

**Krishnagar Women's College**  
**Department of Bengali**  
**B.A.(Honours) in Bengali**  
**[1+1+1] System**  
**with effect from 2009-10**  
**Programme Specific Outcome**

- ❖ The syllabus exposes the students to a wide and varied range of literary texts on poetry, prose, drama, fiction and literary theory. This exposure to and thorough study of this variety of texts and theory is expected to have a great impact on their own intellectual ability and writing skill.
- ❖ The syllabus contains an overview of the history of ancient, medieval and modern Bengali literature.
- ❖ Students get acquainted with Sanskrit literature and English literature as well and it enables them to have an interdisciplinary reading and understanding of the texts prescribed in the syllabus.
- ❖ The wide variety of Hons. papers familiarizes the students with a wide variety of issues like discourses on gender, environment, social discrimination, politics and culture.
- ❖ The Course prepares the students for higher studies and research work.

Students can emerge as prospective teachers in schools and colleges, as content writers and as professionals in publishing houses.

**Krishnagar Women's College**  
**Department of Bengali**  
**B.A. Bengali (Honours)**  
**[1+1+1] System**  
**With effect from 2009-10**  
**Course Outcome**

**Part -1**

**Paper -1**

**Title: History of Bengali Literature and Philology**

**Course Outcome:**

- i) The Course gives the students an elaborate critical perspective of the socio-political-historical background which helped flourish a vast body of literature ranging from the epics to the literature of the medieval period.
- ii) The Course is not only an extensive study of literature of the ancient and medieval age but also focuses on the growth and development of the language as means of communication. The entire third part of the syllabus is dedicated to an interesting analysis of the origin of Bengali as a medium of expression and its philological development.
- iv) The development of new age Bengali literature against the backdrop of the social movements and reformations.
- v) The Introduction of various literary genres and the beginning of the printing age.

**Paper-2,**

**Title: Prosody; Rhetoric; Krittivasi Ramayana, Vaishnava Padavali; Annodamongal**

**Course Outcome:**

- i) Prosody is the fundamental and basic component of verse. The study guides the students to scan a given poem with its meter, rhythm, rhyme.
- ii) Mediaeval texts with the intense and compact study enable the students to form a proper concept with analytical power to explore the literary quality and socio- economic paradigm.

iii) Rhetoric is the discipline to explore any literary work to enjoy the reading with its aesthetic grandeur and deep qualitative excellence of utterance.

iv) The students make a journey from the reading of vaishnav literature to that of Shakto literature consisting of popular devotional poems

## **Part-2**

### **Paper-3**

#### **Title-Types of Fiction, Novel& Short Story**

##### **Course Outcome:**

- i) The Course offers the students a detailed knowledge and concept about the different types and forms of Fiction- Short story, Romance and Novel.
- ii) Selected texts (1890-till date) and their compact and intense study serve as an illustration of the growth and development of a popular genre of Bengali literature
- iii) Intense study of masterpieces of Bengali fiction acquaints the students with the evolution of theme, plot construction and experiment with the fictional form by the novelists.

### **Paper-4**

#### **Title: Non Fictional Prose, Criticism & Essay; Poetry, Short -Story**

##### **Course Outcome:**

- i) Introduction with definition and analysis of essay, personal essay, Belle letters, travelogue, biography, autobiography, criticism etc.
- ii) Criticism is one important genre of Bengali literature that grew and developed along with other literary forms. The readers' perception of a given text is further modified once he learn to assess it critically.
- iii) Essay or formal essays are also a constructive part of building up ideas on different subjects.
- iv) Selected texts (1890-till date) and their compact and intense study serve as an illustration of the growth and development of a popular genre of Bengali literature..
- v) Introduction with definition and analysis of essay, personal essay, Belle letters, travelogue, biography, autobiography, criticism etc.

## Part-3

### Paper-5

**Title: History of Bengali Stage & Dram**

**Course Outcome:**

- i) The Course gives the students an ample scope of the theory of different types of drama as a literary genre and the history of the beginning of Bengali theatre in the colonial era. The students can trace development of the flourish of a good number of theatre houses in Calcutta to promote theatrical production on stage.
- ii) The Course acquaints the students with a number of dramatic masterpieces to make them trace and understand the growth and development of Bengali theatre.
- iii) The Course gives the students an outline of the history of dramatic literature with reference to several plays written by the Bengali playwrights. They also get acquainted with the new experiment in form and content of drama as reflected in the play written by Badal Sarkar, a specimen of Absurd Play that flourished in the West.

### Paper-6

**Title -Poetry and Poetics**

**Course Outcome:**

- i) Students get familiarized with different genres of poems with their definitions and analytical introductory description.
- ii) Selected texts and their compact and intense study will guide the students to achieve a clear concept of they have studied.
- iii) Students acquire knowledge about Indian and western theories of poetry like Alamkartattwa, Aristotle's *Poetics* and different literary terms which is important to judge a literary piece from critical point of view.

### Paper-7

**Title: Selected Novel & Short Story**

**Course Outcome:**

- i) Students have to study great fictions written by the pioneers of Bengali fiction as developed in the post-Rabindranath era.



ii) Reading of the fictional masterpieces is supplemented by a number of critical and theoretical analyses of the given texts.

iii) The Course offers the students a detailed knowledge and concept about the different types and forms of Fiction- Short story, Romance and Novel.

iv) Selected texts and their compact and intense study serve as an illustration of the growth and development of a popular genre of Bengali literature

v) Intense study of masterpieces of Bengali fiction acquaints the students with the evolution of theme, plot construction and experiment with the fictional form by the novelists.

### **Paper-8**

**Title: History of Sanskrit & English Literature, Folk Literature, Theory & Criticism**

#### **Course Outcome:**

i) Students learn to trace the growth of Bengali literature and the influences of Sanskrit and English literature on it. The study of Sanskrit and English literature adds to their knowledge in Bengali literature.

ii) The Course offers a study of folk literature incorporating folk songs, verses, proverbs, riddles with a focus on the discussion of socio-cultural milieu of the time.

iii) This portion of the syllabus guides the students to achieve a thorough knowledge and Idea on the diverse literary theories which lends an intellectual ability to read the texts from critical point of view. It also acquaints the students with various debates, arguments and counter-arguments regarding the theories. Students learn to read a text in terms of a variety of literary terms like Romanticism, Realism, Classicism, Surrealism, and Naturalism

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**Krishnagar Women's College**  
**Department of English**  
**B.A. English ( Honours)**  
**(1+1+1 System)**  
**Programme Specific Outcome**

- Students of English Literature are exposed to a wide reading and understanding of a vast plethora of British canonical texts ranging from Old Anglo-Saxon period to Post-modern period. They get introduced to the socio-cultural-political issues of the periods. Besides, they are required to study Indian writing in English, American English Literature and European Literature in Translation.
- The reading of the canonical British literature enables the students to have a glimpse into gender issues, discourse on social discrimination, complex human relationship, political issues and cultural ethos.
- Students learn to develop an aesthetic approach to the study of literature through the reading of a variety of texts on poetry, drama, fiction and non-fictional prose.
- The syllabus focuses on literary theory and literary criticism that helps the learners to appreciate the various texts in the light of these critical theories and criticisms.
- The exposure of the students to a wide variety of texts is expected to have a direct bearing on their own writing potential and skill development.
- An entire paper is devoted to the intensive study of the growth and development of English language as a global language.

**Scope and Prospects of the Programme:**

- On completion of the Undergraduate course, the students are expected to gain proficiency in English as a language of communication when they apply it for the professional purpose.
- A thorough knowledge in the language and literature helps the students pursue higher studies in their chosen area and engage in research activities.
- Graduating with an Honours in English may help students opt for further studies in Mass Communication and Journalism and a career in the said fields.
- Proficiency in English language and literature prepares the students for appearing at various competitive examinations.
- Students can emerge as prospective teachers in schools, colleges and universities.
- The inclusivity of the Course aims at the holistic development of the students and enhancement of their critical acumen and intellectual ability.

**Krishnagar Women's College**  
**Department of English**  
**B.A. English (Honours)**  
**(1+1+1 System)**  
**Course Outcome**

**Paper-I : English Language: History and Usage**

**Course Outcome :**

- Students get a comprehensive knowledge about the growth of English language , various influences in shaping the language and its evolution and journey from Old English to modern Global language.
- They also learn usage of the language through a study of Phonetics and Rhetoric and Prosody.

**Paper –II: English Literature from 408 CE-1484 CE**

**Course Outcome:**

- Students get introduced to the world of Anglo –Saxon and Anglo-Norman Literature through a wide variety of texts .The study of the Old English and the Middle English period exposes the students to the socio-political-cultural ethos of the time.
- They also get acquainted with the canons of Poetry, fiction and drama.

**Paper – III : English Literature from 1485 CE to 1640 CE**

**Course Outcome :**

- The study of the history of Renaissance and Reformation gives the students a comprehensive overview of the period.
- The students get well introduced to the themes and contexts of the various socio-religious-cultural movements as reflected in the texts.

**Paper : IV : English Literature (1641-1788)**

**Course Outcome :**

- On completion of the Course, the students acquire knowledge about the Restoration period, the Glorious Revolution and the Enlightenment that left a great impact on the evolution of the literature of the period reflecting the eventful period as evinced in the poetic and dramatic output of the time.



- Students get familiarized with genres like Mock-epic, Satire, Pastorals, Periodical Essays, Metaphysical Poetry, Restoration Comedy and Heroic Tragedy and novels.

### **Paper: V: English Literature (1789- 1831)**

#### **Course Outcom :**

- The paper familiarizes the students with a history of the evolution of Romantic literature, its distinctive features and socio-cultural changes that occurred due to the French Revolution. Students can have a comprehensive overview of Romantic literature from a reading and analysis of representative texts on poetry, drama, novel, and essays.

### **Paper : VI : English Literature ( 1832-1913)**

#### **Course Outcome:**

- Students gain an adequate knowledge in the changes that were taking place in the Victorian period characterized by rapid urbanization, industrialization, growth of capitalism and utilitarianism combined with loss of faith in established religion.
- Students acquire a fair knowledge about these shaping influences by reading selected works of poets and novelists.
- Students learn to explore themes like marriage and sexuality, subjugation of women and situate the writer in the contemporary context.

### **Paper : VII : English Literature (1914-2000)**

#### **Course Outcome:**

- Students do have a fair understanding of the major political events of the century that shook the whole world, namely, the First World War and the Second World War .The paper helps the students to appreciate the nature of influence that these Wars exerted on literature of the time.
- It offers an exhaustive overview of the major literary output that developed during the period – poetry, drama, short stories and novel-all representative of the socio-cultural ethos.

### **Paper: VIII : Literary Theory, Critical Appreciation and Literatures outside the UK.**

#### **Course Outcome:**

- Students can form a clear idea about the evolution of literary criticism which is an integral part of the study of literature.
- Students learn to appreciate literary texts in the light of the critical theories enunciated by poets and critics.



