# Bengali

Bengali is one of the most widely spoken languages of the world. With approximately 300 million native speakers, it is the secondmost popular language among the 22 scheduled languages of India. India's national anthem was composed by a Bengali and the firstAsian Nobel laureate, Gurudev Rabindranath Tagore.Bengali as an international language among the Indo European group of languages has many career options. It is useful for studentspursuing teaching and higher studies, comparative literature, journalism, translation and interpretation, besides archival works and proof reading. Bengali with its Sanskrit base is a computer friendly language and is used as a Unicode in language software. Astudent well versed in Bengali and computer literacy is well equipped to meet the challenges of the digital world.

## **Botany**

Botany is a branch of biological sciences that deals with the study of plants, including their structure, properties, biochemical processes, plant diseases and interactions with the environment. After BSc. Botany, a student can choose any of the two avenues namely academic and competitive. In the academic section one can do MSc., Ph.D. and research for an academic job like Schoolteacher, College, and University teacher. A B.Sc. Botany student can do master's degrees in Agriculture, Biochemistry, Genetics, Microbiology, Environmental science, Marine Science etc. In the competitive section Botany, students are eligible for IFS (IndianForest Services), Civil Service, WBFS, WBCS, etc. Botany is the multidimensional subject a student can understand the naturally occurring biological phenomenon and its processes.

## Chemistry

The undergraduate students pursuing the B.Sc. (Hons.) Chemistry should acquire core competency in Chemistry and in allied subject areas. i) systematic and coherent understanding of the fundamental concepts in Physical Chemistry, Organic Chemistry, Inorganic Chemistry, Analytical and Pharmaceutical Chemistry should be acquired. They will be able to understood the basic principles of equipments, instruments used in the Chemistry laboratory and to demonstrate the experimental techniques. ii) Disciplinary knowledge and skill will be developed through comprehensive knowledge in the field like analytical chemistry, computer application (DSE) with the basic knowledge of FORTRAN language

and Excel application in chemical analysis. As a whole they will become digitally literate. The knowledge of Green chemistry will impart environment awareness and help equip the students to develop experiments that will impart least toxicity. Qualitative and quantitative analysis in inorganic chemistry help the students to make their footprints in the industries. Since the enquiry will develop in their mind through Dissertation submission, they will be capable to think independently and will contribute original and fundamental work in the field of Chemistry and allied subjects.

#### Commerce

Program specific outcomes and Course specific outcomes of Bachelor of Commerce at City College are the following:

- 1. Students build up a strong competence in the specific area of business studies, learn about the general principles of business management, develop an ability to apply knowledge in functional areas like accounting, Taxation, Banking, Insurance and Corporate Law, exhibit an inclination towards pursuing professional courses such as M.com/CA/ MBA/ CMA etc.
- 2. Students develop entrepreneurial activities with enhanced communication and interpersonal skills
- 3. The programmes set out for students are expected to fulfil all the requirements of careers in teaching, research, industry and consultancy apart from becoming a self-employed professional or successful entrepreneur in IT sector or Manufacturing industries and portfolio analysis
- 4. The students are expected to define and adapt to organizational problems and generate realistic solutions based on current academic research in organizational behaviour
- 5. Armoured with the knowledge of various accounting concepts, understanding of micro economic concepts and Capital market, basics of auditing and taxation, a comprehensive knowledge of computer operating system --a student can pursue any profession of his choice.

#### **Economics**

Economics helps to develop the necessary skill to analyze facts and situations, sift the truth from unnecessary information. Apart from a detailed analysis of every macroeconomic outcomes, it also teaches the quantitative tools like Econometrics and Statistics.

To orient and equip the students further, the Department has selected the following topics: For Honours students:

For Semester 3 students, Data Analysis (SEC1) to give an on-hand introductory knowledge about the application of various statistical packages.

For Semester 4 students, Research Methodology (SEC2) to equip the students about carrying out a survey, design the questionnaire, carry out a literature survey, analyze the data collected, write the report and disseminate the information.

