



RAMSADAY COLLEGE, AMTA HOWRAH

**PROGRAMME OUTCOME,
COURSE OUTCOME,
PROGRAMME SPECIFIC OUTCOME,
PO, CO, PSO**

Content

1. [Education](#)
2. [English](#)
3. [History](#)
4. [Journalism & Mass Communication](#)
5. [Music](#)
6. [Philosophy](#)
7. [Physical Education](#)
8. [Political Science](#)
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12. [Anthropology](#)
13. [Botany](#)
14. [Chemistry](#)
15. [Economics](#)
16. [ENVS](#)
17. [Food & Nutrition](#)
18. [Geography](#)
19. [Mathematics](#)
20. [Physics](#)
21. [Zoology](#)

Subject-Education

Honours



University of Calcutta

Choice Based Credit System [CBCS]

Course Outcome

B.A. (Hons.) in EDUCATION [EDCA]

Paper	SEC- A2 : Skill for Democratic Citizenship
No. of Credit	2 TH – TU – PR 2 - 0 - 0
Class Distribution	1 credit = 1 hour class; Per week = 2 hours/2 credit

Course Outcome	<p>On the completion of the course students will be able to:</p> <ul style="list-style-type: none"> • Provide effective leadership in every aspect of their life • Meet the goal of social and national needs. • Create a positive attitude towards life. • Promote social justice & collective action. • Keep a keen eye on their local kids –and little siblings to protect them from child abuse (Regarding POCSO) • Take necessary action whenever face any blockage in their marital life or in their daily life due to any family member .(regarding Domestic harmony) • This subject is very effective to lead a complete & effective life. 		
Course Content	<p>Unit 1: Rights and duties in Indian Constitution</p> <ul style="list-style-type: none"> • Democratic rights • Fundamental Rights • Duties of citizenship <p>Unit 2 : Protection of Children</p> <ul style="list-style-type: none"> • Child protection - concept and need. • Child Rights – concept, classification and need • Legal actions –POCSO <p>Unit 3 : Domestic Harmony</p> <ul style="list-style-type: none"> • Domestic violence – definition and types • Protection of Women from Domestic Violence Act, 2005 – basic features. • Protection of males in DVA 2005. <p>Unit 4 = Role of Education (Term Paper/Project Paper)</p> <ul style="list-style-type: none"> • Awareness programmers- rallies, debates etc • Mass media • Seminars and workshops <p>(Any one may be taken up by the college and recorded by the students on any one of the above topics)</p>		
Evaluation Process	<p>Full Marks: 100</p> <ul style="list-style-type: none"> • Class Attendance:10 • Internal Assessment: 10 • Tutorial Examination: 0 • Semester End Examination: 80 		
Question Pattern for Term End Examination	Long Answer Type Questions (10 Marks Each)	Short Answer Type Questions (5 Marks Each)	Very Short Answer Type Questions (2 Marks Each)
	3 out of 6 Questions	2 out of 2 Questions	20 out of 20 Questions
Suggested Readings	<ul style="list-style-type: none"> • Bucur, Maria (2018). <i>Birth of Democratic Citizenship</i>(2018). Indiana University Press • Nandi, Dr.Srikanta (2019). <i>Ganatantrik Nagarikatwer Dakkhata O Prasanga: A Brief Discussion on skill for Democratic Citizenship</i>: Bangojan Prakashan. • Chakraborty, Dr. Pranab Kr. & Banerjee, Dr. Debashree(2020) : <i>Ganatantrik Nagarikattwer Dakkhata Rita Publication,Kolkata</i> • Headenius , Axel (2001). <i>Institutions and Democratic Citizenship</i> Uppasala University Sweden 		

Paper	SEC- B1 : Teaching Skill		
No. of Credit	2	TH – TU – PR	
	2	0	0
Class Distribution	1 credit = 1 hour class; Per week = 2 hours/2 credit		
Course Outcome	<p>On the completion of the course students will be able to:</p> <ul style="list-style-type: none"> • Develop their skills acquisition competency as pupil teacher. • Use a different kind of teaching methods and techniques in their micro-teaching plan. • Know and understand about the recent development in the method subject specific content and school curriculum • Develop competencies of conducting micro and simulated teaching and developing and delivering demonstration lessons, • Know children with disabilities and make a plan for their education. 		
Course Content	<p>Unit -1: Understanding Teaching</p> <ul style="list-style-type: none"> • Concept and definition of Teaching • Nature of teaching and characteristic factors affecting teaching • Relation between teaching and training <p>Unit -2: Types of Teaching (Concept and Characteristics)</p> <ul style="list-style-type: none"> • Micro-teaching and Micro lesson • Simulated teaching • Integrated teaching <p>Unit -3: Skills of Teaching (Basic Concept)</p> <ul style="list-style-type: none"> • Nature and definition of skills of teaching • Developing teaching skills: Introducing a lesson, Questioning, Use of teaching aids, Illustration and Reinforcement. • Phases of teaching: Pre-active, Inter-active, Post-active <p>Unit -4: Learning Design (LD)</p> <ul style="list-style-type: none"> • Concept and importance of learning design in teaching • Steps of learning design • Qualities of good learning design 		
Evaluation Process	<p>Full Marks: 100</p> <ul style="list-style-type: none"> • Class Attendance:10 • Internal Assessment: 10 • Tutorial Examination: 0 • Semester End Examination: 80 		
Question Pattern for Term End Examination	Long Answer Type Questions (10 Marks Each)	Short Answer Type Questions (5 Marks Each)	Very Short Answer Type Questions (2 Marks Each)
	3 out of 6 Questions	2 out of 2 Questions	20 out of 20 Questions
Suggested Readings	<ul style="list-style-type: none"> • Paul, Debasish & Pandey Pranay(2020). <i>Sikkhan Dakkhata</i> , Kolkata: Rita Publication. • Pathak, R.P (2012). <i>Teaching Skills</i>. India: Pearson Education. • NCERT. (2005). National Curriculum Framework. New Delhi: National Council for Educational Research and Training. 		

Paper	DSE-A2: Educational Thought of Great Educators		
No. of Credit	6 TH – TU – PR 5 - 1 - 0		
Class Distribution	1 credit = 1 hour class; Per week = 6 hours/6 credit		
Course Outcome	<p>On the completion of the course students will be able to:</p> <ul style="list-style-type: none"> • Understand about the relationship between Philosophy and Education, • Know the contributions of various Indian philosopher to the field of education • Understand about the contributions of great western thinkers on education • Understand about the impact of western philosophy on Indian education • Understand about the contemporary philosophical thoughts and their bearing on education. 		
Course Content	<p>Unit 1: Western Educators(Part 1)</p> <ul style="list-style-type: none"> • Plato • Rousseau • Montessori <p>Unit-2: Western Educators(Part 2)</p> <ul style="list-style-type: none"> • Pestalozzi • Dewey • Ivan Illich <p>Unit-3: Indian Educators (Part 1)</p> <ul style="list-style-type: none"> • Vivekananda • Rabindranath • Gandhiji <p>Unit-4: Indian Educators (Part 2)</p> <ul style="list-style-type: none"> • Radhakrisnan • Begum Rokeya • Sister Nivedita 		
Evaluation Process	<p>Full Marks: 100</p> <ul style="list-style-type: none"> • Class Attendance:10 • Internal Assessment: 10 • Tutorial Examination: 15 • Semester End Examination: 65 		
Question Pattern for Term End Examination	Long Answer Type Questions (10 Marks Each)	Short Answer Type Questions (5 Marks Each)	Very Short Answer Type Questions (2 Marks Each)
	3 out of 4 Questions	5 out of 6 Questions	5 out of 6 Questions
Suggested Readings	<ul style="list-style-type: none"> • Pandey, R.S.(2003). Philosophizing Education. New Delhi: Kaniska Publishers. • চট্টোপাধ্যায় , মিহির কুমার; পাণ্ডে, প্রণয় (২০২০)। মহান শিক্ষাবিদদের শিক্ষাচিন্তা। কলকাতা: রীতা পাবলিকেশন। • বাগ, কাজল কুমার (২০১৯)। শিক্ষার দার্শনিক ভিত্তি ও শিক্ষানীতি। কলকাতা: নবোদয় পাবলিকেশন। • চট্টোপাধ্যায় , মিহির কুমার; পাল, অভিজিৎ কুমার; পাণ্ডে, প্রণয় (২০১৮)। শিক্ষাদর্শন। কলকাতা: রীতা পাবলিকেশন। 		

Paper	DSE-B2 : Open and Distance Learning		
No. of Credit	6 TH – TU – PR 5 - 1 - 0		
Class Distribution	1 credit = 1 hour class; Per week = 6 hours/6 credit		
Course Outcome	<p>On the completion of the course students will be able to :</p> <ul style="list-style-type: none"> • Acquire knowledge of open and distance education • Understand merits and demerits of open and distance education. • Learn about relationship between non formal , correspondence, distance and open education. • Realize the present status and role of open and distance education in India. 		
Course Content	<p>Unit-1: Concept of open and distance education</p> <ul style="list-style-type: none"> • Meaning and definition of open and distance education • Objectives and characteristics of open and distance education • Merits and demerits of open and distance education <p>Unit-2: Strategies of open and distance education</p> <ul style="list-style-type: none"> • Mode and strategies of open education • Mode and strategies of distance education • Relationship among non-formal, correspondence, distance and open education <p>Unit-3: Status and role of multi-media in open and distance education</p> <ul style="list-style-type: none"> • Present status of open education in India • Present status of distance education in India • Role of multi-media in open and distance education <p>Unit-4: Agencies, problems and remedies of open and distance education in India</p> <ul style="list-style-type: none"> • Agencies of open and distance education • Problems of open and distance education • Measures for strengthening open and distance education in India 		
Evaluation Process	<p>Full Marks: 100</p> <ul style="list-style-type: none"> • Class Attendance:10 • Internal Assessment: 10 • Tutorial Examination : 15 • Semester End Examination: 65 		
Question Pattern for Term End Examination	Long Answer Type Questions (10 Marks Each)	Short Answer Type Questions (5 Marks Each)	Very Short Answer Type Questions (2 Marks Each)
	3 out of 4 Questions	5 out of 6 Questions	5 out of 6 Questions
Suggested Readings	<ul style="list-style-type: none"> • Sharma, Madhulika (2009). <i>Distance Education Concept and Principles</i>. Kanishka Prakashan • Satyanarayana, P.; Sesharatnan, C. (2018). <i>Open Distance Education in India</i>. Shipra Publications • Jena. S.; Agarwal, Sitansu; Mahapatra, Kuldeep, K. Sukanta. <i>Open and Distance Learning</i>. Shipra Publications • ডঃ ইসলাম নূরুল, শিক্ষাতত্ত্বের রূপরেখা , শ্রীধর প্রকাশনী (২০১০) 		

Paper	DSE-A3 : Gender and Society		
No. of Credit	6 TH – TU – PR 5 - 1 - 0		
Class Distribution	1 credit = 1 hour class; Per week = 6 hours/6 credit		
Course Outcome	<p>On the completion of the course students will be able to :</p> <ul style="list-style-type: none"> Analyze the role of gender in society. Develop an independent ability to discuss about the role of women in our life. Inculcate value and essence for positive life. Understand the meaning of gender discrimination and the real cause of this bias. Develop an awareness and sensitivity in our society, with necessary action. Make positive effort towards the process of socialization 		
Course Content	<p>Unit-1 : Gender Concepts</p> <ul style="list-style-type: none"> Definition of Gender and difference with sex Gender Dynamics: Gender identity; Gender role and gender stereotype Social Construction of Gender <p>Unit-2 : Gender Socialization</p> <ul style="list-style-type: none"> Childhood, socialization and gender biases in the family and school Social Differentiation among women in educational context by caste, tribe, religion and region Gender discrimination in the management of the school and education system. <p>Unit-3 : Gender roles</p> <ul style="list-style-type: none"> Gender Roles and Relationships Matrix Gender based division and Valuation of Work Exploring Attitudes towards Gender <p>Unit-4 : Gender inequality in the schools</p> <ul style="list-style-type: none"> Gender inequality in the structure of knowledge Presentation of gender in the development of curriculum and text books. Dynamics of gender in the classroom in reference to girl friendly school, co-education and single sex schooling. 		
Evaluation Process	<p>Full Marks: 100</p> <ul style="list-style-type: none"> Class Attendance:10 Internal Assessment: 10 Tutorial Examination : 15 Semester End Examination: 65 		
Question Pattern for Term End Examination	Long Answer Type Questions (10 Marks Each)	Short Answer Type Questions (5 Marks Each)	Very Short Answer Type Questions (2 Marks Each)
	3 out of 4 Questions	5 out of 6 Questions	5 out of 6 Questions
Suggested Readings	<ul style="list-style-type: none"> Makol, Rajesh & Makol Lalita (2018). <i>Gender School and Society</i>. Delhi: Kala Mandir. Mete, Jayanta & Biswas Prarthita (2020). <i>Gender School and Society</i>. Kolkata: Rita Publication, Chakraborty, Pranab Kumar (2014). <i>Linga o samaj</i>. Kolkata: Rita publication. Oberoi, S.C. (2018). <i>Gender School and Society</i> , Laxmi Book Depot . Trivedi , Vinoti Ojha. (2016). <i>Gender School And Society</i> . Agarwal Publications 		

	<ul style="list-style-type: none"> • Oakley, Ann.(1972) <i>Sex, Gender and Society</i>. The University of Michigan: Maurice Temple Smith Limited.
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Paper	DSE-B4 : Women Education		
No. of Credit	6 TH – TU – PR 5 - 1 - 0		
Class Distribution	1 credit = 1 hour class; Per week = 6 hours/6 credit		
Course Outcome	<p>On the completion of the course students will be able to :</p> <ul style="list-style-type: none"> • Analyze the role of women in society. • Develop an independent ability to discuss about the role of women in our life. • Identify and discuss didactic opportunities and challenges for women education in India. • Understand the contribution of missionaries in women education in pre-independence era. • Under the vision education policies since independence regarding women education in India. • Make sense of the major constraints for women empowerment in India. 		
Course Content	<p>Unit-1: Historical Perspectives of Women Education</p> <ul style="list-style-type: none"> • Synoptic view of women education through the ages: Vedic, Brahmanic, Medieval Period • Contribution of Missionaries • Role of British Govt. <p>Unit-2: Policy Perspective, Committee and Commission on Women Education</p> <ul style="list-style-type: none"> • Constitutional provision, NPE -1968, 1986, 1992, POA-1992 • Radhakrisnan, Mudaliar and Kothari Commission • Durgabai Deshmukh Committee, Hansraj Mehta Committee and Bhaktabatsalam Committee <p>Unit-3: Role of Indian Thinkers in promoting Women Education</p> <ul style="list-style-type: none"> • Rammohan Roy • Vidyasagar <p>Unit-4: Major Constraints of Women Education and Women Empowerment</p> <ul style="list-style-type: none"> • Social – Psychological • Political – Economical • Role of women empowerment in modern society (in brief.) 		
Evaluation Process	<p>Full Marks: 100</p> <ul style="list-style-type: none"> • Class Attendance:10 • Internal Assessment: 10 • Tutorial Examination : 15 • Semester End Examination: 65 		
Question Pattern for Term End Examination	Long Answer Type Questions (10 Marks Each)	Short Answer Type Questions (5 Marks Each)	Very Short Answer Type Questions (2 Marks Each)
	3 out of 4 Questions	5 out of 6 Questions	5 out of 6 Questions

Suggested Readings

- Gandhi, M.K. (2011). *All Men are Brothers*, New Delhi: Rajpal
- Kalam, A.P.J. (2002). *Ignited Minds*, London: Penguin Books
- Kalam, A.P.J. (2011). *Target Three Billions-A Journey Through Challenges*, London: Penguin Books
- Kalam, A.P.J. (2012). *Turning Points*, London: Harper Collins
- Karat, B. (2012). *Food Matters- Law, Policy and Hunger*, Hyderabad: Prajashakti Book House
- Mukherjee, H.B. (2013). *Education for Fullness*.London: Routledge

Education General



University of Calcutta

Choice Based Credit System [CBCS]

B.A. (General) in EDUCATION [EDCG]

SEMESTER- III

Paper	SEC- A2 : Skill for Democratic Citizenship		
No. of Credit	2 TH – TU – PR 2 - 0 - 0		
Class Distribution	1 credit = 1 hour class; Per week = 2 hours/2 credit		
Course Outcome	<p>On the completion of the course students will be able to:</p> <ul style="list-style-type: none"> ● Provide effective leadership in every aspect of their life ● Meet the goal of social and national needs. ● Create a positive attitude towards life. ● Promote social justice & collective action. ● Keep a keen eye on their local kids –and little siblings to protect them from child abuse (Regarding POCSO) ● Take necessary action whenever face any blockage in their marital life or in their daily life due to any family member .(regarding Domestic harmony) ● This subject is very effective to lead a complete & effective life. 		
Course Content	<p>Unit 1: Rights and duties in Indian Constitution</p> <ul style="list-style-type: none"> ● Democratic rights ● Fundamental Rights ● Duties of citizenship <p>Unit 2 : Protection of Children</p> <ul style="list-style-type: none"> ● Child protection - concept and need. ● Child Rights – concept, classification and need ● Legal actions –POCSO <p>Unit 3 : Domestic Harmony</p> <ul style="list-style-type: none"> ● Domestic violence – definition and types ● Protection of Women from Domestic Violence Act, 2005 – basic features. ● Protection of males in DVA 2005. <p>Unit 4 = Role of Education (Term Paper/Project Paper)</p> <ul style="list-style-type: none"> ● Awareness programmers- rallies, debates etc ● Mass media ● Seminars and workshops <p>(Any one may be taken up by the college and recorded by the students on any one of the above topics)</p>		
Evaluation Process	<p>Full Marks: 100</p> <ul style="list-style-type: none"> ● Class Attendance:10 ● Internal Assessment: 10 ● Tutorial Examination: 0 ● Semester End Examination: 80 		
Question Pattern for	Long Answer Type Questions (10 Marks Each)	Short Answer Type Questions (5 Marks Each)	Very Short Answer Type Questions (2 Marks Each)

Term End Examination	3 out of 6 Questions	2 out of 2 Questions	20 out of 20 Questions
Suggested Readings	<ul style="list-style-type: none"> • Bucur, Maria (2018). <i>Birth of Democratic Citizenship</i>(2018). Indiana University Press • Nandi, Dr.Srikanta (2019). <i>Ganatantrik Nagarikatwer Dakkhata O Prasanga: A Brief Discussion on skill for Democratic Citizenship</i>: Bangojan Prakashan. • Chakraborty, Dr. Pranab Kr. & Banerjee, Dr. Debashree(2020) : <i>Ganatantrik Nagarikattwer Dakkhata Rita Publication,Kolkata</i> • Headenius , Axel (2001). <i>Institutions and Democratic Citizenship</i> Uppasala University Sweden 		

SEMESTER- IV

Paper	SEC- B1 : Teaching Skill
No. of Credit	2 TH – TU – PR 2 - 0 - 0
Class Distribution	1 credit = 1 hour class; Per week = 2 hours/2 credit
Course Outcome	<p>On the completion of the course students will be able to:</p> <ul style="list-style-type: none"> • Develop their skills acquisition competency as pupil teacher. • Use a different kind of teaching methods and techniques in their micro-teaching plan. • Know and understand about the recent development in the method subject specific content and school curriculum • Develop competencies of conducting micro and simulated teaching and developing and delivering demonstration lessons, • Know children with disabilities and make a plan for their education.
Course Content	<p>Unit -1: Understanding Teaching</p> <ul style="list-style-type: none"> • Concept and definition of Teaching • Nature of teaching and characteristic factors affecting teaching • Relation between teaching and training <p>Unit -2: Types of Teaching (Concept and Characteristics)</p> <ul style="list-style-type: none"> • Micro-teaching and Micro lesson • Simulated teaching • Integrated teaching <p>Unit -3: Skills of Teaching (Basic Concept)</p> <ul style="list-style-type: none"> • Nature and definition of skills of teaching • Developing teaching skills: Introducing a lesson, Questioning, Use of teaching aids, Illustration and Reinforcement. • Phases of teaching: Pre-active, Inter-active, Post-active <p>Unit -4: Learning Design (LD)</p> <ul style="list-style-type: none"> • Concept and importance of learning design in teaching • Steps of learning design • Qualities of good learning design
Evaluation Process	<p>Full Marks: 100</p> <ul style="list-style-type: none"> • Class Attendance:10 • Internal Assessment: 10

	<ul style="list-style-type: none"> • Tutorial Examination: 0 • Semester End Examination: 80 		
Question Pattern for Term End Examination	Long Answer Type Questions (10 Marks Each)	Short Answer Type Questions (5 Marks Each)	Very Short Answer Type Questions (2 Marks Each)
	3 out of 6 Questions	2 out of 2 Questions	20 out of 20 Questions
Suggested Readings	<ul style="list-style-type: none"> • Paul, Debasish & Pandey Pranay(2020). <i>Sikkhan Dakkhata</i> , Kolkata: Rita Publication. • Pathak, R.P (2012). <i>Teaching Skills</i>. India: Pearson Education. • NCERT. (2005). National Curriculum Framework. New Delhi: National Council for Educational Research and Training. 		