- Students are able to have an insight into Indian literature in English. They are able to appreciate the diversity of Indian culture and the situations that the works –poetry, novel, drama and short story- depict.
- Students are acquainted with some critical ideas about contemporary socio-political-cultural developments of the period that provide a framework for the genesis of different genres in European literature experimenting with unusual form to depict unusual themes.
- Students get acquainted with the major literary texts of American literature–prose, poetry and fiction.
- Students are able to take note of the cultural and linguistic differences between the British literature and American literature.

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**Krishnagar Women's College**  
**Department of Sanskrit (U.G.)**  
**B.A. Sanskrit (Hons.) Under [1+1+1] Pattern**

**#Programme Specific Outcomes#**

- > The undergraduate course in Sanskrit (Hons.) has been designed in a way so that the students can learn variety of traditional as well as modern disciplines in Sanskrit studies and they can strengthen their knowledge of the language.
- > After successfully completing the course, the students will obtain a transparent vision about the Vedic studies, the mammoth volume of literature viz. Prose, Poetry and Drama and their literary criticism; Sanskrit grammar which covers a large area of linguistics; Philosophy and logic, Dharmashastra which covers many areas of sociology and legal studies.
- > The Honours course will especially focus on issues which have a contemporary resonance.
- > Through the project works they can enhance their ideas about research.

**Krishnagar Women's College**  
**3 year B.A. Degree Course**  
**Under 1+1+1 Pattern**  
**Honours Course in Sanskrit**  
**Course Outcome**

**Paper-1**

Course outcome:

- > After successful completion of this course students will be able to:
  1. Know about the great Sanskrit drama 'Abhijnanasakuntala'.
  2. Learn about the main theme and socio-cultural significance of the text 'Rajavahanacarita', composed by Dandin.
  3. Make themselves sound in grammar and also in translation from Sanskrit to English and vice versa.

## Paper-2

Course outcome:

> After successful completion of this course students will be able to:

1. Read prose romance 'Kadambari' (Sukanasopadesha) by name, composed by Banabhatta
2. Read a mahakavya 'Kiratarjuniya' (canto-1) by name, composed by Bharavi.
3. Read a drama 'Svapnavasavadutta' by name, composed by Bhasa.
4. Learn about a rhetorical text 'Kavyalamkarasutravritti' (Adhikarana-1) by name, composed by Acarya Vamana.
5. read 'Chandomanjari' (Samavritta only), composed by Gangadasha and also make them sound in Sanskrit Prosody.

## Paper-3

Course outcome:

> After successful completion of this course students will be able to:

- 1) Understand the meaning and purpose of Indian Philosophy and general classification of philosophical schools.
- 2) Understand different basic doctrines of Indian Philosophy.
- 3) Understand the doctrine of real transformation, illusory transformation and non-preexistence of effect in cause.
- 4) Understand different theories based on Tarkasamgraha.

## Paper-4

Course outcome:

> After successful completion of this course students will be able to:

1. Understand the theories of some important thinkers on Indian Polity, i.e. Manu, Yajnavalkya Kautily.
2. Read the texts viz. 'Manusamhita', 'Yajnavalkyasamhita' and 'Arthashastra'.

## **Paper-5**

Course outcome:

> After successful completion of this course students will be able to:

1. Read a rhetoric and dramaturgy based text 'Sahityadarpana' (Chapter 6 & 10) by name, composed by Viswanatha.
2. Write Sanskrit Essay in their own words.
3. Read a grammatical poetry 'Bhattikavya (canto-2) by name, composed by Bhatti.

## **Paper-6**

Course outcome:

> After successful completion of this course students will be able to:

1. Learn about the history of Vedic Sanskrit Literature.
2. Know about the history of Epic, Puranic and classical Sanskrit Literature.
3. Learn about the history of epigraphical and technical Sanskrit Literature.

## **Paper-7**

Course outcome:

> After successful completion of this course students will be able to:

1. Learn the selective portions of Samhitas, Brahmanas and Upanisadas.
2. Understand Vedic Grammar viz. Declensions, Subjunctive Mood, Gerunds, Vedic Accent, Padapatha.

## **Paper-8**

Course outcome:

> After successful completion of this course students will be able to:

1. Understand the rule of Karaka in Sanskrit Grammar according to Siddhantakaumudi.
2. Understand the rules of Samasa as reflected in Siddhantakaumudi.



3. # Learn about the definition and features of Language.
- # Learn about the definition and features of Linguistics.
- # Learn about Sanskrit phonetics, semantics, syntax etc.
- # Learn about the Indo-European Language Family and its divisions.
- # Understand the Sanskrit Language and Indian Language-Family.

**Krishnagar Women's College**  
**Course Outcome**  
**3 year B.A. Degree Course**  
**Under 1+1+1 Pattern**  
**General Course in Sanskrit**

**Paper-1**

Course outcome:

> After successful completion of this course students will be able to:

1. Read 'Chandomanjari' (Samavritta only), composed by Gangadasha and also make them sound in Sanskrit Prosody.
2. Read a drama 'Svapnavasavadutta' by name, composed by Bhasa.
3. Learn the grammatical processes viz. Declension and Conjugation.
4. Read prose romance 'Kadambari' (Sukanasopadesha) by name, composed by Banabhatta
5. Make themselves sound in grammar and also in translation from English or Bengali into Sanskrit
6. Learn about the method of answering of comprehension test.

**Paper-2**

Course outcome:

> After successful completion of this course students will be able to:

1. Know about the great Sanskrit drama 'Abhijnanasakuntala'.
2. Read a Mahakavya 'Raghuvamsha' by name, composed by Kalidasa.
3. Make themselves sound in translation from Sanskrit into English or Bengali.

### Paper-3

Course outcome:

> After successful completion of this course students will be able to:

1. Learn about the history of Sanskrit Literature (excluding Vedic).
2. Learn about the epic 'Ramayana' (Balakanda, chapter-1)
3. Learn about the text of 'Manusamhita(chapter-7, verses 1-100).

### Paper-4

Course outcome:

> After successful completion of this course students will be able to:

1. Read rhetoric-based text 'Sahityadarpana' (Chapter 10) by name, composed by Viswanatha.
2. Read the *udyogparvan* of great 'Mahabharata' (chapter-33, verses 8-130)
3. Learn about the general acquaintance with Sanskrit works on social, scientific and technical literature.

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**Krishnagar Women's College**  
**Department of Philosophy**  
**B.A.(Honours) in Philosophy**  
**[1+1+1] System**  
**with effect from 2009-10**

**Course Outcome or Learning Outcome**

**PSO 1 – Academic**

- a) According to all schools of Indian philosophy the aim of education is the attainment of liberation from the cycle of birth and death and attainment of Unity with the absolute, study of western philosophy enables the students to know about ancient mediaeval and modern philosophy.
- b) study of psychology enables student to use scientific reasoning to analyse psychological issues.
- c) study of social and political philosophy help students in preparing thoughtful and responsible citizen.
- d) the work of modern Indian thinkers enhances the power of nationality and commitments towards the nation.
- e) study of ethics develops a sense of value that will help students to become a good human being.
- f) practicing Western logic enhance mathematical application and reasoning aptitude.

**PSO 2 - RESEARCH**

- a) all courses are prospective for future study and research.
- b) study of psychology enables students to design and engage themselves into basic psychological research.
- c) Study of philosophy of logic enhance the success quotient for aspirants of competitive examination in different competitive examination, like NET SET GATE get most of the questions are based on logic.
- d) Study of practical ethics like medical ethics, bioethics, environmental ethics, may be considered as future profession and research work.

## **PSO 3 – SOCIAL**

- a) Study of social and political philosophy helps in critical analysis of society and politics.
- b) The study of religion is a critical lens for understanding human existence in its broader cultural context including its relation to economic, political and social Institutions, as well as impact of religion on history, geography and literature.
- c) The study of epistemology in philosophy is important because it helps us to evaluate what we see or perceive. It helps us to determine the true from the false and helps us to gain productive knowledge, that we can actually use to benefit ourself and others.
- d) Metaphysics the foundation of philosophy. Without an explanation for an interpretation of the world around us, we would be helpless to deal with reality. Metaphysical studies generally seek to explain inherent or Universal elements of reality which are not easily discovered or experienced in our everyday life.

However, our syllabus for Honours includes eight papers among which six papers are about Western Philosophy. So, the students in this course are well- acquainted with the Western Philosophers, from Greek philosophy to modern western thinkers like Descartes, Locke Berkeley, Hume, Kant etc. In these six papers they also learn Western Symbolic Logic which is a scoring paper and also enhances their reasoning power. Both Honours and General course are enriched with different branches of Indian Philosophy where the students become aware of our heritage, depth of thinking of our predecessors. A Subject like Philosophy gives special knowledge regarding the world.

### **PART – I**

#### **PAPER – I : CLASSICAL INDIAN PHILOSOPHY**

##### **Course Outcome : -**

1. After successful completion of the course students will gain knowledge about history of Indian philosophy and at the same time they will acquire elaborate knowledge about various theories, beliefs and opinions of the different schools of Indian philosophy like Carvaka, Buddhism, Jainism, Nyaya-Vaisesika.
2. learn about the interrelation among the different schools and become aware of the rich argumentative heritage of India.



3. After successful completion of the course students will be able to know about some basic major schools of Indian Philosophy like Sankhya, Yoga, Purva Mimāmsa, and Vedanta.
4. Students come to know a comprehensive view of the different philosophical systems and the inclusive nature of Indian philosophy.

## **PAPER - II : HISTORY OF WESTERN PHILOSOPHY**

### **Course Outcome : -**

1. The history of western philosophy consists of the epistemological and metaphysical perspective of the Philosopher's from ancient to modern philosophers like Plato, Aristotle, Descartes, Spinoza, Leibnitz.
2. Beginning with the Pre-Socratic Philosophers they will become acquainted with theories of knowledge and metaphysics of Plato and Aristotle. They will develop detailed knowledge about modern rationalists schools also.
3. Students can learn the importance of the Empiricistic approach of western philosophy.
4. Students can also learn the importance of both experience and rationality in Kantian and philosophy.
5. Students can pursue higher education in this field also.

## **PART – II**

## **PAPER - III : PSYCHOLOGY & SOCIAL AND POLITICAL PHILOSOPHY**

### **Course Outcome : PSYCHOLOGY**

1. After successful completion of the course students will be able to use scientific reasoning to analyse different psychological issues.
2. They will be able to design and engage themselves into basic psychological research work.

### **Course Outcome : SOCIAL AND POLITICAL PHILOSOPHY**

1. Study of social and political philosophy helps students to develop elaborate knowledge regarding the nature and scope of both social and political philosophy.

2. Studying social and political philosophy opens the scope for higher education and research both in Sociology and political science

## PAPER - IV : WESTERN LOGIC

### Course Outcome :

1. Practising Western Logic Enhances
2. Mathematical Application
3. Reasoning Aptitude
4. Preparation for competitive Examination
5. The power of sense of Reasoning for Day to day life.
- 6.