For Semester 5 students, Economic History of India (DSEA1) to give them a sense of continuity; and Financial Economics (DSEB1) to give them a sense of how the financial markets work in real life.

For Semester 6 students, Money and financial markets (DSEA2) to provide a deeper understanding about the working of them; and Issues in Development Economics (DSEB2) so that the students get a deeper understanding of the typical problems faced by a developing country like India.

For General students, apart from the Theoretical understanding of the topics in Economics, we are teaching:

For Semester 5, Money and Banking (SECA) to give an idea about the functioning of the real economy around us.

For Semester 6, Entrepreneurship Development (SEC B) which helps them to design project proposals and search for loans for own enterprises; Public Finance (DSEB) which helps them to go through various issues of government finances and budget.

Overall, we try to make the students familiar with the necessary skills to go for jobs in private, public and social sectors and to work towards developing own enterprises and equip students with interpersonal skills in handling administrative and academic responsibilities.

## **English**

#### A. Programme Outcome:-

- 1. B. A. English (Honours):- An In-depth comprehension and appreciation of English Literature across genres, regions and periods along with an understanding of the development of English as a major component of the Indo-European language family.
- 2. B. A. English (General):- Obtaining a comprehensive concept of English Literature of chiefly Elizabethan, Romantic, Victorian and Modern era.
- 3. Ability Enhancement Compulsory Course in Language: Acquiring adequate knowledge in Basic English Grammar.
- B. Course Outcome:-

Courses in BA Honours Programme in English

Core Courses (CC)

- 1)CC1 (History of Literature):- Obtaining extensive exposure to the History of English Literature starting from the Old English Period to the Modern Period.
- 2)CC1 (Philology):- Obtaining adequate concept of development and enrichment of the English Language.
- 3)CC2:- Selective exposure to, and appreciation of, texts of European Classical Literature in English translation.
- 4)CC3:- Analysis and Appreciation of certain representative texts of Indian English Literature covering various genres of poetry, fiction and drama.
- 5)CC4:- Obtaining an in-depth idea of the social and intellectual background of British Poetry and Drama from 14th to 17th Century.
- 6)CC5:- Critical Appreciation of various representative texts of American Literature (Poetry, fiction and drama).
- 7)CC6:- Appreciation of unique texts of popular literature, encompassing genres of children's fantasy, detective fiction, nonsense literature, graphic adventure fiction etc.
- 8)CC7:- Obtaining extensive, in-depth awareness of social and intellectual background of British poetry and drama of 17th and 18<sup>th</sup> centuries.
- 9)CC8:- Obtaining extensive, in-depth awareness of social and intellectual background of 18th Century British literature.
- 10)CC9:- Appreciation of various renowned texts of British Romantic Literature with the relevant socio-intellectual perspectives in mind.
- 11)CC10:- Obtaining extensive, in-depth awareness of social and intellectual background of 19th Century British literature.
- 12)CC11:- Appreciation and critical analysis of various texts of Women's Writings, encompassing the genres of poetry, fiction, nonfiction and autobiography.
- 13)CC12:- Obtaining extensive, in-depth awareness of social and intellectual background of early 20th Century British Poetry, Fiction and Drama.
- 14)CC13:- Extensive exposure and critical approach to Modern European Drama.
- 15)CC14:- Comprehensive exposure and appreciation of certain representative texts of Postcolonial Literature covering the genres of Poetry and Fiction.

Discipline Specific Elective Courses (DSE)

1)DSE-A1:- In-depth exposure to certain famous texts of Modern Indian Writing in English Translation.

- 2)DSE-B1:- Acquiring adequate ideas regarding the various Literary Types and English Rhetoric and Prosody.
- 3)DSE-A3:- Appreciation and critical analysis of some renowned texts, belonging to Indian Partition Literature: Novels, Short Stories and Poetry.
- 4)DSE-B3:- Appreciation and critical analysis of some renowned Indian autobiographies (both originally in English and in English translation).

Skill Enhancement Courses (SEC)

- 1)SEC-A2:- Obtaining extensive exposure to nature and application of Business Communication.
- 2)SEC-B1:- Understanding the importance of Creative Writing in development of personality and creativity, acquiring actual proficiency in Creative Writing and obtaining exposure to various modes of publishing.