SEMESTER- V

Paper	DSE-A2: Educational Thought of Great Educators
No. of Credit	6 TH – TU – PR 5 - 1 - 0
Class Distribution	1 credit = 1 hour class; Per week = 6 hours/6 credit
Course Outcome	<p>On the completion of the course students will be able to:</p> <ul style="list-style-type: none"> • Understand about the relationship between Philosophy and Education, • Know the contributions of various Indian philosopher to the field of education • Understand about the contributions of great western thinkers on education • Understand about the impact of western philosophy on Indian education • Understand about the contemporary philosophical thoughts and their bearing on education.
Course Content	<p>Unit 1: Western Educators(Part 1)</p> <ul style="list-style-type: none"> • Plato • Rousseau • Montessori <p>Unit-2: Western Educators(Part 2)</p> <ul style="list-style-type: none"> • Pestalozzi • Dewey • Ivan Illich <p>Unit-3: Indian Educators (Part 1)</p> <ul style="list-style-type: none"> • Vivekananda • Rabindranath • Gandhiji <p>Unit-4: Indian Educators (Part 2)</p> <ul style="list-style-type: none"> • Radhakrisnan • Begum Rokeya • Sister Nivedita
Evaluation Process	<p>Full Marks: 100</p> <ul style="list-style-type: none"> • Class Attendance:10

	<ul style="list-style-type: none"> • Internal Assessment: 10 • Tutorial Examination: 15 • Semester End Examination: 65 		
Question Pattern for Term End Examination	Long Answer Type Questions (10 Marks Each)	Short Answer Type Questions (5 Marks Each)	Very Short Answer Type Questions (2 Marks Each)
	3 out of 4 Questions	5 out of 6 Questions	5 out of 6 Questions
Suggested Readings	<ul style="list-style-type: none"> • Pandey, R.S.(2003). Philosophizing Education. New Delhi: Kaniska Publishers. • চট্টোপাধ্যায়, মিহির কুমার; পাণ্ডে, প্রণয় (২০২০)। মহান শিক্ষাবিদদের শিক্ষাচিন্তা। কলকাতা: রীতা পাবলিকেশন। • বাগ, কাজল কুমার (২০১৯)। শিক্ষার দার্শনিক ভিত্তি ও শিক্ষানীতি। কলকাতা: নবোদয় পাবলিকেশন। • চট্টোপাধ্যায়, মিহির কুমার; পাল, অভিজিৎ কুমার; পাণ্ডে, প্রণয় (২০১৮)। শিক্ষাদর্শন। কলকাতা: রীতা পাবলিকেশন। 		

SEMESTER- VI

Paper	DSE-B2 : Women Education
No. of Credit	6 TH – TU – PR 5 - 1 - 0
Class Distribution	1 credit = 1 hour class; Per week = 6 hours/6 credit
Course Outcome	<p>On the completion of the course students will be able to :</p> <ul style="list-style-type: none"> • Analyze the role of women in society. • Develop an independent ability to discuss about the role of women in our life. • Identify and discuss didactic opportunities and challenges for women education in India. • Understand the contribution of missionaries in women education in pre-independence era. • Under the vision education policies since independence regarding women education in India. • Make sense of the major constraints for women empowerment in India.
Course Content	<p>Unit-1: Historical Perspectives of Women Education</p> <ul style="list-style-type: none"> • Synoptic view of women education through the ages: Vedic, Brahmanic, Medieval Period • Contribution of Missionaries • Role of British Govt. <p>Unit-2: Policy Perspective, Committee and Commission on Women Education</p> <ul style="list-style-type: none"> • Constitutional provision, NPE -1968, 1986, 1992, POA-1992 • Radhakrisnan, Mudaliar and Kothari Commission • Durgabai Deshmukh Committee, Hansraj Mehta Committee and Bhaktabatsalam Committee <p>Unit-3: Role of Indian Thinkers in promoting Women Education</p> <ul style="list-style-type: none"> • Rammohan Roy • Vidyasagar

	Unit-4: Major Constraints of Women Education and Women Empowerment		
	<ul style="list-style-type: none"> • Social – Psychological • Political – Economical • Role of women empowerment in modern society (in brief.) 		
Evaluation Process	Full Marks: 100 <ul style="list-style-type: none"> • Class Attendance:10 • Internal Assessment: 10 • Tutorial Examination : 15 • Semester End Examination: 65 		
Question Pattern for Term End Examination	Long Answer Type Questions (10 Marks Each)	Short Answer Type Questions (5 Marks Each)	Very Short Answer Type Questions (2 Marks Each)
	3 out of 4 Questions	5 out of 6 Questions	5 out of 6 Questions
Suggested Readings	<ul style="list-style-type: none"> • Gandhi, M.K. (2011). <i>All Men are Brothers</i>, New Delhi: Rajpal • Kalam, A.P.J. (2002). <i>Ignited Minds</i>, London: Penguin Books • Kalam, A.P.J. (2011). <i>Target Three Billions-A Journey Through Challenges</i>, London: Penguin Books • Kalam, A.P.J. (2012). <i>Turning Points</i>, London: Harper Collins • Karat, B. (2012). <i>Food Matters- Law, Policy and Hunger</i>, Hyderabad: Prajashakti Book House • Mukherjee, H.B. (2013). <i>Education for Fullness</i>.London: Routledge 		

Subject-English

**Ramsaday College
Department of English
DSE & SEC Courses Outcome**

Semester – 3 Honours & General

SEC-A2

BUSINESS COMMUNICATION

The Course includes writing of Business Letters, Writing CV, e-mail, Report and Meeting Minutes.

The knowledge of all these units would help students to get ready for the job world.

- Learning CV writing would enable students to apply for various jobs at the end of Graduation.
- Knowledge of writing e-mail and Meeting Minutes would help them to land up with Secretarial Jobs in various Private Farms.
- Report Writing would open doors to Newspaper jobs.

Semester – 4 Honours

SEC-B2

ACADEMIC WRITING AND COMPOSITION

- Learning the art of summarizing and paraphrasing would enable the students to appreciate a literary work better.
- The knowledge of how to cite sources in Academic Writings would take them a step forward towards academic research-paper writing.

Semester – 5 Honours

DSE-A1

MODERN INDIAN WRITING IN ENGLISH TRANSLATION

- The purpose of teaching various regional works of literature in English translation is to widen the horizon of the regional language students.
- The English translation of Hindi, Urdu, Oriya and Bengali texts would enable learners to taste the various flavours of India as well as Bengali –speaking students can fathom the art of translation by comparing texts chosen from Bengali Literature with their translations in English.

DSE-B1**LITERARY TYPES, RHETORIC AND PROSODY**

- Rhetoric and Prosody are the backbones of literary works. So the knowledge of these would enable the students to understand the art of prose as well as verse.
- The exploration of Literary Types like Tragedy, Comedy and Short Story would ensure the student's comprehension power about various works that they are made to study. The knowledge can even inspire budding writers to come up with their own creations.

Semester – 6 Honours**DSE-A4****MEDIA AND COMMUNICATION STUDIES**

The Course is designed to teach students –

Report Writing

Pamphlet Writing

Advertisement Writing

Poster Writing

- The knowledge of each segment ensures that the student gets a stepping stone into the world of Multimedia and Journalism.
- Advertisement writing can ensure job of copy writer.
- Pamphlet/Poster writing can be a gateway for jobs in Advertisement Firms.
- Report writing would ensure an opening for job of Journalist.

DSE-B3**AUTOBIOGRAPHY**

- Learning the Autobiographies of eminent persons can be very inspirational.
- Reading of Autobiographies can help students become content narrator at various events.

Semester – 4/6 General

SECB1

SPOKEN ENGLISH

- The knowledge of oral communication, good communication, Stress, Intonation, Voice Modulation, Art of Greeting, Leave-taking etc. would enable students to communicate with others in foreign language.
- The students would, at the end of the course, be ready to face interview, do anchoring at various cultural events, address public freely.
- More importantly, they can apply for the posts of Telecaller, Customer Care Executive, Sales Executive and Front Desk Receptionist in Private Firms.

Semester – 4/6 General

SECB2

CREATIVE WRITING

- Learning how to write short story/poem, will make the students eligible for the post of Editor of Literary Magazine. Students can become freelance writer and contribute to journals as well.
- Learning about publishing will ensure job in publishing companies.

Semester – 5 General

DSEA1

BRITISH LITERATURE

- Studying of the works by luminaries like Shakespeare, Wordsworth Shelley and others would ensure that the students have broad knowledge about British Literature in general.

Semester – 6 General

DSEB1

PARTITION LITERATURE

- The study of Partition Literature would expose the young students of today to a heart-rending chapter of Indian history. The works of Protiva Basu, Sadat Hasan Manto, Sahir Ludhianvi would open for students of Post-Independence Era, the raw wound of Partition. The pain of an era, lived in long back past, would help students to value their secure, happy present.

Subject-History

Honours

Department of History
Programme Specific Outcome

Semester-III (Honours)

Skilled Enhancement Course (SEC)

SEC-A (1) Archives and Museums

- The students are introduced to the study of Archives and Museums, by making them understand its definition and the history of development with special reference to India.
- They get an insight into the types of Archives and Museums, the policies and procedures of collection of data's and materials from different sources.
- The course helps them to acquire knowledge of different methods of documentation, preservation and restoration of materials collected.
- It further enhances their knowledge about the process of museum preservation and exhibition of such source materials.
- The course gives the student scope of undergoing research work and speciality in the field opens up the door for job opportunities as Museum Archivist.

Semester-IV(Honours)

Skilled Enhancement Course (SEC)

SEC- B (2) Art Appreciation: an introduction to the Indian Art

- The course helps the students to get broader idea of the Indian Art dating back from ancient times ie. Prehistoric and Protohistoric art forms like the rock art and Harappan art.
- They get an opportunity to explore the temple art form and their architectural features dating from c.600 BCE to 1200 CE. The course includes Mughal Architecture and Miniature Painting tradition like Mughal, Rajasthani and Pahari. They get wider insight into Modern and Contemporary Indian Art and Architecture like the Colonial period art movement and Bengal School of Art.
- The paper helps to grow an interest among students about Art history and pursue a career in Fine Arts.
- The knowledge of Art and Architecture will help student land a job in the Department of Tourism.

Semester-V (Honours)

Discipline Specific Elective(DSE)

DSE -A-1 History of Bengal (C 1757-1905)

- The students are taught detailed political history of the nawabs of Bengal and the rise of the British.
- They acquire knowledge about the administrative history of Bengal between 1765 and 1833 and the colonial economy of the period. The cultural changes and socio religious reform movement taking place in Bengal further enhances their knowledge.
- They are acquainted with women's questions and protest movement against the Raj. Further the paper highlights the partition of Bengal in 1905.
- The paper in particular gives interested students an opportunity to select it as their research project.

DSE- B1 History of Modern East Asia-I- China (C.1840-1949)

- The students will be acquainted with the History of China, one of the oldest countries of East Asia in civilization and culture.
- The vigour with which China, after overcoming all the crisis period, be it foreign invasion or internal contradiction rose up as a semi capitalist state and established herself into a potentially flourishing country acts as a source of inspiration to the students.
- The paper provides an opportunity to undertake research on Indo- Chinese relation that was started from ancient times and become more strong in this age of globalization.

Semester-VI (Honours)

Discipline Specific Elective(DSE)

DSE- A 3 History of Bengal (C 1905-1947)

- The paper helps student to have detail understanding of the Swadeshi Movement, rise of extremism and terrorism with special emphasis on Bengal.
- An insight into the growth of Communal politics between 1906 and 1930 enhances the knowledge of the students further.
- The student acquire knowledge about the impact of Gandhian movement in Bengal, peasant, labour and women's movement and their response in Bengal.
- The history of Subhas Chandra Bose and formation of INA inculcates among the students a spirit of patriotism.
- The paper opens up the opportunity for research from various dimensions.

DSE – B3 History of Modern East Asia-II – Japan(C.1868-1945)

- The study of the paper most importantly is a source of inspiration to the students. A small country of East Asia, Japan overcame her limitations of geographical boundaries and moved ahead towards a brighter future.
- The path towards a modern era finds its reflection in education, culture and art that helps completing the curiosity of the students with regard to the position Japan enjoys in the world.
- The paper provides scope of research.

General

Semester-V (History General)

DSE-A-2: Some Aspects of European History: C.1780-1945

- This course will acquaint students with the causes, events, nature and consequences of the historic French Revolution.
- From this course students will gain in-depth knowledge about the reign of the great French Emperor Napoleon Bonaparte and the European political system after his fall, the July Revolution of 1830 and the February Revolution of 1848.
- Through this course students will learn in detail about the unification movement of Italy and Germany, and come to know about the social and economic changes in Europe during this time.
- From this course students will learn about the nature of the imperialist conflict between the European colonial powers and the causes and consequences of the First World War.
- Students will gain in-depth knowledge of the rise and nature of fascism and Nazism in Italy and Germany.
- Students will be able to learn about the causes and consequences of the historic Second World War from this course.

- This course will play an important role in generating students' interest in future research about the history of modern Europe.

Semester-VI (History General)

DSE-B-2: Some Aspects of Society and Economy of Modern Europe: 15th to 18th century

- From this course students will be able to learn in detail about the history of graphical trends and the debate on the crisis of Feudalism in medieval Europe.
- Students will gain knowledge about the origin, development, main features and effects of the Renaissance.
- From this course students will be able to learn in detail about the origin, nature and impact of the European reform movement.
- Students will learn about the motives behind the beginning of colonization process of European colonial powers.
- From this course students will gain knowledge about the economic development and main features of the 16th century Europe.
- Students will gain in-depth knowledge about the transition from feudalism to capitalism and the industrial revolution of England.
- This course will open a new horizon in front of the students about the history of Modern Europe as a whole.

Semester-III/V (History General)

Skilled Enhancement Course (SEC)

SEC-A1 : Historical Tourism : Theory & Practice

- Through this course students will gain an idea about Indian art and architecture. Students will gain a better understanding of these by visiting historical places and museums.
- Through this course students will be able to learn about ancient Indian architectural patterns, architectural style of temples, forts, palaces, mosques and colonial architectural style and modern architectural style.
- In this course visiting historical places and museums will encourage students to do future higher studies and research in this field.
- From this course students will gain an idea about modalities of conducting tourism which will greatly expand their future job opportunities.

Semester-IV/VI (History General)

Skilled Enhancement Course (SEC)

SEC-B-1: Museums & Archives in India

- The students are introduced to the study of Archives and Museums, by making them understand its definition and the history of development with special reference to India.
- They get an insight into the types of Archives and Museums, the policies and procedures of collection of data's and materials from different sources.
- The course helps them to acquire knowledge of different methods of documentation, preservation and restoration of materials collected.
- It further enhances their knowledge about the process of museum preservation and exhibition of such source materials.
- The course gives the student scope of undergoing research work and speciality in the field opens up the door for job opportunities as Museum Archivist and Guide Lecturer etc.

Subject-Journalism & Mass Communication

General

JOURNALISM AND MASS COMMUNICATION

COURSE OUTCOME

The subject of journalism and mass communication is a combination of many interesting disciplines that requires thorough understanding, which when acquired offers immense possibilities in various promising professions. As such the course structure at the graduate level aims to encapsulate the fundamentals that will propel the students to go for advanced study in respective domains of this subject.

Semester- I

Basics of Journalism

1. Introduction to the importance of print media in the Indian society.
2. Making students understand about responsibilities, ethics, guidelines of news/media houses.
3. Overview of different posts and duties of newspaper industry i.e., editor, news editor, chief reporter, chief sub editor, reporter, special correspondent and so on.
4. Give students an insight on practices and principles of print media houses or newspaper houses.
5. Introduce students to multiple types, sources, languages, styles of different journalistic write-ups such as hard news, soft news, features, columns, articles, anchor stories etc.
6. Make students familiar with the importance of photography in print media and differences of the same.
7. Helping students acquire a clear idea about the necessity and creative procedures of different type of headlines.
8. Explain students the importance of proof-reading in print media and the need for various types of page designing in newspapers.

Semester- II

Media Management

1. Get students familiar with ownership patterns and business scenario of print media in India.
2. Introduction to every single department of a newspaper house along with their importance and duties.
3. Impart a general idea about multiple essential institutions and services related to media, for example Register Newspaper of India (RNI), Audit Bureau of Circulation (ABC), National Readership Survey (NRS), Telecom Regulatory Authority of India (TRAI) etc.
4. Elucidate students about the printing evolution process in India and recent scenario of the same.
5. Introduction of few important broadcasting bills of India and current status of electronic media management.
6. Students get fundamental knowledge about the advertisement department of newspaper houses, types of advertisements and importance of the same in print media houses.
7. Brief concept and activity of circulation department of print media house is described to students and the relation between ad and circulation departments.

Semester- III

Advertising and Public Relations

1. Concept and scenario of advertisement across India is clarified to students.
2. Students must have a concrete understanding of various ethics and principles of the advertising industry.
3. The requirement for various advertisement mediums, relative advantages of each medium is explained to students.
4. Introduction of market research, sales promotion, market segmentation, branding and other essential terminologies of advertising industry.
5. Make students familiar with different types of ad copy writing, necessary features of each copy, importance of copies.
6. Students have a clear vision of different duties of advertisement manager, copy writer and other persons who are associated with this industry.
7. Illustrating students about importance of advertisement agency, client-agency relationship.
8. Overview on Public Relations, requirement of this profession, how it is attached with media.
9. Get a clear concept about the duty of public relation officer (PRO) and how he/she handles the job.
10. An outline on Press Release, Press Conference, Press Rejoinder, Community Relations, Media Relations, Corporate PR, House Journal, CSR etc.
11. Activities of PRSI, IPRA are cleared to all students.
12. Students should know what is Crisis Management and how to handle the situation.

Practical Part:

1. Get fundamental knowledge of Computer for print journalism.
2. Students get an idea of making front page through page-making software on computer.
3. Have a basic understanding on how to write, edit write-ups using Microsoft Word on computer.
4. Students acquire knowledge on making display advertisements through photo editing software.
5. Get practical idea on writing news, features, headlines, introductions etc.

Semester- IV

Press Laws and Indian Constitution

1. Introduction to Indian Constitution, its main features, fundamental rights of every citizen.
2. Overview on power and position of President, Governor, Prime Minister and Chief Minister in India.
3. Importance of Supreme Court, High Court in judiciary and law system in India are illustrated to students.
4. Students get introduced to various national schemes i.e., Indian Foreign Policy, New Industrial Policy, NitiAyog and many more.
5. Various press laws which are essential for journalists like, Defamation, Contempt of Court, Working Journalistic Act etc. get familiarized to students.
6. An outline on Journalistic ethics, brief history and present state of freedom and responsibility of press.
7. Understanding the history, necessity and objectivity of two Press Commissions, the Press Council of India.

Semester -V

DSE A 5 1

Film Studies

1. Illustrate the role of films as a medium of mass communication to students and also guide them through the history of Indian cinema.
2. Share with them the brief timeline of documentary movies, adaptation of literature in commercial movies and concepts of few genres of cinema.

3. Help them obtain a clear knowledge on various cinema movements like French new-wave, Neo-realism etc.
4. Explain the growth of regional movies and contemporary genres of Indian cinema.
5. Students discover a lot about eminent filmmakers like Sergei Eisenstein, Rittwik Ghatak, Charles Chaplin, Satyajit Ray and many more.
6. Students are made aware about few landmark Indian movies like “*Pather Panchali*”, “*Subarnarekha*”, “*Akaler Sandhane*” etc.
7. In this section students are also introduced to various stages of film making along with few technical and aesthetic ideas.

OR,

DSE A 5 2

Specialised Writing

1. Students get a hands-on experience in writing on different social issues like health, environment, crime, education etc.
2. A complete knowledge on press conference and various types and stages of interviews.
3. Making students understand the representation of women in mass media, importance and writing style of women’s page/magazine.
4. Students get knowledge on how to prepare proper advertisement copy for different media i.e., print, electronic etc.
5. Help them to understand the way of writing Press Release, preparing storyboard etc.