## PART – III

## PAPER – V : INDIAN LOGIC & EPISTEMOLOGY

### Course Outcome : INDIAN LOGIC

1. In Indian Logic students will be familiar with Indian logic and epistemology through the classical Indian Text – Tarkasamgraha written by Annambhatta.
2. After successful completion of the course students will be able to learn about the rich logic of Nyaya Philosophy .
3. Students can be able to compare the logical tradition of Indian Philosophy and Western Philosophy.

### Course Outcome : EPISTEMOLOGY

1. After successful completion of the course students will acquire a clear concept of nature, origin and scope of knowledge.
2. Deep investigation into philosophical terms like concept, truths, knowledge etc are done for better comprehension and to remove ambiguity

## PAPER – VI : PHILOSOPHICAL ANALYSIS

### Course Outcome :

1. After successful completion of the course students will acquire a clear concept of nature, origin and scope of knowledge.
2. Deep investigation into philosophical terms like concept, truths, knowledge etc are done for better comprehension and to remove ambiguity.
3. After successful completion of this course students will be able to distinguish appearance and reality.
4. They will be able to enhance their reasoning aptitude.
5. By study this course students will learn the notions that are beyond this empirical world.

## PAPER – VII: ETHICS ; EASTERN & WESTERN

### Course Outcome :

1. Students will have deep knowledge and will develop critical understanding about Indian ethics.
2. Indian ethics includes purusharthas, Buddhist ethics, jaina ethics and yoga ethics also.
3. Understand the importance of Indian ethics and values and eventually be compassionate towards all living beings.
4. feel encouraged to research extensively in this field.
5. Students will have detailed information about Western ethics and will develop critical insight on this.
6. After successful completion of this course the students will have clear concept of the ethical terms -right, wrong, good, bad and their usage.
7. Understand the moral principles and their application in decision- making throughout their life.
8. Develop a sense of value that will help them to become a good human being.

## PAPER - VIII: OPTIONAL PAPER

### Course Title : Vedāntasāra (Text)

### Course Outcome :

1. A beginner can get a clear and detailed introduction to Vedanta through this text. Students will understand the principal concepts of Advaita Vedanta.

2. By studying this text which is written by Sadananda Yogendra students will gain the basic qualification required for pursuing the study of Advanced Vedantic Studies.

**Course Title : An Enquiry Concerning Human Understanding (Text)**

**Course Outcome:**

1. After successful completion of the course the students will be able to understand the text of David Hume, a renowned empiricist western philosopher.
2. They will be able to understand the empiricistic tradition and at the same time they will be able to critically evaluate the concept of metaphysics, causality, scepticism from Hume's view.
3. They will be able to compare Hume's philosophy and Kant's philosophy and thus develop a critical aptitude.

**Course Title : Western Logic**

**Course Outcome :**

1. By study this course students will gain knowledge of the various methods of Western logic (I.M. COPI). R. Jeffrey's methods of truth tree is learnt. They also study P. Suppee's Set Theory, Quine (Methods of logic) .
2. This paper increases the logical reasoning of the students.

**Course Title : Contemporary Indian Philosophy**

**Course Out come :**

1. Regarding contemporary Indian philosophy is helpful in getting updated with the works of Indian thinkers like Rabindranath Tagore, Swami Vivekananda, Aurobindo and M .K. Gandhi.
2. Opens up research avenues for the same.

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## **B.A. PHILOSOPHY (General)**

### **Under [ I+I+I ] system**

#### **Programme Specific Outcomes**

##### **PSO 1 – Academic**

- g) According to all schools of Indian philosophy the aim of education is the attainment of liberation from the cycle of birth and death and attainment of Unity with the absolute, study of western philosophy enables the students to know about ancient mediaeval and modern philosophy.
- h) Practicing Western logic enhance mathematical application and reasoning aptitude.
- i) Study of social and political philosophy help students in preparing thoughtful and responsible citizen.
- j) Study of ethics develops a sense of value that will help students to become a good human being.

##### **PSO 2 - RESEARCH**

- e) All courses are prospective for future study and research.
- f) Study of philosophy of logic enhance the success quotient for aspirants of competitive examination in different competitive examination, like NET SET GATE get most of the questions are based on logic.

##### **PSO 3 – SOCIAL**

- e) Study of social and political philosophy helps in critical analysis of society and politics.
- f) The study of religion is a critical lens for understanding human existence in its broader cultural context including its relation to economic, political and social Institutions, as well as impact of religion on history, geography and literature.
- g) The study of epistemology in philosophy is important because it helps us to evaluate what we see or perceive. It helps us to determine the true from the false and helps us to gain productive knowledge that we can actually use to benefit ourselves and others.
- h) Metaphysics the foundation of philosophy. Without an explanation for an interpretation of the world around us, we would be helpless to deal with reality. Metaphysical studies generally seek to explain inherent or Universal elements of reality which are not easily discovered or experienced in our everyday life.

**Course Outcome or Learning Outcome**  
**B.A - PHILOSOPHY (GENERAL)**  
**Under [I+I+I] system**

**PART – I**

**PAPER – I : EPISTEMOLOGY & METAPHYSICS (INDIAN & WESTERN)**

**Course Outcome : -**

1. After successful completion of the course students will gain knowledge about history of Indian philosophy and at the same time they will acquire elaborate knowledge about various theories, beliefs and opinions of the different schools of Indian philosophy like Carvaka, Buddhism, Jainism, Nyaya-Vaisesika.
2. learn about the interrelation among the different schools and become aware of the rich argumentative heritage of India.
3. After successful completion of the course students will be able to know about some basic major schools of Indian Philosophy like Sankhya, Yoga, Purva Mimāmsa, and Vedanta.
4. Students come to know a comprehensive view of the different philosophical systems and the inclusive nature of Indian philosophy.
5. The history of western philosophy consists of the epistemological and metaphysical perspective of the Philosopher's from ancient to modern philosophers like Plato, Aristotle, Descartes, Spinoza, Leibnitz.
6. Beginning with the Pre-Socratic Philosophers they will become acquainted with theories of knowledge and metaphysics of Plato and Aristotle. They will develop detailed knowledge about modern rationalists schools also.
7. Students can learn the importance of the Empiricistic approach of western philosophy.
8. Students can also learn the importance of both experience and rationality in Kantian and philosophy.
9. Students can pursue higher education in this field also.

## **PART – II**

### **PAPER – II**

#### **PAPER – II: ETHICS (INDIAN & WESTERN) AND PSYCHOLOGY**

##### **Course Outcome: ETHICS (INDI**

##### **AN & WESTERN)**

9. Students will have deep knowledge and will develop critical understanding about Indian ethics.
10. Indian ethics includes purusharthas , Buddhist ethics, jaina ethics and yoga ethics also.
11. Understand the importance of Indian ethics and values and eventually be compassionate towards all living beings.
12. feel encouraged to research extensively in this field.
13. Students will have detailed information about Western ethics and will develop critical insight on this.
14. After successful completion of this course the students will have clear concept of the ethical terms -right, wrong, good, bad and their usage.
15. Understand the moral principles and their application in decision- making throughout their life.
16. Develop a sense of value that will help them to become a good human being.

##### **Course Outcome: PSYCHOLOGY**

3. After successful completion of the course students will be able to use scientific reasoning to analyse different psychological issues.
4. They will be able to design and engage themselves into basic psychological research work.

#### **PAPER – III: LOGIC ( INDIAN & WESTERN)**

##### **Course Outcome: INDIAN LOGIC**

4. In Indian Logic students will be familiar with Indian logic and epistemology through the classical Indian Text – Tarkasamgraha written by Annambhatta.

5. After successful completion of the course students will be able to learn about the rich logic of Nyaya Philosophy .
6. Students can be able to compare the logical tradition of Indian Philosophy and Western Philosophy.

**Course Outcome: WESTERN LOGIC**

7. Practising Western Logic Enhances
8. Mathematical Application
9. Reasoning Aptitude
10. Preperation for copetitive Examination
11. The power of sense of Resoning for Day to day life.

**PART – III**

**PAPER – IV: PHILOSOPHY OF RELIGION AND SOCIAL & POLITICAL PHILOSOPHY**

**Course Outcome: PHILOSOPHY OF RELIGION**

1. Philosophy of Religion will develop detailes knowledge regarding various religious terms, concepts and doctrines in both Western as well as Indian Philosophical Perspective.
2. In their engagement with religious traditions, ideas and practies students can develop their sense of social responsibility and ability to navigate the complexities of our global multicultural societies.

**Course Outcome: SOCIAL AND POLITICAL PHILOSOPHY**

3. Study of social and political philosophy helps students to develop elaborate knowledge regarding the nature and scope of both social and political philosophy.

Studying social and political philosophy opens the scope for higher education and research both in Sociology and political science.

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**KRISHNAGAR WOMEN'S COLLEGE**  
**UNDER GRADUATE DEPARTMENT OF HISTORY**  
**B.A HISTORY HONS. (I+I+I) System**  
**YEAR OF INTRODUCTION---2009-2010**  
**PROGRAMME SPECIFIC OUTCOMES—PSO**

The under graduate course in history has given strong grounding in the different areas of subjects to the students

This would help them while deciding on the specialization for the M.A course and later If they enter the world of research and teaching.

A sense of history and enthusiasm in the subject was generated which presumably enabled them to appreciate our past and the importance of preserving our cultural heritage.

They were introduced to the writings of eminent authors and debates in the subject.

This grounding in the subject equipped them to pursue higher studies and research.

Through skill enhancement course the students got acquainted with the functions of archives, which would help them to pursue research work in the future.

The undergraduate course in history also opened many career opportunities like a career in teaching, museums or the field of archaeology.

They can also opt for administrative services in which their knowledge of history would be great help.

