



*Hati Ghyal Te Tadis Nya (Accomplish What You Undertake)*



**Shree Bharat Shikshan Prasarak Mandal's**

# **MAULI MAHAVIDYALAYA, WADALA**

**Tal : North Solapur Dist : Solapur**

**Affiliated to**

**Punyashlok Ahilyadevi Holkar Solapur University,  
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## **HANDBOOK**

**Programme Outcomes, Course Outcomes,  
Programme Specific Outcomes**

**B.A. & B.sc (2021-22)**



# Programme Outcomes of B.A.

## 1. Fostering the Social and Ethical values

Understand how society functions and the ethical values will be inculcated among the therefore students will behave responsibly in the society.

- a. The value of social integrity
- b. The value of patriotism
- c. the value of social behaviour

## 2. Community Engagement and Global Understanding

Understand how cultural, historical, economical, geographical, political, linguistic, and environmental forces shape the world and recognize the role of the individual within communities to effect change.

- . This includes the ability to:
  - a. Reflect on one's cultural identities and values
  - b. Demonstrate intercultural awareness and competence
  - c. Recognize and appreciate the real-world context of knowledge
  - d. Promote active citizenship and community engagement

## 3. Critical and Creative Thinking

- . Analyse and critically reflect on complex problems incorporating multiple perspectives and innovative thinking.
- . This includes the ability to:
  - a. Analyse, synthesize and integrate knowledge
  - b. critically evaluate the validity of arguments and conclusions
  - c. Practice creative thinking and expression
  - d. Demonstrate the capacity to argue in innovative directions

## 4. Literacy and Communication

- . Demonstrate the ability to extract and convey information accurately in a variety of formats.
- . This includes the ability to:
  - a. Identify, locate, comprehend, and critically evaluate quantitative and qualitative information using visual, numerical, oral, aural, and textual sources
  - b. Communicate concepts and information clearly and in various formats (oral, visual, written, etc.)
  - c. Engage effectively with audiences from different backgrounds

## 5. Evaluate and Problem solving

.Engage in scholarly inquiry to identify and investigate questions of a theoretical and/or applied nature.

.This includes the ability to:

- .a. Identify gaps and limitations in the existing literature
- .b. Understand the principles of the problem solving
- .c. Apply appropriate problem solving methodologies to specific problems
- .d. Develop intellectual independence and practice self-directed inquiry

## **6. Depth and Breadth of Understanding**

.Demonstrate detailed knowledge in one or more disciplines and integrate knowledge and perspectives across disciplinary boundaries.

.This includes the ability to:

- .a. Develop a detailed understanding of the current state of knowledge in one or more disciplines
- .b. Recognize the value, use and limits of multi-disciplinary learning
- .c. Cultivate an openness to consider and engage alternative research perspectives

## **7. Professional Development and Values**

.Demonstrate personal integrity and professional behaviour in scholarly endeavours and in collaborating with others within and beyond the academic community.

.This includes the ability to:

- .a. Demonstrate intellectual integrity and academic accountability
- .b. Collaborate respectfully with others, individually and in teams
- .c. Show leadership in professional environments while recognizing diversity
- .d. Manage time effectively and ensure personal organization

## Programme Specific Outcomes

### B.A.-III English

- .The student will be competent in English communication.
- .The student will understand the English manners and etiquettes.
- .The attitude of the students will be broadened to look at life.
- .Students will understand the scope of English language and literature.

### बी.ए.तृतीय वर्ष हिंदी

- .छात्र लेखन, वाचन, संवाद आदि कौशल से परिपूर्ण होंगे ।
- .छात्र हिंदी भाषा एवं साहित्य का लेखन एवंप्रचार-प्रसार करने में सक्षम बनेंगे ।
- .छात्रों में साहित्यिक एवं अनुसंधानात्मक दृष्टिकोणविकसित होगा ।
- .छात्रों को विभिन्न क्षेत्रों में आंतरराष्ट्रीय एवंराष्ट्रीय स्तर पर रोजगार की संभावना उपलब्ध होगी ।

### B.A. III Marathi.

- .Develop attitude of literary forms Marathi Novel. Autobiography, Poem, Drama, Story, etc.
- .Student will understand literary and critical terms / concept
- .Student will be familiar with basic concept of literary criticism.
- .They will acquire knowledge of major trends in literary criticism.
- .Student will learn scientific study of grammar.
- . Information about the history of medieval Marathi literature.
- .Student will understand the rich and complex literary tradition of the word in different periods and culture.
- .Student will acquire soft skill after completion of course.
- .They will learn to use news, advertising, later writing, story writing, book review etc. Skill successfully.
- .Student will be leaning various themes, styles, grammar as reflected in. Novel  
Poverty  
prescribed for the syllabus.

### B. A. III History

- .After completing the degree student will become familiar with the grate India culture, History, Political and social events making of new India.
- .Student would innovative new ideas in the research field of Social Sciences.
- .History Subject will be very useful for preparing all competitive examination.
- .It will be help to develop the personality of student.

# Course Outcomes

## English

### **B. A. Part – I Compulsory English (Semester I &II)**

#### **(CBCS Semester Pattern Syllabus)**

- Students will have a command on communication skills.
- Students will be competent and well versed to communicate through English.
- Students of the undergraduate level will be able to use skills in English in their day to day life.
- They will learn to use interview skills, comprehension skills successfully
- Students will learn human values, professional ethics, and gender equality through this course.
- This course will improve their vocabulary and communication skills

### **B.A. Part I – Course: Optional English (Semester I &II)**

- Students will be acquainting with the minor forms of literature.
- It will provide student a firsthand experience of reading the literary text
- The students will understand literary and critical terms/ concepts and lyrical types.
- Students will be able to play the short rolls of the protagonist from the literary text.

### **B.A.II: Course: Compulsory English**

- Student's vocabulary will be enriched and their communication skill would be enhanced after completing the course.
- They will learn to use interview skills, comprehension skills successfully.
- Students will learn human values, professional ethics, gender equality through this course.