Ability Enhancement Compulsory Course in Language (AECC)

1)AECC 1:- Acquiring adequate practical knowledge in Basic English Grammar.

Courses in BA General Programme in English

Core Courses (CC/GE):

- 1)CC1/GE1:- Exposure and appreciation of some renowned Poems and Short Stories.
- 2)CC2/GE2:- Exposure and appreciation of some renowned texts (Poems, Essays, Novels).
- 3)CC3/GE3:- Obtaining thorough analytic awareness of certain texts of Women's Writing and exposure to the history of Women's Empowerment.
- 4)CC4/GE4:- Introduction to Academic Writing, obtaining knowledge of citing sources.

LCC Courses:

- 1)LLC (L1)-1:- Acquiring proficiency in Official and Personal Communication. Obtaining knowledge of difference between British English and American English.
- 2)LCC (L1)-2:- Understanding the difference of plain language and Figurative language, chiefly, the language of poetry with reference to specific poems.

Discipline Specific Elective Courses (DSE)

- 1)DSE-A1:- Obtaining In-depth exposure to certain famous texts of British Literature (Poetry, Drama and Fiction).
- 2)DSE-B1:- Appreciation and critical analysis of some renowned texts, belonging to Indian Partition Literature: Novels, Short Stories and Poetry.

### Hindi

Most of student graduated from our department usually get admission in masters of different universities. Some students prepare forcompetitive exams for government and other jobs.

## History

History is basically a dialogue between the past and the present. It helps in the understanding of various social phenomenon and the evolution of civilization. A multi-disciplinary subject, it occupies the pride of place in the realm of social sciences. With its multifaceted approach to the study of past and contemporary problems, it has wide ranging career options for students. It is particularly helpful in Travel and Tourism studies, archival fields, curatorship in museums, civil service exams in addition to teaching and research. A proper historical understanding of different cultures equips one with soft skills that are highly valued in the corporate and hospitality industry.

#### **Mathematics**

Mathematics is a multi-faced discipline and has wide practical applications. It is used for Research and Development in various fields, like, management studies, defense research and development, besides teaching. Mathematics is the key to the proper understanding of physical sciences, and in today's demand for Liberal Arts, alongside its applications in Biological Mathematics, Business Mathematics, Statistics, Economics as well as History (Cliometrics) and various other subjects. Beside these, Mathematics is a fundamental part of human thought and logic, and integral to attempt at understanding the world and most importantly, ourselves.

## **Philosophy**

Bachelor of Arts programmes in Philosophy (Hons and Gen)offered by City College, Kolkata,is outcome -based and expected outcomes are delineated below: PSO1--Enhancing the domain of knowledge so as to enable the students to carry out qualitative research and pursue academic or professional careers in philosophy and allied field like sociology, law, history, political science and sanskrit and language -study PSO2---Developing problem analysis skills and knowledge and applying the same in actual situation to solve societal and ethical problems PSO3--Encouraging students to focus on sustainable development with an eye to ethics and values PSO4--Developing effective logical skills to understand the rationale