**KRISHNAGAR WOMEN'S COLLEGE**  
**COURSE OUTCOME OR LEARNING OUTCOME**  
**THREE YEAR B.A DEGREE COURSE IN HISTORY UNDER [I+I+I]**  
**System (Part I –Part II-Part –III)**

**Part I**

**Paper :I          Paper Name :History of India up to 650 A.D**

After finishing the course the students are enable to understand about

1. Geographical Back ground --environment ,peoples and languages
- 2.Sources of ancient Indian history ,such as literature ,archeology ,epigraphy and numismatics
- 3 .Pre history --Paleolithic cultures, Mesolithic and Neolithic culture.
4. Proto –history –Growth of Chalcolithic village societies and the Harappan Civilization
- 5.Society, economy, polity and religion, as reflected in Vedic literature
6. Growth of Jainism ,Buddhism ,Ajivikas and other systems.
7. Janapadas and Mahajanapadas ,Growth of the Mauryan Empire
- 8.Post -Mauryan developments (C. 200 BC—C. 300 AD)
9. Age of the Guptas
- 10.Post Gupta period

**Paper II --History of India C. AD 650-1556**

After finishing the course the students are enable to understand about

**C. AD 650-1200**

1. Historiography and recent debates ; Sources and their interpretation; epigraphy, numismatics and literature.
2. Political economic and cultural Developments

**Sultanate AD 1200-1556**

1. Historiography and sources
2. Political structure : 1200-1290; 1290-1450 and 1450-1556
3. Society, economy, religion and culture in North India
4. Regional history- Rajasthan, Vijaynagar and Bengal

## **Part II**

### **Paper III – The Rise of Modern West (15<sup>th</sup> to 18<sup>th</sup> Centuries)**

After finishing the course the students are enable to understand about

1. Renaissance : It's social root- , humanism , Reformation : It's Origin course and results
2. European state system
3. The Thirty Year's war and its significance
4. Colonial expansions
5. Crisis in Europe in 17<sup>th</sup> century -economic ,social,political dimensions.
6. English Revolution ,Scientific revolution :,Mercantilism and European economies:17<sup>th</sup> and 18<sup>th</sup> centuries.
7. American war of Independence ,European political pattern in the 18<sup>th</sup> century.
8. The Industrial Revolution .
9. Debate on the transition from feudalism to capitalism: problems and theories.

### **Paper IV History of Europe from 1789 to 1919 AD**

After finishing the course the students are enable to understand about

1789-1815 AD

- 1.The Idea of Europe : the Eighteenth Century Back ground –Society ,Economy,Politics,and Enlightenment—Role of Philosophers.
- 2.Trends in the French revolution -Aristocratic Revolt -Bourgeois ,Popular and -the Constituent Assembly ,Girondins and Jacobins the Reign of Terror and the Rise and fall of the Jacobin Republic-the Thermidorian reaction and the Directory –Interpreting the French Revolution.
- 3.Napoleon Bonaparte :Napoleonic Empire and Europe -fall of Bonaparte.

1815-1870 AD

- 1.The Vienna Congress :Metternich and the Conservative Order in Europe –Liberalism – Nationalism and the Revolutionary Challenge to the Conservative order – an over view.  
The Revolution of 1848 –pattern of insurrections in France and other Central European Countries—Collapse of the Revolution.
- 2.Unification of Italy and Germany –Russian modernization ,--emancipation of the serfs
- 3.Industrialization in Europe –Rise of the working class ; Working class Movement and the Socialist thought.

1871-1918 AD

1. European Imperialism : Scramble for Colonies in Asia and Africa .

2. Eastern Question in the late 19<sup>th</sup> Century and the Balkan Nationalism –German Foreign Policy

Triple Alliance ,Triple Entente and the Emergence of two Armed camps –the origins of the First

World war.

3. The impact of the War on the Old Order –Collapse of the dynastic Empire –Russian Revolution :

Origins –the October Revolution and the success of the Bolsheviks.

### Part III

#### **PAPER V History of India from 1556-1757 AD**

After finishing the course the students are able to understand about

1. Historiography and sources of Mughal India

2. Evolution of the administrative system ;the Mughal ruling classes

3. State and religion : Akbar to Aurangzeb's religious policy.

4. Rural economy and society : environmental context ;forests ;agricultural production; management of water resources; agricultural technology and crop patterns;

agrarian structure; land ownership and rights ;revenue system; the village community and peasantry.

5. Trade Commerce, Monetary system: Trade routes and the pattern of internal and external trade net works in the 17<sup>th</sup> century India

6. Urban Centres: Morphology of cities ,administration of cities and towns ,urban economy ,crafts ;industries ,imperial karkhanas and textiles ,urban social structures ,merchant communities ,bankers, artisans .craftsmen and labourers.

7. Cultural development :Language literature art and architecture

8. Decline of Mughal Empire and Emergence of Successor States Bengal, Awadh , Mysore and Hyderabad .

9. Regional politics : Rise of Marathas and Sikhs ;Interpreting 18<sup>th</sup> century India.



## **Paper VI: History of India from 1757-1964**

After finishing the course the students are enable to understand about

1. Understanding Modern Indian History : Concepts ,terminologies ,approaches
- 2..Expansion and consolidation of British Rule With Special Reference to Bengal, Mysore ,Maratha Punjab ,and Awadh
3. Colonial state and its Ideology –Orientalism, Utilitarianism-, Colonial paternalism.  
Laissez faire; colonial states attitude to social institutions such as caste , tribe and community
- 4.Rural economy and society :The rural agrarian society , land revenue system , commercialization of agriculture , rural credit and indebtedness
5. Trade and Industry :Trade and trade routes, banking , traditional industries De-industrialization : a myth or reality , emergence of modern industries -cotton ,jute ,and steel,
- 6.Social and religious reform movements : Socio –religious revivalist /reform movements , sanskritization , caste movements Brahmanical and depressed classes
7. Resistance to colonial ruler : Revolt of 1857
- 8.Nationalism : Historiography of Indian Nationalism ,political ideology and organization s: formation of the Indian National Congress ,Swadesi, Revolutionaries ,Gandhian Ideology and Movements, Left Movements, IN, various commissions and Missions.
- 9.Comunal politics and Partition : Demand for Pakistan ,British policies ,Partition
- 10.India 1947-1964: Partition ,migration and re-habilitation ,Framing of Constitution Five year plan, Foreign policy, Non –alignment.

## **Paper VII: History of China and Japan c.AD 1839-1949**

After finishing the course the students are enable to understand about

- 1.China : China and imperialism during the 19<sup>th</sup> century ,Chinese society –value system ,Sino centrism ,Canton system ,Opium War ,Open door policy ,reform movements and reforms in Chinese state -1860-1898, Boxer rebellion , reforms of 1901-08, revolution of 1911- role of Sun Yat Sen ,May Fourth Movement, political crisis in 1920s ,KMT and the first united front, Communist movement 1928-1949.
2. Japan : Meiji restoration and processes of modernization - social ,military ,political and economic .Popular and democratic movements ,emergence of Japan as an imperial power, World war I and after; and Manchurian crisis ,rise of political parties and failure of the democratic system; rise of militarism; and second Sino Japanese war; Japan in the Pacific –the rise of militarism in the 1930s and 1940s,Japan in the Second World War.

## **Paper VIII: Trends in World Politics**

After finishing the course the students are enable to understand about

1. Peace settlement of 1919,
2. Europe in the inter-war period
3. World after 1945 ;Origins of the Cold War and the division of Europe ;System of military And economic alliances
4. The decline of European imperialism – emergence of the Third World -alternatives to the Cold War –non –aligned movement.
5. Tension within the Soviet Block
6. The Communist revolution and Emergence of China.
7. From Bi-polarism to Uni –polarism –end of the Cold War –German Reunification- Globalization and its impact on international politics.

## **UNDER GRADUATE DEPARTMENT OF HISTORY B.A HISTORY IN GENERAL COURSE (I+I+I) System Part I - Part - II Part -III YEAR OF INTRODUCTION---2009-2010 PROGRAMME SPECIFIC OUTCOMES—PSO**

### **Part I**

Paper I Indian History (Pre-historic times to Sixteenth Century A. D.)

After finishing the course the students are enable to understand about

1. Literary and Archaeological sources of Ancient and Medieval Indian History – Archaeological methods – Archaeological knowledge and the historical understanding of the rise extent and decline of the Harappan Civilization
2. Political developments – I Indian polity in later Vedic times – The Mahayana Padas – The rise and fall of the Maurya Empire – Regional powers and the struggle for power in North India – Political developments in South India.
3. Political developments – II Impact of Islam and political change in India: Brief overview of the Delhi Sultanate – the administration of the Delhi Sultanate – the centralized monarchy – political ideologies in the Delhi Sultanate – Independent Sultans of Bengal – the Vijaynagar Empire
4. Economic life in ancient and early medieval India – Land Systems in ancient India – Framework of agriculture; the state, taxation, irrigation and the agrarian economy – The urban social formations – Internal and overseas trade – Crafts and Guilds – the Indian

Feudalism, issues and debates. . The Delhi Sultanate and a changing framework of agriculture – Iqta system – emergence of new urban centre

The Delhi Sultanate and a changing framework of agriculture – Iqta system – emergence of new urban centres and a reorientation in commercial life

5. Society and Religion: Vedic religion and the quest for knowledge – the basic framework of Brahminical religion – Buddhism, Jainism and social protest. The apogee of Brahminism and the rise of sectarian cults – Saivism, Vaishnavism, the cult of mother goddess

Social life: Social structure – From Varna to Jati – Family life and the status of women

. The nature of the impact of Islam on Indian society – Sufism – Syncretism and the Bhakti movement.

6. Art, Architecture, Science and Culture: 1. Ancient Indian architecture and sculpture – stupa, chaitya, temples of different styles – Islam and the introduction of the new forms – emergence of an Indo- Saracenic style.

. Literary products of classical India – Epics and Puranas – Administrative texts, Kautilya's Arthashastra – Literary developments in the Gupta Age – Scientific knowledge with special reference to astronomy, mathematics and medicine – Post thirteenth century developments – history writing in India under the Sultanate – new developments in medicine

## Part II

### Paper II Indian History (C. 1526 to C. 1914 A.D)

After finishing the course the students are enable to understand about

1. Disintegration of the Sultanate and foundation of Mughal Empire Significance of the victory of Babar over the Indian adversaries Mughal Afghan contest – Sher Shah as a reformer
2. Akbar and the consolidation of the Mughal Empire Political expansion; administrative reorganization; relations with the Rajputs – Expansion of Mughal control over Bengal and Deccan – Land Revenue and Mansabdari System – Evolution of religious policy.  
  
Politics and administration in Post –Akbar India - Commercial expansion: religious syncretism; art & architecture.
3. Aurangzeb and the zenith of the Empire Political Expansion: Deccan - Rise of Shivaji, Mughal-Maratha contest and the eventual incorporation of the Marathas within the imperial framework – Rajput Policy – State and religion: changes since the death of Akbar  
Unit 4 Break up of the Mughal Empire Cause thereof – Growth of regional entities and the relation between the centre and the periphery – Trade, Commerce and the rise of the European trading companies – Eventual success of the English East India Company.



4. Early stages of the rise of the East India Company Plassey, Buxar and the Diwani – Structural reorganization in the administration – Regulating and the Pitts India Acts – Company's relation with the Indian states and its emergence as the dominant power; Marathas, Mysore and Sikhs – Subsidiary Alliance and the enunciation of a new principle of expansion – The course of British annexation in early 19th century: subjugation of the Marathas.

5. The Colonial Economy. Basic features – Land revenue settlements; Bengal, North India, South and West – long term colonial impact on agriculture – changing forms of early colonial impact on trade and commerce: From Monopoly to Free trade. . Drain of Wealth – De-industrialization – India's internal trade in the second half of the 19 th century – limited developments of modern industries up to 1914 – changes after 1914.

