	1. Students will be able to understand the major events of India's freedom struggle. 2. Students will be able to understand rise and growth nationalism in Europe.
		IV	V	History of Modern Europe	1. Students will be able to understand rise and growth nationalism in Europe. 2. Students will be able to understand main forces, personalities, events and movements that have shaped the Modern Europe.
			VI	History of Indian Freedom Movement	1. It will increase the spirit of healthy Nationalism, Democratic values and secularism among the student. 2. Students will be able to understand and assess the contribution of national leaders.
	IDS	III	IDS	History of Social Reforms in Maharashtra	1. Students will be able to examine social background of Maharashtra. 2. Understand various social reform movements and contribution of social reformer in Maharashtra.
		IV	IDS	History of Social Reforms in Maharashtra	1. Identify the different types of social problems in our society. 2. It will increase the spirit of humanity, secularism, gender equality among the students.
3	B.A.II I	V	VII	Ancient India	1. Students will be able to examine institutional basis of India. 2. Identify the rules and their administration.



			VIII	Mughal India	1.Students will be able to examine social, economic and religious condition in Medieval period. 2. Analyse the impact of various rule on Indian polity and society.
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			IX	Expansion and Downfall of the Maratha Power	1.Students will be able to analyse the Marathas policy of expansionism. 2.Understand the role played by the Marathas in the 18 <sup>th</sup> century polity.
			X	Modern World	1.Students will understand the relations between the nations in the world. 2. Students will study the political, social and economic challenges in the Modern World.
			XI	Historical Sources, Research and Places	1.Students will be able to explain the what is history and importance of history. 2. Students will be able to examine sources of history.
		VI	XII	Ancient India	1.Evaluate the legacy of Shaivism, Vaishnavism ,Buddhism and Jainism. 2.Analyze the features of Indian art and architecture.
			XIII	Mughal India	1.Students will be able to explain our heritage through culture aspects of India. 2.Assess the economy and religion of various rule.
			IVX	Expansion and Downfall of the Maratha Power	1. Students will be able to analyse the civil, military administration and judicial system during the Peshwa period.
			XV	Modern World	1.Students understand the consequences of the World War-I,II and Cold War regarding the present global crises. 2.Analyze the streamline the role of League of Nations.
			XVI	Historical Sources, Research and Places	1.Students will understand the Museum and Historical Tourism. 2.Identify the different types of primary and secondary sources.
4.	M.A.I	I	HCT -1.1	Historiography	1.Understand about the Research process in Historical research 2.Know the relationship of history with its allied disciplines.
			HCT -1.2	Ancient India up to 650.	1.Student will able to gather knowledge about the society, culture, religion and political history of ancient India. 2.The Student will able to acquire knowledge about Indus civilization and Vedic Period.
			HCT -1.3	History of World (1900-1970)	1.Students will understand the relations between the nations in the world. 2.Students will study the political, social and economic challenges in the Modern World.

			DSE-1.1	Medieval India (1200-1700)	1.The political and administrative conditions during the Delhi Sultanate period. 2.The social and economic conditions prevailing during the time of Delhi Sultanate
			SCT-1.1	History of India (1757-1857)	1.Identify the strategies of British for Imperial control 2.The student will become familiar with the foundation & Administration of Modern India

		II	HCT-2.1	Historiography	1.As a history student will learn about the historiographical trends, interpretation of the historical sources of India as well. 2. Students will be able to explain the what is history and importance of history.
			HCT-2.2	Ancient India up to 650.	1.The student will understand the changing sociocultural scenarios of India. 2.The student will become familiar with the foundation & Administration of ancient India
			HCT-2.3	History of World (1900-1970)	1.Students understand the consequences of the World War-I,II and Cold War regarding the present global crises. 2.Analyze the streamline the role of League of Nations.
			DSE-2.1	Medieval India (1200-1700)	1.Student will learn and analyse about the transition from historic centuries to the early medieval. 2.The student will become familiar with the foundation & Administration of Medieval India
			SCT-2.1	History of India (1757-1857)	1.Students should be to Know about the thoughts of ancient, middle and Modern period 2.It will increase the spirit of healthy Nationalism, Democratic values and secularism among the student
5.	M.AII	III	HCT-3.1	Maratha History (1600-1818)	1.Grasp the details about different sources and various trends in Maratha history. 2.Students will be able to analyse the Marathas policy of expansionism
			HCT-3.2	Modern Maharashtra (1818-1990)	1.Students can able to get the Knowledge of Social Movement. 2.Understand various social reform movements and contribution of social reformer in Maharashtra.

			HCT-3.3	Research Methodology	1.Understand about the Research process in Historical research. 2.Students will be able to examine sources of history.
			DSE-3.1	Women in Indian History	1.Analyse and compare the customary and legal status of women in Ancient, Medieval and colonial India 2.Student will able to gather knowledge about the society, culture ,religion and political history of ancient India
			GET-3.1	History of India (1858-1964)	1.Identify the strategies of British for Imperial control.
					2.Grasp the details of freedom movement under the Mahatma Gandhi's leadership.
		IV	HCT-4.1	Maratha History (1600-1818)	1.Understand the role played by the Marathas in the 18 <sup>th</sup> century polity. 2. Students will be able to understand and assess the contribution of national leaders
			HCT-4.2	Modern Maharashtra (1818-1990)	1.Understand about the Development of Modern Maharashtra. 2.Identify the reforms movements in Maharashtra.
			HCT-4.3	Dissertation	1.Students will be able to dissertation writing skill. 2.Students will be able to viva-vice skill.
			DSE-4.1	Women in Indian History	1.The student will become familiar with the emergence and spread of Bhakti movement 2.Understand the issues in representing woman in History.
			SCT-4.1	History of India (1858-1964)	1.Understand various phases of the national movement. 2.It will increase the spirit of healthy Nationalism, Democratic values and secularism among the student.

**Department of Geography**

<b>Sr. No.</b>	<b>Course</b>	<b>Sem.</b>	<b>Paper No.</b>	<b>Subject</b>	<b>Course outcomes</b>
1	FYBA	I	I	Geomorphology	<ul style="list-style-type: none"> <li>• The student learns about the knowledge of Geomorphology.</li> <li>• The student were understand geomorphological concept and process takes place on the earth surface and within the earth crust.</li> <li>• The Student were familiar the knowledge about interior structure of the earth, formation of continent and types of rock.</li> <li>• Student understands about endogenetic and exogenetic forces and their effect in the creation of different landforms on the surface of the earth.</li> </ul>
		II	II	Human Geography	<ul style="list-style-type: none"> <li>• The students were known the importance of Human Geography.</li> <li>• The students understood the concepts, Theory, population growth and composition, settlement and detailed knowledge of Human Geography.</li> <li>• The students were familiar with basic development Human Geography.</li> <li>• The students are developed as good environmental conservator</li> </ul>
2	SYBA	III	III	Climatology-III	<ul style="list-style-type: none"> <li>• To make the students familiar with new terms and concept ofclimatology.</li> <li>• To know the constituents of atmosphere and its dynamic nature</li> <li>• To know the contribution of atmosphere in the making of earth habitable.</li> </ul>

			IV	Geography of India-IV	<ul style="list-style-type: none"> <li>• To synthesize students with various facts of India viz. Physiography, Climate, Soil, Vegetation and Resources</li> <li>• To synthesize students with various facts of India viz. Agriculture, Industries, Population, Social and Regionalization of India</li> </ul>
		IV	V	Economic Geography-V	<ul style="list-style-type: none"> <li>• To acquaint the students with economic activities i.e. Agriculture, Manufacturing, Transport, Trade and Services.</li> <li>• To acquaint the students with economic activity models.</li> </ul>
			VI	Environmental Geography-VI	<p>□</p> <ul style="list-style-type: none"> <li>• To acquaint students with concept of environmental geography.</li> <li>• To study the relation between human and environment. □□To introduce the students with environmental problems, programmes and policies.</li> </ul>

3	TYBA	V	VII	Regional Planning and Development-VII	<ul style="list-style-type: none"> <li>• The students were known the importance of regional planning.</li> <li>• The students understood the concepts of region, regionalization, regional planning &amp; development and detailed knowledge of region. <ul style="list-style-type: none"> <li>□□The students were familiar with indicators of measurement of development.</li> </ul> </li> <li>• Detail understanding of Growth Pole Model, Center</li> </ul>
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					place Theory and Growth Foci Model in Indian context.
			VIII	Urban Geography-VIII	<ul style="list-style-type: none"> <li>• The students were known the importance of urban settlements through urban geography.</li> <li>• The students understood the types of urban Settlements, Site and situations.</li> <li>• The students were familiar with an idea of relationship between human activities and urban development.</li> </ul>
			IX	Population Geography-IX	□□This paper would bring an understanding of population geography along with relevance of demographic data.
		VI	X	Evaluation of Geographical Thought	<ul style="list-style-type: none"> <li>• Students were able to visualize the basic theme, ideas and approaches of geographic knowledge with relation to historical juncture, varying schools and era of their emergence.</li> <li>• Detailed knowledge about the debates in the geographical studies.</li> <li>• Understanding of recent trends in Geography.</li> </ul>

			XI	Political Geography	<ul style="list-style-type: none"> <li>• Student will understand the history and development of political geography.</li> <li>• Get knowledge about evaluation of state and nation.</li> <li>• Get knowledge of Geo-political theories.</li> <li>• Investigates problems and disputes of India with the most current research topics in political geography.</li> </ul>
			XII	Social Geography	<ul style="list-style-type: none"> <li>• In depth understanding the problems and prospects of society in India.</li> <li>• The students are fully aware</li> </ul>

					<p>about the technological, occupational and migration changes of peoples in India.</p> <p>□□Detailed knowledge about the social categories and their spatial distribution.</p> <p>□□Understanding concepts of social wellbeing, welfare and social problem in India.</p>
			I	Map Making and Map Interpretation P-I	<ul style="list-style-type: none"> <li>• In depth understanding the map, concept of scale and projection.</li> <li>• Detailed knowledge about the analysis of landforms and its identification.</li> <li>• The students are deeply aware about basic information to the students about S.O.I. toposheets and I.M.D. weather reports and obtained the skills about map interpretation</li> </ul>

			II	Advanced Tools, Techniques (Computer, Remote Sensing, GIS, GPS) & Field Work P-II	<ul style="list-style-type: none"> <li>• In depth understanding the importance of field work and advanced Techniques in Geography.</li> <li>• The students are trained to implement modern tool and techniques in Geography.</li> <li>• The students are deeply aware about the basics and trained in instrumental survey.</li> <li>• The students are deeply familiar with computer, GIS, GPS and Remote Sensing.</li> </ul>
1	M.A.I	I	I	Geomorphology I	1) To familiarize the students with certain fundamental Geomorphological concepts interior of the Earth, mountain building theories and movement of the Earth.

	M.A.I	I	II	Climatology I	1) To acquaint the student with weather phenomena, pressure belts and winds, air masses, atmospheric disturbances.
	M.A.I	I	III	Oceanography and Geohydrology	1) To know many acts of oceans such as properties of sea water, water circulation, structure of ocean basin, evolution of oceans, characteristics of marine environments.