### **B.A. II: Course:Optinal English (British Literature )**

- Students have understood the various dramas and Novels from English Literature
- The curiosity of Students is increased in British literature

### **B.A. II: Course:Optinal English (Indian Writing in English)**

- Students have understood the various dramas and Novels from Indian Literature
- The curiosity of Students is increased in Indian literature
- Students are reading more literature.

### **B.A. /B. Sc. Part III: Course: English Compulsory**

- Students of the undergraduate level will be able to use English in their day to day life.
- Student's will acquire soft skills after completion of course.

## **B.A. III English (Special)**

### **Course – VII & XII Introduction to Literary Criticism**

- Students will be familiar with basic concepts of literary criticism.
- They will acquire knowledge of major trends in literary criticism.
- Students will learn to appreciate literary text critically.

### **Course No. VIII & XIII British Literature**

- Students will be familiar with the different forms of literature, literary movements and learn Various themes, styles, genres as reflected in poetry, drama and fiction prescribed.
- It will enhance literary, linguistic and aesthetic séance of the students.

### **Course IX & XIV Indian Writing in English**

- Students will have deep understanding of different forms of literature.
- Students will learn various themes, styles, genres as reflected in poetry, drama and fiction Prescribed for the syllabus.

### Course- X & XV Literatures in English

- Students will be familiar with the different forms of literature.
- Students will be acquainted with and various themes, styles, genres as reflected in poetry, drama and fiction prescribed.
- Students will understand the rich and complex literary tradition of the world in different periods and culture.

### Course- XI & XVI Introduction to the Structure and Function of Modern English

- Students will be able to identify and use structure of English Language.
- Students will learn to identify piece of discourse.
- Students will learn scientific study of grammar.

## हिंदी

### बी.ए. प्रथम वर्ष ( आवश्यक हिंदी ) सत्र १ और २

१. छात्र हिंदी के प्रातिनिधि गद्यकार एवं कवियों से परिचित होंगे।
२. छात्रों में हिंदी साहित्य के प्रति अभिरुचि वृद्धिगत होगी।
३. छात्रों में राष्ट्र के प्रति प्रेम एवं सामाजिक प्रतिबद्धता की भावना विकसित हो जाएगी।
४. छात्र हिंदी व्याकरणिक दृष्टि से सक्षम होंगे।

### बी.ए. प्रथम वर्ष ( ऐच्छिक हिंदी ) प्रश्नपत्र १ और २, सत्र १ और २

१. छात्र हिंदी के प्रातिनिधि गद्यकार एवं कवियों से परिचित होंगे।
२. छात्रों में हिंदी साहित्य के प्रति अभिरुचि वृद्धिगत होगी।
३. छात्रों में राष्ट्र के प्रति प्रेम एवं सामाजिक प्रतिबद्धता की भावना विकसित हो जाएगी।
४. छात्र हिंदी व्याकरणिक दृष्टि से सक्षम होंगे।
५. छात्रों की विचार क्षमता एवं कल्पनाशीलता बढ़ने में सहायता होगी।

### बी.ए. द्वितीय वर्ष ( ऐच्छिक हिंदी ) प्रश्नपत्र ३ और ५ आधुनिक गद्य, सत्र ३ और ४

१. छात्र उपन्यास एवं उत्तरशती की हिंदी कहानियों से अवगत होंगे।
२. छात्र समकालीन परिवेश और जीवन यथार्थ से परिचित होंगे।
३. छात्रों में आधुनिकता बोध और नये मूल्यों के प्रति देखने का नज़रिया विकसित होगा।
४. छात्रों में कहानी कला के प्रति अभिरुचि और समीक्षादृष्टि विकसित होगी।

### बी.ए. द्वितीय वर्ष ( ऐच्छिक हिंदी ) प्रश्नपत्र ४-मध्यकालिन काव्य, ६- आधुनिक काव्य, सत्र ३ और ४

१. छात्र विभिन्न कालखंड की विभिन्न परिस्थितियों से परिचित होंगे।
२. छात्र प्राचीन, मध्ययुगीन तथा आधुनिक संस्कृति का अध्ययन करने में उद्यत होंगे।
३. छात्र विभिन्न काव्यधाराओं के माध्यम से मानवी प्रकृति का अध्ययन करेंगे।
४. छात्र हमारा गौरवशाली इतिहास तथा वर्तमान समाज के उत्तरदायित्व के प्रति सजग रहेगा।

### बी.ए. तृतीय वर्ष ( ऐच्छिक हिंदी ) प्रश्नपत्र ७ और १२, विशेष लेखक, सत्र ५ और ६

१. छात्र लेखक की बहुमुखी प्रतिभा से परिचित होंगे।
२. छात्र लेखक के साहित्यिक योगदान से परिचित होंगे।

- .३. छात्र लेखक के द्वारा लिखित साहित्य का आलोचनात्मक अध्ययन करेगे।
- .४. छात्र दलित एवं स्त्री विमर्श से परिचित होंगे।

**बी.ए. तृतीय वर्ष ( ऐच्छिक हिंदी ) प्रश्नपत्र ८ और १३, काव्यशास्त्र एवं आलोचना, सत्र ५ और ६**

- .१. छात्र साहित्य निर्माण की प्रक्रिया से अवगत होंगे।
- .२. छात्र साहित्य की विधाओं से परिचित होंगे।
- .३. छात्र साहित्य के बाह्य एवं अंतरंग से परिचित होंगे।
- .४. छात्रों में आलोचनात्मक दृष्टिकोण निर्माण होगा।

**बी.ए. तृतीय वर्ष ( ऐच्छिक हिंदी ) प्रश्नपत्र ९ और १४, हिंदी साहित्य का इतिहास, सत्र ५ और ६**

- .१. छात्र हिंदी साहित्य की दार्शनिक पूर्वपीठिका से परिचित होंगे।
- .२. छात्र विभिन्न कालखंड की रचनाएँ एवं रचनाकारों से परिचित होंगे।
- .३. छात्र हिंदी साहित्य के विकास प्रक्रिया से अवगत होंगे।
- .४. छात्र हिंदी की विभिन्न विचारधाराओं से अवगत होंगे।