Semester- VI

DSE B 6 1

Broadcasting Media

1. Introduction to the development of radio broadcasting scenario in India.
2. Get students familiar with the impact of radio in the society.
3. Making students understand about elements of radio news and different ways of reporting and presenting programmes in both radio and television.
4. An overview on FM, pattern of various radio programmes and the complete scenario of Indian broadcasting system.
5. Introduction to the history and recent situation of TV in India.
6. Clarify the fundamentals of satellite TV channels i.e., BBC, CNN, NDTV etc.
7. Making students understand the role of TV as news and entertainment medium.
8. Giving them a clear idea of presenting balanced and objective report for TV.
9. Students also learn the basics of camera movement through this course.
10. Demonstrate a clear conception about various types of TV programmes i.e., soap operas, reality shows, cartoon etc.

OR,

DSE B 6 2

International Relations

1. Share detailed knowledge about International Relations.
2. Introduction to few essential international policies of India and relations with neighbouring countries i.e., Bangladesh, Pakistan, China etc.
3. An overview on international political institutions such as United Nations, SAARC, ASEAN etc.
4. Students get a brief idea on the security council system of United Nations.
5. Making students aware about the current situation of global media economy, institutions like IMF, WTO etc.
6. Through this course students can understand the notions of colonialism, neo-liberalism etc.

Skill Enhancement Course- A-3/5

Journalistic Writing:

1. Students can enhance or uplift their writing skills of various type of journalistic writings such as news, editorial, feature, article etc.

Newspaper Designing:

1. Skill on flawlessly using page making software for creating different type of pages on newspaper i.e., frontpage, international page, sports page etc. get improved.

Film Appreciation:

1. Students get idea or skill of critically appreciating or reviewing any kind of movie or film.

Print Advertisement:

1. The skill/ability of creating display advertisement through a photo editing software can get boosted through this course.

Skill Enhancement Course- B-4/6

Documentary Script Writing:

1. Students develop a fundamental ability of writing small scripts for any sort of documentary movie or film.

Radio-Television Script Writing:

1. Overview on making scripts for both Television and Radio news, news-talks, bulletin etc.

Anchoring:

1. Enhance the ability of presenting any topic attractively through 3 minutes anchoring, and this increases hands-on experience on preparing script for anchoring and do voice over as well.

Media Presentation:

1. Students can learn how to prepare slides for any corporate or social plan using Microsoft PowerPoint software.
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Subject-Music

General

Department Of Music

Course Outcomes and Program Outcomes for BA/B.Sc (General) Music Under CBCS

Semester- I

Course Code: CC-1/GE-1

Course Name: Core Course-1/ Generic Elective-1

Course Outcomes (CO):

CO1: A broader understanding of definition and various technical terminologies of Music and Musical Element.

CO2: A clear understanding about the difference between North Indian and South Indian Music System.

CO3: Students would be more aware about structural conception of Classical, Semi- Classical and Light Music.

CO4: An understanding about the history of Indian Music.

CO5: Students would be able to apply innovative ideas and knowledge to create any type of compositions of Music.

CO6: students would be helped to know about different techniques and knowledge of various Folk Songs and Folk Instruments of India.

Project Work:

Students would be benefited to learn about Life and Contribution of Reputed Classical Musician of Hindustani/ Carnatic in the music world.

Semester- II

Course Code: CC-2/GE-2

Course Name: Core Course-2/ Generic Elective-2

Course Outcomes (CO):

CO1: To help the student to understand the significance of various Indian Ragas and Talas.

CO2: To provide Theoretical Knowledge of ability to write Notation of Drut Kheyal.

CO3: To understand the basics for identifying the different Ragas and Talas.

CO4: An understanding of Laya- Layakari (Fractional-Non Fractional Calculation) aspects of different Indian Talas.

CO5: To make the students aware about knowledge and purity of singing style of Dhrupad, Dhamar, Kheyal, Bhajan, Tappa, Gazal, Kawali, Rabindra Sangeet, Nazrul Geeti, Dwijendra Geeti, Shyama Sangeet, Modern Bengali Songs etc.

Project Work:

To help students learn more about the Musical Instrument of Hindustani music.

Semester- III

Course Code: CC-3/GE-3

Course Name: Core Course-3/ Generic Elective-3

Course Outcomes (CO):

CO1: Students would be helped to receive knowledge about the structural concept of Different Instrumental Music.

CO2: To assist students in understanding regarding the concept of Classification of Musical Instruments and its significance in Music World.

CO3: Students would get opportunity to understand and apply knowledge of Voice Production in different technique of different songs.

CO4: To make the students aware about knowledge and purity of singing style of Thumri, Dadra, Kajari, Chaiti, Hori etc. with Kirtan.

CO5: Students would be able to understand about the knowledge and technique of Harmonium or Tabla Playing.

Project Work:

Students would be benefited to gain a lot of knowledge and concepts from Classical Musical Forms of the Hindustani Music.

Semester- IV

Course Code: CC-4/GE-4

Course Name: Core Course-4/ Generic Elective-4

Paper Name: Life and contribution of composer of Bengali Songs: Rabindranath Tagore, Dwijendralal Roy, Rajanikanta sen, Atulprasad Sen, Kazi Nazrul Islam.

Course Outcomes (CO):

CO1: Students would be able to understand regarding Elementary Knowledge of Time Theory and its significance in Indian Music.

CO2: To receive concepts for planning and formulation of Akarmatrik Notation System and its implementation to Rabindra Sangeet.

CO3: Students would be able to understand about the concept of Composition of Carnatic Music and Instrumental Music.

CO4: To update students about knowledge of Modern Songs of Different Compose.

Project Work:

Students would be able to gain a lot of knowledge and concepts from Semi Classical/ Light/ Folk Music of any Region.

Course Code: SEC-B1/ SEC-B2

Course Name: Skill Enhancement Course-B1/ Skill Enhancement Course-B2

Paper Code: **SEC-B1:**

Paper Name: Practice of paltas with Suddha and Vikrit Swaras

Course Outcomes (CO):

CO1: Students would be able to understand and apply concept of paltas with swaras in any type of creativity.

CO2: Students would be able to understand and apply Suddha and Vikrit Swaras in different ragas.

CO3: To gain a lot of knowledge and concept from different paltas of Suddha and Vikrit Swaras.

Paper Code: **SEC-B2:**

Paper Name: Tanpura Playing

Course Outcomes (CO):

CO1: Students will be able to gain a lot of knowledge about Tanpura Playing.

CO2: To get Conceptual aspects of Tanpura Tuning.

Semester- V

Course Code: DSE-A1/DSE-A2

Course Name: Discipline Specific Elective-A1/ Discipline Specific Elective-A2

Paper Code: **DSE-A1:**

Paper Name: Study on Patriotic Song

Course Outcomes (CO):

CO1: To get concept of Pre-Independence Period and Post- Independence Period Patriotic songs.

CO2: To gather knowledge on the history of Indian Patriotic songs.

CO3: To know about Name and Contribution of Composers of Patriotic songs.

CO4: To understand the clear meaning of National Anthem and National Song.

Paper Code: **DSE-A2**:

Paper Name: Study on Music Related to Different Festive Moods

Course Outcomes (CO):

CO1: Students would be able to understand about the theoretical knowledge of festival related songs like Holi Song, Marriage Song, Bihu Song, Agamani Song, Bhadu Song etc.

CO2: Students would be able to receive clear concepts on various aspects of different festive mood songs.

CO3: To help students in learning more about the Folk Instruments also from the festive songs.

Course Code: SEC-A1/ SEC-A2

Course Name: Skill Enhancement Course-A1/ Skill Enhancement Course-A2

Paper Code: **SEC-A1**:

Paper Name: Identification of Different Instruments by Listening Audio Specimen.

Course Outcomes (CO)

CO1: Students would be able to know about the different instruments through sound.

CO2: To gather knowledge on Quality or Timbre of different instruments.

Paper Code: **SEC-A2**

Paper Name: Harmonium Playing with Rabindra Sangeet/ Bengali Songs

Course Outcomes (CO):

CO1: Students would be able to gain a lot of knowledge about Harmonium Playing on Rabindra Sangeet or Bengali Songs.

CO2: Students would be able to get clear Concept about various aspects from Harmonium Playing.

Semester- VI

Course Code: DSE-B1/DSE-B2

Course Name: Discipline Specific Elective-B1/ Discipline Specific Elective-B2

Paper Code: **DSE-B1**

Paper Name: Study on Regional Folk Song of India

Course Outcomes (CO):

CO1: To know about different techniques and knowledge of various Regional Folk Songs of India like Assam, Gujrat, Rajasthan, Panjub etc.

CO2: Students would be able to gain a lot of knowledge about Accompanying Instruments which are used with this Regional Folk Songs.

Paper Code: **DSE-B2**

Paper Name: Study on Ragashrayi Gaan

Course Outcomes (CO):

CO1: To help the students in understanding the significance of various types of Indian Ragas.

CO2: Students would be able to understand and apply concepts of Ragashrayi Gaan in different practical field.

Program Outcomes (PO):

PO1: Students would be able to practice the process of musical functions such as Creation, Planning, Innovation etc. in the Creative World.

PO2: Students would be able to manage his/her creativity with an understanding about different forms of Music.

PO3: To join the school as a Music Teacher and/or go for Higher Studies.

PO4: Students would be able to apply innovative ideas and knowledge to start their own Music School/Academy/Institution.

PO5: To apply knowledge of musical concepts to solve complex of biological problems through Music Therapy.

PO6: Students would be able to apply knowledge of musical concepts to solve complex psychological problems like anxiety, depression, insomnia etc. through Music.

PO7: Students would be able to become a good Stage Performer.

Subject-Philosophy

HONOURS

SEMESTER	3
TITLE OF PAPER	MAN AND ENVIRONMENT
PAPER CODE	PHI-A-SEC-A(b)
CREDIT	2 PER WEEK

COURSE OUTCOME-

After successful completion of the course the students will be able to-

- *Understand the classical Indian attitude to environment and learn how to show respect for nature*
- *Gather knowledge about intrinsic value of nature*
- *Understand the relation between nature and man*
- *Understand concept of ecology system*
- *Understand the concepts of masculinity, humanity and nature*
- *Get an idea of relation between nature and feminism*

SEMESTER	4
TITLE OF PAPER	PHILOSOPHY OF HUMAN RIGHTS
PAPER CODE	PHI-A-SEC-B(b)
CREDIT	2 PER WEEK

COURSE OUTCOME-

Upon successful completion of the course-

- *The students will be aware of the concept of human rights*
- *The students should understand definition and nature of human rights, its origin and historical development*
- *The students can focus on the relation between natural rights, fundamental rights and human rights*
- *The students can gather basic knowledge of fundamental rights and duties in Indian constitution*
- *The students can evaluate the effectiveness of human rights practice on local, national, humanitarian efforts.*

SEMESTER	5
TITLE OF PAPER	PHILOSOPHY OF LANGUAGE(INDIAN)
PAPER CODE	PHI-A-DSE-A(1)(C)
CREDIT	6 PER WEEK

COURSE OUTCOME-

By studying this paper students-

- *Can get concept of word meaning and sentence meaning in Indian philosophy*
- *Can understand definition and classification of pada*

- Should get concept of lakshana and its different types
- Will be able to explain verbal testimony
- Can get concept of anvaitavidhanvada and abhihanavayavada
- Will be able to analyze the concept of asatti,yogyata,sannidhi

SEMESTER	5
TITLE OF PAPER	AN ENQUIRY CONCERNING HUMAN UNDERSTANDING – D. HUME
PAPER CODE	PHI-A-DSE-B(1)(a)
CREDIT	6 PER WEEK

COURSE OUTCOME-

Upon successful completion of the course,the students should be able-

- To understand the views of empericist philosopher David Hume in his definitive works
- To feel the importance of reading original text written by Hume
- To understand the place of Hume and the Enquiry in the world of western philosophy
- To improve their ability to engage in philosophical reasoning and understand the topics of concern in the Enquiry
- To underastand the concept of skepticism,causation,free will and Hume’s views on these topics.

SEMESTER	6
TITLE OF PAPER	APPLIED ETHICS
PAPER CODE	PHI-A-DSE-A(2)(b)
CREDIT	6 PER WEEK

COURSE OUTCOME-

Upon successful completion of the course,students should be able to-

- Develop a concept of applied ethics
- Learn about the value of human and animal
- Solve problems of everyday life related to morality
- Develop concept of suicide and euthanasia
- Acquire knowledge of nature and deep ecology,necessity of environmental ethics for human survival
- Analyze morality of war and violence

SEMESTER	6
TITLE OF PAPER	M.K.GANDHI
PAPER CODE	PHI-A-DSE-B(2)(d)
CREDIT	6 PER WEEK

COURSE OUTCOME-

- *This course prepares the students to understand the concept of non violence*
- *Students can understand Gandhiji's ideas of truth and God*
- *students can feel how truth is important in human life*
- *students can understand how Gandhiji explained nature of man.*
- *The course can illustrate the idea and importance of non violence, satyagraha and swaraj.*
- *The students can get idea about Gandhiji's notion of trusteeship*

Subject-Philosophy General

SEMESTER	3
TITLE OF PAPER	BUSINESS ETHICS
PAPER CODE	PHI-G-SEC-A(b)
CREDIT	2 PER WEEK

COURSE OUTCOME-

Objectives of the course are-

- *To introduce the concept of business ethics, it's scope and importance*
- *Students will be able to understand how environment and business ethics is related*
- *Students can understand the concept of depletable sources and how environmental values are related to business ethics*
- *The course can explain the role of ethics in management*
- *The students can understand how value programme can affect management*

SEMESTER	4
TITLE OF PAPER	MAN AND ENVIRONMENT
PAPER CODE	PHI-G-SEC-B(a)
CREDIT	2 PER WEEK

COURSE OUTCOME-

After successful completion of the course the students will be able to-

- *Understand the classical Indian attitude to environment and learn about to respect for nature*
- *Gather knowledge about intrinsic value of nature*
- *Understand the relation between nature and man*
- *Understand concept of ecology system*
- *Understand the concepts of masculinity, humanity and nature*
- *Get an idea of relation between nature and feminism*

SEMESTER	5
TITLE OF PAPER	ETHICS:INDIAN AND WESTERN
PAPER CODE	PHI-G-DSE-A(a)
CREDIT	6 PER WEEK

COURSE OUTCOME-

This course can-

- Introduce the notion of purushartha i.e. ultimate aim of our lives
- Give an idea of niskama karma and moksha
- Illustrate the concept of the four noble truths and eight fold paths from buddhist ethics
- Introduce the concept of moral and non moral actions
- Trace out the standard of morality-hedonism or utilitarianism or de-ontology
- Illustrate the theories of punishment from western ethics

SEMESTER	5
TITLE OF PAPER	LOGICAL REASONING AND APPLICATION
PAPER CODE	PHIG-SEC-A(a)
CREDIT	2 PER WEEK

COURSE OUTCOME-

After successful completion of this paper the students will be able to-

- Think critically,it can be logical,it can be argumental
- Learn about logical fallacies and how they can avoid local fallacies
- Develop an idea of anumiti
- Gather knowledge of scientific explanation
- To understand and apply the concept of inquiry in law
- Understand logical reasoning and its application

SEMESTER	6
TITLE OF PAPER	CONTEMPORARY INDIAN THOUGHT
PAPER CODE	PHI-G-DSE-B(b)
CREDIT	6 PER WEEK

COURSE OUTCOME-

After studying the course-

- The students will be able to get a broader concept of contemporary Indian thinkers' philosophy
- The students can realize spiritual concept of Swami Vivekananda's philosophy
- The students will understand Swami Vivekananda's practical Vedanta,universal religion
- The students can get concept of Ambedkar's philosophy
- The students will be able to understand M.K. Gandhi's notion about swaraj,satyagraha and non violence.

SEMESTER	6
TITLE OF PAPER	VALUE EDUCATION
PAPER CODE	PHI-G-SEC-B(b)
CREDIT	2 PER WEEK

COURSE OUTCOME-

Upon successful completion of the course-

- *Students can understand meaning, characteristics, significance, objectives of value education*
 - *Students can get concept of different values like individual, social, cultural, moral, global, spiritual*
 - *The course can give an idea of what peace education is*
 - *Students will be able to relate peace and value education in global perspective.*
-

Subject-Physical Education

General

DEPARTMENT OF PHYSICAL EDUCATION, RAMSADAY COLLEGE.

In the course of Skill Enhancement Course (SEC) the department of physical education has chosen 'Track and Field' events and 'Gymnastics and Yoga' for the development of the large number of rural students in the college.

These two options Discipline Specific Elective (DSE) are chosen because these courses are helpful for them so that they can easily participate in B. P. Ed and subsequently in M. P. Ed. Course of study.

SKILL ENHANCEMENT COURSE (SEC)

SEMESTER – 3

SUBJECT CODE-PEDG- SEC-A-3-1-P

SUBJECT - TRACK AND FIELD EVENTS

CREDIT – 6

MARKS -100

Learning outcomes

1. To equip the students to learn fundamental skill and techniques of track and field events.
2. Students will identify and use the rules and regulations of track and field events.
3. They will be able to mark track and field events and also learn how to officiate these events.
4. They will be able understand the rules of games and sports related to track and field.

Programme Outcomes

1. The track and field events will largely help them to participate in B.P. Ed degree.
2. By completing track and field, they will be competent enough to become coaches of different sports events
3. The student by completing Track and Field events will be able to examine by officiating different track and field events.
4. These track and field events will help students to get the job opportunity in responsible national level jobs.

SEMESTER – 4

SUBJECT CODE- SEC-B- 4-1-P

SUBJECT – GYMNASTICS AND YOGA

CREDIT – 6

MARKS -100

Learning outcomes

1. Understand the meaning, concept and importance of Gymnastics and its application for own physical fitness.
2. Understand the meaning, concept and importance of Yoga.
3. To know and develop their personality through various practices of yoga and simple gymnastics
4. Analyse the awareness of health through yoga.

Programme Outcomes

1. The candidates will be able to do a training course in physical education like B.P. Ed.
2. Students will identify how yoga is effective for maintaining a balanced state of body and mind.
3. They will be able to set up training centers and yoga therapy centers which will help them to earn a good living.

Discipline Specific Elective (DSE)

SEMESTER – 5

SUBJECT CODE- PEDG- G- DSE-A-5-1-TH-P

SUBJECT – MANAGEMENT IN PHYSICAL EDUCATION AND SPORTS.

CREDIT – 6

MARKS -100

Learning Outcomes

1. Know sports management and qualities and responsibilities of sports manager.
2. Develop appropriate physical education curriculum, tools and budget to manage college programs.

Programme Outcomes

1. These programmes help develop infrastructure for physical education.
2. These courses help to build up concrete ideas for the basic requirements for organising competitions and tournaments.

SEMESTER – 6

SUBJECT CODE- PEDG- G- DSE-B-6-2-TH-P

SUBJECT – TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION.

CREDIT – 6

MARKS -100

Learning Outcomes.

1. Understand the basics of test, measurements and evaluation in physical education.
2. Know about the different types of test for different sports.
3. Analyse the performance and movements in the field of sports Programme outcomes

Programme Outcomes

1. Minor project areas can be tested by applying these formulas.
2. These programmes help the students to analyse the performance and movements in the field of sports.
3. To understand the training of physical education as science based performance.
4. This course not only helps explain different means and methods of various trainings of physical education, but also prepares some training schedule for various games and sports.

Subject-Political Science

Honours & General

DEPARTMENT OF POLITICAL SCIENCE COURSE OUTCOME

SEMESTER-3 Honours

SEC-3-A- (1)

DEMOCRATIC AWARENESS THROUGH LEGAL LITERACY

The term 'legal illiteracy' indicates lack of basic knowledge of law and legal implications. So the absence of prior knowledge of law is responsible for exploitation, deprivation of rights and benefits. India being the largest democratic country in the world, the objective of the course is to provide fundamental knowledge of legal institutions, organization and practices

At the completion of the course, the Students will be able to have a clear idea about:

1. The laws relating to Criminal Jurisdiction and the different terminology like FIR, Lok Pal, Lokayukta, bail, detention etc..
2. The offences under IPC.
3. Accountability of the government through Right to Information Act (2005)
4. Contemporary concern about the Cybercrimes and understand the importance of the laws related to the prevention of Cybercrimes
5. The Anti-Terrorist laws- POTA UAPA and its implications on Security and Human Rights
6. The laws related to Dowry and other violence against women

SEMESTER -3 GENERAL

SEMESTER-3

SEC-3-A (1)

Legal Literacy

In India 75 percent of the people living in rural areas are illiterate and they have no prior law. Therefore the students are to be imparted the foundational knowledge of the law by awareness generation of the legal institutions and practices. The basic objectives of the conceptual development of thinking about democratic politics. Apart from this, it may be useful to initiate teaching with the meaning, dimensions, objectives and importance of the legal literacy in the contemporary era.