	M.A.I	I	IV	Economic Geography	<ol style="list-style-type: none"> <li>1) To acquaint the students with the nature and scope of Economic geography, basic economic process and economic activities.</li> <li>2) To familiarize the students with the principles of industrial location and industrial theories.</li> <li>3) To acquaint the students with the resources, transportation, connectivity and trade.</li> </ol>
	M.A.I	I	I	Representation of landform and topographical map	<ol style="list-style-type: none"> <li>1) To familiarized the students the identification of different landforms on the topographical maps.</li> </ol>
	M.A.I	I	II	Study of weather maps	<ol style="list-style-type: none"> <li>1) To understand the method of collection and analysis of the climatic data and interpret the same.</li> </ol>
	M.A.I	I	III	Analysis of climatic data	<ol style="list-style-type: none"> <li>1) To understand the student with the interpretation and construction of climatic graphs and diagram.</li> </ol>
	M.A.I	I	IV	Analysis of socioeconomic data	<ol style="list-style-type: none"> <li>1) To familiarize the students various techniques of analysis of socio economic data.</li> </ol>
2	M.A.I	II	V	Geomorphology	<ol style="list-style-type: none"> <li>1) To acquaint the students</li> </ol>
				II	<ol style="list-style-type: none"> <li>with the theories of evolution of continents and ocean basin.</li> <li>2) To familiarize the students with the concept of erosion and applied geomorphology.</li> </ol>

	M.A.I	II	VI	Climatology II	<ol style="list-style-type: none"> <li>1) To provide an understand of classification of climate and climate regions.</li> <li>2) To acquaint the students with the climate and clothing, climatic problem.</li> </ol>
	M.A.I	II	VII	Population geography	<ol style="list-style-type: none"> <li>1) To understand the students with the nature, scope of population geography and sources of population data, population distribution and composition.</li> <li>2) To acquaint the students with fertility and mortality, population growth theory, population and recourses.</li> </ol>
	M.A.I	II	VIII	Regional geography of India	<ol style="list-style-type: none"> <li>1) To understand the students India in terms of various regional divisions, their important characteristics.</li> <li>2) To acquaint the student with agriculture and industries in India.</li> </ol>
	M.A.I	II	V	Study of landforms analysis techniques	<ol style="list-style-type: none"> <li>1) To identify the different landforms on the topographical maps.</li> <li>2) To identify the different drainage patterns and types o slopes.</li> </ol>
	M.A.I	II	VI	Statistical techniques in geography I	<ol style="list-style-type: none"> <li>1) To introduce some basic statistical techniques to the students to be applied to various themes in geography.</li> </ol>

	M.A.I	II	VII	Statistical techniques in geography II	1) To introduce the relative measures and co-efficient of correlation techniques to the students to be applied to various theme in geography.
	M.A.I	II	VIII	Representation of Socio-Economic data II	1) To understand the students various cartographic techniques of analysis of socio-economic data
	M.A.I	II	IX	Geomorphology II	3) To acquaint the students with the theories of evolution of continents and ocean basin. 4) To familiarize the students with the concept of erosion and applied geomorphology.
3	M.A.II	III	X	Agricultural geography	1) To familiarize the students with concept origin and development of agriculture: and to examine the role of agricultural determinants. The course further aims to make familiarize the students with the application of various theories, models, agricultural system and productivity. 2) To reexamine green revolution in India, contemporary issues and agricultural problems in solapur district.
	M.A.II	III	XI	Settlement geography	1) To familiarize the students with conceptual, theoretical and empirical development in settlement studies in geography 2) To provides an idea to the students about the national issues of settlements

	M.A.II	III	XII	Biography geography	1)To introduce the students the concept of the biography and it's interpretation 2)To introduce the students the
					climate ,physical environment and their interaction with the living organisms 3) To introduce the student with the living and nonliving environments and their interaction with the special reference to India 4)To make aware about conservation of biodiversity and biotic resources
	M.A.II	III	XIII	Cultural geography	1)To understand diversity of culture in the world as well as in India 2) To comprehend the diffusion of various ethnic traits and religions. 3)To understand the relationship between culture and pattern of living and economic development
	M.A.II	III	IX	Quantitative techniques in Economic geography	1)To understand the students to the quantitative techniques in agricultural geography 2)To acquaint the students to the quantitative techniques applied in marketing geography
	M.A.II	III	X	Introduction to computer	1) To understand the terms, concepts involved in computer 2) To familiarize the students with internet ,browser and web page

	M.A.II	III	XI	Applications of Computer in geography	<ol style="list-style-type: none"> <li>1) To familiarize with geographical data and data structure</li> <li>2) To acquaint the students to the computer cartography</li> </ol>
	M.A.II	III	XII	Quantitative techniques in population and settlement	<ol style="list-style-type: none"> <li>1) To understand the students to the quantitative techniques in population geography</li> </ol>

				geography	<ol style="list-style-type: none"> <li>2) To acquaint the student to the quantitative technique applied in settlement geography</li> </ol>
4	M.A.II	IV	XIII	Regional planning and development in India	<ol style="list-style-type: none"> <li>1) To understand and evaluate the concept of region in geography</li> <li>2) To understand the role and relevance of region in regional planning</li> <li>3) To identify the causes of regional differences in development ,perspectives and policy imperatives</li> <li>4) To understand the problems of regional development</li> </ol>
	M.A.II	IV	XIV	Development of modern geography	<ol style="list-style-type: none"> <li>1) To introduce the students to the philosophical and methodological foundations of the subject and it's place in the world of knowledge</li> <li>2) To familiarize student with the major landmarks in development of geographic thought at different periods of time.</li> </ol>

	M.A.II	IV	XV	Political geography	<ol style="list-style-type: none"> <li>1) To understand the basic concepts in political geography</li> <li>2) To enhance awareness o Multi-dimensional nature of geo-political space</li> <li>3) To make acquaint the students with nature of geographical factors influencing the geopolitical situations in India and world</li> </ol>
	M.A.II	IV	XVI	Geography of Tourism	<ol style="list-style-type: none"> <li>1) Acquiring the knowledge of different tourist places in the world</li> <li>2) To understand emerging developing tourism</li> </ol>
					<ol style="list-style-type: none"> <li>industry</li> <li>3) To understand the scope and role of tourism in world as well as Indian Economy</li> <li>4) To familiarize students with tourism industry</li> <li>5) Encouraging the students to involve in tourism industry</li> </ol>
	M.A.II	IV	XIII	Introduction to remote sensing GIS	<ol style="list-style-type: none"> <li>1) Make students familiar with concept of Remote sensing and its use in present Geographic studies</li> <li>2) To give detailed knowledge about aerial photography</li> <li>3) Make students familiar with concept of Geographical Information System</li> </ol>

	M.A.II	IV	XIV	Application of Remote sensing	<ol style="list-style-type: none"> <li>1) Make students familiar with concept of Remote sensing and its use in present geographic studies</li> <li>2) To give detailed knowledge about aerial photography</li> <li>3) Make student familiar with concept of geographical information system</li> </ol>
	M.A.II	IV	XV	Research Methodology and project report	<ol style="list-style-type: none"> <li>1) Student will explain field work, techniques of data collection and its presentation</li> <li>2) Students will describe importance of sampling in research and skill of report writing</li> <li>3) Students will express knowledge about format of project report</li> </ol>

### Department of Physical Education

Sr. No	Course Name	Semester	Paper No	Paper Name	Subject Outcomes
1	B.A.I	I	I	Principles of Physical Education	-To understand meaning, need and importance of physical education To understand the Growth and development.
		II	II	Principles of Physical Education	-To understand the body system and play theory -To understand the aim and objectives of physical education
2	B.A.II	III	III	History of Physical Education	-To acquire knowledge about Ancient Olympic movement -To acquire knowledge about Different Institution for training in Physical Education in India

			IV	Organization & Administration in Physical Education & Sports	-To understand the meaning, importance and scope of organization, administration and sports management in physical education. - To understand office Management, Record, Register & Budget.
		IV	V	History of Physical Education	-To acquire knowledge about Modern Olympic movement -To acquire knowledge about Different Institution for training in Physical Education in India
			VI	Organization & Administration in Physical Education & Sports	-To understand the meaning, importance and scope of organization, administration and sports management in physical education. - To understand office Management, Record, Register & Budget.
3	B.A.II I	V	VII	Health Education	- Health education strives to provide accurate and relevant information about various health topics. knowledge and understanding of health issues, including factors that contribute to good health and those that can lead to illness or disease. -The ultimate goal of health education is to influence positive health behaviors. This might include encouraging individuals to adopt healthier eating habits, engage in regular physical activity, practice safe sex, avoid tobacco and substance use, and take preventive measures to reduce the risk of various diseases.
			VIII	Rhythms and Recreation in Physical Education	-Incorporating a variety of rhythmic activities and recreational games into physical education curricula can lead to a well-rounded set of outcomes that benefit students physically, mentally, and socially
			IX	Applied Yoga	-The combination of physical movement, breath control, and meditation in yoga can have a calming effect on the nervous system, helping to reduce stress and anxiety.



			X	Anatomy Physiology and Physiology Of Exercise	-knowledge of the human body's structure and function to applications in healthcare, sports, research, and the development of medical interventions.
			XI	diet and Hygiene	-It seems like your question is a bit unclear. If you're asking about the outcomes of maintaining a healthy diet and good hygiene practices, a be happy to provide some information
		VI	XII	Health Education	-Health education aims to boost individuals' confidence in their ability to make healthy choices and manage their own health. When people feel empowered to take control of their well-being, they are more likely to engage in health-promoting behaviors. - Effective health education programs can lead to measurable behavioral changes. For instance, participants might start eating more fruits and vegetables, exercising regularly, or using seat belts consistently after receiving relevant education.
			XIII	Rhythms and Recreation in Physical Education	-Recreation helping students manage stress and anxiety. Recreation also provides an outlet for relaxation and enjoyment.
			XIV	Applied Yoga	-Yoga involves a range of stretching and poses that can gradually increase flexibility and range of motion in your joints and muscles.
			XV	Anatomy Physiology and Physiology Of Exercise	-Knowledge of exercise physiology helps in designing personalized and effective training programs that target specific fitness goals.
			XVI	diet and Hygiene	-Both a healthy diet and good hygiene practices play crucial roles in maintaining your overall health and well-being. -They are interconnected and contribute to a higher quality of life and a reduced risk of various health issues.

## Department of Psychology

Sr. No	Course Name	Sem. No.	Paper No.	Paper Name	Course Outcome
1	B.A.I	I	I	Introduction to Psychology	1) Students can apply the psychological principles in their real life situations and to learn more effectively about life span development. 2) Students to develop better physical, social, cognitive and personality perspectives. 3) Students opting for competitive examinations are benefited
		II	II	Fundamentals of Psychology	1) Students can apply the psychological principles in their real life situations and to learn more effectively about life span development. 2) Students to develop better physical, social, cognitive and personality perspectives. 3) Students opting for competitive examinations are benefited.
2	B.A.II	III	III	Psychology of Adolescent and early Adulthood	To students able to familiarize with the basic developmental process of Adolescence to Early Adulthood. 2. Students understand with the knowledge of physical, Cognitive, Social and Personality development to the relating Adolescence and Early Adulthood stages of life..
			IV	Psychology of Adjustment	Students able to understand Psychological adjustment to modern life. 2) Students learn adjustment in various life situations in 21 Century
		IV	V	Psychology of Middle and Late Adulthood	Student know the basic developmental process of middle and late adulthood 2) Students learn knowledge of physical, cognitive social and personality development middle and late adulthood.
			VI	Psychology of Modern Life	1) Students Learn Psychological applications in modern life. 2) Student Know the Presses of Psychological interpersonal, intimate relationship with Health and work.
	IDS	III	IDS	Modern Logic (IDS) Propositional Logic	1. Students will be able to examine Propositional Logic 2. Understand various Modern Logic & symbolic logic
		IV	IDS	Modern Logic (IDS) Predicate Logic	1. Students will be able to examine Predicate Logic 2. Understand various Modern Logic & symbolic logic.