**बी.ए. तृतीय वर्ष ( ऐच्छिक हिंदी ) प्रश्नपत्र १०-हिंदी भाषा, प्रश्नपत्र १५- भाषाविज्ञान, सत्र ५ और ६**

- .१. छात्र हिंदी भाषा एवं उसके विविध रूपों से परिचित होंगे।
- .२. छात्र हिंदी भाषा एवं लिपि के उद्भव और विकास से अवगत होंगे।
- .३. छात्र भाषा की शुद्धता, वर्तनी और व्याकरण के प्रति जागृत होंगे।
- .४. छात्र भाषाविज्ञान से परिचित होकर उनमें भाषा के प्रति वैज्ञानिक दृष्टि निर्माण होगी।
- .५. छात्र ध्वनि उच्चारण की प्रक्रिया तथा शुद्धता के प्रति जागृत होंगे।

## **Marathi-**

**COMPALSORY B .A.-I Paper –I, II (Semester I-II) SAHITYADARPN**

- a) Student will learn human values professional ethics gender equality thought this course**
- b) Student will be able to use skills in officially Marathi and grammar in their day to day life.**
- c) they will learn to use officially professionally later writing skills comprehension skills.**
- d) Student will be identifying the LILACHARITRA, SANTVANI, PROBHDHANPAR LITARETURE, etc.**

**B .A.-I Paper- I, II (Semester I-II) SAHITYARANG**

- a) Student will be understand literary and critical terms / concepts**
- b) Student will learn human values.**
- c) It will provide student a firsthand experience of reading the literary text.**
- d) Develop Attitude of Literary Forms.**

**B.A.-II, Paper III, V (Semester III – Kadambari Vadmay Prakar & Upyogita Marathi (VARNECHA VAGA) V –Kavita Vadamay Prakar & Kavyswad (SETU )**

- a) Develop attitude of literary forms Marathi Poem, Novel
- b) Student will learn to use professionally skills dally life.
- c) They will learn new Marathi literary Trend like that ‘Dalit literature

**B.A. –II, Paper – V, VI (semester III –IV) V – Lalit Gadya & Upyogita Marathi (HIRAVYA VATA). VI - NATAK VADMAY PRAKAR& UPYOGITA MARATHI (PREMA TUZA RANG KASA)**

- a) Develop attitude of literary forms Marathi Novel, Lalit Gadya.
- b) Students will be acquainting with the miner forms of literature.
- c) Student will understand literary and critical terms /concepts
- d) They will learn to use professionally acaring skill.

**B.A.-III Paper –VII, XII (semester V, VI) Sahityashasrtra**

- a) Information about Literary theory.
- b) Develop attitude of literary forms (Drama, Story, Poetry, and Novel)
- c) Student will be familiar with basic concept of literary criticism.
- d) They will acquire knowledge of major trends in literary criticism.

**B.A.-III Paper –VIII, XIII (semester V-VI) Bhashashastra**

- a) Student will have deep understanding of phonetic, language development.
- b) Student will be acquainted with and various themes
- c) Student will learn scientific study of grammar.
- d) Develop Attitude of Marathi Linguistics and grammar.

**B.A.-III Paper –IX, XIV (semester V-VI) Medieval History of Marathi Literature**

- a) Information about the history of Medieval Marathi Literature.
- b) Information about Literary Forms –SANT, PANT, TANT, BAKHR GADAY.
- c) How to develop attitude of literary Forms.
- d) Student will understand the rich and complex literary tradition of te word in different periods and culture.



## B.A. -III Paper –X XV (Semester V, VI) UPYOGIT MARATHI

- a) Student will acquire soft skill after completion of course
- b) Undergraduate level Student will be able to use skill in Marathi in their day to day.
- c) The course will improve their vocabulary and communication skills.
- d) They will learn to use News Advertising Later Writing Story Writing Book Review ect. Skill Successfully.

## B.A. - III, Paper XI, XVI (Semester – V, VI) New Trend Literature -- XI - GRAMIN ( CHEET) DALIT ( ANDKOL ) XVI - STIVADI - ( PRAJKTACHI FULE ANI DAHA) MUSALIM - ( VYAVHRACHA KALA GHODA)

- a) Student will be learning various themes, Styles, grammar as reflected in Novel, Atamakathan Prescribed for the syllabus.
- b) able to identify and use structure to Marathi Language
- c) Student will learn scientific study of feminism, Lalit Gadya Garmin Story, Musalimism poetry
- d) Information about Literary Theory.

## History –

### **BA I -Course- I Rise of Maratha Power (1600 AD to 1707 AD) Sem I & II**

- .1) Student will be able to understand the journey of Maratha power
- .2) Students will know about the rise of Shivaji Maharaj & his rulling policy
- .3) Students will understand his Administrative policy

### **BA II - Course -History Modern Europe (1750 AD to 1871 AD) Sem III & IV**

- .1) Students will understand the European History
- .2) Students will get acquainted will major dictators like Napoleon Bonaparte, Metternich etc.

### **BA II - Historyof Indian Freedom Movement (1857 to AD to 1950 AD) Sem III & IV**

- .1) Student will get an idea about Indian freedom movement.
- .2) Student will get an idea about the making of Indian constitution.

### **BA II -Course (IDS) History of Social Reforms in Maharashtra (1818 to AD to 1970 AD) Sem III & IV**

- .1) Student will understand the Social Reforms in Maharashtra
- .2) Student will have understood the efforts of Social reformers in Maharashtra
- .3) Students will understand the scope & Social Problems.