At the completion of the course, the Students will be able to have a clear idea about:

1. The basic knowledge of law.
2. The history and definition of Indian Penal Code (IPC)
3. Understanding the meaning of TADA (Terrorist and Disruptive Activities) - and POTA Act.
4. The meaning of Consumer Act and the process of filling the complaints
5. Importance of Right to Information Act.
6. Awareness of Human rights law, Universal Declaration of Human Rights
7. Powers and functions of human rights act 1993
8. The various laws preventing, protecting and redresses of the sexual harassment of women.
9. Importance of right of Children Free and Compulsory Education Act

SEMESTER 4- HONOURS

SEC-4-B-(1)

Legislative Practices and Procedures

Parliamentary practices and procedure is at the heart of the legislative process. At a basic level, it provides the tools for effective group action. Legislative rules exist to help create public policy in an open, balanced and efficient manner. At a political or strategic level, how well these rules are understood and followed can mean the life or death of a piece of legislation.

At the completion of the course, the students will be able to have a clear idea

1. The powers and privileges of the Members of parliament
2. The different powers and Functions of the State Legislature
3. Significance of the 73rd and 74th Constitutional Amendment Act
4. Procedure for a bill to become a law
5. Types of committee and its functions

SEMESTER-4 GENERAL

SEC-4-B (1)

Elementary Dimensions of Research

Today research is essential in every field of study. Therefore, the students need a sound initiation of research to increase scientific knowledge base. The basic research enables students to develop critical thinking skills along with oral and written communication skills.

After completion of the course, a student is expected to have a clear idea about:

1. Basic idea of research.
2. Essential concepts related to research.
3. Various issues and problems in ethics in research.
4. The procedure of writing research report.
5. The various sources and techniques of data collection.
6. Meaning of sampling and its scale and management.
7. The statistical method and graphical representation of data analysis

SEMESTER-5 HONOURS

SEMESTER-5

DSE-5-B- (1)

Foreign Policy in a Globalising World

Increasing globalization and interdependence between nations across the globe has enhanced the need for healthy diplomatic relations amongst all countries. Today, a sound and strategic foreign policy is crucial for having a voice in international platforms, for effective trade and investments, and for achieving consistent domestic progress. India's foreign policy has developed greatly since independence. Policies for forming global interactions progressed from being principled to goal-driven and objective orientated.

After completion of the course, a student is expected to have a clear idea about:

1. The evolution of Indian foreign Policy from a Postcolonial state to an aspiring global power
2. The evolving relations of India with the USA and the USSR/Russia
3. India's engagement with the rising China
4. India's foreign policy strategies in South Asia
5. India's strategies and policies towards climate change, trade and security regimes
6. India's role in the contemporary multi-polar world.

DSE-5-A- (1)

Gender and Politics

Gender and Politics has been a matter of great concern across the globe and within the country. This is an introductory course to the study of politics from a gender perspective. The course aims to introduce students to the fields of gender and politics by introducing the various concepts related to it and also presenting main contributions of feminist theories to the analysis of states, institutions, policymaking and politics.

Course outcomes:

1. Awareness of the relationship between the gender and politics
2. Understand and analyse the differences between sex and Gender
3. Understand the meaning of feminism
4. Understand and evaluate the phases of women's movement in India and their shortcomings

5. Understand the forms of domestic violence and its preventives measures (2005)
6. Awareness on the work of the sex-workers

SEMESTER 5 GENERAL

DSE-A-5-1B

Indian Foreign Policy

As India's influence increases in the international system, understanding its foreign policy and its engagement with its neighbours is crucial for students of International Relations. This course focuses on the basic idea on foreign policy and India's world view.

After completion of the course, a student is expected to have a clear idea about:

1. The meaning, scope and determinants of Foreign policy
2. The concept of national interest
3. The different instrument through which states pursue their foreign policy objectives and interests.
4. The evolution of Indian foreign policy.
5. The basic principles of Indian foreign policy
6. India's relations with its immediate neighbours.

SEMESTER-6 Honours

DSE-6-A-(4)

Understanding Global Politics

The Course covers the contemporary global politics, reflecting changes in today's world. It will equip students with deeper knowledge of international politics, with understanding forces that shape and dominate our political economy, global, political and socio-cultural environment. The topics will help students to understand the essentials of international affairs.

After completion of the course, a student is expected to have a clear idea about:

1. The contemporary current of globalization and its political, economic, social, cultural and technological dimensions.
2. Impact of globalization on contemporary international relations, particularly in respect of the territoriality and sovereignty of nation states.
3. The major players who set the rules of the game in the institutional landscape of a globalized world – World Bank, WTO and IMF.
4. The working of the global economy and the changing nature of the relationship between the state and transnational actors and networks.
5. Contemporary concerns of global relevance like Climate Change and environmental degradation.
6. Key contemporary global issues such as proliferation of nuclear weapons, international terrorism and human security.

DSE-6-B-(4)**Human Rights in a Comparative perspective**

Comparative analysis of human rights is an essential for explaining and understanding the conditions under which human beings forge their existence, assert their dignity, and seek protections for their different identities, for the pursuit of self-determination, and for the exercise of agency and autonomy.

After completion of the course, a student is expected to have a clear idea about:

1. The meaning, classification and evaluation of Human Rights
2. Provisions and importance of Universal Declaration of Human Rights
3. The knowledge regarding the Bill of Rights of South Africa and the Fundamental Rights of India
4. Contemporary various issues like torture, related to human rights from country perspective, Torture, Surveillance and censorship, terrorism and insecurities of Minorities
5. The comparative analysis of Race and Caste in South Africa and India
6. The comparative analysis of Gender and Violence in India and Pakistan
7. The knowledge regarding the Advisees of India and Aborigines of Australia

SEMESTER 6 GENERAL**DSE-B- 2-B****Human Rights Theory and Indian Context**

Protection of human rights is essential for the development of the people of the country which ultimately leads to the development of the nation as a whole.

After studying this course, students are expected to have a clear idea about:

1. The historical growth of the idea of human rights.
2. The international context of human rights.
3. The status and position of human rights in India.
4. The significance of the provisions of the charter of UNHR.
5. The working of United Nations Commission and its structure and functions.
6. Importance of human rights in India and its problems and remedies.

SEC-6-B(2)**Basic Research Methods**

Research methods are the tools and techniques of doing research. The wide ranges of tools that are used for different types of enquiry, just as a variety of tools are used for doing different practical jobs. Therefore it is necessary to know how to use them to best effect in the times of information that provides opportunities for discovery that are useful and essential.

At the end of the course, students will be able to

1. Understand the application of research methods to the social science
2. Examine data collection through survey method
3. Know the relevance of Focus Groups in research
4. Understand Role of a researcher in the advancement of knowledge
5. Assess the utility and limitations of experimental research
6. Know the meaning of content Analysis and major issues related to it.
7. Identify the types of participant observation methods and its advantages and disadvantages

Subject-Psychology

General

DEPARTMENT OF PSYCHOLOGY

COURSE OUTCOMES

SEMESTER	COURSE	SUBJECT	OBJECTIVES
3/5	SEC 1 A	Managing Stress(Theory)	To deal the stress induced situations such as breathing and relaxation technique and to prevent stress. Stress is a situation , developed due to physical and mental condition fail to match and disturb the social system. There are so many ways to fight this stress situation, sometimes need help from outside, too. Day by day stress is becoming a severe social disorder. Time needed proper and strong steps to overcome this serious situation. With all these factors in mind, it is being considered to select 'MANAGING STRESS" as SEC (THEORY) PAPER in3TH./5 TH .SEMESTER
3/5	SEC 1 B	Developing Emotional Competence(Theory)	Emotion is a universal feeling. Man without emotion is just impossible. But in order to properly understand the nature of that emotion, the help of things like DEVELOPING EMOTIONAL COMPETENCE is absolutely necessary. This subject teaches us what is self regulation, what type of self awareness we have to achieve. With the invaluable assistance of Developing Emotional Competence we learn about Empathy also. It helps us to improve our Motivation Skill. This subject helps a man how he/she control his/her emotions and how to use them properly. With all these factors in mind, it is being considered to select 'DEVELOPING EMOTIONAL COMPETENCE' as SEC (THEORY) PAPER in3TH./5 TH .SEMESTER.
5/6	DSE-1 A	Lifespan development (Theory+ Practical)	The reason for choosing this subject as a DSE PAPER in 5 TH SEMESTER is that it is very effective in understanding the physical, mental, emotional and moral development of a child. Moreover in order to understand precisely what problems occur at different stages of human development, how the people will deal with them and how they will prepare themselves in daily life, this particular subject- (LIFESPAN DEVELOPMENT) helps us properly .At the same time, it is important to note that the exact direction of how people adjust to various development at different phases of life can be found in this subject. For all these reasons, in order to make students suitable for the future this subject should be selected as DSE(1-A) (THEORY+PRACTIAL) PAPER in 5 TH SEMESTER.
5/6	DSE-1B	Counseling Psychology (Theory+Practical)	COUNSELING PSYCHOLOGY is basically focused on facilitating personal and interpersonal functioning across the life span. This subject pays special attention to peoples' social ,emotional , educational and also health-related development specially. This subject has a broad domain: counseling, career development, supervision and training, which helps a student to make him/herself a councilor in future. With all these factors in mind, it is being considered to select COUNCELLING PSYCHOLOGY as DSE(1-B)(THEORY+PRACTICAL) PAPER in 6 th SEMESTER.

Subject-Sanskrit

Honours & General

Department of Sanskrit

COURSE OUTCOME (SANSKRIT CBCS)

Sanskrit is the oldest and richest language in India. Through this language students will get introduced to the ancient heritage of India and its glory. The language also connects the students with the journey from past to present. So, the students must try to develop their skills in this 'Elite' language. The University Grants Commission (UGC) introduces to the very useful course under CBCS System in their Curriculum framework. After successful completion of B.A. Honours and General course students will learn Sanskrit language very efficiently. Students will find themselves employable in academic fields, language teaching, administrative work through competitive examinations, translation work, in the sector of manuscriptology and in other project work and research work in specific fields. Sanskrit texts like *Veda*, *Upaniṣad*, *Rāmāyaṇa*, *Mahābhārata*, *Purāṇa*, *Gītā*, *Nītiśataka* and other *nīti* texts will help the students to lead a healthy and balanced life which is the need of hour.

Semester-III (Honours & General) Course outcome of Sanskrit SEC:

Semester - III	Semester - III
Subject - Sanskrit	Subject - Sanskrit
Category - Honours	Category - General
Course - SEC-A1 & SEC-B2	Course - SEC-A1 & SEC-B1
Title - Sanskrit Writing Skill	Title - Basic Sanskrit

- Students will be gradually able to brush up on Basic Sanskrit Grammatical Skills.
- The capability will be grown up to express themselves in this language.
- Through this course students will be more capable, competent and confident in themselves to compose any kind of compositions.
- Students will be able to improve their critical thinking skills also.
- Memorization Skill (like, *Sabda-rūpa*, *Dhātu-rūpa* etc.) will be developed.
- Through practicing the course, a general idea will be built on traditional subjects like *Veda*, *Upaniṣad*, *Rāmāyaṇa*, *Mahābhārata*, *Purāṇa*, *Gītā*, Principal Sanskrit Poetics etc. as well as modern subjects like National and International affairs and social issues.

Semester-IV (Honours & General) Course outcome of Sanskrit SEC:

Semester - IV	Semester - IV
Subject - Sanskrit	Subject - Sanskrit
Category - Honours	Category - General
Course - SEC-B2	Course - SEC-B1
Title - Spoken & Computational Sanskrit	Title - Spoken Sanskrit & Computer Awareness for Sanskrit

Through Spoken Sanskrit Course,

- Students will be able to build up the speaking and listening skills.
- They will be able to cope up with interactive learning process.
- In case of Articulation Development this course will be more helpful for the students.

Through Computer Awareness for Sanskrit Course,

- Students will be able to acquire some basic knowledge about computers and to develop some basic skills in using computers for presentation and digitalization of Sanskrit Text Web Publishing etc.
- This Particular Course will open more professional opportunities for the students in future.

Semester-V (Honours) Course outcome of Sanskrit DSE-1 (Darśana):

Section-A: *Tarkabhāṣa*

Section-B: *Saptapadārthī*

Section-C: *Vivekacuḍāmaṇi*

- This course aims to get the students acquainted with the cardinal principles of the Indian Orthodox Philosophical Schools, especially, Nyāya-Vaiśeṣika Philosophy and Advaita-Vedānta Philosophy.
- This Course will help to acquire knowledge about the theory of Atomism as revealed in the Vaiśeṣika Philosophy through *Tarkabhāṣa*, *Saptapadārthī* and to get overall concepts, like knowledge system, Causation theory in Nyāya-Vaiśeṣika Philosophy.
- This course intends to give an understanding of Ācārya Śaṅkara's concepts on Advaita Vedānta through the text of *Vivekacuḍāmaṇi*.

Semester-V (Honours) Course outcome of Sanskrit DSE-2 (Kāvya):

Section-A: *Sāhityadarpaṇa*, Ch-I

Section-B: *Sāhityadarpaṇa*, Ch-II

Section-C: *Sāhityadarpaṇa*, Ch-III

- The study of *Sāhityadarpaṇa* embraces all poetic arts. Students will acquire knowledge about the literary as well as critical value of Sanskrit Poetics in Sanskrit literature.
- The entire domain has flourished with the topics such as definition of poetry and divisions, functions of word and meaning, theory of *Rasa* etc. This develops capacity for creative writing and literary appreciation.

Semester-VI (Honours) Course outcome of Sanskrit DSE-3 (Vyākaraṇa):

Section-A: *Siddhāntakaumudī- Strīpratyaya*

Section-B: *Siddhāntakaumudī- TiñantaPrakaraṇa*

Section-C: *Siddhāntakaumudī-Ajanta Puṁliṅga*

- This course aims to introduce Sanskrit grammar very efficiently. Students will be able to learn this language perfectly through the grammatical text like *Siddhāntakaumudī*.
- Students will learn to form the Sanskrit words, terms with the help of the knowledge of Strīpratyaya, TiñantaPrakaraṇa, Ajanta Puṁliṅga.
- Through this course students will be capable to compose any kind of compositions.

Semester-VI (Honours) Course outcome of Sanskrit DSE-4 (Veda):

Section-A: Eastern & Western interpretation of the Veda

Section-B: Taittirīyopaniṣad (Śikṣā-vallī)

Section-C: Muṇḍakopaniṣad

- Students will be acquainted with Eastern Interpreters (e.g., Sāyaṇācārya, Ṛsi Aurovinda, Gauri Dharmapal etc.) as well as Western Interpreters (e.g., Friedrich Max Muller, William Dwight Whitney, Maurice Bloomfield etc.), with their most relevant interpretations on Vedas.
- Students will also be able to read two Principal Upanisads, i.e., *Taittirīyopaniṣad* and *Muṇḍakopaniṣad*. In *Muṇḍakopaniṣad* primary Vedānta-view is propounded. Both the Upaniṣads teach the Supreme knowledge i.e., Self-realization.

Semester-V (General) Course outcome of Sanskrit DSE:

DSE -1: Philosophy, Religion and Culture in Sanskrit Tradition

- This Course will help students to learn *Śrīmadbhagavadgītā*. This course will prepare the students with the practical skills to negotiate conflicts and emotional disturbances in their day-to-day life with the philosophy of self-management in the Gītā. It will also define and pursue their goals with clarity and dedication.
- Students will be able to learn the definition of *Dharma* based on several *Smṛiti* texts. Many other *Smṛiti* and *nīti* texts will help them to lead a healthy and balanced life which is need of the hour.
- This Course is designed to introduce Indian Culture which is depicted in the several ancient texts such as, *Samhitās*, *Mahābhārata*, *Purāṇa* and other works known as *Nītiśāstra*. This course aims to acquainted the students with the various aspects of social institutions as propounded in the ancient Sanskrit texts.

Semester-V (General) Course outcome of Sanskrit SEC:

SEC-A-2: Basic Elements of Āyurveda

- The major objective of Āyurveda is to understand the principles and concepts of preventative medicine and health maintenance, diet and nutrition, usage of commonly used spices and herbs and outline of Āyurvedic therapeutic procedures in Āyurveda.
- Students from this course will be able to understand the ancient tradition of Indian Medical system, which focuses on the healthy life style through some famous Ayurvedic texts like, *Caraka-samhitā*, *Suśruta-samhitā*, *Aṣṭāṅga-hṛdaya* etc.
- Student will also be able to read one Upaniṣad namely, *Taittirīyopaniṣad* (śikṣā-vallī) which introduces the education of Pupils in ancient Vedic era, and highlights phonetics as an element of Vedic instruction and Self-realisation.

Semester-V (General) Course outcome of Sanskrit DSE:

DSE-3: Literary Criticism

- Students will get introduced with the technical aspects of Sanskrit Literature through the text like *Kāvyaḍarśa* of Daṇḍin.
- This course provides a comprehensive introduction to the characteristics of the literature, the cause of Literature, the definition of Kāvya, its significance etc. based on *Kāvyaḍarśa*.
- This course also introduces the famous rhetoricians like Daṇḍin.

Semester-VI (General) Course outcome of Sanskrit SEC:

SEC-B-2: Yogasūtra of Patañjali

- Students will get introduced to the Yoga Philosophy which is one of the principal orthodox Indian Philosophical schools. *Yogasūtra* of Patañjali is considered one of the foundational texts of classical Yoga Philosophy. The text teaches the Mental wellbeing through meditation. The course offered the study of First Three Chapters of *Yogasūtra* i.e., *Samādhipāda*, *Sādhanapāda* and *Vibhūtipāda* which advocate control over the body, the senses and the mind.
- This course aims to get students acquainted with the Mental wellbeing and Self-realization which is the need of hour.

Subject-Sociology

Honours

Skill Enhancement Course SOCIOLOGY

Semester 4

Paper number: - Group B sec B-1

Paper Title: - Statistical reasoning for sociology

No of Credits: - 2

Course description/ objectives: -

At the end of this course a student should be able to understand

- 1) Different types of data and the art of data handling
- 2) The techniques of summarization and identification of the salient features of the data through graphical displays.
- 3) Understand definition and different types of central tendency
- 4) Understand different aspects of dispersion.
- 5) Know the notion of sampling method and population.
- 6) Statistics is the collection of data and its representation which is very essential now a days in various aspects of our social life like medical study, weather forecasts, quality testing, stock market. With the help of statistics one can know what happened in the past and what may occur in the future.

DISCIPLINE SPECIFIC ELECTIVE

SEMESTER 5

PAPER NUMBER group B DSE-B-1

Paper title: -Indian Sociological Traditions

No of credits: -

Course description/objectives: -

At the end of this course a student should be able to understand

- 1) The concept of caste, race, city and civilization which is very much important to study Indian society as discussed by G.S.Ghurye.
- 2) Social ecology and the concept of personality and values to improve own perspective about Indian society as explained by Rashakamal Mukerjee.
- 3) Tradition and modernity and the concept of middle class which is very important as it clarifies the basic structure of economy.
- 4) Different types of Indian tribes and their characteristics.
- 5) The concept of social change and the process of Sanskritization can help one to evaluate the comparison between past and present society.
- 6) The basic aspect of Gender and kinship which are the different forms of stratification. In recent times it is very important to know the social structure and tradition of Indian society. By this one can be proud of their long past. Students can be aware about the process of changing Indian society and all.

DISCIPLINE SPECIFIC ELECTIVE

SEMESTER 5

PAPER NUMBER group B DSE-B-3

Paper title: -Sociology of Health and Medicine

No of credits: -

Course description/objectives: -

At the end of this course a student should be able to understand

- 1) Concept of Health medicine and illness and its impact towards society.
- 2) Health care system and various types of health policy. Both of these are important to acquire knowledge about our society and the present condition.
- 3) Discourse and power. This concept is very much useful for further studies as well as research purposes.
- 4) Theoretical orientation in health and medicine.
- 5) The whole paper is basically based on health and medicine issues which can be useful in making society more functional and friendly.

Skill enhancement course

Sem -3 (hons)

Paper number-Group –A SEC-A-2

Paper title –GENDER SENSITIZATION

No of credit-2

Course description/objectives

At the end of the course students will be able to understand:

- 7) The differences between gender and sex; masculinity and femineity; sexuality and gender stereotypes.
- 8) Ideas and discriminations on LGBT.
- 9) About all the social problems arising due to gender inequality like female Infanticide, rape, child marriage, domestic violence etc.
- 10) Moreover, about the ACTs which have been implemented to stop or control the social problems related to gender issues like POCSO, POSH, VISAKHA JUDGEMENT etc.
- 11) Gender is a sensitive issue and it's important to know the notion of gender and sex because the in-depth knowledge about gender issues can control social stigmas. To prevent and protect society from gender taboos students should aware about all the facts and figures. That may help in their future as well. Also they can apply their knowledge about acts and laws to protect society at large.