6. Early resistance to Colonial Rule Different forms of resistance – rural resistance – resistance by landlords and peasants; Poligar uprising (Madras); Paik rebellion (Orissa) and peasant uprising in Western Bengal – Peasant movement and religion: Wahabi and Farazi – Santal rebellion (1855) – The Revolt of 1857: The Social context; the political context (popular and aristocratic resentment ab out British Imperial Policies)

7. Reformism and Westernization British Orientalism: Bentinck, Macaulay, Western Education and Social Reform. The Indian Response: Rammoh an and Social reform; The Young Bengal – The Brahmo Movement – Vidyasagar and social and educational reform; Reformist initiatives in western and southern India, - Prarthana Samaj; Reform from within tradition – Arya Samaj; Aligarh Movement and modernization of Islam in India; Westernization and Indian social conservatism: The Age of Consent Agitation. Indian Politics: 1858-1885

8. Provincial associations: Bengal, Madras, Bombay – Background to the emergence of Indian National Congress – The foundation of the Congress – the nature of the early Congress.

9. Indian Politics: 1885-1914 Congress under Moderate Leadership – Hindu Revivalism – Militant nationalism – Ideology and Programme of militant nationalists – Swadesh i Movement: Its varied dimensions – The birth of All India Muslim League and Separate electorate – Revolutionary terrorism in Bengal and the Punjab.

### **Paper III Modern Europe (1789-1939)**

After finishing the course the students are enable to understand about

1. Foundation of Modern Europe . Eighteenth Century Background. The French Revolution – Socio-Economic Background – Progress of the revolution – Popular Movements – Jacobins and Girondins. . Rise of Napoleon – Internal Reconstruction – Napoleon and Europe – Napoleon and Revolution

2. Political Developments in Europe . Triumph of conservatism – the Metternich System. . Nationalism, Liberalism and the Revolutions of 1830 and 1848. . Stages of



Italian unification. Unification and consolidation of Germany. . Russia: Attempts at England and the continent

3..Society and Economy in Nineteenth Century Europe 1. Industrial Advances in England and the continent Labour movements Utopian Socialism and Marxism Art and Culture, Literatures and Science Unit4 Neo Imperialism: 1871 - 1914 Europe in 1871 – New Balance of Power . Scramble for colonies in Asia and Africa . The Eastern Question in later Nineteenth century . Triple Alliance, Triple Entente and the emergence of two armed camp.

4.First World War (1914 – 1919) . Origins of the First World War – Issues and Stakes . Russian Revolution of 1917 . Peace Settlement of 1919 – its long term consequences – Birth of German Republic

5. Europe in the Inter-War Period (1919 – 1939) . Aftermath of the War . Emergence of Soviet Union . Rise of Fascism and its impact . Outbreak of the World War I

### **Part III**

#### **Paper IV: India and the World 1914 – 1964: Selected Themes**

After finishing the course the students are enable to understand about

1 First World War & its aftermath 1. Impact of the First World War on Indian economy, society and polity . Emergence of Gandhi in Indian nationalist politics; concept of ‘Satyagraha’; Champaran , Kheda, Ahmedabad and Rowlatt Satyagrahas.

2.. Gandhian Mass Movements – Khilafat – Non-cooperation and Civil Disobedience Movements Revolutionary Nationalism during the 1930s . The Government of India Act of 1935; 1937 Election and formation of Congress Provincial Ministries 4. Quit India Movement of 1942

3. Subhas Chandra Bose, the Indian National Army and Indian Freedom Movements

4 . Demand for creation of Pakistan and its repercussions on Indian Politics and Society  
2. Communal Politics on India

5 . Post-War upsurge and different strands of protest pol itics Partition and the Transfer of Power, Adoption of a republican constitution in 1950

6 . The Nehru era in independent India 2. Development of parliamentary democracy 3. Economic planning 4. Movements for social justice 5. India and Non-aligned Movement

7 . Emergence of bi-polarism and its impact on post-1945 world politics The rise of the Third World 3. Impact of the Cold War on the Third World

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**KRISHNAGAR WOMEN'S COLLEGE**  
**UNDER GRADUATE DEPARTMENT OF CHEMISTRY**  
**Programme Specific Outcomes B.Sc. Chemistry (Hons)**  
**[1+1+1] Pattern Syllabus**  
**With effect from 2009-10 (New Syllabus)**

At the completion of this program, students will be able to:

- **PSO1:** To give the students a holistic understanding of the subject giving substantial weightage to both the core content and techniques based in Chemistry. The syllabus has given equal importance to main three branches of Chemistry - Physical, Organic and Inorganic.
- **PSO2:** The ultimate goal of the syllabus is that the students at the end are able to secure job. Keeping in mind and in tune with the changing nature of the subject, adequate emphasis has been given on new techniques and understanding of the subject.
- **PSO3:** Understand the basic concepts, principles and applications of chemistry, viz. physical, organic and inorganic.
- **PSO4:** Set up physicochemical experiments, analyse the data, draw plots, calculate physical constants and interpret the results.
- **PSO5:** Estimate and analyse inorganic compounds both qualitatively and quantitatively and learn the use of analytical instruments
- **PSO6:** Prepare, purify and estimate organic compounds
- **PSO7:** Learn the basic tenants of computer programming and use of data processing software.
- **PSO8:** Prepare and deliver a PowerPoint presentation on the topics learned during the program.
- **PSO9:** Learn the safety precautions and maintenance protocols of a chemistry laboratory and work cohesively in a group.

**Course Specific Outcomes B.Sc. Chemistry (Hons)**  
**[1+1+1] Pattern Syllabus**  
**With effect from 2009-10 (New Syllabus)**

**Part I (H)**

**Paper I**

**Course Code: UG-I/ Chem-I(H)**

**Broad Area: Group A: Atomic structure (extra-nuclear), periodic properties & nature**

**Group B: Nuclear chemistry & Radioactivity, chemistry of elements, acid-bases and solvents ( Marks: 37.5 + 37.5)**

**CO1:** Students will be able to have clear ideas on:

**1. Atomic structure (extra-nuclear) :**

Bohr's atomic model and its limitations, Sommerfeld's modifications, de Broglie matter waves, Heisenberg uncertainty principle and its significance. Schrodinger wave equation,

**2. Periodic properties :**

Atomic and ionic radii, crystal radii, covalent radii, different electro negativity scales, ionization, enthalpy

**3. The nature of chemical bond – 1 :**

**CO2:**

**4.Nuclear Chemistry and Radioactivity :**

Nuclear stability, nuclear binding energy, mass defect and packing fraction, nuclear forces and meson field theory, artificial radioactivity, different types of nuclear reactions, fission and fusion,

**5.Chemistry of elements :**

a) Comparative study : i) Al, Ga, In and Tl ii) Si, Ge, Sn and Pb – group trends

**6.Acid – Bases and Solvents :**

Lewis concept of acids and bases, HSAB principle, Ph and its calculations, Buffer solution-buffer

**Paper II**

**Course Code: UG-I/ Chem-II(H)**

**Broad Area: Group A (Organic) ( Marks : 37½)**

**Group B (Physical) ( Marks : 37½) : Kinetic theory and gaseous state, chemical thermodynamics, chemical equilibrium, colligative properties, liquid state**

**They will have clear ideas on:**

**CO1: 1.Bonding features in organic molecules:**

Formation of  $\sigma$  and  $\pi$  bonds, hybridization, conjugation, hyperconjugation, inductive and field effects, resonance

**2.Organic acids and bases :**

**3. Stereochemistry – 1 :**

**4. Tautomerism :**

**6.Reaction mechanism – 2 :**

Nucleophilic substitution at a saturated carbon :  $S_N1$ ,  $S_N2$ ,  $S_N2^1$ ,  $S_N1^1$  mechanisms; neighbouring group participation, aromatic nucleophilic substitution, cine substitution, nucleophilic substitution

**7. Synthesis, physical properties and reaction of following classes of compounds :**

Alkanes, alkenes, alkadienes and arenes alkyl halides, vinyl halides, allyl and benzyl halides.

**CO2: 1.Kinetic theory and gaseous state :**

Concept of temperature and pressure, nature of distribution of velocities in one, two and three dimensions, Maxwell's distribution of speeds

**2.Chemical Thermodynamics**

**3.Chemical equilibrium :**

Chemical equilibria in homogeneous and heterogeneous systems, van't Hoff reaction isotherm

**4.Colligative properties of solution :**

Dilute solutions, Raoult's law and Henry's law,

**5.Liquid state :**

Qualitative treatment of structure of liquid state, physical properties of liquids including their method of determination of vapour pressure, surface tension, surface energy, excess pressure,

**Paper III**

**Course Code: UG-I/ Chem-III(H)/PR**

**Broad Area: Organic Chemistry Practical ( Marks: 50)**

**Course Outcome:**

**CO1:** In practical chemistry students can do the Qualitative Analysis of Single Solid Organic Compounds which will improve their experimental skills



## Part II (H)

### Paper IV

Course Code : UG-II/ Chem-IV(H)/ Gr. A & Gr. B

**Broad Area** : Group A: Transition elements and coordination compounds, nature of chemical bond II, redox potential ( Marks : 37½)

**Group B:** Lanthanides and actinides, separation through chromatographic techniques, organic reagents in chemical analysis, complexometric titrations, mono nuclear metal carbonyls (Marks: 37.5)

**CO1:** They will learn the detail chemistry of: **1. Transition elements and coordination compounds :**

**2. Nature of chemical bond - III :**

**3. Redox potentials :**

**CO2:**

**4. Lanthanides and actinides :**

**5. Separation through chromatographic techniques:**

**6. Organic reagents in chemical analysis :**

**7. Complexometric titrations :**

**8. Mono nuclear metal carbonyls :**

### Paper V

Course Code : UG-II/ Chem-V(H)

**Broad Area** : Group A: Stereochemistry – II, reaction mechanism – III, synthesis, properties and reactions of organic compounds, organometallic compounds ( Marks : 37½)

**CO1: 1. Stereochemistry - II :**

Chirotopicity and achirotopicity, pseudoasymmetry, prochirality, enantiotopic, diastereotopic and homotopic atoms and faces in organic molecules.

**2. Synthesis, physical properties and reaction of the following classes of compound :**

**3. Organometallic compounds :**

Preparation and synthesis applications of Grignard reagents

**4. Reaction mechanism - III :**

Rearrangement reactions

**Group B (Physical):** Electrochemistry, chemical kinetics, crystalline state, adsorption and surface phenomenon, colloid and macro molecules ( Marks : 37½)

**CO2: 1. Electrochemistry :**

**EMF:**

Electrolytic & galvanic cells, reversible & irreversible cells, electromotive force (F), of a cell and its measurement, Nernst equation,

**2. Chemical Kinetics :**

Concepts of rate. Order and molecularity of a reaction, differential and integrated forms of rate equation upto second order only

**3. Crystalline state :**

**4. Adsorption and surface phenomena :**

Physisorption and chemisorptions of gases,



**Paper VI**  
**Course Code : UG-II/ Chem-VI(H)/PR**

**Broad Area : Inorganic Practical (Marks: 50)**

**CO1:** They should learn how to estimate different metal ions present in mixtures either using  $K_2Cr_2O_7$  or  $KMnO_4$  like  $Fe^{2+} / Fe^{3+}$ ,  $Fe^{3+} / Cu^{2+}$ ,  $Cr^{6+} / Mn^{2+}$ ,  $Fe^{2+} / Mn^{2+}$  etc.