### **BA III - Course- History of Ancient India (PHA to 650 AD) Sem V & VI**

- .1) Students will understand the Social Economical & religious Institutions in Ancient India
- .2) Students will understand the Development various religious & periods

### **BA III –Course- History of Mughal India (1526 AD to 1707 AD) Sem V & VI**

- .1) Students will understand the various ruling power & policies.
- .2) Students will understand & know the various art and Architecture in Medieval India

**BA III - Course- Growth and Decline of the Maratha power (1707 AD to 1818 AD) Semi V & VI**

- .1) Students will have understood the growth & decline of the Maratha Power.
- .2) Students will have understood the Administrative system of the Maratha Power

**BA III - Course- History of Modern World (1870 AD to 2000 AD) Sem V & VI**

- .1) Students will have understood various ruling power in the world.
- .2) Students will have understood the Social Economic & religious status of the world.

**BA III -Course- Historical Documents and Places Semi V & VI**

- .1) Student will understand the Method of writing of History.
- .2) Students will have understood the Techniques of research.
- .3) Students will have got an exposure to various Historical forts and places.

## **Geography**

**B.A.-I Course -I Sem. -I, P-I-Geomorphology (19101125)**

1. Reflect critically upon the scope and evolution of the diverse discipline of Geography.
2. To enable the understanding of geomorphologic concept.
3. Understand the effect of rotation of revolution the earth.
4. Students will demonstrate their knowledge of Physical Geography and the methods and techniques for.
5. Understand the principles of Geomorphology and the processes that shape the landscape.

**B.A.-I Course -I Sem.-II, P-II-Human Geography (19101226)**

1. Students will understand and analyse the spatial organization of people, places and environments on the Earth's surface.
2. Students will understand the basic elements of culture.
3. Students will understand the types and levels of economic activities.
4. Students will Explains how culture and experience influence people's perceptions of places and regions.
5. Students will understand the Rural and Urban Structure and development.

**B. A.-II Course-II Sem.-III, P-III-Climatology (19101361)**

1. The students will be familiar with new terms and concept of Climatology.
2. The students will understand the constituents of atmosphere and its dynamic nature.
3. The students will make the contribution of atmosphere in the making of earth habitable
4. Students will understand diversity in the atmosphere at different places.

**B. A.-II Course-II Sem.-III, P-IV- Geography of India (19101362)**

1. Students will understand the physiographic of India.
2. Students will understand the various population characteristic.
3. Students will be able to use and analyse of maps.
4. Students will identify and explain the Indian Geographical environment, from global to local scales.
5. Students will apply geographical knowledge to everyday living.
6. Students will get an introduction to the main regions of the India in terms of both their uniqueness and similarities.
7. Students will understand the various population theories, migration and dynamics.

8. Students will synthesize various facts of India that is Physiography, Climate, Soil, Vegetation and Resources

**B.A.-II Course-III Sem.-IV, P-V- Economic Geography (19101461)**

1. Students will get the knowledge of the basic principles and concepts of economic geography.
2. Students will understand the applications of economic geography for development in different areas.
3. The students will be able to integrate various factors of economic development and dynamic aspect of economic geography.
4. Students will get acquainted with the basic principles and concepts of economic geography.
5. Students will get acquainted with economic activities, Agriculture, Manufacturing, Transport, Trade and Services.
6. Students will get acquainted with economic activity models.

**B.A.-II Course-III Sem.-IV, P-V- Environment Geography (19101462)**

1. Students will get aware about dynamic environment.
2. Students will understand the fundamental concepts of Environmental Geography.
3. Students will get acquainted with the knowledge about the past, presents and future utility and potentials of natural resources.
4. Students will understand about the problems of environment, its utilization and conservation in the view of sustainable development.
5. Students are acquainted with fundamental concepts of environment geography for development in different areas.
6. The students will be able to integrate various factors of economic development and dynamic aspect of economic geography.
7. Students will be aware of environmental problems, programmes and policies.

## **Environmental Studies**

**B.A. / B.Sc.-II Course - Environmental Studies**

1. Students will evaluate the impacts of human activities on natural environments.
2. Students will apply the knowledge of global issues to local circumstances to evaluate the local effects of the issues.
3. Students will identify, interpret and analyze geographic problems and processes.
4. Students are acquainted the knowledge awareness and responsibility for the environment.
5. Students will be able to do an independent research on human interactions with the environment.
6. Students will describe and analyze the current national and global environmental problems.

# Economics

## **B.A.I Course- INDIAN ECONOMY Sem I & II**

- .1) to aware the problem of over population
- .2) Able to fight with poverty and unemployment
- .3) To aware the problem of rising prices
- .4) To understand the role of Agriculture in Indian economy
- .5) To know the role of industry in Indian economy
- .6) To deeply analyze development model i.e. LPG, PURA.
- .7) To introduce a economy of Maharashtra.
- .8) It will helpful to know rural industry.

## **B.A.II Course- ECONOMICS OF MONEY, BANKING AND PUBLIC FINANCE Semi III & IV**

- .1) To know the history of money and function of money
- .2) It will be helpful to know the economic concept i. e. Inflation and Deflation
- .3) To know the banking function in India
- .4) To introduce the role of RBI
- .5) To know the economic function of Indian government
- .6) To know the fiscal policy of India
- .7) To aware the structure of Indian taxation
- .8) To make them analyze the financial administration of Indian government.

## **B.A.II Course- DEMOGRAPHY Semi III & IV**

- .1) Make them analyze the population study
- .2) TO understand the comparative study of sources of demographic data
- .3) To know the international theory of population study
- .4) To make students able to analyze the technique of population
- .5) To understood the population since 1951
- .6) To study effect of migration on Indian population
- .7) To analyze population policy of India
- .8) to study the techniques of population projection

# Political Science.

## **B.A.I Course- Constitutional Government and Democracy in India (Paper I & II) Sem. I & II (19101127, 19101128)**

### **Students will.....**

- .1) Know some important provisions from the Indian Constitution.
- .2) Know fundamental rights of every Indian Citizen.
- .3) Use ideal values for Government's Law making process.
- .4) Know that constitution and by which the purpose of Government.
- .5) Get information about Judiciary and the process of Judiciary.