	B.A.I	I	I	Outlines of Indian	To acceptance of self and others with tolerance and understanding.
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					philosophy	<p>II) To inspire the student to confront the philosophical problems implicit in the experience of self, others and the universe, together with the question of their relations to ultimate transcendence (God and immortality)</p> <p>III) Clarity and coherence in explaining philosophical basic concepts and theories.</p> <p>IV) Ability to criticize assumptions and arguments.</p>
			I	II	Outlines of Indian philosophy	<p>To acceptance of self and others with tolerance and understanding.</p> <p>II) To inspire the student to confront the philosophical problems implicit in the experience of self, others and the universe, together with the question of their relations to ultimate transcendence (God and immortality)</p> <p>III) Clarity and coherence in explaining philosophical basic concepts and theories.</p> <p>IV) Ability to criticize assumptions and arguments.</p>
		B.A.II	III	III	Indian Ethics	<p>i) To acquaint the students with the Indian and Western perspectives on good life. ii) To create an awareness about philosophical significance of some of the contemporary problems/issues.</p>
			III	IV	Ancient Greek philosophy	<p>i) To acquaint the students with the Indian and Western perspectives on good life.</p> <p>ii) To create an awareness about philosophical significance of some of the contemporary problems/issues.</p>
			IV	V	Western Ethics	<p>i) To acquaint the students with the Indian and Western perspectives on good life.</p> <p>ii) To create an awareness about philosophical significance of some of the contemporary problems/issues..</p>
			IV	VI	Modern Western philosophy	<p>i) To acquaint the students with the Indian and Western perspectives on good life.</p> <p>ii) To create an awareness about philosophical significance of some of the contemporary problems/issues.</p>

## Department of Music

Sr. No.	Course Name	Semester	Paper No.	Paper Name	Subject Outcomes
1	B.A.I	I	I	-	1) Introduction to the basic Principles of Music as sound, rhythm. 2) Introduction to classical ragas, taalās. 3) Introduction to the life sketch of Pt. V. N. Bhatkhande.
		II	II	-	1) Introduction to the basic Principles of Music as sound, rhythm. 2) Introduction to classical ragas, taalās. 3) Introduction to the life sketch of Pt. V. D. Paluskar.
2	B.A.II	III	III	-	1) The three aspects of Naad. 2) Musical forms as classical and light classical. 3) Ragas and talas. 4) Introduction to the life sketch of Swami Haridas
			IV	-	1) The three aspects of Naad. 2) Musical forms as classical and light classical. 3) Ragas and talas. 4) Introduction to the life sketch of Tansen
		IV	V	-	1) The three aspects of Naad. 2) Musical forms as classical and light classical. 3) Ragas and talas. 4) Introduction to Musical forms life sketch of Kishori Amonkar
			VI	-	1) The three aspects of Naad. 2) Musical forms as classical and light classical. 3) Ragas and talas. 4) Introduction to the life sketch of Lata Mangeshkar
3	B.A.III	V	VII	-	1) Development of musical abilities. 2) History of Indian Music 3) Ragas and talas

			VIII	-	1) Understanding the importance of music. 2) Introduction to Smruti, Gram, Murchana etc. 3) Ragas and talas
			IX	-	1) Loksangeet
					2) Ragas and talas
			X	-	1) Life sketch of Pt. Bhimsen Joshi, Pt. Ravi Shankar
			XI	-	1) Granth and its contribution to music. 2) Ragas and talas
		VI	XII	-	1) Karnatic music. 2) Ragas and talas - practical.
			XIII	-	1) Western music. 2) Ragas and talas - practical.
			XIV	-	1) Prasar Madhyame – T.V., Radio, Internet, Computer etc. 2) Ragas and talas - practical.
			XV	-	1) Musical gharani and its contribution. 2) Ragas and talas - PPT presentation.
			XVI	-	1) History of Bhakti sangeet. 2) Ragas and talas - Concert Paper.

## Department of Chemistry

Sr. No.	Course	Semester	Paper No	Paper Name	Course Outcome
1.	B.Sc.- I	I	I	Physical Chemistry	<b>Students are expected to learn about -</b> i) Understanding and significance of rates of Chemical Reactions ii) Understanding to second Law of Thermodynamics and Carnot's cycle etc.
			II	Inorganic Chemistry	<b>Students are expected to understand about-</b> i) The atomic structure and periodic properties of elements, types of chemical bonding ii) Basic knowledge about VBT and MOT as well as key knowledge of Ionic bonding and crystal structure
		II	III	Organic Chemistry	<b>Students are expected to -</b> i) To able to think and predict the possible mechanism of various critical organic reactions. ii) Able to imagine 3D structure of organic molecules. iii) Understand the basics of bonding and able to draw correct structure of any organic molecule and comment on its stability
			IV	Analytical Chemistry	<b>Students can -</b> i) Understand the basic elements present in the organic compounds also able to understand the qualitative analysis methods of C, H, N, S and halogen ii) Easily understand the basic principle and classification of chromatography and also able to know paper chromatography and its applications.
2.	B.Sc.- II	III	V	Organic Chemistry	<b>Students can get to know about -</b> i) various spectroscopic methods

					and knowledge about the stereochemistry ii) Various synthetic approaches for Alcohols, Phenols, Aldehydes, Ketones.
			VI	Inorganic Chemistry	<b>Students can get to know about -</b> i) Knowledge of Co-ordination Chemistry, complex formation, Werner's Theory, concept of chelation etc. ii) Lewis concept of Acid and Bases, HSAB concept, Pearson's concept, study of <i>d-block</i> elements <i>etc.</i>
		IV	VII	Physical Chemistry	<b>Students can get to know about -</b> i) Various Laws of thermodynamics, study of electrochemical reactions, terms involved in electrochemistry. ii) Chemistry of solid state substances, distributions Law, and related numerical problems
			VIII	Analytical & Industrial Inorganic Chemistry	<b>Students can get to know about-</b> i) Details knowledge of volumetric and gravimetric analysis, various terms involved in volumetric analysis etc. ii) Knowledge of synthesis of industrially important heavy chemicals, metallurgy meaning, steps in metallurgy <i>etc.</i>
			AECC	Business English	<b>Students can get-</b> i) Basic concept of English communication, grammatical correction in sentence construction, speaking of English, improvement in English speaking through syllabi



			DSE1A	Physical Chemistry	<p><b>Students can get to know about-</b></p> <p>i) Introduction to Quantum mechanics, Gibb's phase rule, phase diagram <i>etc.</i></p>
3.	B.Sc.-III	V			<p>ii) Basic understanding of EMF, reduction potentials, oxidation potentials, knowledge about various electrode and photochemistry <i>etc.</i></p>
			DSE-2A	Inorganic Chemistry	<p><b>Students can get to know about-</b></p> <p>i) Bonding in complexes, detail knowledge of CFT, MOT and their applications in complex study</p> <p>ii) Basic concept of Nuclear Chemistry, theory of catalysis, and details of fertilizers and their role in plant growth <i>etc.</i></p>
			DSE-3A	Organic Chemistry	<p><b>Students can get to know about-</b></p> <p>i) Detail study of various Name reactions, knowledge of organic synthesis.</p> <p>ii) Detail knowledge of various spectroscopic methods such as mass, NMR, IR <i>etc.</i></p>
			DSE-1B	Physical Chemistry	<p><b>Students can get to know about-</b></p> <p>i) Types of Solutions, various spectroscopies such as Raman also vibrational and rotation study of molecules.</p> <p>ii) Detail study of chemical kinetics with examples and thermodynamics <i>etc.</i></p>

		VI	DSE2B	Inorganic Chemistry	<b>Students can get to know about-</b> i) Introduction and study of f-block elements, concept of metal and semiconductor and their applications. ii) Introduction and detail study of corrosion and passivity and also the knowledge of metal carbonyl involved structural chemistry <i>etc.</i>
			DSE-	Organic Chemistry	<b>Students can get to know</b>

			3B		<b>about-</b> i) Study of various Heterocyclic Compounds, carbohydrates <i>etc</i> ii) Introduction to Hormones and Vitamins, and also the study of various Pharmaceuticals, Agrochemicals <i>etc.</i>
1	<b>M.Sc. I</b>	<b>I</b>	DSC-1	Physical Chemistry-I	<ul style="list-style-type: none"> <li>• Thorough knowledge of macroscopic as well as microscopic system.</li> <li>• Understand the idea of wave function.</li> <li>• Applications to conjugated systems, zero-point energy and quantum tunneling.</li> <li>• Learn to calculate excess thermodynamic properties.</li> </ul>
2			DSC-2	Organic Chemistry-I	<ul style="list-style-type: none"> <li>• Understand the reactions and mechanisms with knowledge of stereochemistry.</li> <li>• Study the stability, structure and reactions of reactive intermediate.</li> </ul>

3			DSE-1	A.Inorganic Chemistry-I	<ul style="list-style-type: none"> <li>• Students learn chemistry of transition element.</li> <li>• Learn VSEPR theory and properties of semiconductors with applications.</li> <li>• Students should know radioactive decay and techniques like GM counter, tracer technique.</li> <li>• Aware about applications of radioisotope.</li> </ul>
4			RM	Research Methodology	<ul style="list-style-type: none"> <li>• Student learn basic concept of referencing.</li> <li>• Able to understand data</li> </ul>

					<p>interpretation.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Aware about concept of plagiarism and selfplagiarism</li> <li><input type="checkbox"/> Students will understand the principle of NMR spectroscopy and analysis of spectral data.</li> </ul>
				<b>Practicals</b>	
			DSC-1P	Practical-I	<ul style="list-style-type: none"> <li><input type="checkbox"/> Students learn to apply theoretical knowledge for study kinetics phenomenon, determination of radius, as well as adsorption.</li> <li><input type="checkbox"/> Students getting skill to handle instruments like Conductivity meter, Refractometer, Potentiometer and pH meter.</li> </ul>
			DSC-2P	Practical-II	<ul style="list-style-type: none"> <li><input type="checkbox"/> Students are made aware of safety techniques and handling of chemicals.</li> </ul>

					<ul style="list-style-type: none"> <li>□ In qualitative analysis students getting skillful hand in separation and identification of two component mixture.</li> <li>□ Students learn vacuum and steam distillation technique.</li> </ul>
			DSE-1P	Practical-III	<ul style="list-style-type: none"> <li>□ In ore and alloy analysis student getting tremendous knowledge about oxidation and reduction phenomenon.</li> <li>□ Greener approach in preparation and purification of inorganic compounds.</li> </ul>

1	<b>M.Sc. I</b>	<b>II</b>	DSC-3	Physical Chemistry-II	<ul style="list-style-type: none"> <li>□ Students learn photochemical reaction with phenomenon like fluorescence and phosphorescence.</li> <li>□ Students learn evaluation of mean activity coefficients of ions from E.M.F. data.</li> <li>□ Study fractional and higher order kinetics.</li> <li>□ Study kinetics of polymerization and determination of molecular weight from different methods.</li> </ul>
2			DSC-4	Organic Chemistry-II	<ul style="list-style-type: none"> <li>□ Student confronted with oxidation and reduction reactions using knowledge oxidizing and reducing agents.</li> </ul>

					<input type="checkbox"/> Learn the Electrophilic and Nucleophilic substitution reactions of aromatic compound.
3			DSE-2	Inorganic Chemistry-II	<input type="checkbox"/> Learn properties of transition and inner transition elements. <input type="checkbox"/> Learn about extraction and applications of metals. <input type="checkbox"/> Getting awareness about role of inorganic chemistry in biological processes at inter and intracellular level.
4			OJT	OJT/In-house Project/ Internship/ Apprenticeship	<input type="checkbox"/> Students get awareness about efficiency in specific industries. <input type="checkbox"/> Students aware about adequate knowledge about industrial processes.

				<b>Practicals</b>	
			DSC-3P	Practical IV	<input type="checkbox"/> Understand kinetics of reaction by differential methods. <input type="checkbox"/> Students getting skill to handle instruments like Polarimeter, Refractometer, and Potentiometer to see solute and solvent behavior in aqueous phenomenon.
			DSC-4P	Practical V	<input type="checkbox"/> Learn one and two stage preparations.