Skill Enhancement Course

Semester 4

Paper number: - Group B sec B-1

Paper Title: - Statistical reasoning for sociology

No of Credits: - 2

Course description/ objectives: -

At the end of this course a student should be able to understand

- 1) Different types of data and the art of data handling
- 2) The techniques of summarization and identification of the salient features of the data through graphical displays.
- 3) Understand definition and different types of central tendency
- 4) Understand different aspects of dispersion.
- 5) Know the notion of sampling method and population.
- 6) Statistics is the collection of data and its representation which is very essential now a days in various aspects of our social life like medical study, weather forecasts, quality testing, stock market. With the help of statistics one can know what happened in the past and what may occur in the future.

Discipline Specific Elective

Discipline specific elective

Semester-5

Paper Number: - Group B DSE -A-1

Paper Title: -Urban Sociology

No of Credits: - 6

Course descriptions/Objectives:

At the end of this course a student should be able to understand.

- 1) Urban society is the sociological study of human life and their interaction in metropolitan areas. It is a normative discipline of sociology seeking to study the structural, environmental process, changes and problems of an urban area. By doing this, it provides inputs for urban planning and policy making.
- 2) In this study, the main subject matters are migration, rural and urban dichotomy and continuum.
- 3) The students of Urban sociology are well known regarding the problems of urban slums population and others miseries of the urban poor people.
- 4) So, we have chosen this subject for the development of a general awareness regarding the present and future trends of urbanization and urban society. So, it has a practical implications field of this subject.
- 5) The significance of urban sociology is mainly where the students became aware regarding the factors of urbanization.
- 6) It discusses about the causes of industrialization; it's positive and negative effects on rural and urban life. So, Urban Sociology is very relevant part for the students of sociology.

Discipline specific elective

Sem -6 (hons)

Paper number-Group –A DSE-A-4

Paper title –AGRARIAN SOCIOLOGY

No of credit-6

Course description/objectives

At the end of the course students will be able to understand:

- 1) About the Indian agrarian societies; village communities; their types features and structures.
- 2) The course impart knowledge about land reform and tenancy reform policies.
- 3) Students will also be given brief introduction to rural poverty as well as agrarian unrest, farmers movements and green revolution.
- 4) Light will be thrown to the class structure as well.
- 5) Students will get a glimpse of the transition of rural society and rural related to agriculture.
- 6) Socio economic aspects of Indian economy are strongly related to agriculture, And most importantly farmers who are the support system of agriculture but neglected part of society as a whole, even in present era as well. So, this paper concentrating on the transition of past to present, evolvement of agriculture, and the base of rural development that may help to the students to develop their own notion and ideas about Indian economy and value of agriculture.

Discipline specific elective

SEMESTER 5

PAPER NUMBER group B DSE-B-1

Paper title: -Indian Sociological Traditions

No of credits: - 6

Course description/objectives: -

At the end of this course a student should be able to understand

- 7) The concept of caste, race, city and civilization which is very much important to study Indian society as discussed by G.S.Ghurye.
- 8) Social ecology and the concept of personality and values to improve own perspective about Indian society as explained by RashakamalMukerjee.
- 9) Tradition and modernity and the concept of middle class which is very important as it clarifies the basic structure of economy.
- 10) Different types of Indian tribes and their characteristics.
- 11) The concept of social change and the process of Sanskritization can help one to evaluate the comparison between past and present society.
- 12) The basic aspect of Gender and kinship which are the different forms of stratification. In recent times it is very important to know the social structure and tradition of Indian society. By this one can be proud of their long past. Students can be aware about the process of changing Indian society and all.

Discipline specific elective

SEMESTER 5

PAPER NUMBER group B DSE-B-3

Paper title: -Sociology of Health and Medicine

No of credits: - 6

Course description/objectives: -

At the end of this course a student should be able to understand

1. Concept of Health medicine and illness and its impact towards society.
- 2 Health care system and various types of health policy. Both of these are important to acquire knowledge about our society and the present condition.
- 3 This concept is very much useful for further studies as well as research purposes.
- 4 Theoretical orientation in health and medicine.
- 5 The whole paper is basically based on health and medicine issues which can be useful in making society more functional and friendly.

General

Skill enhancement course

Sem -3 /5(general)

Paper number-Group –A SEC-X-A-2

Paper title –GENDER SENSITIZATION

No of credit-2

Course description/objectives

At the end of the course students will be able to understand

- 1) The differences between gender and sex; masculinity and femineity; sexuality and gender stereotypes.
- 2) Ideas and discriminations on LGBT.
- 3) About all the social problems arising due to gender inequality like female Infanticide, rape, child marriage, domestic violence etc.
- 4) Moreover, about the ACTs which have been implemented to stop or control the social problems related to gender issues like POCSO, POSH, VISAKHA JUDGEMENT etc.
- 5) Gender is a sensitive issue and it's important to know the notion of gender and sex because the in-depth knowledge about gender issues can control social stigmas. To prevent and protect society from gender taboos students should aware about all the facts and figures. That may help in their future as well. Also they can apply their knowledge about acts and laws to protect society at large.

Skill enhancement course

Sem -4/6 (general)

Paper number –group –b SEC -X-B-2

Paper title –Theory and practice of development

No. of credit-2

Course description /objectives

At the end of this paper students can be able to understand

- 1) What development is all about.
- 2) Recent trends in development and post development.
- 3) Lights will be thrown to the area of relationship between social service and development;
- 4) The paper will also impart knowledge about few important aspects like NGO SHG CSR GAD etc;
- 5) Moreover, the role of governing bodies like panchayat and municipality to the area of human development will also be discussed in this paper.
- 6) As a third world country Indian subcontinent is dependent on the aspect of social development, and social development rely on the various process like social service to socialization to participatory development. Today we are living in the era of digitalization; that is also a gift of development. That's why we are concentrating on this paper so that our students can be benefitted with the imparted knowledge of development and in future they can also use this in their respective lives as well.

Discipline Specific Elective

Discipline specific elective

Semester-5

Paper Number: DSE -A (1)

Paper Title: Religion and Society

No of Credits:6

Course descriptions/Objectives:

At the end of this course a student should be able to understand.

- 1) The word religion is common in our daily life. It is not only about blind faith, belief or tradition but also it's an essential discipline in the study of sociology.
- 2) Through the study of religion and society, students are enlightened about the different types of world religions and their specific ideologies.
- 3) Religion is a broad spectrum which not only deals with various religious beliefs and practices but also it has a great impact on the protection and conservation of environment; plants and animals.
- 4) Through secularism, another broad discipline of sociology and political science students are imparted with the knowledge of amalgamation of different secular sects in our nation.
- 5) Living in a secular country like India, where students are enlightened about an opposing ideology of religion that is Communalism.

- 6) With the study of religion, the students of sociology can connect to the field of media where Globalization, Pentecostalism etc. are issues discussed.

Discipline Specific Elective

Semester-6

Paper Number: DSE -B-(1)

Paper Title: Social Stratification

No of Credits: 6

Course descriptions/Objectives:

At the end of this course a student should be able to understand.

- 1) Social stratification is nothing but the deprivation of the society on the basis of different social forms of differentiation.
- 2) As students across different social background meets up in an educational institution, through this study of social stratification in sociology and other subjects on the basis of caste, class, gender, race etc. get enriched.
- 3) Through this discipline of sociology, beginners are taught the concept and importance of the term.
- 4) Learners are imparted with the knowledge of social mobility and also they are able to break the closed system of society.
- 5) Works of different sociologists, dealing with the study in this field of sociology are also pass on to the beginners.

Social stratification is a fundamental nature of our Indian society. Within this system it has helped in the upholding of constructive and destructive effects on Indian society. One of the positive consequences are: Proper utilization of resources by accepting own caste, profession etc. One of the negative consequences are: It acts as a barrier in achieving the quality based occupation and profession.

Subject-Anthropology

Honours

DEPARTMENT OF ANTHROPOLOGY

Semester	Three
Paper Number	ANT-A-3-SEC -A-1
Paper Title	Public Health and Epidemiology
No. of Credits	2
Theory/Composite	Theory
Modules	Single
Course objectives/ Learning outcomes	<p><i>At the end of this course a student should be able to understand</i></p> <ul style="list-style-type: none"> • The etiology, time and way of occurrences of diseases and several health issues of populations, including communicable diseases and non-communicable diseases. • The use and application of statistics in epidemiological study and research. • How to make common people understand where the disease is coming from, and who it is most likely to impact. • How to use the information regarding cultural, social, behavioural, psychological and economic factors that influence health and illness, to control the spread of the disease and prevent future outbreaks.
Syllabus	<p>Unit I: Principles of Epidemiology in Public Health: Overview of epidemiology methods used in research studies to address disease patterns in community and clinic-based populations, distribution and determinants of health-related states or events in specific populations, and strategies to control health problems.</p> <p>Unit II: Statistical Methods for Health Science: Analysis and interpretation of data including data cleaning, data file construction and management; implementation of analytic strategies appropriate for the type of data, study design and research hypothesis.</p> <p>Unit III: Environmental Health: Effects of biological, chemical, and physical agents in environment on health (water, air, food and land resources); ecological model of population health; policies, and practices associated with environmental health and intended to improve public health</p> <p>Unit IV: Psychological, Behavioural, and Social Issues in Public Health; Cultural, social, behavioural, psychological and economic factors that influence health and illness.</p>

Semester	Four
Paper Number	ANT-A-4-SEC –B2
Paper Title	Media and Anthropology
No. of Credits	2
Theory/Composite	Theory
Modules	Single
Course objectives/ Learning outcomes	<p><i>At the end of this course a student should be able to understand</i></p> <ul style="list-style-type: none"> • The boundaries of what counts as ethnographic research and academic writing, as well as to rely on deep relationships with people and holistic consideration of the full range of media practices found around the world. • The nature of work in museums, art galleries, or cultural institutions that have visual collections, or businesses working on marketing strategies that incorporate visual elements. • How to apply their anthropological knowledge in creative ways in media sectors.
Syllabus	<p>Communication: Theory, Paradigm and Model</p> <ol style="list-style-type: none"> 1. Chicago School & Basic Principles 2. Social Responsibility 3. McQuail’s Four Kinds of Theories 4. Propaganda Theories 5. Diffusion of Innovation Theory 6. The Mediation of Social Relations 7. Political Economy 8. Agenda Setting 9. Framing & Spiral of Silence 10. Reception 11. Globalization and Media <p>Media Approaches and Themes</p> <ol style="list-style-type: none"> 1. Behaviourism and media effects a. Lasswell, Cantril, Cultivation theory, Uses and gratifications theory 2. Modernity and medium . Innis, Benjamin, Williams, Habermas: 3. Structuralism and semiotics . Encoding/Decoding, ideology and hegemony

	<p>a. The ideology of news</p> <p>4. Interactionism and structuration</p> <p>. Self-presentation</p> <p>a. No Sense of Place</p> <p>5. Structuration</p> <p>. Feminisms and gender</p> <p>a. Radical feminism</p> <p>b. The male gaze</p> <p>c. Masculinity in crisis</p> <p>6. Postmodernity and the information society</p> <p>. hyperreality and simulation</p> <p>7. Consumerism and everyday life</p> <p>. Consumer resistance</p> <p>a. De Certeau: everyday tactics</p> <p>Media Anthropology</p> <ol style="list-style-type: none"> 1. Media, Mass and Anthropology 2. The Paradox: Definitions, Actors, Fields, Methods, Strategies and taboo, Case of Illustration 3. Media Effects Tradition 4. Themes and problems 5. Controversies 6. The Possible Contribution of Anthropology 7. Examples of use of anthropology in communication
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Semester	Six
Paper Number	ANT-A-6-DSE- A -3
Paper Title	Medical Anthropology
No. of Credits	2
Theory/Composite	Composite
Modules	Single
Course objectives/ Learning outcomes	<p><i>At the end of this course a student should be able to understand</i></p> <ul style="list-style-type: none"> • About health and illness as biosocial states of being in the life worlds of different populations, and being intent to links and flows between macro- and microenvironments. • How to pay close attention to the distribution (and maldistribution) of diseases and resources promoting health.

	<ul style="list-style-type: none"> • The process of solving specific problems related to the delivery of health care, including improving health care policies and systems, enriching approaches to clinical care, and contributing to the design of culturally valid public health programs in community settings.
Syllabus	<p>ANT-A-6-DSE- A -3- Th</p> <p>Unit – 1</p> <p>a. Medical Anthropology: Definition and major areas of study; Goals and basic premises</p> <p>b. Anthropology in Medicine and Anthropology of Medicine</p> <p>c. Clinical Anthropology and Applied Medical Anthropology</p> <p>d. Emergence of medical anthropology as a distinct sub-discipline and the current status of the discipline.</p> <p>Unit – 2</p> <p>a. Medical Anthropology: Major Approaches</p> <p>b. Ethnomedicinal Anthropology: Disease etiology, disease classification, diagnosis and healing in folk societies; Culture bound syndromes, Traditional Medicine in India</p> <p>ANT-A-6-DSE- A -3-P</p> <p>Students will have to read the following articles and will be shown the film. They will prepare a report on Political Economy of Health with special emphasis on organ trafficking in India</p>
Semester	Five
Paper Number	ANT-A-5-DSE –A-2
Paper Title	Advance Human Genetics
No. of Credits	2
Theory/Composite	Composite
Modules	Single
Course objectives/ Learning outcomes	<p><i>At the end of this course a student should be able to understand</i></p> <ul style="list-style-type: none"> • The history of Genetics and paradigms of Human genetics. • A detail knowledge about Human genome organization as well as the central dogma of Human Genetics. • Details about Human cytogenetics including Chromosomal aberrations, family method of studying Human genetics, chromosome mapping techniques and how to track and detect various genetic traits that make prone people to more wide-ranging health problems. • How DNA sequences allow to infer the origin and the evolutionary relationship of human with special reference to Population of the Indian Subcontinent.

Syllabus	<p style="text-align: center;">ANT-A-5-DSE A-2-Th</p> <p>Unit I History of Genetics. Paradigms of Human Genetics: Mendelian Genetics Human genome organization: nuclear genome and Mitochondrial genome - gene, DNA and RNA structure and DNA replication, DNA repair and recombination, gene expression, coding and non-coding region</p> <p>Unit II Expression of genetic information: from Transcription to Translation – the relationship between genes and protein, transcriptions; transcription and RNA processing, encoding genetic information, decoding the codons: the role of transfer RNAs.</p> <p>Outline concept of epigenetics in human genetics</p> <p>Unit III Cytogenetics: Concept of Karyotype, banding (G banding) and high resolution FISH. Chromosomal aberration: Aneuploidy (Autosomal and sex chromosomal: Down’s syndrome, Patau’s syndrome, Klienefelter’s syndrome, Turner’s Syndrome). Structural aberrations: Translocation, deletion, inversion, duplication, ring chromosome, isochromosome. Concept of point mutation: Family study: Pedigree analysis, concept of dominant, recessive and co dominant inheritance. Penetrance and expressivity; Linkage and Mapping: Genetic Mapping. LOD score. Sex linkage (Dominant and recessive) and sex influenced traits.</p> <p>Unit IV Electrophoresis, PCR technology and sequencing (Concept and outline) Genomic Diversity and Human Evolution</p> <p>Peopling of the Indian Subcontinent: Evidence from mtDNA and Y-chromosome; evolutionary genetics; Molecular evolution; DNA sequence variation and human origins</p> <p>ANT-A-5-DSE A- 2-P</p> <p>The students are desired to prepare a project on any of the 4 units, submit a report after duly forwarded by the supervisor (s).</p>
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Semester	Five
Paper Number	ANT-A-5-DSE –B-1
Paper Title	Advanced Indian Prehistory
No. of Credits	2
Theory/Composite	Composite
Modules	Single

Course objectives/ Learning outcomes	<p><i>At the end of this course a student should be able to understand</i></p> <ul style="list-style-type: none"> • And be acquaint with an overall idea of the Beginning and main stages of development of Indian prehistory. • About various aspects about the studying of stone tools and geological context of prehistoric sites. • About different palaeolithic sites of India. • About rock art, their motifs, symbol and importance. • The current trends in Indian prehistory and about Indian prehistory in global context.
Syllabus	<p>ANT-A-5-DSE B- 1- Th</p> <p>i. Beginning and main stages of development, ii. Principle approaches, iii. Archaeological remains, iv. Methods of studying stone tools, v. Geological context of prehistoric sites</p> <p>ii The following sites are to be briefly discussed:</p> <p>a. Narmada Valley, b. Chirki, c. Nevasa, d. Hungsi Valley, e. Kangsabati, f. Subarnarekha, g. Detailed study on the works being carried on in the Kortalayar Valley region, h. Bagor, i. Langhnaj, j. Bhimbetka, k. Adamgarh, l. Burzahom, m. Chirand, n. Koldihwa, o. Sangankallu, p. Tekkalkotta</p> <p>iii. Prehistoric Rock Art</p> <p>iv An Overview of the Rock Art sites and motifs, particularly of Central India are to be treated in a generalized manner.</p> <p>Current Trends in Indian Prehistory: a. Nature of cultural variability, b. Indianprehistory in the global context.</p> <p>ANT-A-5-DSE B- 1- P</p> <p>A project is to be prepared on any of the above topics and has to be presented through power point in examination.</p>

Semester	Six
Paper Number	ANT-A-6-DSE B-4
Paper Title	Advanced Indian Protohistory
No. of Credits	2
Theory/Composite	Composite
Modules	Single

<p>Course objectives/ Learning outcomes</p>	<p><i>At the end of this course a student should be able to understand</i></p> <ul style="list-style-type: none"> • About various aspects of Harappa civilization. • About different stages of Harappa Civilization. • The aspects of the knowledge about different stages of Chalcolithic in Indian subcontinent. • About Iron Age culture in Indian Subcontinent. • About Megalithic culture as well as the different types of megalithic monuments. • About different prehistoric cultural period of Indian subcontinent.
<p>Syllabus</p>	<p>ANT-A-6-DSE B-4 – Th Concept of civilization in the context of protohistory</p> <p>i. Definition and various characteristic features (as per Childe and Braidwood).</p> <p>ii. Harappan Cultural Tradition: general Framework and chronology:</p> <p style="padding-left: 40px;">a. Pre/Early Harappan cultures of the Indian subcontinent</p> <p>ii. Mature Harappan</p> <p style="padding-left: 40px;">a. Geographical Distribution and Settlement Pattern</p> <p style="padding-left: 40px;">b. Public and Private Architecture</p> <p style="padding-left: 40px;">c. Trade Hinterland and overseas, trade mechanism, transport facility, craft specialization (pottery types to be studied in details)</p> <p style="padding-left: 40px;">d. Harappan script</p> <p style="padding-left: 40px;">e. Subsistence of the Harappans- plant and animal diet, agriculture and agriculture system, water management, exploitation of natural resources,</p> <p style="padding-left: 40px;">f. Social, Political, Religious and Economic organization</p> <p>iv. Decline and the Late Harappan</p> <p style="padding-left: 40px;">a. Various factors and theories about the Harappan Decline and consequences</p> <p style="padding-left: 40px;">b. Late Harappan phase (controversies regarding the terminologies: “Late Harappan” and “post-urban phases”)</p> <p style="padding-left: 40px;">c. Harappan legacy</p>

	<p>Indian Chalcolithic Perspectives</p> <ul style="list-style-type: none"> . Significance of pottery as markers of Chalcolithic or village-farming communities in different regions of India b. Chalcolithic culture of Western India: Ahar and Ganeshwar Jodhpura c. Chalcolithic culture of Ganga Plain: OCP and Copper Hoard d. Chalcolithic cultures with special reference to the sites of Sohagaura, e. Lahuradewa and Narhan f. Chalcolithic culture of Central India: Kayatha and Malwa g. Chalcolithic culture of Deccan: Savalda, Daimabad, Malwa, h. Jorwe and Ramatirtha vi. Iron Age and Megalithic cultures <ul style="list-style-type: none"> a. Origins of Iron in India: Problems and perspective. b. Painted Grey Ware Culture, Northern Black Polished Ware Culture (significant/type sites should be mentioned) c. Megalithic Cultures of India(Important and significant sites should be mentioned) <p>DSE A-6- DSE B-4-P</p> <p>A project is to be prepared on any of the above topics and has to be presented through power point in examination.</p>
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General

Semester	Three
Paper Number	ANT-G-3-SEC -A-(1)
Paper Title	Public Health and Epidemiology
No. of Credits	2
Theory/Composite	Theory
Modules	Single
Course objectives/ Learning outcomes	<p><i>At the end of this course a student should be able to understand</i></p> <ul style="list-style-type: none"> • The etiology, time and way of occurrences of diseases and several health issues of populations, including communicable diseases and non-communicable diseases. • How to make common people understand where the disease is coming from, and who it is most likely to impact. • How to use the information regarding cultural, social, behavioural, psychological and economic factors that influence health and illness, to control the spread of the disease and prevent future outbreaks.