## **B.A.I Course- Democracy, Election & Good Governance (Paper- Com.) Sem. II ( DEM2020)**

- 1) Understand Democratic Values in.
- 2) get Introduced to the Structure of the Indian State.

- 3) Get Introduced good governance in students.
- 4) Know some important provisions from the Indian Constitution.
- 5) try their level best for the promotion of Democracy.

**B.A.II Course- Introduction to Political Theory (Paper III & V) Sem. III & IV (19101349,19101350)**

- .1) Get knowledge about basic concepts of political science.
- .2) understand the Basic concepts of political Science.
- .3) Know the imp. Of concepts like liberty, equality and justice of
- .4) study concepts like liberty, equality & justice
- .5) Analyse the political system by using concepts like power, authority, legitimacy, democracy.

**B.A.II Course- Modern Indian Political Thought ( Paper IV & VI) Sem. III & IV (19101449,19101450)**

- .1) Due to this paper know the ideas of students about Modern Indian Political India.
- .2) Know the thoughts of Indian Political thinker to get independent India.
- .3) Helping students to understand the thoughts of Indian political thinker.
- .4) Understand the importance of the thoughts of Indian political thinker and their uses.
- .5) To make the base of modern India , thoughts of political thinkers plays imp. Role .

**B.A.II Course- Public Administration ( Paper-IDS) Sem III & IV (19101312,19101412)**

- .1) Understand the work of Administration by knowing the Administrative values and work of Administration.
- .2) Know the importance of public corporation in the development of India.
- .3) Know the welfare state and developed administration of public administration.
- .4) Understand budget passing process of two countries India and England.
- .5) Understand changing nature of characteristics of Indian public policy.
- .6) Get information of policy acts like RTI, Lokpal , citizens characteristic and E-Governance.
- .7) Understand the contribution of Lokpal in corruption or in transparency government.
- .8) Understand the contribution of Right to Education, National Health Mission, and Right to food Security  
MNREG'A of policies to make welfare.

## **Sociology**

**B.A.I Course - INTRODUCTION TO SOCIOLOGY (Paper I & II) SEM I & II**

**.Student will be able to:**

- .1. Explain and apply the major theoretical perspectives in sociology.
- .2. Communicate orally and in writing about Sociological concepts.
- .3. Demonstrate understanding of the role of evidence in both qualitative and quantitative methods in sociology.
- .4. Knowledge of theories concepts substantive problems, and methodologies

**B.A.II Course- INDIAN SOCIETY: STRUCTURE AND CHANGE (Paper III & V) SEM III & IV**

**.Student will be able to:**

- .1. Direction in values formation and moral development social justice , respect of human life and dignity and social responsibility.

- .2.Understanding of the sociological perspective on human conditions.
- .3.Awareness of the connections and differences between diverse historical and cultural positions in society.
- .4.Ability to create new knowledge about social reality and become future leaders

**B.A.II Course- SOCIAL PROBLEMS IN INDIA (Paper IV &VI)SEM III& IV**

**.Student will be able to:**

- .1.Applied theory to practice using problem solving techniques and data analysis.
- .2.Ability to think critically and creatively and to solve problems using the scientific approach.
- .3.Understanding of the intellectual and ethical importance of the sociological imagination and sociological mindfulness.

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## ■ Programme Outcomes of B. Sc.

- Acquired the knowledge with facts and figures related to various subjects in pure sciences such as Physics, Chemistry, Zoology, Botany, Mathematics etc.
- Understood the basics concepts, fundamental principles and the specifics theory related to various specific phenomena and there relevancies in the day to day life.
- Acquire the skills in handling scientific instruments, planning and performing in laboratory experiments.
- Developed scientific outlook not only with respect to science subjects but also in all aspects related to life.
- Realize that pursuit of knowledge is a life-long activity and in combination with untiring efforts and positive attitude and other necessary qualities leads towards a successful life.

## ■ B.Sc. Programme Specific Outcomes

### ■ B.Sc.-III Chemistry

- After successful completion of three year degree program in Chemistry a student should be able to:-
  - Demonstrate, solve and an understanding of major concepts in all disciplines of chemistry.
  - Solve the problem and also think methodically, independently and draw a logical conclusion.
  - Employ critical thinking and the scientific knowledge to design, carry out, record and analyze the results of chemical reactions.
  - Create an awareness of the impact of chemistry on the environment, society, and development outside the scientific community.
  - Find out the green route for chemical reaction for sustainable development.
  - Inculcate the scientific temperament in the students and outside

### ■ B.Sc.-III Mathematics

- After successful completion of three year degree program in Chemistry a student should be able to:-
  - Think in a critical manner.
  - know when there is a need for information, to be able to identify, locate, evaluate and effectively use that information for the issue and problem
  - Formulate and develop mathematical argument in a logical manner.
  - Acquire good knowledge and understanding advanced in a areas of mathematics and statistics, chosen by the student from the given courses.
  - Understand, formulate and use quantitative models arising in a social science, business and other contexts.