**CO2:** Different metal ions determinations by complexometric titration

### Part III (H)

**Paper VII**

**Course Code: UG-III/ Chem-VII(H)**

**Broad Area: Group A: Symmetry, Magnetochemistry, Chemical bonding – III ( Marks : 40)**

**Group B: Organometallic compounds; bio-inorganic chemistry; chemistry of elements ((Marks: 40)**

**CO1:** Students will be acquainted with the chemistry of:

- 1.Symmetry element, symmetry operations and point groups :**
- 2.Magnetochemistry :**
- 3. The nature of chemical bond III :**

Spectrochemical series, Jahn-Teller effect in octahedral complexes, colour and spectral behaviours of  $d^1$  and  $d^9$  systems. VB theory to explain bonding,

**CO2: 4.Chemistry of organometallic compounds :**

- 5.Bio-inorganic chemistry :**
- 6. Chemistry of elements :**

**Paper VIII**

**Course Code: UG-III/ Chem-VIII(H)**

**Broad Area: Group A: Stereochemistry – III, reaction mechanism – IV, spectroscopy ( Marks : 40)**

**Group B: Organic synthesis, heterocyclic compounds, synthetic dyes, pharmaceuticals and polymers, molecules of nature ( Marks : 40)**

**CO1: 1.Stereochemistry - III :**

Stereoselective synthesis :

**2.Reaction mechanism - IV :**

Molecular orbitals of conjugated systems; HOMO and LUMO in ground and excited states. Definition and classification of pericyclic reactions,

**3. Spectroscopy in organic chemistry :** The principles of UV, IR and NMR spectroscopy

**CO2: 4. Organic synthesis - 1 :**

Disconnection approach to bifunctional molecules

**5.Organic synthesis - II :**

**6. Heterocyclic compounds :**

Synthesis ( including retro synthetic approach ) and reactivity of some  $\pi$ - excessive and  $\pi$ -deficient heterocyclic compounds;

**7.Synthetic dyes, pharmaceuticals and polymers :**

Preparation and use of methyl orange, congo red, malachite green, phenolphthalein.

Preparation and uses of paracetamol, aspirin,

**8.Molecules of nature :**

Carbohydrates ,Amino acids and peptides

**Paper IX**

**Course Code: UG-III/ Chem-IX(H)**

**Broad Area: Group A: Electrical and magnetic properties of matter, rotational spectra, vibrational spectra, photochemistry, statistical thermodynamics ( Marks : 40)**

**Group B: Quantum theory, atomic spectra and molecular structure, atomic structure and atomic spectra, chemical bonding and molecular geometry, phase equilibria ( Marks : 40)**

**CO1: 1.Electrical and magnetic properties of matter :**

**2.Rotational spectra :**

Rigid rotor model,

**3. Vibrational spectra :**

Classical equation of vibration (Hook's law), linear harmonic oscillator,

**4.Photochemistry :**

Potential energy curves for electronic states, Frank-Condon principle,

**5.Statistical thermodynamics :**

Limitations of chemical thermodynamics

**CO2: 6. Quantum theory, atomic spectra and molecular structure:**

Bohr model and its limitation, black body radiation, photo-electric effect and Compton effect, Zeeman effect, de Broglie equation and matter waves, diffraction of electrons, Failure of old quantum theory to explain atomic and molecular spectra.

**7. Atomic structure and atomic spectra:**

**8. Chemical bonding and molecular geometry.**

**Paper X**

**Course Code: UG-III/ Chem-X(H)/PR**

**Broad Area: Gr.A Inorganic Qualitative analysis (Marks: 40) & Gr. B Estimation of organic compounds: (Marks: 40)**

**CO1: Students will do hands on practical for identification of inorganic solid compounds with their composition.**

Preparation various complex inorganic compounds through practical classes.

**CO2: Students will be able to carry out the different estimation techniques like, glucose, aniline, saponification value of oil and fats, vitamin C and also available oxygen in pyrulosite.**

## Paper XI

**Course Code: UG-III/ Chem-XI(H)/PR**

**Broad Area: Physical Chemistry Practcal (Gr. A, Gr. B & Gr.C: Total Marks: 80)**

**CO1:** Students will be able to perform the physical chemistry experiments like, Viscosity, Surface Tension, Adsorption, Distribution law:K<sub>p</sub>, Colorimetry, Chemical kinetics.

**CO2:** Instrumental analysis like, Colourimetry, Polarimetry, Conduotometry, Potentiometry, P<sub>H</sub> metry.

**CO3:** They will be acquainted with the computer application using excel, P-V Curve for van der Waals gas, Plot of velocity distribution curve for Maxwell distribution of velocities.

**KRISHNAGAR WOMEN'S COLLEGE  
UNDER GRADUATE DEPARTMENT OF CHEMISTRY  
Programme Specific Outcomes B.Sc. Chemistry (General)  
[1+1+1]Pattern Syllabus  
With effect from 2009-10 (New Syllabus)**

### Part I (H)

#### Paper-I

**Course Code: UG-I/ Chem-I(G)**

**Broad Area: Group A: Atomic structure, Periodic Properties, nature of chemical bond, principles of chemical analysis ( Marks : 50)**

**After completing this part of this paper student will be able to understand:**

**CO1:a)** Atomic Structure: Bohr's atomic model and its limitations, de Broglie and Heisenberg's uncertainty principle, Schrodinger wave equation, multi electron system etc.

b) Periodic properties, nature of chemical bonds

c) Principles of chemical analysis- qualitative inorganic, volumetric analysis and theory of acid and bases.

**Group B: (Organic): Aliphatic hydrobons and their derivatives, alcohols and ethers, aldehydes and ketones. Organic compounds containing nitrogen, carbohydrates ((Marks: 25)**

Students will have thorough ideas about the following:

**CO2:a)** Aliphatic hydrocarbons and their derivatives, alcohols and ethers, aldehydes and ketones, organic compounds containing nitrogen and carbohydrates

**Group- C (Physical): Kinetic theory of gases, Real gasses, first and second law of thermodynamics, Principles of thermochemistry, dilute solution.**



**CO2:** a) Kinetic theory of gasses- distribution of molecular velocities, root means square speed, deduction of kinetic equation, Deviation of real gasses from ideal behaviour, first and second laws of thermodynamics , principles of thermochemistry- Hess's law, heat of combustion, formation and neutralisation. Dilute solution- Rault's law, qualitative treatment of colligative properties

## Part II

### Paper-II

**Course Code: UG-II/ Chem - II(G)**

**Broad Area: Group A (Inorganic): Coordination Compounds, chemistry of elements, radiochemistry ( Marks : 50)**

Students will be able to achieve the following after thorough reading:

**CO1:** Coordination compounds- Double and complex salts, Werner's theory of coordination compounds, chelates, nomenclature of coordination compounds, Chemistry of elements and Radiochemistry.

**Group B (Organic): Stereochemistry of organic Compounds, mechanism of organic reactions, benzene and its derivatives, phenols ( Marks : 25)**

Students will learn the following after completing this paper:

**CO1:** Stereochemistry of organic compounds: isomerism, optical activity, symmetry of elements, chirality, enantiomer, diastereomer, E-Z nomenclature, Fischer, Sawharse and Newmann formulae of organic compounds having one or two asymmetric carbons.

Mechanism of organic compounds- SN1, SN2 E1, E2 reactions, aromatic electrophilic and nucleophilic substitution reaction.

Benzene and its derivatives, Phenols and its reactions.

**Group C (Physical): Viscosity, surface tension, electrolytic conductance, emf, ionic equilibria, chemical kinetics ( Marks : 25)**

After completing the above course successfully, students will be able to have clear ideas on:

**CO1:** Physical properties like Viscosity, Surface tension of compounds, electrolytic conductance, EMF of electrochemical cells, determination of pH, potentiometric titration, Ionic equilibria and chemical kinetics.

### Paper III

**Course Code: UG-II/ Chem-III(G)**

**Broad Area: Group A (Inorganic Practical): ( Marks : 25)**

After successful completion of practical modules of this course the students will learn:  
**CO1:** Qualitative analysis of Inorganic compounds by semimicro method of mixture salt analysis.

**CO2:** Quantitative analysis of iron by  $\text{KMnO}_4$  and  $\text{K}_2\text{Cr}_2\text{O}_7$  solutions and  $\text{Cu(II)}$  using thiosulphate solution (iodometry)

## Part III

### Paper IV

**Course Code: UG-III/ Chem-IV(G)**

**Broad Area: Theory ( Marks : 60)**



At the end of this course a student learns:

**CO1:** Amino acids and proteins- Methods of synthesis of amino acids, zwitterionic structure, isoelectric point, Nucleosides and nucleotides, Bio-inorganic chemistry, Surface chemistry, Colloids and macromolecules

**B: Application oriented Chemistry:**

**CO2:** Industrially important compounds like aspirin, paracetamol, sulfadiazine- their preparation and uses, Fats and oils, soaps and detergents, pesticides- DDT, Gamaxines, malathion etc.

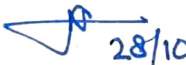
**C: Catalysis:**

Enzyme and industrial catalysis, Phase rules

**Paper V (Physical): Practical, (Marks :40)**

**Course Code: UG-III/Chem-V(G)**

After successful completion of practical modules of this course, a student will get an idea of:  
**CO1:** Viscosity, Surface tension, Refractivity, Polarimetry, solubility, distribution law, chemical kinetics and colorimetrically determination of pH of a given solution by bromocresol green.

  
28/10  
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**Krishnagar Women's College**  
**UNDER GRADUATE DEPARTMENT OF MATHEMATICS**  
**B. Sc. Mathematics (Hons.) Part I+ Part II+ Part III system.**  
**Syllabus with effect from 2009-2010**  
**Programme Specific Outcomes**

- Bachelor's degree in mathematics is the culmination of in-depth knowledge of algebra, calculus, geometry, differential equations and several other branches of mathematics. This also leads to study of related areas like computer science, Financial Mathematics, statistics and many more. Thus, this programme helps learners in building a solid foundation for higher studies in mathematics.
- The skills and knowledge gained has intrinsic beauty, which also leads to proficiency in analytical reasoning. This can be utilized in modeling and solving real life problems. Students undergoing this programme learn to logically question assertions, to recognize patterns and to distinguish between essential and irrelevant aspects of problems.
- They also share ideas and insights while seeking and benefitting from knowledge and insight of others. This helps them to learn behave responsibly in a rapidly changing interdependent society.
- Students completing this programme will be able to present mathematics clearly and precisely, make vague ideas precise by formulating them in the language of mathematics, describe mathematical ideas from multiple perspectives and explain fundamental concepts of mathematics to non-mathematicians.
- Completion of this programme will also enable the learners to join teaching profession in primary and secondary schools. This programme will also help students to enhance their employability for government jobs, jobs in banking, insurance and investment sectors, data analyst jobs and jobs in various other public and private enterprises.