of an action PSO5--Fostering ability to concentrate on lifelong learning, demonstrating empathetic social concern, contributing to the direct participation for the cause of social justice on various issues. PSO6--Helping to grow as a competent, committed, conscious, compassionate and thoughtful citizen. Expected Course specific outcomes are as follows: CC1/CC3/CC11/CC13/DSEA1 (5thsem) and G E1---To be able to understand the basic concepts of Orthodox and heterodox systems of Indian philosophy with a critical approach to logical and hermeneutical study. CC2/CC4/CC10/CC-- DSEB1(SEM5)/(DSEA2-SEM(6)) and GE2-- To be able to understand the practice and preaching of past masters of western thought through exposure to ancient, medieval and modern analytical approaches to epistemological and metaphysical problems with a focus on syntax, semantics and praxis CC5/GE4--To be able to understand the psychological processes of animal and human learning, socio-political behaviour of the masses, the problems related to personality disorder mental and aberrations and solutions thereof from psychoanalytic CC6/CC7/DSEB2(6thsem)(CC)/DSEB2(6thS EM)GE)-Exposure to alternative approaches to understand the different institutions of society, different religious practices and evil nature of taboos tagged with them ,discursive and coercive forces endangering the fabric of societal norms, the generic issues involving class and caste ,different methodological problems and the possible solutions thereof from Indian and western social thinkers CC8/CC9/GE3/SEC3-/SEC5-acquisition of logical tools and techniques and application of them in all field of study to recognize the core concept for a better understanding of the man and environment and of of justification human actions from legal point view. CC12/CC14/DSEA1(GE5)/SEC4/SEC6(CC and GE)--To be able to understand the Upanishadic and philosophical concept of value, importance of attainment of virtue ethics respect for ecology, duty or verity of moral order, justification and validation of an action from utilitarian and deontological perspective ,to be engaged in analysis of conscience, determination of evil propensities and continuous adherence to categorical imperative and upholding of ethical principles for peace and harmony Without fear and prejudice.

# **Physics**

Preparing the students in such a way that they are capable of independent and critical thinking. Train-up the students in such a process that they can objectively carry out scientific investigations. Course Outcomes In current CBCS Physics prospectus the students gained Knowledges from faculties in various fields starting from Basic Physics to Computational

Physics, like Python Language, GNU plot, and also different experimental skills, Mathematical techniques and so on. As technology exploits the rules of Physics, students properly trained in Physics can be good researchers in the field of technology too.

# **Physiology**

The syllabus of Physiology has been designed to provide a basic knowledge on every organ of the Human Body, such as, histological structures, functions etc. Apart from this, allied subjects are also taught, such as Microbiology, Immunology, Sports Physiology, Ergonomics, Pharmacology & Toxicology, Biological Statistics, Human Nutrition etc. With this knowledge, students can go for post-graduation in various fields other than Human Physiology, i.e., Clinical Research, IVF Technique--Clinical Embryology & Pre-implantation Genetics, Sports Science, Molecular Biology & Genetics, Biotechnology etc. A huge scope exists in various field of research, both in the country and abroad.

#### **Political Science**

Program Specific Outcomes:

- 1. The course B.A. in Political Science enables the students to develop an overall understanding of politics, administration, society, culture and international relations.
- 2. The exposure to the subject of Political Science also encourages the students to develop a scientific outlook on various aspects of daily life as an informed citizen, as it emphasizes the role of empirical methods and theories.
- 3. It not only introduces the students to the structural and functional dimensions of political institutions but also a range of theories which equips them with a critical understanding of society and politics. For example, upon successful completion of the degree programme, the students shall be capable of providing a holistic analysis of political issues, party system, nature of international relations, models of democracy, etc.
- 4. The contemporary topics as included in the syllabus shall also generate an interest for research among the students in future.

Course Outcome (For Honours candidates):

CC1: This paper introduces the students to some of the important theories of Political Science such as Sovereignty, Democracy, Authoritarianism, Law, Liberty, Equality, etc.

CC2: This paper focuses on the approaches and debates in Political Science.

CC3: This paper deals with the various aspects of the Constitution of India and the students will gain an in-depth knowledge of the role and functions of our government.

CC4: This paper deals with the structures and processes of politics in India.

CC5: This paper teaches the students about Indian political thought and its various aspects.

CC6: This paper introduces the students to the political structures and constitutions of countries such as the USA, UK, Russia, China, and Bangladesh.

CC7: This paper familiarizes the students to the dynamics of international relations with an in-depth analysis of foreign policy, India-China relations, India-USA relations, etc.

CC8: This paper teaches the students about Indian political thought, particularly with reference to India's eminent thinkers and their views on various pertinent issues of global significance.

CC9: This paper focuses on the nature of global politics since 1945 and the students are able to understand the Cold War, Globalization as well as India's relations with the neighbouring countries.

CC10: This paper introduces the students to western political thought and thinkers.

CC11: This paper is an extension of western political thought and explores additional concepts of relevance such as obligation, guild socialism, civil society, state, etc.