					<ul style="list-style-type: none"> <li><input type="checkbox"/> Students are trained to different purification techniques in organic chemistry like recrystallization, distillation, steam distillation and extraction.</li> <li><input type="checkbox"/> Students learn to keep work-up procedure more eco-friendly.</li> </ul>
			DSE-2P	Practical VI	<ul style="list-style-type: none"> <li><input type="checkbox"/> Students getting awareness of green chemistry and role of green chemistry in pollution reduction.</li> <li><input type="checkbox"/> Apply greener approach while ore and alloy analysis.</li> <li><input type="checkbox"/> Learn to determine purity from prepared inorganic compound.</li> </ul>
<b>M.Sc. II (Analytical Chemistry - III)</b>					
1	<b>M.Sc. II (Analytical Chemistry)</b>	<b>III</b>	HCT-3.1	Advanced Separation Techniques	<ul style="list-style-type: none"> <li><input type="checkbox"/> Students confronted with advanced chromatographic techniques.</li> <li><input type="checkbox"/> Learn dialysis and</li> </ul>
					<p>filtration methods and applications.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Students getting enough knowledge about solvent extraction processes and role of equilibrium for solvation.</li> </ul>
2			HCT-3.2	Instrumental Methods of Analysis-I	<ul style="list-style-type: none"> <li><input type="checkbox"/> Students learn thermal techniques like TGA, DTA and DSC.</li> <li><input type="checkbox"/> Getting awareness about radio analytical techniques.</li> </ul>

					<ul style="list-style-type: none"> <li>□ Getting knowledge about titration methods like radiometric titration, High frequency titration, amperometric titration, electro gravimetric titrations.</li> </ul>
3			SCT-3.1	Applied Analytical Chemistry	<ul style="list-style-type: none"> <li>□ Student getting awareness about analysis of agricultural feeds, soil as well as fertilizers and pesticides.</li> <li>□ Students confronted with key role of chemistry in analysis of mineral, ore and alloy as well as cosmetic product analysis</li> </ul>
4			OET-3.1	Analytical Spectroscopy	<ul style="list-style-type: none"> <li>□ Understand various spectroscopic methods for structure determination.</li> <li>□ Explain instrumentations and methodology in spectroscopy like Raman spectroscopy, Mossbauer spectroscopy.</li> <li>□ Students confronted with electron spin resonance techniques like SEM, STM, and AFM</li> </ul>

				<b>Seminar/ Tutorial/Industrial Visit / Field Tour</b>	<ul style="list-style-type: none"> <li>□ Seminaractivity increases the presentation and discussion skills in students.</li> <li>□ Helps to improve communication skill.</li> </ul>
				<b>Practicals</b>	
			HCP-3.1	Physical Analytical Chemistry	<ul style="list-style-type: none"> <li>□ Learn method to prepare solutions at milimolal and ppm scale</li> </ul>

					<ul style="list-style-type: none"> <li>□ Students getting skill to handle instruments like spectrophotometer, colorimeter, and pH meter.</li> </ul>
			HCP-3.2	Inorganic Analytical Chemistry	<ul style="list-style-type: none"> <li>□ Confronted with laboratory procedures like estimation of inorganic content from fertilizers and dairy products.</li> <li>□ Learn application of electrochemistry by estimating dissociation constant potentiometrically</li> </ul>
			SCP-3.1	Organic Analytical Chemistry	<ul style="list-style-type: none"> <li>□ The course includes synthesis of some derivatives and organic compounds, which will help them while working in research laboratory in future.</li> <li>□ Analysis of drugs, chili powder, and moisture content determination from food sample</li> </ul>
			OEP-3.1	Spectral Problems	<ul style="list-style-type: none"> <li>□ Learn to apply theoretical knowledge of spectroscopic techniques like IR, NMR, <sup>13</sup>C-NMR, Mass spectrometry etc.</li> <li>□ Learn to interpret data of thermogram, differential</li> </ul>

					thermogram and DSC thermogram.
1	<b>M.Sc. II (Analytical Chemistry)</b>	<b>IV</b>	HCT-4.1	Advanced Analytical Techniques	<ul style="list-style-type: none"> <li>□ Confronted with hyphenated techniques like GC-MS, LC-MS and various applications.</li> </ul>



					<ul style="list-style-type: none"> <li><input type="checkbox"/> Learn technology used in automated system and flow injection analysis.</li> <li><input type="checkbox"/> Able to solve numerical problems on chromatography.</li> </ul>
2			HCT-4.2	Instrumental Methods of Analysis-II	<ul style="list-style-type: none"> <li><input type="checkbox"/> Students getting thorough knowledge about X-ray methods, Nephelometry, turbidometry, flame photometry and emission spectroscopy.</li> <li><input type="checkbox"/> Learn to analyze surface characterization by spectroscopy.</li> </ul>
			HCT-4.3	Biochemical and Food Analysis	<ul style="list-style-type: none"> <li><input type="checkbox"/> Understand various terms in food analysis techniques and methods, forensicscience and drug substances.</li> <li><input type="checkbox"/> Able to solve numerical problems on analysis food and drug substances.</li> <li><input type="checkbox"/> Learn to analyze drug samples to check out for impurities and contaminants.</li> </ul>
4			SCT-4.2	Pharmaceutical Analysis	<ul style="list-style-type: none"> <li><input type="checkbox"/> Learn theory to estimate moisture from biological sample by using karlfischertitrator.</li> <li><input type="checkbox"/> Awareness about source of impurities in pharmaceutical materials.</li> <li><input type="checkbox"/> Learn standardization and quality control</li> </ul>
					<p>methods of drug to maintain standard value.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> understand various terms in pharmaceutical raw</li> </ul>

					material and finished product analysis
				<b>Seminar/ Tutorial/Industrial Visit / Field Tour</b>	<input type="checkbox"/> Seminar activity increases the presentation and discussion skills in students. <input type="checkbox"/> Helps to improve communication skill.
			HCP-4.1	Physical Analytical Chemistry	<input type="checkbox"/> Maintain proper record of analytical data in notebook <input type="checkbox"/> Learn method to prepare solutions at millimolar and ppm scale.
			HCP-4.2	Inorganic Analytical Chemistry	<input type="checkbox"/> To describe basic principles techniques / methods of ore analysis, alloy analysis. <input type="checkbox"/> Determine the capacity of cation and anion exchange resin.
			HCP-4.3	Organic Analytical Chemistry	<input type="checkbox"/> Learn techniques to estimate and determine biological component from food and beverages. <input type="checkbox"/> Students carried out different purification techniques in organic samples like recrystallization, distillation, steam distillation and extraction.
			SCP-4.1/4.2	Project Work/ In plant Training	<input type="checkbox"/> Students getting awareness about research field. <input type="checkbox"/> Insight in to referencing and literature review.

**M.Sc. II  
(Organic Chemistry- III)**

1	<b>M.Sc. II (Organic Chmistry)</b>	<b>III</b>	HCT- 3.1	Advanced Organic Chemistry-I	<input type="checkbox"/> Understand various methods for determining reaction mechanism. <input type="checkbox"/> Learn various oxidizing and reducing reagents <input type="checkbox"/> Name reactions with applications
2			HCT- 3.2	Chemistry of Bioactive Heterocycles	<input type="checkbox"/> Understand the stereochemistry, reactivity and conformational effects of six membered rings. <input type="checkbox"/> Understand the stereochemistry, shapes of rings other than six membered rings.
3			SCT- 3.1	Photochemistry and Pericyclic Reactions	<input type="checkbox"/> Introduction to pericyclic and photochemical reactions. <input type="checkbox"/> Understanding of how light energy influences chemical reactions. <input type="checkbox"/> Students will aware of principles of chemical reactions including cycloadditions. <input type="checkbox"/>
4			OET- 3.1	Applied Organic Chemistry	<input type="checkbox"/> Learn the basics of carbohydrates, its physical properties and application. <input type="checkbox"/> Learn Concept of supramolecular chemistry <input type="checkbox"/> Application of supramolecularcatalysis.
				<b>Practical</b>	
			HCP- 3.1	Organic Ternary mixtures	<input type="checkbox"/> In qualitative analysis students getting skillful hand in separation and identification of three
					component mixture.

					<ul style="list-style-type: none"> <li><input type="checkbox"/> Understand the separation technique of ternary mixture and the analysis of separated components.</li> <li><input type="checkbox"/> Students might explore principles of extractions of ternary mixtures.</li> </ul>
			HCP-3.2	Organic Preparations	<ul style="list-style-type: none"> <li><input type="checkbox"/> To provide laboratory experience to the students by performing experiments based on topics taught in theory.</li> <li><input type="checkbox"/> Knowledge to build up small scale industry for developing various products.</li> </ul>
			SCP-3.1	Spectral analysis	<ul style="list-style-type: none"> <li><input type="checkbox"/> Learn to apply theoretical knowledge of spectroscopic techniques like IR, NMR, <sup>13</sup>C-NMR, Mass spectrometry etc.</li> <li><input type="checkbox"/> Learn and become proficient in interpretation of spectral data.</li> </ul>
			OEP-3.1	Column Chromatography	<ul style="list-style-type: none"> <li><input type="checkbox"/> Students confronted with advanced column chromatographic techniques.</li> <li><input type="checkbox"/> Students will aware factors affecting on retention time and selectivity.</li> </ul>
			OEP-3.2	Review Work	
1	<b>M.Sc. II (Organic Chemistry)</b>	<b>IV</b>	HCT-4.1	Advanced Organic Chemistry-II	<ul style="list-style-type: none"> <li><input type="checkbox"/> Students aware about protecting and deprotecting concept in organic synthesis.</li> </ul>

					☐
2			HCT-4.2	Modern Organic Chemistry	<ul style="list-style-type: none"> <li>☐ Study asymmetric synthesis of chiral compound.</li> <li>☐ Students get proficiency to tackle multicomponent reactions.</li> <li>☐ Aware about applications of metal-organic framework.</li> </ul>
3			HCT-4.3	Chemistry of Natural Products	<ul style="list-style-type: none"> <li>☐ Understand various extraction techniques for isolation of natural product.</li> <li>☐ Learn purification of natural product and its characterization by different spectroscopic methods.</li> </ul>
4			SCT-4.1	Medicinal Chemistry	<ul style="list-style-type: none"> <li>☐ Confronted with various drug used in medicinal chemistry.</li> <li>☐ Students gain skills in rational drug design</li> <li>☐ Getting awareness about drug interactions with biological system.</li> </ul>
				<b>Practical</b>	
			HCP-4.1	Organic Synthesis	<ul style="list-style-type: none"> <li>☐ Understand different name reactions using green method.</li> <li>☐ Learn monitoring of reactions, purification and characterization of products.</li> </ul>
			HCP-4.2	Organic chemistry	<ul style="list-style-type: none"> <li>☐ Student getting practical techniques to isolate constituents from natural sources.</li> <li>☐ Understanding the principles behind</li> </ul>

					choosing appropriate solvents.
			HCP-4.3	Project work/ In plant training	<input type="checkbox"/> Students getting awareness about research field. <input type="checkbox"/> Insight in to referencing and literature review.
			SCP408	Pharmaceutical Formulation/ Medicinal chemistry	<input type="checkbox"/> Confronted with various drug used in medicinal chemistry. <input type="checkbox"/> Students gain skills in rational drug design <input type="checkbox"/> Getting awareness about drug interactions with biological system.
			T4	Seminar/ Tutorial/Industrial visit/ field Tour	<input type="checkbox"/> Seminar activity increases the presentation and discussion skills in students. <input type="checkbox"/> Helps to improve communication skill.

### Department of Microbiology

Sr. No.	Course	Semester	Paper No.	Paper Name	Outcome
1.	B.Sc. I	I	I	Introduction to Microbiology & Microbial diversity	Have developed good knowledge about the development of the discipline of microbiology & contributions made by various scientists
			II	Cell cytology & Microbial Techniques	Have developed good understanding about the cellular organization and techniques to observe microorganisms
		II	III	Microbial Metabolism & cultivation	1. Developed good understanding of basic biomolecules like DNA, RNA, Proteins, carbohydrates etc. 2. Have learned basic thing necessary to cultivate/grow microorganisms

			IV	Applied Microbiology	Got understanding of various applied branches of microbiology like Air microbiology, Water microbiology
2	B.Sc. II	III	V	Bacterial cytology & Physiology	Have developed good understanding of bacterial cell structure, various parts/components & their ultra-structures
			VI	Bacterial Genetics	1. Understand genome organization in microorganisms 2. Got good knowledge about basic life related processes like replication
		IV	VII	Immunology & Medical Microbiology	1. Have developed understanding of Immunity, Antigen, Antibody 2. Got good understanding of pathogen, diseases diagnostic measures/methods
			VIII	Industrial Microbiology	1. Acquired basic knowledge regarding different microbial processes in industries. 2. Understood concept of fermentation
3	B.Sc. III	V	IX	Virology	1. Understood what viruses are and their structure, life cycle 2. Gained good knowledge of various plant & animal viruses
			X	Agricultural Microbiology	1. Have developed basic understanding of role of microorganisms in agricultural processes.