# Course Outcomes

## Chemistry

- **B.Sc. Semi-I to VI (CBCS Semester Pattern Syllabus)**
- **Semi-I Physical + Inorganic chemistry**
- **students will be able to:-**
- Mathematical concept & physical quantities & their dimension
- Physical chemistry is the branch of chemistry which supports in different ways to understand the subject
- In mathematical way
- **Semi II Organic + Analytical chemistry**
- **students will be able to:-**
- Pollution :- This course will give knowledge of water pollution i.e. inorganic pollutants & toxic metals
- **Laboratory course**
- Inorganic chemistry: - Identification of two acidic & two basic radicals by semi-micro qualitative analysis technique.
- Organic chemistry: - Organic preparation, determination of boiling point.
- Physical chemistry: - Experiment in kinetics, viscometer, and eudiometry.
- **Semi-III Organic + Inorganic chemistry**
- **Student will be able to:-**
- Name reaction with mechanism
- Organic compound
- **Semi IV Physical + Analytical Chemistry**
- **Student will be able to:-**
- Thermodynamics- concept of entropy
- Electrochemistry- types of conductors
- Solid state – laws of crystallography
- **Laboratory course**
- Organic & Inorganic
- Only demonstration
- Qualitative analysis- Identification of compounds
- Quantitative analysis-volumetric estimation
- Physical & Inorganic chemistry
- Physical –
- Instrumental – conductometrically, potentiometrically, viscometer
- Non-instrument-
- Inorganic – separation of binary mixture & estimation of any one by volumetric method
- **Semi-V -VI P- IX - XIII Physical chemistry**
- **Student will be able to:-**
- Write an expression for rate constant K for third order reaction
- Solve the numerical problems based on Rate constant
- Understand the terms specific volume, molar volume and molar refraction
- Know the meaning of phase, component and degree of freedom
- Derive the expression for rotational spectra for the transition from J to J+1
- **Semi-V- VI P- X-XIV Inorganic chemistry**
- **Student will be able to:-**
- Know the meaning of various terms involved in coordination chemistry
- To understand Werner's formulation of complexes and identify the types of valences.



- Know the limitations of VBT
- Know the shapes of d-orbital's and degeneracy of d-orbital's
- Draw the geometrical and optical isomerism of complexes
- **Semi-V-VI P-XI-XV Organic chemistry**
- **Student will be able to:-**
- Define organic acids and bases.
- Distinguish between geometrical and optical isomerism.
- Discuss kinetics, mechanism and stereochemistry of SN1 and SN2 reactions.
- Compare between E1 and E2 reactions.
- Understand the evidences, reactivity and mechanism of various elimination and substitution reactions.

- **Semi-V-VI P-XII-XVI Analytical chemistry**

- **students will be able to:-**
- Know the principles of common ion effect and solubility product.
- Study the methods of thermo-gravimetric analysis.
- **Laboratory course**
- **students will be able to:-**
- Physical chemistry:- Non instrument experiments, Instrumental experiments
- Inorganic Chemistry: - Gravimetric estimation, Inorganic preparation.
- Titrimetric estimation: - Percentage purity, Ion exchange method, Analysis of commercial sample.
- Organic Chemistry: - Organic estimation, Organic preparation, Preparation of derivatives.

## **Mathematics**

- **Semi- I Algebra**
- **students will be able to:-**
- Define matrices and its types and rank of matrices, Cayley Hamilton theorem .
- Application of matrices to a system of linear (Homogenous and Non homogenous) equation.
- Define Eigen value and Eigen vector.
- **Semi-I Calculus**
- **students will be able to:-**
- Discuss the successive differentiation and explain the Leibnitz Rule.
- Explain the mean value theorem; discuss the Maciaurins and Taylors series expansion.
- **Semi- II Geometry**
- **Students will able to:-**
- Describe the various forms of equation of plane, straight line, Spheres, cone.
- Find the angle between two lines, angle between line and plane.
- Discuss the centre radius form ,general form and its examples
- **Semi - II Differential Equation**
- **Student will be able to:-**
- Exact the solution of differential equations of the first order and of first degree by variables separable, Homogenous and non Homogenous methods.
- Necessary and sufficient conditions for rules discuss linear differential equations with constant coefficients.
- **Semi - III Differential Calculus**
- **Student will be able to:-**

- Find the maxima and minima of function of two variables.
- Find the radius of curvature.
- Solve equation by Jacobean method.
- **Semi - III Laplace Transform**
- **Students will able to:-**
- Use Invers Laplace Transform to return familiar functions.
- Apply Laplace Transform to solve second order linear differential equation and simultaneous linear differential equation
- .
- **Semi- IV Differential Equation**
- **Students will able to:-**
- Equations that can be resolved into factors of first degree, Clearout equation.
- Discuss the working rule for finding the solution.
- Nature of the solution of simultaneous equation, rules of solving the equation.
- **Semi - IV Algebra**
- **Students will able to:-**
- Introduction of groups and verify the given set is group or not.
- Define permutation and its types.
- Explain the equivalence relation and its types.
- **Semi - V Algebra**
- **Students will able to:-**
- Define vector space, quotient space, direct sum, linear span and linear independence, Basis and inner product space.
- Discuss the linear transformations, rank, nullity.
- Solve the system of simultaneous linear equations.
- **Semi - V Complex Analysis**
- **Students will able to:-**
- Compute sums, product, quotients, conjugate, modulus, and argument of complex numbers.
- Calculate exponentials and integral power of complex numbers.
- Determine whether a given function is analytic.
- Represent functions as Taylor Power and Laurent series.
- **Semi - V Integral Calculus**
- **Students will able to:-**
- Explain the properties of definite integrals.
- Evaluate the double integrals.
- Explain properties of beta and gamma function.
- **Semi -V Partial Differential Equation**
- **Students will able to:-**
- Solve Lagrange's method by partial differential equation.
- Find the solution of first order partial differential equations for some standard types.
- **Semi- VI Metric Space**
- **Students will able to:-**
- Define metric space and limits in metric space.
- Explain Schwartz, Murkowski inequality.
- Reformulation and define open set and closed set.
- Discuss complete and compact metric spaces
- **Semi-VI Numerical Analysis**
- **Students will able to:-**

- Define basic concepts of operators.
- Find the difference of polynomial.
- Solve problems using Newton Backward formula.
- Derive Simpson rules using Trapezoidal rule.

#### **Semi-VI Laplace Transform**

- **Student will able to:-**
- Use Inverse Laplace Transform to return familiar functions.
- Apply Laplace Transform to solve second order linear differential equation and simultaneous linear differential equation.

#### **Semi-VI Programming in C**

- **Students will able to:-**
- First introduction, importance of C, programming style etc.
- Discuss constants, variables and data types.
- Operators and Expressions.