Syllabus	<p>Unit I: Principles of Epidemiology in Public Health: Overview of epidemiology methods used in research studies to address disease patterns in community and clinic-based populations, distribution and determinants of health-related states or events in specific populations, and strategies to control health problems.</p> <p>Unit II: Psychological, Behavioural, and Social Issues in Public Health; Cultural, social, behavioural, psychological and economic factors that influence health and illness.</p>
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Semester	Five
Paper Number	ANT-G-5- DSE-1A
Paper Title	Human Growth and Development
No. of Credits	4
Theory/Composite	Composite
Modules	Single
Course objectives/ Learning outcomes	<p><i>At the end of this course a student should be able to understand</i></p> <ul style="list-style-type: none"> • Details about human prenatal and postnatal growth and development to gain an understanding of their own life experience. • How Biologists and Biological Anthropologists study human growth and analyses growth curves. • The concept of food, diet, nutrition and metabolism as well as the basic nutrients required in human body for proper nutrition and how insufficient or inappropriate intake of these nutrients cause different types of malnutrition in human.
Syllabus	<p>ANT-G-DSE-1A -TH Introduction to human growth and development. Prenatal growth. Post natal growth. Factors affecting growth. Methods of studying growth: Cross sectional, longitudinal, and mix cross sectional, Growth curves. Human nutrition: food, diet, nutrition and metabolism (definitions only); the basic nutrients- micro and macro nutrients, their sources, and utility, Malnutrition: over and under nutrition.</p> <p>ANT-G-5-DSE-1A-P Project/ Report on any chosen topic from ANT-G-DSE-1A -TH</p>
Semester	Six
Paper Number	ANT-G-6-DSE-1B
Paper Title	Food and Anthropology
No. of Credits	4
Theory/Composite	Composite

Modules	Single
Course objectives/ Learning outcomes	<p>At the end of this course a student should be able to understand</p> <ul style="list-style-type: none"> • How to decipher the material and symbolic importance of food. • How to assemble the cultural or ethnic group through food patterns as food is often used as a means of intercepting their cultural distinction.
Syllabus	<p>ANT-G-6-DSE-1B-TH</p> <p>What is food?</p> <p style="padding-left: 40px;">Classic Ethnographies</p> <p style="padding-left: 40px;">Anthropological Perspectives on Diet</p> <p style="padding-left: 40px;">Classification of Food</p> <p style="padding-left: 40px;">Food and</p> <ol style="list-style-type: none"> a. Eating and Cuisine b. Identity c. Tables and Table Manners d. Social Change e. Religion and Rituals f. Security g. Globalization <p style="padding-left: 40px;">Disorders of food and eating</p> <p style="padding-left: 40px;">Specific Food Cultures</p> <ul style="list-style-type: none"> • Food Culture: Any Indian Case Study <p>ANT-G-6-DSE-1B-PR</p> <p>VII. Practical</p> <p style="padding-left: 40px;">Project/ Report on any chosen topic from ANT-G-DSE-1B-TH</p>

Subject-Botany

Honours & General

DEPARTMENT OF BOTANY

RAMSADAY COLLEGE

Course outcomes of the syllabus designed by the University

The department focuses on study of plant diversity in the backdrop of rich biodiversity of local area and trying to brighten its future in the areas of teaching and public outreach. The Department of Botany was established in August 2003. After a few years in 2015 the department received the affiliation from Calcutta University to introduce Honours Course in Botany. The department started the journey with only fifteen general students. The teaching methods adopted promote multi-disciplinary research and practical appreciation with regular student seminars, classes with updated smart classrooms that ensure a high degree of teacher student interactions. The different skilled enhancement courses and various discipline specific elective courses are being teaching here. Their outcomes are given bellow-

Course outcomes of skill enhancement course elective (SEC)

1. APPLIED PHYCOLOGY, MYCOLOGY AND MICROBIOLOGY

These courses designed to give an idea about the recent trends in science and their applications in different field of science of these plant groups.

The students have been acquired the knowledge of the diversity of plant science in their core course section, in this field they are gathered various knowledge of the utility and their economic importance. The syllabus is prepared for the study of algae as a food source of different phycocolloid, biotechnological potential of micro algae for single cell protein beta carotene biodiesel and bio plastics.

Besides of this they will study about different fungi as food and their industrial production for cheese and ethanol; their uses in enzyme production such as cellulose; amino acid synthesis such as tryptophan; vitamin production such as riboflavin; antibiotic production such as griseofulvin and also the pharmaceutical application of different fungal species. The knowledge about the importance of different strain of microbes and their application in industrial purpose are being taught. In this regards, the students are also visit different industries and different reputed institutions to acquired better knowledge in the subject.

2. MUSHROOM CULTURE TECHNIQUE

This course is design to give a basic knowledge about the diverse techniques and economic importance of the mushroom culture. In the core course, they have gathered knowledge about the fungal diversity and

their economic importance. This course deals with identification of edible and poisonous mushrooms, their culture techniques, spawn preparations, storage techniques, recipes that are made of mushrooms and cost & benefit ratio. In this section they will come to know about the important of wild and common cultivated edible mushroom in India. They can use this knowledge of preparing mushroom farm, large scale production, storage and marketing in India day to day life as a source of income. They will come to know about the nutritive value of these mushrooms and how to use this mushroom in market. After getting this knowledge so many students are doing this job for self-employment.

3. BIOFERTILIZERS

In present scenario of increasing soil and water pollution due to excessive use of chemical fertilizers, Bio-fertilizer is the only ray of hope. It will reduce the rate of pollution and is an eco-friendly process. Students having an idea of this course can take up Bio-fertilizer Industry as his/her career.

Recycling of biodegradable wastes is another burning topic in present and upcoming days to save our nature. Preparation biofertilizers using micro-organisms like Rhizobium, Azotobacter, Anabaena and pteridophyte like Azolla. Role of mycorrhiza in growth of crop plants. Green manuring, compost preparation and their field application. Recycling of biodegradable wastes.

4. PLANT BREEDING AND BIOMETRY

The plant breeding course is designed to give a holistic approach on the changing the traits of plants in order to produce desired character. This course basically helps to understand the different techniques that are involved in hybridization process of plants. This part of study will help the student to acquire knowledge on the advance technologies required for mass production of economically and agriculturally important plants.

The syllabus covers a vast area involving different hybridizing techniques, details of pure line and mass selection, techniques of hybrid seed production, role of mutation, polyploidy, distant hybridization in crop improvement, attributes of biotechnology in crop improvement, and different biometrical formulas for determining mean, median, mod, standard error, standard deviation etc. This study will benefit the students in multidisciplinary way. They can apply their knowledge in the cultivation field.

Course outcome of discipline specific elective course (DSE A)

1. BIOSTATISTICS

This course is mainly focused to enhance the skill of statistical analysis potentiality of the students. They will gather knowledge about the statistical methods, basic principles and their application in different field of plant sciences. Besides of this, they can be capable to determining the goodness of fit in different Mendelian and Neo-Mendelian problems.

The students after going through this course they can get a basic idea of Computer programming or software for statistical analysis in future when they will approach for further higher studies. They can also interpret the relation of biometry with the biological experiments and established the more accuracy in specific molecular research through this study.

2. PLANT BIOTECHNOLOGY

This course is mainly focused to provide knowledge about the Plant biotechnology and their applications through tissue culture. Especially this course is selected for giving thorough knowledge about different plant tissue culture techniques such as callus culture, plant regeneration, haploid culture, protoplast culture and different plant engineering techniques which are used in recent plant science world. Through this study students can get an idea about the different modes and methods of gene transfer, achievements in crop biotechnology and their industrial uses, such as pest resistant plants, herbicide resistance, disease and stress tolerance.

They can also gather knowledge about the implication of these biotechnological techniques for the production of transgenic crop with improves quality and also genetically modified organism (GMO). We select the course for its future prospects in plant sciences and research. Through this study students can be updated himself/herself in the upcoming world.

Student will understand the basic properties of plant cell and with apply their basic knowledge of Plant Tissue Culture in various fields for conservation, medicine, product development etc.

3. RESEARCH METHODOLOGY

This course is mainly selected considering the future prospect of the students which will help them in further studies. Here in the students can get a broad idea about the basics techniques follow in laboratory; determination preparation of different solutions based on dilution percentage, molarity, molality and normality.

Besides of this, they can get an idea about common toxic chemicals and safety measures in their handling. This course is mainly focused to give an idea about the different modes of Data Collection and documentation of observations during research and scientific writing ethics too. Through this course the students can get the knowledge of the art of scientific writing and its presentation through different way. The students can get the knowledge of E-Resources and their uses in future prospects. They can also get information of the recent trends in plant science research.

4. MEDICINAL AND ETHNOBOTANY

This course is mainly selected to provide the basic knowledge about the medicinal and ethno botanical aspects. The study comprises different aspects of medicinal importance of plants which are used in Ayurveda, Siddha and Unani. Not only that, the students can get various idea of secondary metabolites such as terpenoids, phenolic, flavonoid, alkaloids and their role against different diseases. They are also come to know about the different active principles which are produced in different plant parts. A brief knowledge about folk medicine and their different aspects of India can be getting from this course. They also know about the locally available medicinal plants and their uses in daily life. As a result, they can save the medicinally important plants which are locally available.

5. ECONOMIC BOTANY

Having successfully completed this course student will learn origin and uses of economically important cultivated crop plants. On completion of this course students will have hands on experience of cultivation of economically important plant, data collection, field report preparation and analysis of data accordingly. Theoretical knowledge on cultivation, morphology, processing and uses of economically important crops will be helpful in development of agro-based industries and proper utilization of different parts of those crops. As our country is based on agro-economy this course of study is very much essential and important for students. This course will prepare student eligible for different agro based industries and field data collection.

6. PHYTOCHEMISTRY AND MEDICINAL BOTANY

The aim of the study is importance and application of different phyto-chemistry which produced by the particular plants. Medicinal plants besides therapeutic agents are also a big source of information for a wide variety of chemical constituents which could be developed as drugs with precise selectivity. These are the reservoirs of potentially useful chemical compounds which could serve as newer leads and clues for modern drug design. The most important of these bioactive constituents of plants are alkaloids, tannins, flavonoids and phenolic compounds.

The significance in the above context, such preliminary phytochemical screening of plants is the need of the hour in order to discover and develop novel therapeutic agents with improved efficacy. Though different countries have their own traditional like in India and so the science has vast opportunity in future analytical and applied sciences.

Subject-Chemistry

Honours & General

Department of Chemistry:

- The UG course lays the foundation stones of how to deal with a multidisciplinary subject. How to have a grasp on each of the core subjects while not losing focus on the interdisciplinary theme.
- The students will be eligible for admission to PG level courses with specialization in domains suitable to their capacities and interests.
- After successful completion of the course the candidates can find employment in organizations dealing with several environmental problems.
- The students can appear for various grad-level competitive become a teacher in schools and after having passed the Master's degree plus NET exam they can become a permanent lecturer in colleges/universities.
- They can create awareness among the public about various environmental issues and their responsibility to keep the natural system in a condition that it sustains life. Demonstrate and create awareness of ecosystems in the context of coupled human-environmental interactions
- The students will be able to apply quantitative reasoning and/or mathematical skills/statistical models to field and laboratory data to address analytical problems related to Chemical sciences..
- Competently implement an individual or group scientific project, which may include literature review, experimental design, data collection, data analysis, and reporting.

What are the learning outcomes?

- Master core concepts of ecological and physical sciences and their applications vis a vis local and global environmental issues.
- Appreciate the ethical, cultural, anthropological, and historical context of environmental issues and connection between human and nature.
- Understand interactions between social and every day chemical processes through hand on practice/training.
- Demonstrate proficiency in quantitative methods, qualitative analysis, critical thinking, and written and oral communication. Hands on experience of chemical instruments and analytical techniques.
- Master core concepts and methods from ecological and physical sciences and their application in chemical problem solving.
- Experience of collection of field samples, visit and assess the status of terrestrial and aquatic sites, and industry visits.

Specializations:

The discipline specific electives or specializations offered in this program are:

- Application of Computer and Computational methods in Chemistry (Semester V; DSE A2)
- Inorganic materials of Industrial importance (Semester V; DSE B1)
- Green Chemistry (Semester VI; DSE A3)
- Solid Waste Management/Waste Water Engineering/Analytical Chemistry(SEM VI; DSE A4)
- Project work/Dissertation (DSE B-4)

Lab Infrastructure (if applicable):

- Well equipped Chemistry Laboratory
- Chemistry Instrumentation facilities (pH-meter, Conductivity meter, Colorimeter, UV-VIS double beam and single beam spectrophotometer, Gas Chromatography, Atomic absorption spectrophotometer, water and soil analysis kits, Viscometer bath, Rotary evaporator.
- Surveying Laboratory with reading and internet facilities
- Environmental Engineering Research Laboratory

Internships/Project work

Students will be encouraged and facilitated to take up compulsory summer internship either in relevant industry or reputed research organizations. Through internship, students can harness their skill, knowledge and theoretical practice that they learn in the classroom to get a first-hand experience of working in the real world. Internship and project work give student an extra edge in their career, which subsequently enhance their job scope.

Placement & Career Opportunities / Research Opportunities

- After obtaining graduation degree in Chemistry students can apply for post-graduation studies offered by various institutes/universities in India and abroad or in school service through state level competitive exams.
- Interdisciplinary nature of this subject offers a plethora of job opportunities to degree holders. They may find job in government and private organizations, such as, pollution monitoring organizations, water authority and urban planning, waste management, public health sectors, resources conservation, environmental consultancies, and in industries, such as, mining, power plant, textile and dyeing industry, food processing, fertilizer plants as manager with the help of career development cell (CDC) of our college.
- The other career options include working as pharmacologists in the field of medical science, Bio-Chemists in pathological labs and setting up start ups for small manufacturing units like detergent making, vermin-compost production from agricultural or food wastes, organic dyes from natural products, water treatment plants, both individually or with support of NGOs.

Specialisation in Organic Chemistry: Dr Arijit Mondal

Specialisation in Physical Chemistry: Dr Nripendranath Ghosh & Ms Sanhati Das

Specialisation in Analytical Chemistry: Dr Moumita Roy

Specialisation in Inorganic Chemistry: Sri Amit Das & Dr Deb Kumar Mukherjee

Subject-Economics

SEC and DSE for Economics Honours Course

Rural Development [Skill Enhancement Course I: ECO-A-SEC-3-A(1)-TH]

After studying this course students will comprehend the idea of

1. Various aspects of rural development. Being a rural College and keeping in mind the background of the students we picked up this course to give a snapshot of the role of local government and various governmental programmes.
2. Most of the Economics Honours students try to pursue their career in Civil Service (WBCS). This course, we believe, has immense positive impact on building foundation of this examination.
3. This course gives some basic idea regarding some Central Government sponsored developmental schemes such as MGNREGA, PMGSY, NRHM, SHGs and Mid-day meal etc.

Managerial Economics [Skill Enhancement Course II: ECO-A-SEC-4-B(2)-TH]

After successfully completing the course a student will be able understand

1. How a manager makes right decision concerning the management and monetary aspects of the business organization.
2. How a business entity takes important decisions such as risk management, pricing and investment.
3. The process of managing inventory.

All these learning outcomes have practical relevance in future whether they pursue their career as an employee of a company or an entrepreneur.

Economic History of India [Discipline Specific Elective – A(1): ECO-A-DSE-5-A(1)-TH-TU]

Each student will have a clear idea of

1. Discourse of Indian economy from past to present
2. The change in economic policy in different phases of Indian economy
3. Planning and economic development

Comparative Economic Development [Discipline Specific Elective-B(1): ECO-A-DSE-5-B(1)-TH-TU]

1. The objective of the course is to make a comparative study of economic development among the Asian developed (Like Japan) and developing countries (East Asian Countries and China)
2. The second major objective of this course is to learn the success story of industrialization in Soviet Union.
3. Thirdly, to know about the crisis and failure of Latin America and Africa.

Money and Financial Market [Discipline Specific Elective –A(2): ECO-A-DSE-6-A(2)-TH-TU]

On successful completion of the course students will be able to:

1. Understand the role and importance of the Money and Credit of Indian financial market.
2. Understand the role of information in the financial market, the problems that arise due to asymmetry of information.
3. Grasp the idea how the interest rates are determined and sources of interest rate differentiation.
4. Comprehend the idea, how the central bank controls the money supply in an economy, using various instruments of control.
5. Apply their knowledge in trading at share market.

Issues in Development Economics [Discipline Specific Elective –B(2): ECO-A-DSE-6-B(2)-TH-TU]

The course is designed to

1. Introduce the difference between growth and development
2. To impart knowledge of the alternative models of development.
3. Study different measures of poverty and inequality.
4. Study the different economic models of third world development.

SEC and DSE for Economics General Course

Elementary Rural Development [ECO-G-SEC-3-1A-TH/ECO-G-SEC-5-2A-TH]

This course is intended to give some idea regarding

1. Various aspects of rural development.
 2. Centrally sponsored schemes such as PMGSY, MGNREGA.
 3. The role of NGOs and SHGs etc.
- Students will be able to link practically the role of decentralized planning in their surroundings.

Money and Banking [ECO-G-SEC-4-1B-TH/ECO-G-SEC-6-2B-TH]

This course gives some idea regarding

1. The role of central bank and other commercial banks in controlling the money supply.
2. Various components of money supply and interest rate determination which they can relate to their day-to-day life.
3. Apply their knowledge in trading at share market.

Economic History of India [ECO-G-DSE-6-1B/2B-TH-TU]

Each student will have a clear idea of

1. Discourse of Indian economy from past to present
2. The change in economic policy in different phases of Indian economy
3. Planning and economic development

Economic Data Analysis and Report Writing [ECO-G-SEC-4-1B-TH/ECO-G-SEC-6-2B-TH]

The objective of this course is to give some basic idea of

1. Descriptive statistics which they can apply in their daily life. Process of preparing project report.

Subject-ENVS

COURSE OUTCOME

ENVIRONMENTAL STUDIES

SEM-2

AECC-2

Theory

- Unit – 1 : Introduction to Environmental Studies.
- Unit – 2 : Ecology and Ecosystem.
- Unit – 3 : Natural Resources.
- Unit – 4 : Biodiversity and conservation.
- Unit – 5 : Environmental Pollution.
- Unit – 6 : Environmental Policies and Practices.
- Unit – 7 : Human communities and the Environment.

Aims:

The objectives of Environmental studies are

A : Creating the awareness about environmental problems among students of our college.

B : Imparting basic knowledge about the environment and its allied problem.

C : Developing an attitude of concern for the environment.

Project

1. Herbarium sheets with Image of Medicinal Plants :-

Aims:-

To inform the students and public about various medicinal plants and their uses, and also preserve the medicinal plants.

2. Study of pond ecosystem :-

Aims:-

Quantify the effects of management strategies on local and regional pond biodiversity and to broaden our knowledge on the prevalence of human activity that pollute the ecosystem.

3. Air pollution:-

Aims:-

Objective for doing this project is to express our disapproval of air pollution as it has been the biggest cause of global warming so far.

4. Water pollution: -

Aims:-

Focus on the technology innovations of source discharge control, monitoring and early warning ability improvement, water environment quality improvement, Drinking water security.

Subject-Food & Nutrition

Honours

SEC A (Semester 3)

FOOD SERVICE MANAGEMENT

1. Create future scope in hotel industries as food and beverage manager
2. Helps students to grow as an catering manager.
3. It helps in further study of hotel management.

SEC B (Semester-3)

SPORTS NUTRITION

Course outline

The course contains –basic idea about physical activity, exercise, physical fitness, sports physiology and sports nutrition, benefits of physical activity and exercise, classification of different types of sports activities, nutritional requirements of sports person, i.e. swimmer, cricketer ,footballer ,runner etc. Pre event meal of different types of sports.

Course objectives-

At the end of this course a student should be able to –

- i. Gather knowledge about different types sportsactivities.
- ii. Can explain the importance of exercise and physicalactivities.
- iii. Can work as a sports nutritionist in government and private sector e.g. – football team, cricketteam.

Reference-

- i. Exercise Physiology Fitness and Sports nutrition-B. Srilaksmi, V.Suganthi, C.Kalavani Asok, New Age InternationalPublishers.
- ii. Exercisephysiology6thedition-WilliamDMcArdle, FrankIKatch, Victor LKatch, Lipincott Williams &Wilkins.