CC12: This paper teaches the students about the various aspects of political sociology.

CC13: This paper explores the dynamics of public administration and explores its concepts and perspectives.

CC14: This paper familiarizes the students with the nature of administration and public policy making in India.

Apart from the aforementioned papers, the course also includes certain discipline-specific papers which are as hereunder:

DSE 5 A 1: This paper teaches the students about gender and politics.

DSE 5 A 2: This paper explores South Asia and its various historical and political issues.

DSE 5 B 1: This paper teaches the students about India's foreign policy in a globalizing world.

DSE 5 B 2: This paper teaches the students about the development process and social movements in India.

DSE 6 A 3: This paper provides the students with an understanding of public policy making in India.

DSE 6 A 4: This paper teaches the students about global politics and its various issues.

DSE 6 B 3: This paper explores the issues surrounding citizenship in a globalizing world.

DSE 6 B 4: This paper focuses on the issues of Human Rights.

The B.A. course in Political Science also offers a Skill-Enhancement Course which includes the following papers:

SEC 3 A 1: This paper generates an awareness about democratic institutions and certain important aspects of daily life as citizens.

SEC 3 A 2: This paper familiarizes the students with the legal system in India.

SEC 4 B 1: This paper teaches the students about the legislative practices and procedures in India.

SEC 4 B 2: This paper introduces the students to the elementary aspects of social research.

Course Outcome (For B.A. General candidates or Honours candidates having Political Science as a General category subject):

CC1: This paper introduces the students to political theory.

CC2: This paper teaches the students about the constitutions of selected countries.

CC3: This paper teaches the students about the government and politics of India.

CC4: This paper introduces the students to international relations.

The Discipline-Specific Electives for the General course are as follows:

DSE 5 1 A: This paper teaches the students about public administration.

DSE 5 1 B: This paper introduces the students to India's foreign policy.

DSE B 6 2 A: This paper provides the students with an understanding of the theory and practice of feminism.

DSE B 6 2 B: This paper teaches the students about Human Rights.

Apart from these papers, the students are also offered a Skill-Enhancement Course which includes the following papers:

SEC 3 A 1: This paper explores the legal aspects of an individual's daily life and teaches the students about important topics such as consumer rights, Right to Information, Human Rights laws, etc.

SEC 4 B 1: This paper familiarizes the students with the elementary dimensions of research.

### Sanskrit

Sanskrit is an ancient language and could be traced to remote antiquity. Once upon a time it was a widely spoken language. Most of the people were well-versed in this language. Nowadays only people of some places like Mattur (Karnataka) or Mathur village in Shimoga District, Jhiri (Madhya Pradesh), Sasana (Odisha), Baghuwar (Madhya Pradesh), Ganoda

(Rajasthan)etc are habituated to speak in Sanskrit. With the active sponsorship of the Union Government, Sanskrit has been revived in both oral and written forms to a considerable extent, and has become language of use for Work-places like School, College and University that promote Sanskrit as a subject. Those who study Sanskrit, they have many career opportunities.

Many books and manuscripts In Sanskrit language have been written on various subject like Art and Culture, Literature, astronomy, Astrology, Medicine etc.

Topics :-----

Semester 1 – Introduction of Sanskrit. Some topics like Sanskrit Grammar (Karaka, Samasa, Pratyaya etc), Literature (Raghuvamsham, Ramayana, Mahabharata, Meghadutam etc), Sanskrit Poetry, Darshana etc are allotted in the syllabus.

Semester 2 - Communication in Sanskrit to another languages (Computer friendly Language), Gita (Controlling of self-mind and body), Sanskrit Prose.

Semester 3 – Classical Sanskrit Literature (Drama), Petics and Literary criticism, Indian social Institutions, and Polity.

Semester 4 – Indian Epigraphy, Palaeography and Chronology, Modern Sanskrit Literature, Sanskrit World Literature, Sanskrit Grammar.

Semester 5 – Vedic Literature, Philosophy religion and culture in Sanskrit Tradition, Indian Perspective in Personality Development.