## **Physics,**

#### **Semi: - I P-I Mechanical and Properties of Matter**

- **Students will able to:-**
- **Moment of Inertia**
- Student Understood the important concept of Moment of inertia
- The student are able to calculate moment of inertia of various rigid bodies
- **Pendulum**
- Student Understood the working theory of compound pendulum
- Students are successfully able to understand theory of various pendulums
- Like Bar pendulums Katers Pendulums, Bifilar Pendulums, Torsional Pendulum.
- **Elasticity**
- Students understood the concept of elasticity.
- Student understood the Relation between elastic constant
- student also studied the theory and experimental method to study Poisson's ratio
- elastic constants, Poisson's ratio of rubber tube (Theory and experimental method)
- **Surface Tension**
- Students understood the concept of surface tension.
- Students understood the relation between. Excess pressure inside a liquid drop and soap bubble.
- Student understood the factors affecting. Surface tension and Application of Surface Tension.
- **Viscosity and Fluid dynamics**
- Students Understood the concept of Viscosity and Fluid dynamics
- To understand Energy possessed by liquid, poiseuille's equation, Bernoulli's theorem and its applications.

#### **Semi-I P-II Optics**

- **Students will able to:-**
- Provide a good foundation in optics
- Provide a knowledge of the behaviour of light T
- Inspire interest for the knowledge of concepts is physical and geometrical physics

#### **Semi-II P-III Electricity, Magnetism and Basic Electronics**

- **Students will able to:-**

- Gain knowledge about the electrical energies in order to
- Learn motion of charges
- Acquire basic knowledge of magnetic properties
- Know about the alternating current and its circuits
- Get a depth knowledge about electricity and magnetism

#### **Semi- II P-IV Heat and Thermodynamics**

- **Students will able to:-**
- **Transport Phenomenon**
- The Students understood the concept Transport phenomenon, its types, Coefficient of viscosity and conductivity
- **Liquefaction of Gases**
- The Students understood the concept J-T effect Liquefaction of gases adiabatic demagnetization, and properties of liquid helium.
- **Thermodynamics**
- The Students understood the concept get Knowledge of Laws of thermodynamics Reversible and Irreversible processes, Isothermal and adiabatic process, Adiabatic relations and entropy.
- **Heat engines**
- The Students understood Carnot's heat engine, Otto engine, Diesel engine efficiency and their comparison
- **Refrigerator**
- The Students understood get Knowledge of principal Refrigeration Cycle COP, Vapour compression Refrigerator, Air conditioning and applications

#### **Semi-III P-V General Physics, Heat and Sound**

- **Students will able to:-**
- **Vectors**
- The Students understood get Knowledge Scalar and vector triple product Scalar and vector fields
- Del operator Gradient of a scalar Divergence of a vector, curl of vector and their physical significance
- **ProceSSIONal Motion**
- The Students understand Precession Nutation Lanchester's rules Gyroscope and its applications
- **Elasticity**
- The Students get Knowledge of Elasticity Bending moment Cantilever expression for  $Y$  and  $\eta$  of Flat spiral spring
- **Viscosity**
- The Students get Knowledge of Viscosity Searle's viscometer and Ostwald's viscometer
- **Heat**
- The Students understand Entropy, physical significance of entropy,
- T -S diagram and Entropy of a perfect gas
- **Sound**
- The Students get Knowledge of Transducer, Acoustics and its affecting factors, Reverberation time, Requirements of good acoustics, Sabine's formula and production, Detection,

#### **Semi-III P-VI Electronics**

- **Students will able to:-**
- Acquire knowledge and apply it to various electronically instruments
- Apply the development of the electronic instruments
- Motivate the students to apply the principles of electronics in their day-to-day life.

#### **Semi-IV P-VII Modern physics**

- **Students will able to:-**
- **Theory of relativity**
- The Students understand Galilean transformation, Ether hypothesis Michelson-Morley experiment
- Einstein's postulates of the special theory of relativity, Lorentz transformation, Variation of length
- and time with velocity, Velocity addition theorem, Mass energy relation, Twin paradox
- **Matter waves**
- The Students understand De Broglie's hypothesis of matter waves, and wavelength, group velocity
- phase velocity & their interrelationship, Properties of matter, Bohr's quantum condition on the basis
- of matter wave hypothesis, Heisenberg's uncertainty principle and its illustrations
- **Vector Atom model**
- The Students understand Space quantization, Spin hypothesis, Stern-Grenache experiment, Pauli's
- exclusion principle, Spin orbit coupling, Hand's rule Total angular momentum, L-S coupling, j-j
- coupling, Zeeman effect, Normal and anomalous Zeeman effect, Debye's explanation of normal Z effect
- **Compton effect**
- The Students understand concept of Compton Effect, change in wavelength for scattered photon,
- Experimental verification of Compton effect
- **Nuclear Energy sources**
- The Students understand Neutron induced nuclear reaction, Nuclear fission, Energy released in
- Fission, Chain reaction (Atomic Bomb), Nuclear reactor. Atomic energy in India

#### **Semi-IV P-VIII Optics**

- **Students will able to:-**
- Provide a good foundation in optics
- Provide a knowledge of the behaviour of light T
- Inspire interest for the knowledge of concepts is physical and geometrical physics

## **Botany**

#### **Semi-I Paper-I Microbiology and Phycology**

- **Students will able to:-**
- The students understand the viruses, diversity of bacteria and about the Mycoplasma
- The students study about the classification system of Algae with detail study
- The students understand about the aquatic habitat, the characters, morphology and
- Importance about Algae.

#### **Semi-I Paper-II Fungi and Archegoniate**

- **Students will able to:-**
- To know about the heterotrophy with general introduction about the true fungi.

- Understand about the classification and economic importance of fungi.
- To know about the general characters of Archegoniate

#### **Semi-II Paper-III Plant Ecology**

- **Students will able to:-**
- Students understand climatic and edaphic factors.
- To understand about the morphological, anatomical and physiological adaptations
- The students understand about the Plant communities.
- To know about the ecological succession with hydrosere and xerosere.