SEC A (Semester 4) HEALTH EDUCATION

1. Helps to grow as communitynutritionist
2. Helps in getting job at heath caresector.
3. Helps to grow as health caretrainer

DSE A (Semester 5) PUBLIC HEALTH

1. Helps in further study ofepidemiologists

2. Helps to grow as public health officers in ministry and defense.

Food safety and quality control (FNQA)

Paper- DSE B1 (5th semester)

Course outline

The course contains – types of food hazards (physical and chemical) ; factors affecting food safety; food poisoning and contamination; waste disposal; pest and rodent control; food safety measurement, HACCP, TQM concepts; food laws and standards.

Course objectives-

At the end of this course a student should be able to –

- Explain the application of food quality and food safety system.
- Identify the hazards of the food chain to ensure food safety.
- List the factors contributing to food contamination.
- Be aware of common food pest and apply the methods to control.
- Research a topic, synthesize current information and develop a presentation related to safety and quality assurance in food industry.
- Work for food industry with a knowledge of food hazard and control of critical hazard during food processing.

Reference books:-

1. Srilakshmi, 2015. Food science. New age International (P) limited. 7/30 A, Dayarganj, New Delhi-110002
2. Subbulakshmi .G AND Saudipi ,2006. Food processing and preservation . New Age Publishers, Delhi
3. Mahatab S Bamji, Kamla Krishnaswamy, GNV. Brahma. 2016 Human Nutrition Oxford and IBH.
4. N. Shakuntala Manay. M. Shadaksharaswamy 2008. New age International (P) limited. 7/30A, Dayarganj, New Delhi-110002

Subject- Food fermentation

Paper- DSEB3, 6th semester

Course outline

The course contains – use of microorganism for various food fermentation; advantages of fermentation, study of a bio-fermentor, development of soya products (tofu, natto, miso etc); production of baker's yeast.

The course includes practical- preparation of fermented foods-Dahi and Yogurt; preparation of fermented vegetable pickles; preparation of different food items from fermented products.

Course outcomes:-

At the end of this course a student should be able to –

- Explain processes involved in production of fermented foods.
- Classify and explain different types of fermented food

- iii. Understand purpose and function of fermented food.
- iv. Prepare fermented food.
- v. Gain a vast knowledge about micro-organism in food fermentation.
- vi. Work for food processing industry.

General

Subject-Food preservation

Paper-SEC A1

BSc. FNTG 5th semester

Course outline

The course contains –

Elementary idea on food preservation and different methods of preservation; methods of preparation and packaging of jam, jelly, chilli sauce, squash and pickles.

Course outcomes:-

At the end of this course a student should be able to-

- i. Understand the concept of processing and preservation of jam, jelly, tomato and chilli sauce, squash and pickles.
- ii. Understand the different preservation techniques.
- iii. Use these techniques in homes.

Reference books:-

1. Srilakshmi, 2015. Food science. New age International (P) limited. 7/30 A, Daryaganj, New Delhi-110002
2. N Shakuntala Hanay, M Shadakshamy 2020. Food facts and principles. . New age International (P) limited. 4835/24, Ansari Road, Daryaganj, New Delhi-110002

Sub- Geriatric Nutrition

Paper- SEC B1, 6th semester

Course outline

The course contains –

Definition of ageing, geriatric nutrition, physiological changes during old age, Nutritional problems during old age.

Course outcomes:-

At the end of this course a student should be able to-

- i. Improve the quality of life and promote the well being of person as they age gradually.
- ii. Understanding the physical, mental and social changes in older people as they age.

Sub- Community Nutrition

Paper- DSE A1, 5thsemester

Course outline

The course contains –

Concepts and types of community; nutritional assessment; elementary idea of health agencies, nutritional intervention programme, nutritional education; preparation of homemade ORS and Weaning food, medium cost school Tiffin ,diet survey.

Course outcomes:-

At the end of this course a student should be able to-

- i. Assess the nutritional status of the community. Addressing the nutrition problems in the community through proper evaluation.

Subject-Geography

Honours & General

RAMSADAY COLLEGE , AMTA , HAORA

DEPARTMENT OF GEOGRAPHY

COURSE OUTCOME

GEOA-SEC-A-3-02

Tourism Management

Hospitality and tourism are among the world's fastest expanding job sectors even in these years of economic crisis. In our state of West Bengal, though having huge potential to expand, this industry mostly runs in unorganised way with unskilled labourer. There is a great possibility of the development this industry which will enhance the state's GDP remarkably. Under this backdrop, this course has been selected as Skill Enhancement Course (SEC).

This course will help the students

1. To develop the skill of conducting tour in different geographical locations.
2. The students will become aware of random development of tourism in geographically frazil environment and its evil impacts.
3. The students will learn and adopt the measures of sustainable tourism as tour planners/operators.
4. To develop own start up on the basis of the knowledge they have gained or to get job in different travel agencies, travel wholesalers, visitor information centers, cruising transportation events and tourism services etc.

GEOA-SEC-B-3-02 AND GEOG-SEC-A-5/6-03

Rural Development

Nearly 68% people of our country live in the rural areas where proper allocation of resources is the chief problem. The poverty in accessing basic human amenities such as adequate housing , drinking water, sanitation, hygiene, health, economic activites and education is more pronounced in rural India. Therefore, understanding of present situation of rural areas and making an adequate sustainable development frame work are essential to reduce the inequality in the intra and inter village areas (SDGs.10). This emphasizes the importance of the subject.

This course will help the students

1. To understand the different approaches of rural development.
2. To get an idea about several measures taken by the State and The Central Governments for all round development of the rural society.
3. To acquire the skill of investigating the need of the rural society and to what extent the fruits of benefits spread among the beneficiaries.
4. To help the regional planners, NGOs, politicians, social workers to adopt the policy for balanced regional development to achieve the SDGs No.8.by extensive research in future.

GEOG-SEC-A-3/4-01

Coastal Management

Coastline touches about nine states of India. Coastal zones are geographically unique areas with vast resources. Since last 50 years these zones especially the eastern coastal zone have been facing several climatological and tectonic hazards. Therefore, hazard management by developing preparedness, adaptive capacity among the local people is essential.

This course will help the students

1. To comprehend the intrinsic nature and geomorphology of the coastal zones.
2. To get an idea about present status of coastal resources, their level of procurement, sustainable utilization of those resources and scope for job opportunity.
3. To gain knowledge about coastal pollution and its remedies.
4. To initiate sound research work on coastal hazard management through proper understanding of risk, decreasing vulnerability and enhancing resilience at micro level.

GEO-A-DSE-A-5-02

Climate Change : Vulnerability And Adaptations

This topic is a burning issue and threat to the present civilisation. During the last decade frequency of different climatic hazards like cyclone, heat wave, lightning have increased significantly in lower gangetic plain and coastal areas of West Bengal. Presence of huge number of socio economically marginalised population living with housing, health, water sanitation, education, poverty and food insecurity multiplies the sensitivity of the hazards mentioned. In this situation this course will be highly beneficial to enhance the preparedness, adaptive capacity of the people in times of hazard as well as during post disaster management.

This course will help the students

1. To comprehend clearly the global scenario of climate change – its nature and severity.
2. To help the student to find the sustainable measures for coping up with the changing scenario at local scale ranging from weather forecasting using simple app to disaster management and introduction of alternative economic strategies.
3. To help the student to take part in the government initiative to enhance adaptive capacity following SDGS13 through several research work and policy making.
4. To reduce the vulnerability after being aware through this course, of their family at micro level to the entire region.

GEO-A-DSE-B-5-05

Cultural And Settlement Geography

India, being the oldest site of civilization and diversified cultural region rich in cultural heritage and traditionality. Even in southern part of West Bengal elements of culture vary within 5sq.km. This course content imparts knowledge on origin evolution, diffusion, acculturation assimilation of different culture as a whole, language, religion, races and ethnic group in particular.

This course will help the students

1. To develop knowledge on normative culture prevails globally.
2. To apply the knowledge in maintaining every cultural traits by comprehending properly its diffusion and evolution in the process of development within the society.
3. To have an idea about the disparity in cultural aspects in intra and inter residential area regarding availability of civic amenities and services.

4. To take part in regional policy making in future as policy maker , politicians , social workers, to achieve balance growth and development in order to build up a healthy nation reducing inequality and making sustainable cities and societies.

GEO-A-DSE-A-6-04

Resource Geography

India since time immemorial is rich in different natural mineral resources and also a significant contributor to the global mineral resource production. At present, the entire world is walking towards the utilisation of affordable clean sustainable energy resources (SDG7) . This course content will provide knowledge of sustainable production , marketing and management of mineral and energy resources to a great extent.

This course will help the students

1. To develop profound knowledge about existing resources, their utilization, distribution.
2. To get an idea about the present status of several fund resources.
3. To initiate rigours research work on the development of technique to enhance the popularity and utilisation of eco friendly ,alternative sources of energy.
4. To comprehend the resource region for entrepreneurship development which helps to meet the goal of self reliance (atmanirvar)

GEO-A-DSE-B-6-08

Geography Of India

Geography as a spatial science studies in detail the physical ,economical and cultural characteristics of each and every part of the world. So , it is necessary to a student of geography to comprehend the geographical characteristics of his own country i.e. India . This course content covers every aspect of geo physical , economic characteristics and disparity in different areas of our country .

This course will help the students

1. To develop knowledge on geography as a whole about the country and the state level and also about the global standard in different aspects.
2. To guide the society about scientific agricultural and other economic practices with comprehensive knowledge on the geographical regions.
3. To have immense job opportunity in several public sectors (UPSC, WBCS etc.) as well as to develop their own start up (Tour planner / operator) in future.
4. To impart knowledge to formulate policies for sustainable resource utilisation as well as balanced economic growth over the entire region to the policy makers at public and private sectors.

GEO-G-DSE-A-5-01

Regional development

Since the development of geography in the classical period ‘Chorology’ or study on places and regions has been an important aspect of geographical study. Finding out of intrinsic characteristics of each area attracts many geographers to take it as their area of interest. This course content deals with different aspects of regional development with their theoretical formulation and application .

This course will help the students

1. To know the status of resource distribution, level of economic development in various parts of the world and also the level of disparity prevails in our country in relation to the whole world as well as different parts of our nation.
2. To reduce the disparity between developed and under developed region by applying theoretical knowledge gained from the course.
3. To take part in policy formulation for the balanced economic development over entire area.

4. To develop skill of investigating several issues regarding all-round development of the aborigines living in different parts of our country to initiate research works.

GEO-G-DSE-B-6-04

Population geography

Population geography as a sub discipline of human geography emphasises three major aspects like population size and distribution , population change and characteristics of population . In a country like India , the second most populous country of the world , a comprehensive knowledge of those issues always essential not only for the growth and development of the country but also to find ways from several environmental problems.

This course will help the students

1. To understand the various facets pertaining to the spatial variation in the distribution of the human population across the Earth with reference to the physical, cultural and socio-economic environment.
2. To spread awareness within the society regarding several issues and evil effects of population growth , distribution , composition and migration .
3. To get a chance to study 'Population studies' for their higher studies and research work.
4. To get job of population enumerator , data entry operator , data analyst , in several government and private organisation.

Subject-Mathematics

Honours & General

COURSE OUTCOME for Mathematics Hons SEC (Semester-III)

Name of the course: **C Programming Language**

At the end of this course, the incumbent will be able to:

Remembering: To recall the basic structure of a mathematical modelling computer language, including developing programming code for various mathematical problems, including operations on matrices, sorting of numbers, finding the root of a quadratic equation, etc.

Understanding: To describe the concept of constants and variables, operators and expressions, control statements, loop, arrays, user-defined functions, built-in functions, library functions, etc.

Applying: To use in various allied engineering, physical problems, and mathematical problems, including finding numerical solutions to a transcendental equation, numerical integration, searching and sorting of numbers and characters, etc.

Analyzing: To analyze various real-world problems and categorize them using the coding of C Language.

Evaluating: To justify and understand the hidden beauty of the coding corresponding to various mathematical and real-world problems.

Creating: To design and build coding beyond mathematical problems including the development of software.

Future Perspective of the course:

First of all, this course would be helpful for the practical course of CC14. Moreover, C Programming Language is the base of various advanced software including MATLAB, Python, etc. Hence, the foundation of a good research scholar would be handling 'C Programming Language' with ease.

COURSE OUTCOME for Mathematics Hons SEC (Semester-IV)

Name of the course: **Mathematical Logic**

At the end of this course, the incumbent will be able to:

Remembering: To recall the fundamental concept of logical arguments, the idea of set and Boolean algebra, the validity of a statement, etc.

Understanding: To describe the concept of propositions, categorical propositions, syllogisms, conversion, obversion, truth table, propositional calculus, formal logic, first-order language etc.

Applying: To use in various mathematical and real-world problems including finding switching circuits, use of truth table, the validity of a proposition, use of inductive and deductive logic etc.

Analyzing: To analyze different types of proofs (viz. direct proof, indirect proof, and proof by contradiction), the difference between the affirmative and negative statement, the difference between general and particular statements (i.e. use of \forall , \exists) etc.

Evaluating: To justify and understand the hidden beauty of the statements and propositions to distinguish an illogical statement from a logical one.

Creating: To design and create various arguments and syllogisms in investigating which one is logical and why.....

Future Perspective of the course:

Beyond the course of the subject, a student would be able to know the illogical or invalid arguments and not to use them in real life.

COURSE OUTCOME for Mathematics Hons DSE-A (Semester-V)

Name of the course: **Bio Mathematics**

At the end of this course, the incumbent will be able to:

Remembering: To recall the fundamental concept of mathematical modelling to formulate and analyze the various type of ecological and epidemiological models using ordinary differential equation, partial differential equations, difference equations etc.

Understanding: To describe the concept of logistic growth, exponential growth, extinction criteria of a population, strong and weak Allee effects, different types of Holling type functional forms, predator-prey system, effect of harvesting, basic epidemic models and their dynamics, stability and bifurcation criteria, basic reproduction number etc.

Applying: To use in various biological and real-world problems including determining prey-predator interactions, existence and extinction criteria of a species, effect of harvesting, impact of diffusion, insect outbreak scenarios, criteria for endemic and the pandemic of infectious disease and procedure of its eradication, control measures of infectious disease, graphically representations of a biological system etc.

Analyzing: To analyze how to linearise a complex mathematical model, describing the steady state solutions and their stability criteria, one and two-dimensional bifurcation in biological systems, compute basic reproduction number and its impact on the eradication of infectious disease, use of control theory in different biological problems, interpret theoretical results etc.

Evaluating: To justify and understand how to express a biological system using various mathematical tools, solving different real-world problems that include optimal harvesting policy of open sea-shore, determining biodiversity and co-existence criteria of different interacting species, proposing eradication criteria of an infectious disease etc.

Creating: To formulate valid mathematical models to describe various biological interactions using differential equations or difference equations and analyze them to fit with existing real-world data.

Future Perspective of the course:

Of late Bio-mathematics or Mathematical biology has begun as an emerging research field for students from both Mathematics backgrounds and allied fields. During and post-COVID era, theoretical analysis of infectious disease systems has drawn attention to all communities. Thus a student opting for this course has the freedom to not only enrich himself/herself with the subject matter but also can extend the scope of the subject by doing some research work on this emerging topic.

COURSE OUTCOME for Mathematics Hons DSE-B (Semester-V)

Name of the course: **Linear Programming & Game Theory**

At the end of this course, the incumbent will be able to:

Remembering: To recall the fundamental concept of basic mathematics, including matrices and vectors and their operations, to construct different financial problems using linear inequalities and solving them by different methods viz. graphical method, simplex method, two-phase method, dual simplex method etc, to recall the concept of Game theory and its usage in the practical field etc.

Understanding: To describe the concept of object function, constraints, feasible solution and basic feasible solution, extreme points, degenerate solutions, slack, surplus and artificial variables, primal and dual, rectangular game, pure and mixed strategies etc.

Applying: To use in various financial and real world problems including maximizing profit, minimizing the application cost, solution of Assignment and Transportation problems, solution in travelling salesman problem, construction of rectangular game problems and their solutions etc.

Analyzing: To analyze how to construct a linear programming problem (LPP), the nature of the solution of an LPP (i.e. whether it is bounded or unbounded, feasible or infeasible etc), rectangular game, and its solution procedure.

Evaluating: To justify and understand how to express a financial system into its equivalent LPP form, to evaluate profit and loss, evaluation of travelling salesman problems etc.

Creating: To formulate valid linear mathematical systems to describe various real-world optimization problems and their solution using suitable methods, construction of a rectangular game and its solution etc.

Future Perspective of the course:

Operations research is an emerging field of study for students from Mathematics as well as allied courses. Hence students opting this course able to enrich themselves by enjoying the hidden beauty of the subject and may engage in research work in this field.

COURSE OUTCOME for Mathematics Hons DSE-A (Semester-VI)

Name of the course: **Mathematical Modelling**

At the end of this course, the incumbent will be able to:

Remembering: To recall the fundamental concept of mathematical modelling that includes series solution of a differential equation, the origin of some special functions and their properties, Laplace transformation and its application field, simulation technique, random numbers etc.

Understanding: To describe the concept of ordinary point and singular point of an ordinary differential equation, solution of the ordinary differential equation about both ordinary and regular singular point, derivation of Legendre and Bessel's functions, Laplace transformation of different types functions and corresponding inverse Laplace theorem, Convolution theorem and its application during inverse Laplace transform, solution of ODE using Laplace transform, Generation of random numbers etc.

Applying: To use in various physical problems where the solution can be done using the concept of Laplace transformation, Generation of random numbers and its usage in various practical problems, solving problems on queuing theory etc.

Analyzing: To analyze how to solve problems with an infinite or finite number of customers receiving service from either one or more than one service channel, Generation of random numbers are truly random or not, simulation of various real-world problems etc.

Evaluating: To find the solution of ordinary differential equations other than integration techniques, generating function and recurrence relation for both Bessel's and Legendre functions, solution of various geometrical problems using simulation techniques etc.

Creating: To formulate some valid mathematical models corresponding to various real-world problems and find their solution by using special functions or Laplace transform or simulation technique, development of coding for simulating problems on mathematical modelling etc.

Future Perspective of the course:

Recently models are used quite frequently in both research problems and in problems of daily life. Thus students opting 'Mathematical Modelling' course should be able to know what are good and effective models, and how physical, biological or other real-world problems can be designed using mathematical modelling.

COURSE OUTCOME for Mathematics Hons DSE-B (Semester-VI)

Name of the course: **Point Set Topology**

At the end of this course, the incumbent will be able to:

Remembering: To recall the fundamental concept of various topological terms, which include neighbourhoods of a point, interior points, limit points, derived set, boundary of a set, closed sets, closure and interior of a set, dense subsets, subspace topology, finite Product topology, Continuous functions, open maps, closed maps, etc.

Understanding: To describe the concept of topological space, compact space and compactness, metric spaces, T1 and T2 separation axioms etc.

Applying: To grow the concept of topology and apply it in diverse fields of study.

Analyzing: To analyze how to analyze higher dimensional problems, how to find the relations between compact sets and compact spaces and the relation with metric spaces, different properties of topology etc.

Evaluating: To evaluate the solution of many fundamental problems using the concept of topology.

Creating: To enrich the concept of abstract mathematics using the definition and properties of point set topology and topological space.

Future Perspective of the course:

Topology is the backbone of pure mathematics. Thus a student good in topology should understand the subject Mathematics in a better sense and can use the knowledge in further study as well as research.

COURSE OUTCOME for Mathematics General SEC (Semester-III)

Name of the course: **C Programming Language**

At the end of this course, the incumbent will be able to:

Remembering: To recall the basic structure of a mathematical modelling computer language including the development of programming code of various mathematical problems including operations on matrices, sorting of numbers, finding root of a quadratic equation, etc.

Understanding: To describe the concept of constants and variables, operators and expressions, control statements, loops, arrays, user-defined functions, built-in functions, library functions, etc.

Applying: To use in various allied engineering, physical problems and mathematical problems including finding numerical solutions of a transcendental equation, numerical integration, searching and sorting of numbers and characters, etc.

Analyzing: To analyze various real-world problems and categorize them using the coding of C Language.

Evaluating: To justify and understand the hidden beauty of the coding corresponding to various mathematical and real-world problems.

Creating: To design and create coding beyond mathematical problems including the development of software.

Future Perspective of the course:

C Programming Language is the base of various advanced software including MATLAB, Python, etc. Hence, the foundation of a good research scholar would be handling 'C Programming Language' with ease.

COURSE OUTCOME for Mathematics General SEC (Semester-VI)

Name of the course: **Boolean Algebra**

At the end of this course, the incumbent will be able to:

Remembering: To recall the basic structure of Boolean algebra including ordered set, Boolean function and Boolean polynomials, lattices, switching circuits, etc.