					2. Understood various elemental cycles and their importance
			XI	Immunology	1. Developed knowledge about different hypersensitivity types & related diseases 2. Understand concept of Monoclonal antibody
			XII	Industrial Microbiology	1. Developed knowledge of different types fermentations 2. Acquired knowledge of various products produced from fermentation process
		VI	XIII	Microbial Genetics	1. Understand genetic organization in microbes 2. Able to understand three basic genetic material transfer processes 3. Understood basics of Bioinformatics

			IVX	Microbial Biochemistry	<ol style="list-style-type: none"> <li>1. Students understood basic concepts involved in biochemistry of microorganisms.</li> <li>2. Various pathways that are very basic in every living being.</li> </ol>
			XIV	Clinical Microbiology	<ol style="list-style-type: none"> <li>1. Got good knowledge regarding chemotherapeutic agents, their types &amp; mechanisms of action</li> <li>2. Understood types of biomedical waste &amp; their disposal</li> </ol>
			XVI	Environmental Microbiology	<ol style="list-style-type: none"> <li>1. Have developed good knowledge regarding different types of environments and habitats</li> <li>2. Understand importance of BOD/COD</li> <li>3. Developed practical skills to calculate BOD/COD values</li> </ol>
4.	M.Sc. I	I	HCT 1.1	Cytology & Taxonomy of Microorganisms	<ol style="list-style-type: none"> <li>1. Have developed knowledge regarding diversity of organisms &amp; need of taxonomy.</li> <li>2. Learned about various criterion used in taxonomy</li> <li>3. Acquired good knowledge of microbial classification</li> </ol>
			HCT 1.2	Microbial chemistry, Physiology & Enzymology	<ol style="list-style-type: none"> <li>1. Understood basic biological chemistry of organisms</li> <li>2. Learned about enzymes, their structure &amp; their role in metabolic processes.</li> </ol>
			HCT 1.3	Recent trends in Virology	<ol style="list-style-type: none"> <li>1. Understood Virus, their structure, various techniques for their detection</li> <li>2. Understood recent developments</li> </ol>

					in the field of virology
			SCT 1.1	Research Methodology & Scientific writing	<ol style="list-style-type: none"> <li>1. Acquired knowledge about research ,its planning &amp; execution</li> <li>2. Learned basic concepts of research, types of scientific documents &amp; how to write scientific papers</li> </ol>
		II	HCT 2.1	Microbial Genetics	<ol style="list-style-type: none"> <li>1. Acquired knowledge of gene, their expression and regulation</li> <li>2. Understood concept of Operon</li> </ol>
			HCT 2.2	Microbial Ecology & Diversity	<p>Good understanding of microbial diversity</p> <p>Understood microbial interactions with ecosystem</p>
			SCT 2.2	Medical Microbiology	<ol style="list-style-type: none"> <li>1. Good knowledge of normal flora of human body</li> <li>2. Understood components of Immune system</li> </ol>



			OET 2.1	Bioinformatics & Biostatistics	<ol style="list-style-type: none"> <li>1. Have acquired knowledge of various databases &amp; basic tools used in bioinformatics.</li> <li>2. Able to search literature data for their project work</li> <li>3. Understood basic concepts of statistics</li> </ol>
5.	M.Sc. II	III	HCT 3.1	Molecular Biology & Genetic Engineering	<ol style="list-style-type: none"> <li>1. Understood biology at molecular level.</li> <li>2. Acquired knowledge of various tools used in GE</li> <li>3. Understood the process of making rDNA</li> </ol>
			HCT 3.2	Bioprocess Technology & Fermentation Technology	<ol style="list-style-type: none"> <li>1. Have learned various biological processes &amp; their manipulation for the human benefits.</li> <li>2. Understood importance of microorganisms in fermenting various products</li> </ol>
			SCT 3.3A	Immunology & Immunotechnology	<ol style="list-style-type: none"> <li>1. Understood Immunity, Immune system &amp; Immune responses.</li> <li>2. Acquired various basic immunological techniques.</li> </ol>
			OET 3.4A	Agricultural Microbiology	Developed understanding of multifarious roles of microorganisms in soil, in association with plants.
		IV	HCT 4.1	Pharmaceutical Microbiology	<ol style="list-style-type: none"> <li>1. Acquired knowledge of antimicrobial agents, their nature &amp; mechanism of action</li> <li>2. Acquired skills for testing pharmaceutical products for their efficiency &amp; safety</li> </ol>
			HCT 4.2	Food & Dairy Microbiology	<ol style="list-style-type: none"> <li>1. Have developed role of microbes in making &amp; spoilage of foods.</li> <li>2. Acquired knowledge of various processes of dairy industries &amp; role of microbes in making dairy products</li> </ol>
			HCT 4.3	Principles of Bioinstrumentation & Techniques	<ol style="list-style-type: none"> <li>1. Developed understanding of various techniques</li> <li>2. Understood principles of various instruments</li> </ol>
			SCT 4.1	Healthcare & Diagnostic Microbiology	<ol style="list-style-type: none"> <li>1. Have acquired good understanding of practical aspects of collection of clinical samples, their transport</li> <li>2. Good understanding of antibiotic sensitivity</li> </ol>

## DEPARTMENT OF PHYSICS

Sr. No.	COURSE	SEMISTER	PAPER NO.	PAPER NAME	COURSE OUTCOMES
1	B.Sc.-I	SEM-I	PAPER NO-I	MECHANICS AND PROPERTIES OF MATTER	<ol style="list-style-type: none"><li>1. Understanding the concept of Moment of Inertia and applying them in calculations of the moment of inertia of various systems.</li><li>2. Understand the physics and mathematics of oscillations and to solve the equations of motion for simple harmonic and damped oscillators</li><li>3. Understand the concepts of energy, work, power, the concepts of conservation of energy and be able to perform calculations using them.</li><li>4. Understand the concepts of elasticity and be able to perform calculations using them.</li><li>5. Understand the concepts of surface tension and viscosity and be able to perform calculations using them.</li><li>6. Understand the concepts of viscosity &amp; fluid dynamics and its application in real life problems.</li><li>7. Demonstrate quantitative problem solving skills in all the topics covered.</li></ol>

2	B.Sc.-I	SEM-I	PAPER NO-II	OPTICS	<p>1. Understand technical applications of simple optical instruments.</p> <p>2. Understand and explain the different optical method of testing and measuring of various physical parameters</p> <p>3. Understand Fermat's principle, explain about different aberrations in lenses and discuss the method to minimize them.</p> <p>4. Understand the types of eyepieces and construction and working of spectrometer and</p>
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					<p>optical bench for determining various optical values.</p> <p>5. Understand the phenomenon of interference of light and its formation in thin film, Newton's ring, wedge shaped film etc. due to division of amplitude.</p> <p>6. Explain Schuster method, Distinguish between diffraction and interference patterns, prism and grating spectra</p> <p>7. Comprehended the basic principle of laser and its parts, the construction and working of He-Ne and Ruby laser.</p> <p>8. Solve problems using suitable assumptions and formulae as well as able to assess the results.</p>
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3	B.Sc.-I	SEM-II	PAPER NO-III	HEAT AND THERMODYNAMICS	<ol style="list-style-type: none"> <li>1. Determination of Coefficient of Viscosity, Thermal Conductivity and Diffusion.</li> <li>2. Understand Liquefaction of gases by various methods and Properties of Liquid He-II.</li> <li>3. Apply the laws of thermodynamics to formulate the relations necessary to analyze a thermodynamic process.</li> <li>4. Analyse the heat engines and calculate thermal efficiency.</li> <li>5. Analyze the refrigerators and calculate coefficient of performance.</li> <li>6. Understand property 'entropy' and derive some thermo dynamical relations using entropy concept.</li> </ol>
4	B.Sc.-I	SEM-II	PAPER NO-IV	ELECTRICITY , MAGNETISM AND BASIC ELECTRONICS	<ol style="list-style-type: none"> <li>1. Understand the concept of Varying Current and applying them in charging and discharging of capacitor and time constant.</li> <li>2. Understand the concept of AC circuits and different AC bridges.</li> <li>3. Understand the concepts Magnetostatics</li> </ol>
					<p>and applying then to determine magnetic induction and also understand Ballistic Galvanometer theory and its constants.</p> <ol style="list-style-type: none"> <li>4. Understand the rectifiers specially Bridge rectifier with filters also different wave shaping circuits.</li> <li>5. Understand BJT include its output characteristics under CE and CB mode with application of transistor amplifier.</li> </ol>

5	B.Sc.-II	SEM-III	PAPER NO-V	General Physics and Sound	<ol style="list-style-type: none"> <li>1. Understand the physics and mathematics basic concepts of vector to solve the problems.</li> <li>2. Understand the concepts of processional motions and various pendulums and its application in real life problems.</li> <li>3. Understand the concepts of elasticity and be able to perform calculations using them.</li> <li>4. Understand the concepts of surface tension and viscosity and be able to perform calculations using them.</li> <li>5. Understand the physics behind in sound and study basic applications of sound instruments.</li> </ol>
6	B.Sc.-II	SEM-III	PAPER NO-VI	ELECTRONIC S	<ol style="list-style-type: none"> <li>1. Understand the concept of transistor and various constructions like BJT include its output characteristics under CE and CB mode</li> </ol>

					<p>with application of transistor amplifier.</p> <ol style="list-style-type: none"> <li>2. Understand the concepts of oscillators and its types with applications.</li> <li>3. Understand the concept of transistor and constructions like UJT include its output characteristics application of transistor amplifier.</li> <li>4. Understand the physics behind in various instruments and study basic applications of instruments in daily life.</li> <li>5. Understand the concept of regulator power supply and various its types.</li> </ol>
7	B.Sc.-II	SEM-IV	PAPER NO-VII	OPTICS	<ol style="list-style-type: none"> <li>1. Understand technical applications of simple optical instruments and behind various theoretical concepts.</li> <li>2. Understand and explain the different optical phenomena of light like interference, diffraction and polarization.</li> <li>3. Understand Fermat's principle, explain about different aberrations in lenses and discuss the method to minimize them.</li> <li>4. Understand the phenomenon of interference of light and its formation in thin film, Newton's ring, wedge shaped film etc. due to division of amplitude.</li> </ol>

					5. Understand the theory of physics behind the fiber optics communication and its
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					advantages.
8	B.Sc.-II	SEM-IV	PAPER NO-VIII	MODERN PHYSICS	<ol style="list-style-type: none"> <li>1. Understand the theoretical modern physics concepts and theories like theory of relativity, mass energy relations, and twin paradox</li> <li>2. Determination of matter waves by physics instruments and study the concept of De-Broglie's hypothesis</li> <li>3. Understand the laws of Compton effect with experimental verification.</li> <li>4. Analyze the various nuclear energy models with their principles.</li> </ol>

9	B.Sc.-III	SEM-V	PAPER NO-IX	MATHEMATICAL PHYSICS & STATISTICAL PHYSICS	<ol style="list-style-type: none"> <li>1. Determination of vector theorems and introduction to partial differential equation and orthogonal curvilinear coordinates.</li> <li>2. Understand the basic concepts in statistical physics with classically MB statics.</li> <li>3. BE and FD statics studied with quantum mechanics</li> <li>4. To apply the mathematical physics concepts for solving problems of quantum physics.</li> </ol>
10	B.Sc.-III	SEM-V	PAPER NO-X	SOLID STATE PHYSICS	<ol style="list-style-type: none"> <li>1. Understand the structure of solid in atomic level by using some instruments.</li> <li>2. Determination the various crystal structure by using XRD and study its characteristics.</li> <li>3. Understand the free electron theory and band theory of solid.</li> <li>4. Analyze the behavior of solid in external magnetic field and study types of magnetic materials.</li> <li>5. To study the application of</li> </ol>
					superconductors.