**Krishnagar Women's College**  
**Course outcome or learning outcome**

**Three year B. Sc. Degree course in Mathematics Honours**  
**Under (Part-I+ Part-II+ Part-III) system with effect from 2009-10**

**Course Name: Paper-I**

**Course Code: Part-I/paper-I**

**Topic Names: Classical Algebra-I, Linear Algebra-I, Abstract Algebra-I, Analytical Geometry, Vector Algebra.**

1. Learn about basic notions of complex numbers, theory of equations.
2. be able grasp the notions of matrices, determinants.
3. Acquire the knowledge of sets, relations and basics of groups theory.
3. Acquire the knowledge of plane geometry and the geometry of three dimensions.
4. Acquire the notion of vector algebra from geometric view points.

**Course Name: Paper-II**

**Course Code: Part-I/paper-II**

Topic Names: Differential Calculus, Integral Calculus, Differential Equations.

**Course outcome:** After the completion of the course students will

1. Learn about basic notions of limit, continuity, derivatives of functions with applications.
2. Acquire the knowledge of integration with applications.
3. Acquire the knowledge of basic differential equations.

**Course Name: Paper-III**

**Course Code: Part-II/paper-III**

Topic Names: Classical Algebra-II, Linear Algebra-II, Abstract Algebra-II, Analysis-I.

**Course outcome:** After the completion of the course students will

1. Learn about basic number theory, inequalities.
2. be able grasp the notions of vector spaces, linear transformations, Eigen values, vectors.
3. Acquire the knowledge of groups and rings.
4. Acquire knowledge of analysis in real field, including its topology.

**Course Name: Paper-IV**

**Course Code: Part-II/paper-IV**

Topic Names: Linear programming and game theory, dynamics of particle, Analysis-II

**Course outcome:** After the completion of the course students will

1. Learn about the role of linear programming, formulation of LPP, and the technique of its solutions.
2. Learn about the two-person zero sum games, rectangular games etc.
3. Acquire the knowledge of dynamics of particle and will be able to relate it with practical fields.
4. Learn indeterminate forms and the application of calculus in geometry and physical problems.

**Course Name: Paper-V**

**Course Code: Part-III/paper-V**

Topic Names: Analytical Statics, Dynamics of rigid body, hydrostatics.

**Course outcome:** After the completion of the course students will

1. Learn about the basic principles of analytical statics like coplanar forces, centre of gravity, forces in three dimensions.
2. Learn about the moments and product of inertia of a body with applications.
3. Learn about the pressure of a heavy fluid, condition of equilibrium of a fluid, centre of pressure of a fluid.

**Course Name: Paper-VI**

**Course Code: Part-III/paper-VI**

Topic Names: Analysis-III, Calculus of several Variables, Differential equations-II, Metric Spaces.

**Course outcome:** After the completion of the course students will

1. Learn about the Reimann Theory of Integrations, Improper Integration, Uniform convergences, power series.
2. Learn about differentiability of a function of several variables, its expansion, maximum and minimum values. .
3. Learn about the partial differential equations, Laplace transforms.
4. Learn about the metric space, completeness, compactness .
5. Learn about the techniques of vector analysis with applications.

**Course Name: Paper-VII**

**Course Code: Part-III/paper-VII**

Topic Names: Vector Analysis, Tensor algebra, complex analysis, Probability-Statistics.

**Course outcome:** After the completion of the course students will

**Course outcome:** After the completion of the course students will

1. Learn about the techniques of vector analysis with applications.
2. Learn about the tensor algebra with applications.
3. Learn about the geometry of complex plane, complex functions, analytic functions, differentiability, C-R equations with practical applications.
4. Learn about the definitions random experiments, definitions of probability, random variables in one and two dimensions and related results.
5. Learn about the sampling distributions, estimations.

**Course Name: Paper-VIII**

**Course Code: Part-III/paper-VIII**

Topic Names: Numerical analysis, fundamental of computer programming.



1. Learn numerical techniques of solving various equations, Numerical integrations, differentiations.
2. Learn to find numerical solutions using C programming.

### **Krishnagar Women's College**

#### **UNDER GRADUATE DEPARTMENT OF MATHEMATICS**

#### **B. Sc. Mathematics (General) Part I+ Part II+ Part III system.**

#### **Syllabus with effect from 2009-2010**

#### **Programme Specific Outcomes**

- Bachelor's degree in mathematics is the culmination of in-depth knowledge of algebra, calculus, geometry, differential equations and several other branches of mathematics. This also leads to study of related areas like computer science, Financial Mathematics, statistics and many more. Thus, this programme helps learners in building a solid foundation for higher studies in mathematics.
- The skills and knowledge gained has intrinsic beauty, which also leads to proficiency in analytical reasoning. This can be utilized in modeling and solving real life problems. Students undergoing this programme learn to logically question assertions, to recognize patterns and to distinguish between essential and irrelevant aspects of problems.
- They also share ideas and insights while seeking and benefitting from knowledge and insight of others. This helps them to learn behave responsibly in a rapidly changing interdependent society.
- Students completing this programme will be able to present mathematics clearly and precisely, make vague ideas precise by formulating them in the language of mathematics, describe mathematical ideas from multiple perspectives and explain fundamental concepts of mathematics to non-mathematicians.

Completion of this programme will also enable the learners to join teaching profession in primary and secondary schools. This programme will also help students to enhance their employability for government jobs, jobs in banking, insurance and investment sectors, data analyst jobs and jobs in various other public and private enterprises

#### **Course Name: Paper-I**

#### **Course Code: Part-I/paper-I**

Topic Names: Differential Calculus, Integral Calculus, Differential Equations.

**Course outcome:** After the completion of the course students will

1. Learn about basic notions of limit, continuity, derivatives of functions with applications.
2. Acquire the knowledge of integration with applications.
3. Acquire the knowledge of basic differential equations.

#### **Course Name: Paper-II**

Topic Names: Classical Algebra, Linear Algebra, Abstract Algebra.

**Course outcome:** After the completion of the course students will

1. Learn about basic notions of complex numbers, theory of equations.
2. be able grasp the notions of matrices, determinants.
3. Acquire the knowledge of sets, relations and basics of groups theory.

**Course Name: Paper-III**

**Course Code: Part-II/paper-III**

Topic Names: Linear programming and game theory.

**Course outcome:** After the completion of the course students will

1. Learn about the role of linear programming, formulation of LPP, and the technique of its solutions.
2. Learn about the two-person zero sum games, rectangular games etc.

**Course Name: Paper-IV**

**Course Code: Part-III/paper-IV**

Topic Names: Numerical analysis, fundamental of computer programming.

**Course outcome:** After the completion of the course students will

1. Learn numerical techniques of solving various equations, Numerical integrations, differentiations.
2. Learn to find numerical solutions using C programming.

Natasa Darguša  
Principal 28/10/22  
Krishnagar Women's College

**KRISHNAGAR WOMEN'S COLLEGE**  
**UNDER GRADUATE DEPARTMENT OF GEOGRAPHY**  
**B.A./B.Sc. Honours and General Courses in Geography**

**With effect from 2009-10**

**Programme Specific Outcomes**

**After successful completion of the UG course in Geography students will be able to:**

- Gain basic theoretical and practical concepts on various fields of geography.
- Reveal the comprehensive and systematic knowledge of the subject.
- Deal with current geographical issues and their solutions.
- Evaluate critically various aspect of the subject in respect of spatial and temporal dimensions.
- Prepare and Interpret maps and diagrams to illustrate various facets of the subject from global to local level on various time scales.
- Acquire knowledge about various statistical methods, remote Sensing and GIS and can apply these knowledge in various application fields.
- Learn about research activities, can extract the ground level realities through survey work and will be able to prepare project report.
- Apply the acquired skills obtained from this discipline in their professional life in future.

**KRISHNAGAR WOMEN'S COLLEGE**  
**UNDER GRADUATE DEPARTMENT OF GEOGRAPHY**  
**Course Outcome or Learning Outcome in**  
**B.A./B.Sc. Honours Course in Geography**

**With effect from 2009-10**

**Course Name:** Physical Geography

**Course Code:** Paper-I

**Topic Name:** Geotectonics and Geomorphology

**Course Outcome:**

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

1. Understand the geological time scale, interior of the earth, isostasy, plate tectonics and various types of fold and faults.
2. Students will be able to know weathering, mass wasting, different types of structure, development of landforms.
3. Learn about the models of landscape evolution.
4. Understand the different geomorphic process and associated landforms like fluvial, coastal, glacial, Aeolian, karst.

**Course Name:** Soil and Biogeography

**Course Code:** Paper-II

**Topic Name:** Soil and Biogeography

**Course Outcome:**

After successful completion of this course students will be able to

1. Have knowledge of the soil formation processes, soil profiles.
2. Learn about the physical and chemical properties of soil.
3. Have comprehensive knowledge of soil erosion and degradation and soil classification.
4. Learn about the concept of biosphere, ecosystem, ecotone, community, niche, succession, ecology, trophic structure, food chain, food web, biomes, bio geo chemical cycles.
5. Gain knowledge of bio diversity and man environment relation.

**Course Name:** Practical

**Course Code:** Paper-III



**Course Outcome:** After successful completion of this course students will be able to

1. Understand the components and types of a map.
2. Learn about different types of scale.
3. Graphically construct plain, comparative, diagonal and vernier scales.
4. Interpretation of geological maps with unconformity and intrusions on uniclinal and folded Structures.
5. Draw geological cross sections.

**Course Name:** Climatology & Hydrology

**Course Code:** Paper-IV

**Topic Name:** Climatology & Hydrology

**Course Outcome:**

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

1. Understand the Nature, composition and layering of the atmosphere
2. Comprehend the elements of weather and climate and their impacts.
3. Learn the interaction between the atmosphere and the earth's surface.
4. Know about upper atmospheric conditions, Jet stream, fronts, and cyclonic features.
5. Learn different approaches to climate classification and the climatic regions.
6. Analyze the dynamics of the Earth's atmosphere and global climate.
7. Understand the Greenhouse effect and ozone layer
8. Know about climatic classification after Koppen and Thornthwaite.
9. Know about scope of Hydrology. Understand about hydrological cycle, runoff, infiltration and ground water movement.