Understanding: To describe the concept Boolean function, truth tables, switching circuits, lattice, poset, minimization of circuits, etc.

Applying: To use in various allied engineering, physical and mathematical problems including finding minimization of switching circuits, minimal forms of Boolean polynomials, lattices and its application, etc.

Analyzing: To analyze various scientific problems using Boolean algebra and lattices.

Evaluating: To justify and evaluate basics and various properties of duality principle, homomorphism, modular lattices, and minimization of Boolean function using Karnaugh diagrams.

Creating: To design and create switching circuits, distributive lattices, minimizing Boolean function, etc.

Future Perspective of the course:

Boolean algebra is the base of discrete mathematics including mathematical logic. Students taking this course would be able to grow their concepts in discrete mathematics.

COURSE OUTCOME for Mathematics General DSE-A (Semester-V)

Name of the course: **Particle Dynamics**

At the end of this course, the incumbent will be able to:

Remembering: To recall the fundamental concept of dynamics including velocity and acceleration of a particle, motion of a particle, central force, simple harmonic motion, etc.

Understanding: To describe the concept of force, the difference between motion in a straight line and in two dimensions, motion of a particle in Cartesian and polar co-ordinate systems, planetary motion, oscillations, etc.

Applying: To find the path of artificial satellites, oscillations of a particle, motion of a particle moving under inverse square law, the component of velocity and oscillations of a particle under a straight line and plane curve, etc.

Analyzing: To analyze the nature of the path of a particle moving under different laws of forces, to describe the path of a planet, and to understand the motion of projectiles in a vacuum and in a medium with resistance.

Evaluating: To evaluate the path of a particle, to determine the conservation of energy, etc.

Creating: To formulate and solve various physical and mathematical problems including the path of a planet and satellite, path and force of a particle moving under polar and Cartesian co-ordinates, etc.

Future Perspective of the course:

In various physical and mathematical problems, the concept of dynamics is used quite frequently. Hence students opting 'Particle dynamics' would be able to solve various problems related to dynamics in their future life.

COURSE OUTCOME for Mathematics General DSE-B (Semester-VI)

Name of the course: **Advanced Calculus**

At the end of this course, the incumbent will be able to:

Remembering: To recall the fundamental concept of calculus that includes power series, Fourier series, uniform convergence, Laplace transformation, and its application field, etc.

Understanding: To describe the concept of the Weierstrass M-Test for Uniform convergence of the sequence of functions and of series of functions, boundedness, continuity, differentiability, and integrability of the limit function of uniformly convergent sequence of functions, radius of convergence of power series, Laplace transformation of different types functions and corresponding inverse Laplace theorem, Convolution theorem and its application during inverse Laplace transform, solution of ODE using Laplace transform, etc.

Applying: To use in various physical problems where the solution can be done using the concept of Laplace transformation, Fourier series, etc.

Analyzing: To analyze how to find the radius of convergence, periodic functions, sine and cosine series convolution of two functions and its application in Laplace transform, etc.

Evaluating: To use Dirichlet's conditions in using Fourier series, the concept of the term by term differentiation and integration in evaluating power series, evaluation of ODE using Laplace transform, evaluation of Fourier terms, etc.

Creating: To formulate some mathematical problems corresponding to various real-world problems and find their solution by using the concept of power series, Fourier series or Laplace transform.

Future Perspective of the course:

Calculus is the basics of Mathematics. Thus the students opting this course would not only be able to grow their concepts on the subject, but also they can utilize their earned knowledge in diverse practical fields.

Subject-Physics

Honours & General

RAMSADAY COLLEGE

Department of Physics

Sub: Course Outcome

Introduction:

As soon as a student crosses the threshold of Plus-2 level, being exposed to the interesting phenomena in Physics, his mind is boggled, waiting to witness unfolding of several scientific mysteries. This undergraduate course is designed likewise to offer to a learner a self-complete course in Physics, slowly building on at each level, giving the student opportunity to understand the detailed intricacies as he/she pauses at each platform. The entire course is designed into a Choice Based Semester System (CBCS), comprising of compulsory course, also called Core Course (CC); juxtaposed with elective subjects like Generic Elective Course (GE), Skill Enhancement Course (SEC), Discipline Specific Elective Course (DSE). The elective courses have been suitably chosen keeping in mind the degree of completeness of study at each semester. Suitable laboratory-based classes complementing the theory make the course more interesting and effective, giving a chance to the student to test his/her culinary skills and get the raw flavor of the theory studied in class. The platforms at each semester have been designed intricately to make the journey interesting and effective.

SEMESTER-III(Hons)

SEC-A1- Scientific Writing:

Something write is much more difficult compare to something speak. Most important is that you have to choose an editor, using that you will be able to setup your write up including graphic, photo, table, equation, etc. Now a days people are using so many platforms to write their own write up, as like Microsoft word, Excel, Power point, LaTeX, etc. Among all LaTeX is the best editor due to its user-friendly features. There are many reasons for this

1. Commonly used:

LaTeX is hands down the document format most commonly used among mathematicians at the present time. This means it is easy to share documents with others and to collaborate with co-authors.

2. Professional looking documents:

LaTeX is widely used by dry-lab scientists. The algorithms used by LaTeX to justify text and control hyphenation work much better than those used by other editors.

3. Easily Converted Files:

LaTeX files contain markup language that enables them to be readily converted to other outputs (e.g., PDF or HTML), allowing you to change or share your document more easily than if it was in another format.

4. LaTeX is much faster:

The document is displayed as a pdf and you write in a separate text editor, it simply does not matter if you have embedded 10 or 1000 of your beautiful immunisation photographs.

5. Management of Citations:

As with internal references, LaTeX handles citations elegantly. If you use BibTeX, which is compatible with most reference management software, it is also easy to change bibliographic styles.

SEMESTER-IV(H)

SEC-B2: - Electric Circuits & Network Skill : The syllabus of Physics (Hons.) is specially designed for developing solid theoretical understanding. Necessary experiments are selected to strengthen the

learning process. But how these theoretical principles are applied in different engineering sectors are beyond the scope of the core course. This Skill Enhancement Course is selected to provide the students a glimpse of

application of their simple theoretical knowledge of electricity and magnetism in power generation, its distribution and efficient use by modern technology. After completion of this course the students will acquire

1. knowledge and understanding of key concepts of DC generators, its various types and applications.
2. understanding of basic theory of different types of transformers and its connection techniques.
3. ability for identification of the fields for the use of ac motor and dc motor and the principles of their constructions.
4. basic idea about the measurement of power by different wattmeter methods and their uses in domestic houses.
5. preliminary information of different types of faults in distribution system.

SEMESTER-IV(G)

SEC-B2: - Electric Circuits & Network Skill

The aim of this course is to help the students to acquire basic knowledge of electrical circuits and networks. In industry the skills to diagnose and rectify the electrical network and circuit related problems is very important. To get jobs in this specialized field this course is intended to help the students to attain the following industry identified learning experiences.

1. Knowledge and understanding of key concepts of DC generators, its various types and applications.
2. Understanding basic theory of different types of transformers and its connection techniques.
3. Identification of the fields for the use of ac motor and dc motor and the principles of their constructions.
4. Basic idea about measurement of power by different wattmeter-methods and their uses in domestic houses.
5. Analysis of different types of faults in distribution systems.

SEMESTER-V(H)

DSE-A1: Advanced Mathematical Methods

Higher studies in physics need a deeper understanding of advanced mathematical theories of Linear vector space, Tensor and Group Theory. In-depth knowledge of this subject will make the students confident in purposefully selecting their special papers like Advanced Quantum Mechanics, Quantum Electrodynamics, Solid State Physics, Astrophysics, Particle Physics in the PG level and for their

future research activities in these fields.

This course

1. enables the students to develop competence with the basic ideas of linear algebra including concepts of linear systems, linear independence, theory of matrices, linear transformations, bases and dimension, eigenvalues, eigenvectors and diagonalization, operator algebra and tensor products.
2. exposes the students to mathematical applications of tensor algebra to handle diverse problems of elasticity, dielectric properties of matter, curvature in general theory of relativity, transformation laws in electrodynamics.
3. enables the students to gain the ability to apply group theory to physics problems and this is a prerequisite for deeper understanding of solid-state physics, quantum mechanics and particle physics.

SEMESTER-V(H)

DSE-B1: Nuclear and Particle Physics

It is of extreme importance to study the interior of a nucleus and its associated properties. This course gives a deep insight into the topic.

1. One gets a fair idea of some very important models proposed to understand the behaviour and properties of a nucleus.
2. Nuclear radiation detectors are discussed to an in-depth extent.

3. Different types of accelerators and their intricacies have been delved into this course.
4. The families of elementary particles like baryons, mesons etc. have been introduced and octet & decuplet structural forms have been illustrated.
5. Studying this course, one will have a fair idea of quarks, antiquarks and their properties.

SEMESTER-V(G)

DSE-A1: -ANALOG ELECTRONICS

To have a profound knowledge of analog electronics is of crucial importance in a course for complete all-round knowledge of a student.

1. A student gets acquainted with the intricacies of the important theorems like Thevenin, Norton, Superposition, Reciprocity and Maximum Power Transfer theorem.
2. Various semiconductor devices along with their applications are illustrated to an in-depth extent.
3. Regulated power supply, its need and the different types of regulator networks are explained.
4. A student becomes familiar with the construction, operation and characteristics of Field Effect Transistors, also getting to know their types with comparison.
5. A student comprehends the necessity of negative feedback for stability and also voltage and current series and shunt feedback are explained to an in-depth extent.
6. The topic of Operational Amplifier is elucidated with detailed analysis of its different applications.
7. Sinusoidal Oscillators are also discussed throwing light on Barkhausen's criterion for self-sustained oscillations.

SEMESTER-V(G)

SEC-A1: - Renewable Energy

Renewable energy is a core issue in the world today. It affects jobs, homes, food production and climate change. The world would not function without energy – and the importance of clean, affordable energy has never been more relevant.

From its effects on global warming to the natural disasters across the globe, clean energy has a huge impact on our lives. This is an important context for many academic subjects and classroom discussions today. Renewable energy is incorporated into B.Sc physics syllabus named as skill enhancement course (SEC).

1. Energy surrounds us. Energy powers homes and classrooms. It provides heat, light and electricity. It fuels our vehicles, powers our computers and prepares our food. It's at the core of students' daily lives across the world and is a subject that we should encourage them to engage with on an academic level.
2. The value of renewable energy sources should also be at the forefront of students' minds. Even with humanity's progress in clean energy producers like solar and wind power, energy still contributes to around 60 percent of global greenhouse gas emissions – one of the main causes of climate change.
3. Renewable energy be a part of a teaching program. The subject of energy crosses over into a wide array of scientific and engineering topics in the classroom.
4. Renewables make urban energy infrastructures more independent from remote sources and grids. Businesses and industry invest in renewable energy to avoid disruptions, including resilience to weather-related impacts of climate change.

SEMESTER-VI(H)

DSE-A2: Nanomaterials

In DSE A2(a), nanomaterials and applications course is introduced in semester-VI. Nanoscience is the most interesting branch in science and technology. It is conducted at nanoscales in the range of 1 to 100 nm. Through this course, materials and their structures will be studied at ultra-small scale. Unique and interesting properties of nanostructure materials will demonstrate. To know about the nanoworld, scientists from different fields including physics, chemistry, biology, medicine, materials science and engineering are studying.

Course Outcomes:

1. Learn about the previous history and the beauty of nanoscience.
2. To introduce students in the emerging field of nanoworld.
3. To explain the fundamental properties and application of nanomaterials in the applied physics field.
4. To know about the methodology about the preparation of nanomaterials.
5. To provide the primary instrumental idea in research fields.
6. To understand the emerges of noble properties in the materials with the reduction of dimension.

SEMESTER-VI(H)

DSE-A2: Advance Statistical Mechanics

The aim of this course is to provide the students an overview of advanced Statistical Mechanics.

This advanced level course helps the students to gain the ability 1. To apply the basic postulates of statistical mechanics to solve systems having large numbers of degrees of freedom.

2. To grasp the basis of ensemble approach in both the classical and quantum cases of statistical mechanics.
3. To learn the fundamental differences between classical and quantum statistics.
4. To become familiar with the advanced theories and phenomenological aspects of phase transitions and critical phenomena, especially related to the Ising model.
5. To grasp the concept of order parameter and its importance in determining the nature of phase transitions for complex systems.
6. To learn how to deal with the non-equilibrium situations in statistical mechanics.

SEMESTER-VI(G)

DSE-B1: Digital Electronics

It is of crucial importance to acquire a profound understanding of this course in order to gain a sound insight into the ever-advancing technical aspects of the current day.

1. This course offers a detailed study of the binary and decimal number system and their conversions. Octal and hexadecimal numbers are also included in the course.
2. Principles of design of monolithic chips along with advantages contrasted with disadvantages of Integrated Circuits and various scales of integration are thoroughly included in this course.
3. It is of prime importance to have a sound idea of the basic operations on binary numbers like addition and subtraction.
4. The basic logic gates AND, OR and NOT and their realisation using diodes as well as transistors, are also included in this course. Other gates like NAND and NOR are discussed along with their universality. XOR and XNOR gates are also illustrated.
5. The very important De Morgan's theorems are presented.
6. The various concepts of data processing and sequential circuits are explained.
7. Registers and counters along with their in-depth intricacies are thoroughly illustrated.

Subject-Zoology

Honours

DEPARTMENT OF ZOOLOGY

Skill Enhancement Courses

Part II: SEM 3

SEC A1 – APICULTURE

ZOOA – SEC (A) – 3-1 TH

Unit 1: Biology of Bees

Unit 2: Rearing of Bees

Unit 3: Disease and Enemies

Unit 4: Bee Economy

Unit 4: Entrepreneurship in Apiculture

Aims:

Apiculture is a very good option for alternative livelihood for the students, in the recent times. The study of Apiculture will give an insight into the rearing of bees and associated economic benefits that can be generated through Apiculture and the possibility of entrepreneurship through it. The student will get to know about the life cycle, disease ecology and economy associated with bee culture and Apiculture can be considered as an option of livelihood in rural areas.

PARTII: SEMESTER4 HONOURS

SEC-1. Aquarium Fish Keeping

ZOOA-SEC(B)-4-1-TH

Unit 1: Introduction to Aquarium Fish Keeping

Unit 2: Biology of Aquarium Fishes

Unit 3: Food and feeding of Aquarium fishes

Unit 4: Fish Transportation

Unit 5: Maintenance of Aquarium

Aims:

The course aim to introduce concepts related general rules of aquarium maintenances and their relative methods.

The course aim to empower students with the budget for setting up an Aquarium Fish Farm as a Cottage Industry.

The course will culminate in the culture and reproduction of ornamental fish by the students.

History and evolution of Aquarium Fish Farm as a Cottage Industry in our country will be discussed.

The course objectives to introduce a concept of aquarium maintenances and their budget.

Discipline Specific Elective
Elective Course: SEM 5
DSE 1- Parasitology
ZOOA-DSE(A)-1-TH

Unit 1: Introduction to Parasitology
Unit 2: Parasitic Protists
Unit 3: Parasitic Platyhelminthes
Unit 4: Parasitic Nematodes
Unit 5: Parasitic Arthropods
Unit 6: Parasite Vertebrates

Aims:

Parasitology is a very good option to have knowledge about host-parasite relationship. Knowledge of this study ensure the first level entry in the field of paramedical jobs. The students will get to know about the morphology, life cycle, pathogenicity, diagnosis and treatment of protists, helminthes, arthropods and vertebrate parasites.

PART III: SEMESTER 5
DSE1. Endocrinology
ZOOA-DSE(B)-5-1-TH

Unit 1: Introduction to Endocrinology
Unit 2: Hypothalamo-Hypophyseal Axis
Unit 3: Peripheral Endocrine Glands
Unit 4: Regulation of Hormone Action
Unit 5: Non Mammalian Vertebrate Hormone

Aims:

Endocrinology is the study of endocrine glands and the hormones which are synthesized and secreted from these glands. Hormones regulate different physiological processes of our body like metabolism, respiration, reproduction, growth, different homeostasis processes etc. Hormone imbalances are the underlying reason for a wide range of medical conditions.

This course will help the students to understand morphological and histological structure, functions of different endocrine glands, the disorders related to these glands, receptors and ligand interactions and the processes of cellular communications. The course will give them an opportunity to coalesce physiology with pathophysiology.

PART III: SEMESTER 6
DSE2. Animal Biotechnology
ZOOA-DSE (A)-6-2-TH

Unit 1: Introduction
Unit 2: Molecular Techniques in Gene manipulation
Unit 3: Genetically Modified Organisms
Unit 4: Culture Techniques and Applications

Aims:

Biotechnology is the integration of biological science with engineering. It's a new and innovative industry with innumerable career options. This course will help the students to understand the principle and process of RDT and its application in society. The course will also provide students an extensive knowledge regarding different molecular techniques like PCR, RTPCR, gel electrophoresis, southern blotting, northern blotting, western blotting and their applications. Lots of job opportunities are there in the field of biotechnology both in government sector and private sector.

PARTIII: SEMESTER6
DSE1.Animal Behaviour and Chronobiology
ZOOA-DSE(B)-6-1-TH

Unit 1: Patterns of Behaviour

Unit 2: Social and Sexual Behaviour

Unit3:Chronobiology & Biological Rhythm

Aims:

The course will be briefly discussed about the Circannual rhythm in bird migration.

The course objectives to introduce a concept of Biological rhythms and Biological clock with their respective & suitable examples of different kind animals' behaviour patterns.

General

Skill Enhancement Elective Courses (SEC)
SEMESTER –3
SEC-A
APICULTURE; ZOOG-SEC-A-3-1-TH

Unit 1: Biology of Bees

Unit 2: Rearing of Bees

Unit 3: Disease and Enemies

Unit 4: Bee Economy

Unit 4: Entrepreneurship in Apiculture

Aims:

Apiculture is a very good option for alternative livelihood for the students, in the recent times. The study of Apiculture will give an insight into the rearing of bees and associated economic benefits that can be generated through Apiculture and the possibility of entrepreneurship through it. The student will get to know about the life cycle, disease ecology and economy associated with bee culture and Apiculture can be considered as an option of livelihood in rural areas.

**Discipline Specific Course
Elective Course-SEM 5
DSE A: Applied Zoology
ZOOG-DSE-A-5-1-TH**

Unit 1: Host & Parasite Relationship
Unit 2: Epidemiology of Diseases
Unit 3: Parasitic Protozoa
Unit 4: Parasitic Helminthes
Unit5: Insect of Economic Importance
Unit 6: Insect of Medical Importance
Unit 7: Animal Husbandry
Unit 8: Poultry Farming
Unit 9: Fish Technology

Aims:

Applied Zoology is very good option to have knowledge about parasites, animal husbandry, poultry farming and fish technology. The student will get to know about the life history, pathogenicity of protozoan and helminth parasites. The student will also get to know about biology, control and damage of major pests. Knowledge of this study can ensure the first level entry in the field of paramedical jobs. Animal husbandry, poultry farming and fish technology offers good full-time or part-time employment opportunity to students in near future.

**Discipline Specific Course
Elective Course: SEM 6
DSE B2 – Ecology and Wildlife Biology
ZOOG – DSE- B- 6- 2 –TH**

Unit 1: Introduction to Ecology
Unit 2: Population
Unit 3: Community
Unit 4: Ecosystem
Unit 5: Wild Life

Aims:

Ecology and Wildlife Biology is a very good option to have knowledge about nature and its association with the ecosystem. The concept of ecology gives a glimpse of the ecosystem and nature and its association with human ,within the ecosystem. The concept of ecosystem and wildlife will give an insight into biodiversity and conservation of ecosystem around urban-nature interface. The course will give an opportunity to know about the basic concept of ecology and the association of human beings and nature.

**SEMESTER-6
SEC-B
Medical diagnosis; ZOOG-SEC-B-6-4-TH**

Unit1:Diagnosics Methods Used for Analysis of Blood
Unit2:Diagnostic Methods Used for Urine Analysis
Unit3:Non-infectious Diseases

Unit4:Infectious Diseases

Unit5:Clinical Biochemistry

Unit6:Clinical Microbiology

Unit7:Tumours

Unit8:Visit to Pathological Laboratory and Submission of Project

Aims:

Students will have an understanding about medical imaging like CT scan, PET, Ultrasound, Arthrogram, Myelogram etc.

Students will learn how X-ray works in case of any bone fractures.

The main objectives to make a concept of medical imaging & tumours and why it is so important for patients.

Students are learned about the various diseases and their symptoms, right time diagnosis and prevention.

The course aim to grow concepts related to pathological aspects for diseases or a patient.

The course objectives to learn basic knowledge of how pathological test are done and that help determine the cause and nature of diseases by testing samples of body tissues and body fluids.