11	B.Sc.-III	SEM-V	PAPER NO-XI	CLASSICAL MECHANICS	<ol style="list-style-type: none"> <li>1. Determination the equations of particles and systems of particles with application of Newton's laws of motions.</li> <li>2. Understand the Lagranges formulation with D' Alembert's principles and applications of Lagrange's equations with solving problems.</li> <li>3. Understand the theory of moving coordinate system and techniques of calculus variation.</li> <li>4. Understand the concept of coupled oscillations.</li> <li>5. Analyze the motion of rigid body.</li> </ol>
12	B.Sc.-III	SEM-V	PAPER NO-XII	NUCLEAR PHYSICS	<ol style="list-style-type: none"> <li>1. To study nuclear structure and properties with nuclear reactions.</li> <li>2. Understand the particles accelerator and nuclear radiation detectors.</li> <li>3. To study the nuclear energy level and theory of elementary particles.</li> </ol>
13	B.Sc.-III	SEM-V	PAPER NO-XIII	SKILL ENHANCEMENT COURSE	<ol style="list-style-type: none"> <li>1. To study of basic practices of thin film deposition.</li> <li>2. Understand the various characterizations techniques.</li> <li>3. To adopt the skill of laboratory safety and disaster management.</li> <li>4. To study the various energy resources and its impact on environments.</li> <li>5. To study the various applications of physics in medical field.</li> </ol>
14	B.Sc.-III	SEM-VI	PAPER	ELECTRODY	<ol style="list-style-type: none"> <li>1.To study the electrostatics and charge</li> </ol>

			NO-XIV	NAMICS	<p>particle dynamics.</p> <p>2. To study time varying fields with its applications as self inductance and mutual inductance.</p> <p>3. To study the Maxwell's Equations with its physical significance.</p> <p>4. To study the electromagnetic waves with reflection and refraction.</p>
15	B.Sc.-III	SEM-VI	PAPER NO-XV	MATERIAL SCINECE	<p>1. To study various material and their properties.</p> <p>2. To study different material likes polymer, ceramics and composite materials with their composition and applications.</p> <p>3. To study the introduction of nano-science and nonmaterial's</p>
16	B.Sc.-III	SEM-VI	PAPER NO-XVI	ATOMIC PHYSICS, MOLECULAR PHYSICS AND QUANTUM MECHANICS	<p>1. To study the atomic spectra with alkali metals.</p> <p>2. Understand the selection rules and intensity rules.</p> <p>3. To study the anomalous Zeeman effect, paschen Back effect, stark effect with solving their problems.</p> <p>4. To study the characteristics properties of Raman lines and classical theory of Raman effect.</p> <p>5. Understand the physical significance of <math>\psi</math> and application of Schrödinger's equations and operators.</p>
17	B.Sc.-III	SEM-VI	PAPER NO-XVII	ELECTRONIC S	<p>1. To study block diagram of op-amp its characteristics and applications</p> <p>2. To study functional block diagram of</p>

					<p>IC555 and its applications.</p> <p>3. To study the various electronic devices like SCR, Diac, Traic and display devices and its applications.</p> <p>4. To review of JFET MOSFET devices</p>
1	M.Sc.-I	SEM-I	HCT 1.1	MATHEMATICAL PHYSICS	<p>1. Understanding the concept of complex variable and presentation.</p> <p>2. Understand the analytical functions of complex variables with Cauchy's Integral Theorem.</p> <p>3. Understand the concepts of operator and matrix analysis.</p> <p>4. Understand the concepts of ordinary differential equations.</p> <p>5. Understand Fourier series, Integral transforms and Laplace transform with box and exponential functions.</p>

			HCT 1.2	SOLID STATE PHYSICS	<p>1. Understand the structure of solid in atomic level by using some instruments.</p> <p>2. Determination the various crystal structure by using XRD and study its characteristics.</p> <p>3. Understand the free electron theory and band theory of solid.</p> <p>4. Analyze the behavior of solid in external magnetic field and study types of magnetic materials.</p> <p>5. To study the application of</p>
					superconductors.

			HCT 1.3	ANALOG AND DIGITAL ELECTRONICS	<ol style="list-style-type: none"> <li>1. Understand the concept of transistor and various constructions like BJT include its output characteristics under CE and CB mode with application of transistor amplifier.</li> <li>2. Understand the concepts of oscillators and its types with applications.</li> <li>3. Understand the concept of transistor and constructions like UJT include its output characteristics application of transistor amplifier.</li> <li>4. Understand the physics behind in various instruments and study basic applications of instruments in daily life.</li> <li>5. Understand the concept of regulator power supply and various its types.</li> </ol>
			SCT 1.1	CLASSICAL MECHANICS	<ol style="list-style-type: none"> <li>1. Determination the equations of particles and systems of particles with application of Newton's laws of motions.</li> <li>2. Understand the Lagrange's formulation with <math>D'</math> Alembert's principles and applications of Lagrange's equations with solving problems.</li> <li>3. Understand the theory of moving coordinate system and</li> </ol>

					techniques of calculus variation.
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					4. Understand the concept of coupled oscillations. 5. Analyze the motion of rigid body
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2.	M.Sc.-I	SEM-II	HCT 2.1	QUANTUM MECHANICS	<ol style="list-style-type: none"> <li>1. Understand the physics and mathematics basic concepts of vector to solve the problems.</li> <li>2. Understand the concepts of processional motions and various pendulums and its application in real life problems.</li> <li>3. Understand the concepts of elasticity and be able to perform calculations using them.</li> <li>4. Understand the concepts of surface tension and viscosity and be able to perform calculations using them.</li> <li>5. Understand the physics behind in sound and study basic applications of sound instruments.</li> </ol>
			HCT 2.2	ELECTRODYNAMICS	<ol style="list-style-type: none"> <li>1. To study the electrostatics and charge particle dynamics.</li> <li>2. To study time varying fields with its applications as self inductance and mutual inductance.</li> <li>3. To study the Maxwell's Equations with its physical significance.</li> <li>4. To study the electromagnetic waves with reflection and refraction.</li> </ol>

			SCT 2.1	STATISTICAL PHYSICS	<ol style="list-style-type: none"> <li>1. Understand the basic concepts in statistical physics with classically MB statics.</li> <li>2. To study BE and FD statistics studied with quantum mechanics.</li> <li>3. To apply the mathematical physics concepts for solving problems of quantum physics.</li> </ol>
			OET 2.1	FUNDAMENTALS OF ELECTRONICS	<ol style="list-style-type: none"> <li>1. To study block diagram of op-amp its characteristics and applications</li> <li>2. To study functional block diagram of IC555 and its applications.</li> <li>3. To study the various electronic devices like SCR, Diac, Traic and display devices and its applications.</li> <li>4. To review of JFET MOSFET devices.</li> <li>5. To study applications of active and passive devices.</li> </ol>
3.	M.Sc.-II	SEM-III	HCT 3.1	SEMICONDUCTOR PHYSICS	<ol style="list-style-type: none"> <li>1. To study the energy bands and charge carrier in semiconductor with Fermi level, electron and holes concentration at equilibrium.</li> <li>2. To study role of carriers in semiconductor with direct and indirect recombination of electrons and holes with understand Haynes-Shockley experiment.</li> </ol>



					3. To understand dynamics of
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					charge carriers and lattice, and semiconductor interfaces. 4. To understand semiconductor crystal growth process.
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			HCT 3.2	ATOMIC AND MOLECULAR PHYSICS	<p>1. To study the atomic spectra with alkali metals.</p> <p>2. Understand the selection rules and intensity rules.</p> <p>3. To study the anomalous Zeeman effect, Paschen Back effect, stark effect with solving their problems.</p> <p>4. To study the characteristics properties of Raman lines and classical theory of Raman effect.</p> <p>5. Understand the physical significance of <math>\psi</math> and application of Schrödinger's equations and operators.</p>
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			SCT 3.1	FUNCTIONAL NANOMATERIALS	<p>1. To understand semiconductor quantum dots, nanotubes and nanowires.</p> <p>2. To understand polymer nanocomposite, nanofibers and metal oxide frameworks.</p>
			OET 3.1	ENERGY HARVESTING DEVICES	<p>1. To study solar cell, fuel cell and piezoelectrics.</p>
4.	M.Sc.- II	SEM-IV	HCT 4.1	SEMICONDUCTOR DEVICES	<p>1. To study MIS structures and MOS FETS with its applications.</p> <p>2. To study power devices GTO, MOS, SCR, DIACs,</p>

					<p>TRIACs, SUS, IGBT.</p> <p>3. To study coupled and transferred electron, applications of opto electronics and advanced solid state devices.</p>
			HCT 4.2	NUCLEAR AND PARTICLE PHYSICS	<p>1. To study nuclear structure and properties with nuclear reactions.</p> <p>2. Understand the particles accelerator and nuclear radiation detectors.</p> <p>3. To study the nuclear energy level and theory of elementary particles.</p> <p>4. To study various nuclear models and nuclear reactions.</p> <p>5. To study particle physics and cosmic rays.</p>

			SCT 4.1	MATERIALS CHARACTERIZATION TECHNIQUES	<ol style="list-style-type: none"> <li>1. To study microscopic techniques I &amp; II with different instruments.</li> <li>2. Understand the construction and working of optical, scanning and electron microscopy</li> <li>3. Understand the construction and working of transmission electron, scanning tunneling and Atomic force microscopy</li> <li>4. To study the x-ray photoelectron spectroscopy, Auger electron spectroscopy, Resonance spectroscopy.</li> </ol>
			SCT 4.2	PHYSICS OF NANOMATERIALS	<ol style="list-style-type: none"> <li>1. To study the background of nano-science and nanotechnology.</li> <li>2. Understand the band structure and density of states at nanoscale.</li> <li>3. Understand the various properties of nanomaterials.</li> <li>4. To study growth techniques and characterization tools of nanomaterials.</li> </ol>

**Department of  
Botany**

Sr.No.	Course	Semester	Paper No.	Paper Name	Course Outcome
1.	B.Sc. I	I	I	Microbiology & Phycology	1) Understand the types and diversity in bacteria, viruses and mycoplasma 2) Understand the diversity among Algae. 3) Know the systematic, morphology and structure, of Algae. 4) Understand the useful, harmful activities and industrial applications of Algae
			II	Fungi & Archegoniate	1) Understand General characteristics, Thallus organization, Cell wall composition Nutrition classification 2) Understand General characteristics, Occurrence, Thallus organization, Life cycle of fungi 3) Understand types and economic importance of Lichen 4) Understand types of Micorrhiza and its applications 5) Understand applied aspects of fungi with respect to biotechnology, industry 6) To understand unique characteristic features of archaegoniate. 7) Understand the morphological diversity, classification and economic importance of Bryophytes. 8) Understand the morphological diversity, classification and economic importance of Pteridophytes. 9) Understand the morphological diversity, classification and economic importance of Gymnosperm.
		II	III	Plant Ecology	1) Understand different climatic and edaphic factors 2) Understand form, Structure classification and characteristics of community. 3) Understand concept, components, pyramids, food chain, energy flow and biogeochemical cycles in Ecosystem 4) Understand process and types of succession 5) Understand adaptations in community 6) Understand types and control measures of various pollution.