**Course Name:** Oceanography & R.S/G.I.S

**Course Code:** Paper-V

**Topic Name:** Oceanography & R.S/G.I.S

**Course Outcome:**

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

1. Know about scope of oceanography.
2. Understand about temperature, salinity and density of sea water.
3. Know about ocean currents and bottom topography of oceans.
4. Analyze the formation of coral reefs.
5. Perform georeferencing of maps and images using open-source software.
6. Prepare FCC and identify features using standard FCC and other band combinations.
7. Digitize features and attach data.
8. Perform overlay analysis and prepare annotated thematic maps: choropleth, pie chart and histograms

**Course Name:** Statistical Methods

**Course Code:** Paper-VI

**Topic Name:** Application of Statistical Methods

**Course Outcome:**

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

1. Learn the significance of statistics in geography.
2. Understand the importance of the use of data in geography.
3. Recognize the importance and application of Statistics in Geography.
4. Interpret statistical data for a holistic understanding of geographical phenomena.
5. Know about different types of sampling.
6. Develop an idea about theoretical distribution and scales of measurement.
7. Detailed knowledge of statistical techniques to analyze the quantitative data
8. Gain knowledge about correlation, regression, and time series analysis.

**Course Name:** Nature of Geography, Political and Economic Geography

**Course Code:** Paper-VII

**Topic Name:** Nature of Geography, Political and Economic Geography

**Course Outcome:**

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

1. Identify the evolution of the philosophical thoughts of Geography/Earth Sciences.
2. Escalate the contribution of the great thinkers in Geography/ Earth Sciences.
3. Comparative study of different schools of geographical thought developed in different Period/Phase.
4. Discussing the evolution of geographical thought from ancient to modern to post-modern times.
5. Establishing relationship of Geography with other allied disciplines.
6. Know about scope of political geography.
7. Assess the significance of Economic Geography, the concept of economic man
8. They will also gain knowledge about economic distance and transport cost
9. Understand the concept of economic activity.
10. Analyze the factors of location of agriculture and industries.
11. Gain knowledge about different types of Economic activities.
12. Understand the concepts of transport network and flows.
13. Assess the significance and functioning of international trade and economic blocks.

**Course Name:** Contemporary issues in Geography, RS and GIS

**Topic Name:** Contemporary issues in Geography, RS and GIS

**Course Outcome:**

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

1. Know about hazard and disaster.
2. Understand about climatic hazard and biotic hazard- mechanism, impact and management.
3. Know about concept of remote sensing, EMR, EMS, FCC, Landsat, SPOT, IRS.
4. Analyze the Aerial photography and photogrammetry.
5. Know about fundamental concept of GIS.
6. Know about georeferencing of maps, raster and vector data.
7. Prepare FCC and identify features using standard FCC and other band combinations.
8. Application of RS and GIS.

**Course Name:** Regional Geography

**Course Code:** Paper-IX

**Topic Name:** Regional Geography

**Course Outcome:**

After successful completion of this course students will be able to

1. Understand detailed physiographic, climatic, soil, vegetation features of India.
2. Understand about population of India.
3. Understand details of different tribes of India.
4. Learn about the agricultural regions and green revolution in India.
5. Learn about the distribution of mineral, power resources and Industrial distribution.
6. Understand types of region as an integral part of geographical study.
7. They can know about delineation of region.
8. Gain knowledge about types, objectives, tools and needs of regional planning with special reference to India
9. Gain knowledge about the various indicators of development as well as human development
10. Build an idea about theories and models for regional development
11. Appreciate the varied aspects of under development and regional disparity.

**Course Name:** Practical

**Course Code:** Paper-X

**Topic Name:** Computer application, Survey and Weather map

**Course Outcome:**

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

2. Computation of rank, mean, median, mode and SD.
3. Preparation of Histogram and Scatter diagram.
4. Learn about internet surfing.
5. Learn about Prismatic compass and Dumpy level survey.
6. Study about pre-monsoon, monsoon and post-monsoon weather map.

**Course Name:** Practical

**Course Code:** Paper-XI

**Topic Name:** Projection, Topographical map and field work.

**Course Outcome:**

1. Learn about different types of map projections and their construction.
2. Study about Topographical map interpretation, profile drawing.
3. Analysis of morphometric techniques from topographical sheets.
4. Know about stream ordering and slope analysis.
5. Preparation of field report based on field survey.



**KRISHNAGAR WOMEN'S COLLEGE**  
**UNDER GRADUATE DEPARTMENT OF GEOGRAPHY**

**Course Outcome or Learning Outcome in**  
**B.A./B.Sc. General Course in Geography**

**With effect from 2009-10**

**Course Name:** Physical Geography

**Course Code:** Paper-I

**Topic Name:** Geotectonics and Geomorphology, Climatology, Soil and Biogeography.

**Course Outcome:**

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

1. Understand the interior of the earth, isostasy, plate tectonics.
2. Students will be able to know rocks, earthquake and volcanicity.
3. Learn about the models of landscape evolution.
4. Understand the different landforms like fluvial, coastal and Aeolian.
5. Understand the Nature, composition and layering of the atmosphere.
6. Know about cyclonic features.
7. Learn different approaches to climate classification and the climatic regions.
8. Have knowledge of the soil formation processes, soil profiles.
6. Learn about the physical and chemical properties of soil.
7. Learn about the concept of biosphere, ecosystem.

**Course Name:** Human Geography

**Course Code:** Paper-II

**Topic Name:** Social and Economic Geography.

**Course Outcome:**

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

1. Know about the population growth and distribution.
2. Study about migration and contemporary social issues.
3. Understand the concept of economic activity.
4. Analyze the factors of location of agriculture and industries.
5. Gain knowledge about different types of Economic activities.

**Course Name:** Practical

**Course Code:** Paper-III

**Course Outcome:**

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

1. Learn about different types of Scales and their construction.
2. Study about projections by graphical method.
3. Statistical Analysis of data, measures of central tendency and dispersion.
4. Interpretation of weather maps.
5. Preparation of field report based on field survey.

**Course Name:** Applied Geography

**Course Code:** Paper-IV

**Topic Name:** Land use, remote sensing and Settlement Geography.

**Course Outcome:**

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

1. Know about land, land use and their principles.
2. Study about rural and urban settlements.
3. Know about concept of remote sensing, EMR, EMS, FCC and IRS.
4. Analyze the Aerial photography and photogrammetry.
5. Study about Thematic mapping.
6. Interpretation of topographical maps and preparation of land use maps from aerial photographs.

*Nalasa Dargupta*  
Principal  
Krishnagar Women's College  
28/10/22

# **KRISHNAGAR WOMEN'S COLLEGE**

## **DEPARTMENT OF ECONOMICS**

### **Program Specific Outcomes**

#### **UNDER (1+1+1) SYSTEM**

##### **Economics Honours**

- ❖ Students will be able to understand economic vocabulary, methodologies, tools and analysis procedures.
- ❖ Students will be able to understand the basic concepts of micro economics and macroeconomic theory.
- ❖ To equip the students with mathematical, statistical and econometric tools to analyze economic problems.
- ❖ Students will be able to understand the theory of consumer behaviour, producer behaviour, markets, factor pricing, cost structure and revenue through advanced micro economic theory.
- ❖ To make students understand the long run dynamic issues like growth and technical progress.
- ❖ Students will be familiar with the basic concepts and theories of international trade, determinants, and dynamic effects of trade policies
- ❖ To make the students understand the functioning of banks , monetary and financial sectors of the economy, role of financial markets and Institutions , budget and balance of payments.
- ❖ To expose the students to various economic problems and issues related to growth, development, sustainable development, environment with special reference to India.
- ❖ Students will be able to understand the impact of government policies and will be able to assess the consequences of the policies on the parties involved.
- ❖ As the programme contains the fields like statistics, mathematics and economic principles, it enhances them to compute and assess the real situation of the economy including the size and changes of population, income pattern, and rate of development with pattern of savings and investments and social security measures adopted in the country.
- ❖ Student develops an awareness of career choices and the option for higher studies.

**KRISHNAGAR WOMEN'S COLLEGE**  
**DEPARTMENT OF ECONOMICS**  
**COURSE OUTCOME UNDER (1+1+1) SYSTEM**  
**Economics Honours**

<b>CLASS</b>	<b>PAPERS</b>	<b>GROUPS AND MARKS</b>	<b>COURSE OUTCOME</b>
<b>PART I</b>	Paper I: Economic Theory I	(Group A) Micro Economics - 50 Marks	The course exposes the students to the basic principles of micro economic theory and illustrates how micro economic concepts can be applied to analyze real life situations The main outcome to explain how mathematical techniques can be applied to economic theory
		(Group B) Macro Economics - 50 Marks	The course introduces the students to the basic concepts of macro economics
	Paper II: Statistics and Mathematical Economics	(Group A) Statistics – 50 Marks	Introduce the students to the notion of sampling techniques, probability ,probability distribution and statistical inference
		(Group B) Mathematical Economics – 50 Marks	The main outcome to explain how mathematical techniques can be applied to economic theory



CLASS	PAPERS	GROUPS AND MARKS	COURSE OUTCOME
PART II	Paper III: Economic Theory II	(Group A) Micro Economics - 50 Marks	Provides sound training in micro economic theory to formally analyze the behaviour of individual agent.  To introduce the students the formal modelling of macroeconomics in terms of analytical tools.
		(Group B) Macro Economics - 50 Marks	The course discusses alternative conception of development and their justification through models of growth and cross national comparison.
	Paper IV: Development Economics	(Group A) Economic Development – 50 Marks	To explain sector specific policies and their impact in shaping trends in key economic indicators.
		(Group B) Policies and Institutions – 50 Marks	

CLASS	PAPERS	GROUPS AND MARKS	COURSE OUTCOME
<b>PART III</b>	Paper V: International Economics and Public Economics	(Group A) International Economics - 66 Marks  (Group B) Public Economics - 34 Marks	A systematic exposition of models explaining the composition, direction and consequences of international trade and determinant and effects of trade policy.  To provide an overview of government finances with special reference to India.
	Paper VI: Indian Economic Problems and Planning	Indian Economic Problems and Planning - 100 Marks	The course highlights the achievements and issues of the Indian economy.

CLASS	PAPERS	GROUPS AND MARKS	COURSE OUTCOME
<b>PART III</b>	Paper VII: Econometrics and Mathematical Economics	(Group A) Elements of Econometrics - 50 Marks	The course provides a comprehensive introduction to basic econometric concepts and techniques.
		(Group B) Mathematical Economics - 50 Marks	The course transmits the body of basic mathematic that enables the study of economic theory specifically, micro economic theory, macro economic theory, statistics and econometrics.
	Paper VIII: Indian Economic History and Essay	(Group A) Indian Economic History - 50 Marks	The course analyses the key aspects of Indian economic development during the British colonial rule.
		(Group B) Essay – 50 Marks	The course helps to write any type of essay on Indian economic aspect.

*Nalini Dasgupta*  
 Principal  
 Krishnagar Women's College  
 29.10.22