#### **Semi-II Paper-IV Taxonomy of Angiosperms**

- **Students will able to:-**Students understand highly advanced group of plant Angiosperms
- Students understand Aims and principles of taxonomy.
- Students understand about study of plant family

#### **Semi-III Paper V Plant Anatomy**

- **Students will able to:-**
- Students understand characteristics and classification of meristem
- Students understand structure of simple and complex tissue
- Students understand about the normal and anomalous secondary growth of root and stem

#### **Semi IV Paper VI Paper VI Plant Metabolism**

- **Students will able to:-**
- Students understand classification of enzymes
- Students understand role of micronutrients and macronutrients..
- Students understand about the broad classification monosaccharides, oligosaccharides, polysaccharides

#### **Semi-III Paper Semi IV Paper-VII (plant physiology )**

- **Students will able to:-**
- The student knows about: the process of photosynthesis with its apparatus.
- The process of nitrogen metabolism & mechanism of biological nitrogen fixation.
- The process of genetics laws of inheritance & about classical genetics.

#### **Semi-IV Paper VIII Embryology of Angiosperms**

- Students understand highly advanced group of plant Angiosperms
- Students understand typical structure of androecium and gynoecium.
- Students understand about the development of embryo in monocotyledone and dicotyledone

## **Zoology**

#### **Semi- I Paper I Animal Diversity I**

- **Student will be able to**
- Understand general characters of non-chordates such as Protista, porifera, cnidaria, Platyhelminthes, nemathelminthes, Annelida, arthropod, mollusca, Echinodermata.
- Give the examples of each phylum.
- Know the economic importance of non-chordates groups.
- Aware faunal biodiversity in nature.
- Classify the animals up to orders by observation of characters.

#### **Semi-I Paper II Animal Diversity II**

- **Student will be able to**

- Understand the general characters of protochordates.
- Learn the chordates animals such as Agatha, Pisces amphibian, reptiles, aves , mammals.
- Differentiates each animal from position and body character's, organisation.
- Classify the animal up to orders states each examples.
- Develop skill identify the poisonous and non-poisonous snakes.

#### **Semi-II Paper III Comparative anatomy of vertebrates**

- **Student will be able to**
- Understand the integumentary system of glands and digital tips.
- Know the skeletal system of appendicular and axial parts of vertebrates.
- Compare and identify the anatomical parts functions.
- Draw the diagram of different body parts.
- Gives the functions of each body parts.

#### **Semi-II Paper IV Developmental Biology**

- **Student will be able to**
- Understand basic mechanism spermatogenesis, gametogenesis in mammals.
- Learn mechanism of external fertilization in amphibians and internal fertilization in mammals.
- Understand embryonic development such as cleavage, blastula, gastrula, fate map in frog and human.
- Understand the cellular differ nation, movement epiboly, embolyapotosis.
- Know the metamorphosis in tadpole larva of frog.

#### **Semi-III Paper V Animal Diversity III**

- **Student will be able to**
- Understand different phylum such as arthropoda,mollusc, echinodermata, and hemichordate.
- Apply the knowledge in control the vector such as malaria, filarial and dengue.
- Analyse the various mouth parts cockroach, honeybee, housefly, butterfly and mosquito.
- Develops empathy and love towards animals.
- Gain the knowledge of foot modification in mollusca.

#### **Semi-III Paper VI Cell Science, Genetics, Biological Chemistry and Economic Zoology**

- **Student will be able to**
- Understand cell cycle know importance in body organisms.
- Gain the knowledge about genetic concepts such as linkage, supplementary, complementary gene, downs syndrome, turner's syndrome, klinefelters syndromes.
- Understand the bio molecule carbohydrates, protein, lipids DNA and RNA.
- Aware the concept of fishery, sericulture, apiculture, dairy, poultry, goat farming.
- Know the the economic importance of goat, honey bee, silkworm, dairy poultry birds.

#### **Semi-IV Paper VII Animal Diversity IV**

- **Student will be able to**
- Understand salient feature of reptiles, birds and mammals.
- Know the systematic position of rat.
- Explain the digestive, respiratory, circulatory, excretory, nervous, reproductive system in rat.
- Gains the knowledge about poisonous and non-poisonous snake.
- Apply the knowledge first aid treatment of snake bite.
- Gain the information aerial adaption in birds, beak and leg modification.

### **Semi-IV Paper VIII                      Histology and Physiology**

- **Student will be able to**
- To study and understand different type of tissue such epithelial, connective, muscular and nerves tissue.
- Understand histology of mammalian organs such as tooth, tongue, kidney, liver and testis.
- Obtain the knowledge of reproductive physiology of pituitary glands and its hormones.
- Understands sex hormone, oestrus cycle, menstrual cycle, pregnancy , parturition and lactation.
- Understand contraceptives to birth control in both male and female.

## **English,**

### **B.Sc.Part – I Compulsory English (Semester I &II)**

- , Students will learn to use interview skills, comprehension skills successfully
- , Students will have a command on communication skills.
- , Students will learn human values, professional ethics, gender equality through this course.
- , Students will be competent to communicate through English.
- , This course will improve their vocabulary and communication skills

### **B.Sc.Part – III Compulsory English (Semester V &VI)**

- , Students will be able to use English language in their day to day life.
- , Students will acquire soft skills after completion of course.
- , Students will improve their communication skill.
- , Students vocabulary will be enriched.
- , Students will learn human values, professional ethics, gender equality through this course

## **Democracy, Election & Good Governance**

### **B.Sc.Part–I Course- Democracy, Election & Good Governance (Paper-Com.) Sem. II (DEM2020)**

- 1) **To inculcate Democratic Values in the Students.**
- 2) **Introduce Students to the Structure of the Indian State.**
- 3) **Introducing good governance in students.**
- 4) **Know some important provisions from the Indian Constitution.**
- 5) **To awaken the students for the promotion of Democracy.**