			IV	Taxonomy of Angiosperms	<ol style="list-style-type: none"> <li>1) Understand about importance of taxonomy.</li> <li>2) With respect to recent knowledge students should know about some angiospermic families and taxonomy.</li> <li>3) Understand different methods of classification and rules of nomenclature.</li> <li>4) Understand technique and botanical gardens in India.</li> </ol>
2.	B.Sc. II	III	V	Plant Anatomy	<ol style="list-style-type: none"> <li>1) Understand the scope &amp; importance of Anatomy.</li> <li>2) Know various tissue systems.</li> <li>3) Understand the normal and anomalous secondary growth in plants and their causes.</li> <li>4) Perform the techniques in anatomy.</li> </ol>
			VI	Plant Metabolism	<ol style="list-style-type: none"> <li>1) Understand the concept of ATP synthesis</li> <li>2) To know about Carbon oxidation with different pathways</li> <li>3) Understand the properties of Monosaccharides, Oligosaccharides and Polysaccharides.</li> <li>4) They will learn about the Significance of Carbohydrates.</li> <li>5) Understand the Properties of saturated fatty acids, and unsaturated fatty acids.</li> <li>6) Understand lipid metabolism in plants.</li> <li>7) Understand the Beta Oxidation, Gluconeogenesis and its role in mobilization of fatty acids during germination.</li> <li>8) They will learn about the Significance of lipids.</li> </ol>
		IV	VII	Plant Physiology	<ol style="list-style-type: none"> <li>1) Know about Photosynthesis and Nitrogen metabolism and its importance.</li> <li>2) To understand the plants and plant cells in relation to water.</li> <li>3) To understand mineral nutrients and its role.</li> <li>4) Learn about the movement of sap and absorption of water in the plant.</li> </ol>

			VIII	Embryology of Angiosperms	<ol style="list-style-type: none"> <li>1) To know reproductive development in angiospermic plants.</li> <li>2) To understand anther and pollen biology.</li> <li>3) To understand ovule</li> </ol>
					<ol style="list-style-type: none"> <li>4) To know the process of pollination and fertilization in the angiosperm.</li> <li>5) To understand embryo and endosperm.</li> </ol>
3.	B.Sc. III	V	IX	Plant Systematics	<ol style="list-style-type: none"> <li>1) Understand principles of general taxonomy and they can use no nomenclature rules plants.</li> <li>2) Understand historical development of taxonomy.</li> <li>3) Explain concept of species.</li> <li>4) Order sub and super categories of species according to Linnaeus hierarchy.</li> <li>5) Discuss the importance of nomenclature rules in botany.</li> </ol>
			X	Genetics	<ol style="list-style-type: none"> <li>1) To understand basic concept of Genetics.</li> <li>2) To know variation in Mendelian and Post Mendelian Genetics</li> <li>3) To understand sex determination and sex linkage</li> <li>4) To know the concept of population genetics</li> <li>5) Understand Extra-chromosomal inheritance</li> <li>6) To know the structural and numerical changes in the chromosome.</li> <li>7) To know types of mutation, molecular basis and mutagens.</li> </ol>
			XI	Molecular Biology	<ol style="list-style-type: none"> <li>1) Learn the scope and importance of molecular biology.</li> <li>2) Understand the biochemical nature of nucleic acids, their role in living systems, experimental evidences to prove DNA as a genetic material.</li> <li>3) Understand the process of synthesis of proteins.</li> </ol>

			XII	Plant Breeding	<ol style="list-style-type: none"> <li>1) Understand the science of plant breeding.</li> <li>2) To introduce the student with branch of plant breeding for the survival of human being from starvation.</li> <li>3) To study the techniques of production of new superior crop varieties.</li> <li>4) Understand the modern strategies applied in Genetics and Plant Breeding to sequence and analyze genomes</li> </ol>
					<ol style="list-style-type: none"> <li>5) Get the detail knowledge about modern strategies applied in Plant Breeding for crop improvement i.e. Mass selection, Pure line Selection and Clonal selection.</li> <li>6) Know about exploitation of Heterosis, hybrid and variety development and their release through artificial hybridization.</li> <li>7) Understand the role plants in human welfare.</li> <li>8) Gain knowledge about various plants of economic use.</li> <li>9) Know importance of plants &amp; plant products.</li> </ol>
		VI	XIII	Plant Pathology	<ol style="list-style-type: none"> <li>1) Understand the scope and importance of Plant Pathology. 2) Know the prevention and control measures of plant diseases and its effect on economy of crops.</li> </ol>
			XIV	Plant Biotechnology	<ol style="list-style-type: none"> <li>1) Understand the fundamentals of Recombinant DNA Technology. 2) Know about the Genetic Engineering.</li> <li>3) Understand the principle and basic protocols for Plant Tissue Culture.</li> <li>4) To understand applications of biotechnology in relation to the crop improvement.</li> </ol>
			XV	Cell Biology	<ol style="list-style-type: none"> <li>1) Understand the structures and purposes of basic components of prokaryotic and eukaryotic cells, especially macromolecules, membranes, and organelles.</li> <li>2. Students will understand how these cellular components are used to generate and utilize energy in cells.</li> </ol>

			XVI	Biostatistics	<ol style="list-style-type: none"> <li>1) To know the basic concepts of Biostatistics</li> <li>2) To understand collection of primary and secondary data</li> <li>3) To understand calculation of mean, mode median and variations</li> <li>4) To know probability</li> <li>5) To know statistical inference with respect to 't' test and chi square test</li> </ol>
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Sr. No.	Course	Sem	Paper No.	Paper Name	Course Outcome
1	M.Sc. I	I	HCT 1.1	Biology and diversity of fungi, bacteria, viruses and lichens	<ol style="list-style-type: none"> <li>1) Understand General characteristics, Occurrence, Thallus organization, Life cycle of fungi</li> <li>2) Understand types and economic importance of Lichen</li> <li>3) Know the prevention and control measures of plant diseases and its effect on economy of crops.</li> <li>4) Understand the types and diversity in bacteria, viruses and fungi</li> </ol>
			HCT 1.2	Biology and diversity of Algae, bryophytes and pteridophytes	<ol style="list-style-type: none"> <li>1) Understand the diversity among Algae.</li> <li>2) Know the systematic, morphology and structure, of Algae.</li> <li>3) Understand the useful, harmful activities and industrial applications of Algae.</li> <li>4) Understand the morphological diversity, classification and economic importance of Bryophytes and pteridophytes.</li> </ol>
			HCT 1.3	Plant Ecology	<ol style="list-style-type: none"> <li>1) Understand different climatic and edaphic factors</li> <li>2) Understand form, Structure classification and characteristics of community.</li> <li>3) Understand concept, components, pyramids, food chain, energy flow and biogeochemical cycles in Ecosystem</li> <li>4) Understand process and types of succession</li> </ol>



			SCT 1.1	Taxonomy of angiosperms	<p>1) With respect to recent knowledge students should know about some angiospermic families and taxonomy.</p> <p>2) To know reproductive development in angiospermic plants.</p> <p>3) To understand anther and pollen biology.</p> <p>4) To understand ovule</p>
		II	HCT 2.1	Biology and diversity of gymnosperms and paleobotany	<p>1) Understand the morphological diversity, classification and economic importance of Gymnosperm.</p>

					<p>2) To get information about the types of plant that lived during different time period.</p>
			HCT 2.2	Tools and techniques in botany	<p>1) Analyze data using appropriate statistical methods.</p> <p>2) Create, select, and apply appropriate techniques, resources, and modern instruments and equipments for Biochemical estimation, Molecular Biology, Biotechnology, Plant Tissue culture experiments, cellular and physiological activities of plants with an understanding of the application and limitations. 3) To know probability</p> <p>4) To know statistical inference with respect to 't' test and chi square test</p>

			HCT 2.3	Cell and molecular biology	<ol style="list-style-type: none"> <li>1) Learn the scope and importance of molecular biology.</li> <li>2) Understand the biochemical nature of nucleic acids, their role in living systems, experimental evidences to prove DNA as a genetic material.</li> <li>3) Understand the process of synthesis of proteins.</li> <li>4) Understand the Biochemical nature of cell.</li> </ol>
			OET 2.1	Advances in plant pathology	<ol style="list-style-type: none"> <li>1) Understand the scope and importance of Plant Pathology.</li> <li>2) Know the prevention and control measures of plant diseases and its effect on economy of crops.</li> </ol>
2	M.Sc. II	III	HCT 3.1	Plant embryology and Palynology	<ol style="list-style-type: none"> <li>1) To understand anther and pollen biology.</li> <li>2) To understand ovule</li> <li>3) To know the process of pollination and fertilization in the angiosperm.</li> <li>4) To understand embryo and endosperm.</li> </ol>
			HCT 3.2	Cytogenetic and crop improvement	<ol style="list-style-type: none"> <li>1) To understand basic concept of Genetics.</li> <li>2) To know variation in Mendelian and Post Mendelian Genetics</li> <li>3) To understand sex determination and sex linkage</li> <li>4) To know the concept of population genetics</li> </ol>
					<ol style="list-style-type: none"> <li>5) Understand Extra-chromosomal inheritance</li> <li>6) To know the structural and numerical changes in the chromosome.</li> <li>7) To know types of mutation, molecular basis and mutagens.</li> </ol>
			SCT 3.2	Angiosperm Systematics	<ol style="list-style-type: none"> <li>1) Understand the interrelation between plants and their evolutionary descent.</li> <li>2) To reconstruct development of plant life.</li> <li>3) To arrange the taxa into logical hierarchy that permits easy and simple recognition in the basis of similarity.</li> </ol>

			OET 3.2	Herbal and drug technology	<p>1) Understand raw material as a source of herbal drugs from cultivation to herbal drug product</p> <p>2) To know the WHO and ICH guidelines for evaluation of herbal drugs.</p> <p>3) To know the herbal cosmetics, natural sweeteners, nutraceuticals.</p>
		IV	HCT 4.1	Phytogeography and conservation biology	<p>1) To explain the ranges of plants in terms of their origin, dispersal and evolution.</p> <p>2) To know about branch of biogeography that is concerned with the geographic distribution of plant species and their influence on earth surface</p> <p>3) To protect species, their habitat and ecosystems from excessive rates of extension and the erosion of biotic interactions.</p>
			HCT 4.2	Plant tissue culture, green house technology and hydroponics.	<p>1) Understand the principle and basic protocols for Plant Tissue Culture. 2) To understand applications of biotechnology in relation to the crop improvement.</p> <p>3) To study the hydroponic system to deliver an optimized nutrient solutions to plant root.</p>
			SCT 4.2	Modern trends in angiosperm taxonomy	<p>1) To provide the knowledge of taxonomy is possible with the principles of various disciplines like cytology, genetics, anatomy, physiology, geographical</p>
					<p>distribution, embryology numerical taxonomy.</p> <p>2) To improve present day knowledge of phylogeny of plants. 3) To develop taxonomic characters this may improve existing system of plant classification.</p>
			OET 4.2	Industrial botany	<p>1) It helps in the area of economic productivity because it is involved in the study of plants and ideal growing techniques</p> <p>2) It contribute significantly to anthropology, biology, conservation, botany and other fields of science</p> <p>3) Commercial exploitation of plants by peoples.</p>



## Department Geography Zoology

Sr. No.	Course Name	Semester	Paper No	Paper Name	Subject Outcomes
1	B. Sc. I	I	I	Animal Diversity I	- Zoology has tremendous job potential. a) The successful students will be able to establish research organizations with the help of agriculture, environment protection and also their own industry for transgenic animals, clinical pathology, genetic counseling, human karyotyping etc. b) Scientific Research Organizations. c) Universities in India & abroad.
		II	II	Animal Diversity II	
			III	Comparative Anatomy of vertebrates	
			VI	Developmental Biology of vertebrates	
2	B.Sc.II	III	V	Cell Biology	Zoology has tremendous job potential. The successful students will be able to establish research organizations with the help of agriculture, environment protection and also their own industry for transgenic animals, clinical pathology, genetic counseling, human karyotyping etc. Scientific Research Organizations. Universities in India & abroad.
			VI	Demographic Studies	
		IV	VII	Principles of Ecology	
			VIII	Fundamentals of Biochemistry	
3	B.Sc.III	V	IX	DSE-1A-Molecular Biology	- Develop an understanding of concepts, mechanisms and evolutionary significance and relevance of molecular biology in the current scenario. Get well versed in recombinant DNA technology which holds application in biomedical & genomic science, agriculture, environment management, etc. Therefore, a fundamental understanding of Molecular Biology will help in career building in all these fields. Apply their knowledge in problem solving and future course of their career development in higher education and research. Get new avenues of joining research in related areas such as therapeutic strategies or related opportunities in industry.