Semester 6 – Indian Ontology and Epistemology, Literary Criticism, Nationalism in Sanskrit. A comprehensive study of the above-mentioned topics inspires students to have a wider vision of life from Gita as also from literature which serves as a source of intellectual and aesthetic nourishment.

# Zoology

Since life appeared on Earth, the biological organisms started to roam over the Hydrosphere, Lithosphere and Atmosphere and a new term was coined – the "BIOSPHERE", clubbing the three under one expression. To sightsee the attribution of the biological organisms more precisely, they were classified into five kingdoms and out of which Kingdom Animalia is the most progressive one. The scientific study to apprehend the Kingdom Animalia is basically called as ZOOLOGY. In the program or curricula of Zoological studies at undergraduate level the following outcomes can be commonly interpreted:

- PSO1 Students can increase knowledge and can develop skill in the fundamentals of animal sciences to scrutinise the complex interactions among the various animals of different phyla, their distribution and their relationship with the environment
- PSO2 Apply the knowledge of structural complexities of cell to conceptualize the genetic functions in control of various metabolic activities and health of organisms
- PSO3 To correlate the physiological, endocrinological, neurological and biochemical processes of animals and relationship of organ systems
- PSO4 Understands the taxonomic diversification of animals through the course of complex evolutionary processes and behavioural approaches of animals
- PSO5 How to imply the remediation against various modes of Indulgent environmental pollutions to sustain the ecological homoeostasis, biodiversity and conservation of threatened species through different environmental conservation programmes
- PSO6 To identify socio-economic animals and how they are becoming beneficial to humans through knowledge of agro based small scale industries like apiculture, sericulture, lac culture, edible and ornamental fish farming, vermin-compost preparation etc.
- PSO7 To identify the impact of various potential risk factors like pollutants, toxins, toxics, pests, parasites, parasitoids, microbes and many other pathogens on the health of biological organisms including humans and to have scalability on the process of recuperation through innate and acquired immune responses against communicable and non-communicable diseases
- PSO8 To generate awareness and commitment amongst students about ethical as well as legal principles towards professional ethics and responsibilities for an overall conservation of communities and environment
- PSO9 Apply the knowledge and understanding of Zoology to one's own life and work with growing empathy and obvious love towards the animal world for being a green entrepreneur

Course Specific Outcomes (CSOs):

- CSO1. SEMESTER 1: To understand the taxonomic and anatomic diversity of the acoelomates and pseudocoelomates; Understanding the molecular organization and functioning of gene through Central Dogma.
- CSO2. SEMESTER 2: To understand the taxonomic and anatomic diversity of the nonchordate coelomates; the ultra-structural organization, function and the process of genetic regulation through signalling coordination amongst various organelles of a cell towards the sustenance of life.

CSO3. SEMESTER 3: Understanding the taxonomic and anatomic diversity of the chordate; Physiological controlling and coordination of various animal organ-systems along with the basic and fundamental emphasis on different biochemical pathways; Pragmatic applications and implications of Apiculture and Sericulture to understand entrepreneurship.

CSO4. SEMESTER 4: Comparative study on the diversified anatomic structures and functions of various organs of chordates; Understanding various physiological processes of animal system; The cytological and histological organizations and functions of immuoresponsivecells and organs of the body systems; Understanding the process and applications of aquarium fish keeping; To edify the requirements of medical diagnostic tools and techniques to diagnose various clinical diseases for remission.

CSO5. SEMESTER 5: Understanding the importance of ecological components and theirinteractions to sustain the biodiversity and wildlife; Comprehending the principle functionsand fine structures of genes; To understand the pathogenic throughput of heterospecifichost-parasite interactions for prophylactic and control measures of diseases caused, by suchinteractions; To develop an overview on taxonomic, morphological, physiological, sociologicaland interactive diversities of insects; To study the anatomical and histological architecture ofvarious endocrine and reproductive organs to ideate the synthesis and regulatory interplays ofvarious hormones, secreted from those organs to maintain body homoeostasis.

CSO6. SEMESTER 6: To ideate the pre- and post-embryonic processes of development.