			X	DSE- 2 A Principles of Genetics	After successfully completing this course, the students will be able to: Understand how DNA encodes genetic information and the function of mRNA and tRNA Apply the principles of Mendelian inheritance. Understand the cause and effect of alterations in chromosome number and structure. Relate the conventional and molecular methods for gene
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					manipulation in other biological systems. Discuss and analyse the epigenetic modifications and imprinting and its role in diseases. Get new avenues of joining research in related areas such as genetic engineering of cells, cloning, genetic disorders, human fertility programme, genotoxicity, etc
			XI	DSE- 3A- Endocrinology	- Understand neurohormones and neurosecretions. Learn about hypothalamo and hypapophysical axis. Understand about different endocrine glands and their disorders. Understand the mechanism of hormone action.
		VI	XII	DSE 4 A- Wildlife Conservati on & Manageme nt	Students will understand the factors affecting the need to find sustainable practices Students will understand the general principles of ecology as how they related to terrestrial and/or aquatic plant and animal conservation and management. Students will be able to identify species, characteristics, habitat requirements and life cycles of birds, fish and/or wildlife species. Students will be able to evaluate current events and public information related to wildlife conservation and management as being scientifically-based or opinion
			XIII	DSE- 1B- Animal Physiology : Life Sustaining Systems	After successfully completing this course, the students will be able to: Understand the physiology at cellular and system levels. Understand the mechanism and regulation of breathing, oxygen consumption and determination of respiratory quotient. . Understand the process of digestion and excretion. Understand the renal physiology Understand the process in haematology Learn the determination of hemoglobin content, blood groups and blood pressure. Understand the process of Physiology of Heart

			XIV	DSE- 2B Evolutionary Biology	Understand the historical development of systematics past to the present. Understand the similarities and differences of different types of data.□ Understand the uses and limitations of phylogenetic trees.□ Appreciate the complexities and difficulties of various species concepts.□ Gain a basic grasp on the rules and philosophy of nomenclature
			XV	Animal Behaviour and Chronobiology	- Understand the. Biological Clocks and its importance Understand how Biological Rhythm influence animal behavior□ Understand Social and Sexual Behaviour of animals□ Understand Behaviour Patterns of animals
			XV	DSE 4B- Applied Zoology	Students will understand the fisheries Students will learn the sericulture and Lac culture techniques□ Students will understand the Apiculture techniques□ Students will learn how to initiate Aquaculture practices.□ Students can incorporate social information about poultry and dairy

## Department Of Mathematics

Sr. No	Course	Semester	Paper No	Paper Name	Course Outcome		
1	B.Sc- I	I	I	ALGEBRA	Understanding the applications of matrices		
					Understanding how they can calculate roots of a complex numbers.		
			II	CALCULUS	Calculate the limit and examine the continuity of a function at point.		
					Explain the properties of threedimensional shapes.		
		II	III	GEOMETRY	Learn how to change points and equations in Cartesians to Polar.		
					Understand the Geometry of plane and spheres.		
			IV	DIFFERENTIAL EQUATIONS	Learn various methods of solving first order and firstdegree differential equations occurring in Physics, Chemistry and Engineering Sciences.		
					Understand the genesis of ordinary differential equation		
2	B.Sc- II	III	V	Differential Calculus	Find maximum and minimum value Jacobian of n order and find curvature of any given curve as well as find tangents and normals of any given curve.		
					VI	Laplace Transform	Define Laplace transform inverse Laplace transform and applications
		IV	VII	Differential Equations	To solve differential Equation of first order and of degree higher than the first, linear equation of the second order, homogeneous linear equation		
					VIII	Abstract algebra-I	Apply the theory of groups to number systems, define group and its properties, homomorphism and isomorphism
		3	B.Sc- III	V	IX	Algebra – II	Understand the theory of rings and fields as well as linear algebra
							X



					Complex Integration, Line Integration, Cauchy Integral Formula, Power Series, Laurent Series.
			XI	Real Analysis	To understand completeness of set of real number, absolute value of real number.
					Define series of real number, Cauchy root test, D'Alembert's test, Ratio test for convergence of series.
			XII	Partial Differential Equations (Elective - A)	: Learn to Partial Differential Equation, Formation of Partial Differential Equation, types of partial differential Equation.
					Lagrange's Method, Charpit's Method.
		VI	XIII	Metric Spaces	Define metric spaces completeness, compactness and open, closed sets
			XIV	Numerical Analysis	Define operators, finite difference, Gauss Interpolation Formula, Newton's Interpolation Formula (Center, forward, backward)
					Numerical differentiation and integration, Maxima and minima of tabulated function, Difference equation.
			XV	Graph Theory	Able to define the basic concepts of graphs, directed graphs, and weighted graph
			XVI	Integral Calculus (Elective - A)	Acquire the knowledge of double integral beta, gamma function and improper integral

## Department of Electronics

SR. NO	COURSE	SEMISTER	PAPER NO.	PAPER NAME	COURSE OUTCOME
1	B.Sc.I	I	I	Basic Circuit Theory and Network Analysis	<input type="checkbox"/> Students will get basic understanding of the subject. <input type="checkbox"/> To encourage students to develop approach towards upcoming electronic technologies.
			II	Digital Fundamentals	
		II	III	Semiconductor Devices	<input type="checkbox"/> Students will get hands-on on various circuits and instruments. <input type="checkbox"/> To equip students with adequate fundamental concepts and knowledge base.
			IV	Digital Electronics	
2	B.Sc.II	III	V	Electronic Circuits	<ul style="list-style-type: none"> <li>• To equip student with necessary fundamental concepts and knowledge base.</li> <li>• To develop specific practical skills.</li> </ul>
			VI	Pulse and Switching Circuits	
		IV	VII	Operational Amplifier and Applications	<ul style="list-style-type: none"> <li>• To encourage student to develop skills for accepting challenges of upcoming technological advancements.</li> <li>• To prepare students for demonstrating the acquired knowledge.</li> </ul>
			VII	Digital Techniques and Microprocessor	

3	B.Sc.III	V	IX X XI XII	<ul style="list-style-type: none"> <li>• Linear Integrated Circuits and Applications</li> <li>□ Fundamentals of Microcontroller</li> <li>• Sensors and Transducers</li> <li>• Electronics Communication</li> </ul>	<ul style="list-style-type: none"> <li>• To impart training on circuit design, analysis, building and testing.</li> <li>• To design the syllabus with specific focus on key Learning Areas.</li> <li>• To encourage student to develop skills for accepting challenges of upcoming technological advancements.</li> <li>□To expose the students to onlineshooter certificate courses such as MOOC / SWAYAM/ NPTEL, etc.□</li> </ul>
		VI	XIII XIV XV XVI	<ul style="list-style-type: none"> <li>□Power Electronics</li> <li>□Embedded System Design</li> <li>□Electronics Instrumentation</li> <li>□Modern Communication Systems</li> </ul>	<ul style="list-style-type: none"> <li>• To impart training on circuit design, analysis, building and testing.</li> <li>• To inculcate awareness among the student to perform the project so find us trial standards, which could also, ensures the interdisciplinary approach.</li> <li>• To provide the knowledge of design and implementation of instrumentation of significant preciseness.</li> <li>• To expose the students to the industrial environment a on job training and internship may be provided</li> </ul>

## Department of Economics

Sr. No.	Course Name	Semester	Paper No	Paper Name	Subject Outcomes
1	B.A.I	I	I	Indian Economy	-To understand meaning, need and importance of Indian economy To understand the Growth and development.
		II	II	Indian Economy	-To understand the unemployment -To understand the aim and objectives of economy. .
2	B.A.II	III	III	Money and Banking	-To acquire knowledge about money -To acquire knowledge about banking system.
			IV	Demographic Studies	-To understand the meaning, importance and scope of demographic studies. -To understand the census.
		IV	V	Public finance	-To acquire knowledge about public finance. -To acquire knowledge about fiscal policy.
			VI	Demographic Studies	-To understand the meaning, importance and scope of demographic studies.
3	B.A. III	V	VII	Micro Economics	- to understand the concept of land labour price monopoly etc.
			VIII	Macro Economics	-to know about the macro level issues in the country.
			IX	History of Economic Thought	-To understand the knowledge of economic thoughts of western economists.
			X	Development Economics	-knowledge of the development concepts.
			XI	Agricultural Economics	To understand Indian agriculture.
		VI	XII	Micro Economics	-to understand the different price, market concepts.
			XIII	Macro Economics	-to know about the trade cycles, monetary policies.etc.
			XIV	History of Economic Thought	-to know about Indian economist thoughts on the economics.
			XV	Development Economics	-Knowledge of hdi,hpi,gem etc.

			XVI	Agricultural Economics	-to understand the problems and solutions on agricultural crises.
1	M.A .I	I& II	I	Micro economic analysis	-To understand meaning, need and importance of land labor,monopoly ,market theories etc.
			II	Economics of growth and development	-To understand the unemployment -To understand the aim and objectives of economy. .
			III	Economics of Environment	-To acquire knowledge about money -To acquire knowledge about banking system.
			IV	Industrial Economics	-To understand the meaning, importance and scope of demographic studies. -To understand the census.
			V	Financial institutes and markets	-To acquire knowledge about public finance. -To acquire knowledge about fiscal policy.
2	M..A. II	III & IV	VI	Macro Economic analysis	- to understand the concept of money,inflationunemployment,trade cycles etc.
			VII	Public Economics	-to know about the macro level issues in the country of income,expenditure,taxes.budget etc.
			VIII	Research methodology	-To understand the knowledge of research methods data collection,report writing etc.
			IX	Adgricultural development of india	-knowledge of the development concepts of agriculture in india.
			X	International trade and finance	To understand the concepts of trade, trade theories,trademou's.etc.

### Department of Sanskrit

Sr No	Course	Sem	Paper	Paper Name	Course Outcomes

1	BA I	I & II	I	SanskritVihar	<ul style="list-style-type: none"> <li>• Introduce importance of Aayurveda</li> <li>• To introduce Modern style of Sanskrit</li> <li>• To Increase morality in students</li> </ul>
2	BA I	I & II	Com	Sanskritmayukh	<ul style="list-style-type: none"> <li>• To introduce Upanishad philosophy</li> <li>• Modern Sanskrit they can learn different types of literature</li> <li>• Student will aware for good health</li> </ul>
3	BA II	III	III	Prachin Bhartiya Jalshastra	<ul style="list-style-type: none"> <li>• To introduce scientific knowledge In Sanskrit</li> <li>• The paper introduces a branch of science</li> <li>• Student can know the technique Of find underground water</li> </ul>
4	BA II	III	IV	Karakprakaran	<ul style="list-style-type: none"> <li>• Student can achieve knowledge About vibhakti</li> <li>• Student can make sentence</li> <li>• Useful for speaking Sanskrit</li> </ul>
5	BA II	IV	V	Bhagvadgeeta	<ul style="list-style-type: none"> <li>• Student can achieve valuable Knowledge of Indian philosophy</li> <li>• They can learnt the technique of Mental ,physical and spiritual peace Through yogshastra</li> </ul>
6	BA II	IV	VI	Kavyashastra	<ul style="list-style-type: none"> <li>• To introduce the poetics in Sanskrit Language</li> <li>• Introduction of Alankaras Which is important for language</li> </ul>