

JAMSHEDPUR WOMEN'S UNIVERSITY
DEPARTMENT OF GEOGRAPHY



PROPOSED STRUCTURE OF SYLLABUS
B.A GEOGRAPHY HONOURS/RESEARCH
FOUR YEAR UNDER GRADUATE PROGRAM
(FYUGP)
[NEP 2020]

IMPLEMENTED FROM 2022

HIGHLIGHTS OF REGULATIONS OF FYUGP

PROGRAMME DURATION

- The Full-time, Regular UG programme for a regular student shall be for a period of four years with multiple entries and multiple exit options.

ELIGIBILITY

- The selection for admission will be primarily based on availability of seats in the Major subject and marks imposed by the institution. Merit point for selection will be based on marks obtained in Major subject at Class 12 (or equivalent level) or the aggregate marks of Class 12 (or equivalent level) if Marks of the Major subject is not available. Reservation norms of The Government of Jharkhand must be followed as and when amended in times.

ADMISSION PROCEDURE

- The reservation policy of the Government of Jharkhand shall apply in admission and the benefit of the same shall be given to the candidates belonging to the State of Jharkhand only. The candidates of other states in the reserved category shall be treated as General category candidates. Other relaxations or reservations shall be applicable as per the prevailing guidelines of the University for FYUGP.

ACADEMIC CALENDAR

- Each year the University shall draw out a calendar of academic and associated activities, which shall be strictly adhered to. The same is non-negotiable. Further, the Department will make all reasonable endeavors to deliver the programmes of study and other educational services as mentioned in its Information Brochure and website. However, circumstances may change prompting the Department to reserve the right to change the content and delivery of courses, discontinue or combine courses and introduce or withdraw areas of specialization.

PROGRAMME OVERVIEW/ SCHEME OF THE PROGRAMME

- Undergraduate degree programmes of either 3 or 4-year duration, with multiple entries and exit points and re-entry options within this period, with appropriate certifications such as:
 - a Certificate after completing 1 year (2 semesters) of study in the chosen fields of study,
 - a Diploma after 2 years (4 semesters) of study,
 - a Bachelor after a 3-year (6 semesters) programme of study,
 - a Bachelor (with Hons. / Research) after a 4-year (8 semesters) programme of study

VALIDITY OF REGISTRATION

- Validity of a registration for FYUGP will be for maximum for Seven years from the date of registration.

CALCULATION OF MARKS FOR THE PURPOSE OF RESULT

- Student's final marks and the result will be based on the marks obtained in Semester Internal Examination and End Semester Examination organized taken together.

- Passing in a subject will depend on the collective marks obtained in Semester internal and End Semester University Examination both. However, students must pass in Theory and Practical Examinations separately.

PROMOTION AND SPAN PERIOD

- The Requisite Marks obtained by a student in a particular subject will be the criteria for promotion to the next Semester.
- To get promotion from Semester-II to Semester-III a student will be required to pass in at least 75% of Courses in an academic year (a student has to pass in minimum 9 papers out of the total 12 papers. However, it will be necessary to procure pass marks in each of the paper before completion of the course.
- To get promotion from Semester-IV to Semester-V (taken together of Semester I, II, III & IV) a student has to pass in minimum 16 papers out of the total 22 papers.
- Eligibility to get entry in Semester VII is to secure a minimum of 7.5 CGPA up to semester VI along with other criteria imposed by the Institution.

PUBLICATION OF RESULT

- The result if the examination shall be notified by the Controller of Examinations of the University in different newspapers and also on University website.
- If a student is found indulged in any kind of malpractice during examination, the examination taken by the student will be cancelled. The candidate will be awarded zero marks in that paper. The candidate may re-appear in the subsequent semesters as per the available provisions.
- There shall be no Supplementary or Re-examination for any subject. Students who have failed in any subject in an even semester may appear in the subsequent even semester examination for clearing the backlog. Similarly, the students who have failed in any subject in an odd semester may appear in the subsequent odd semester examination for clearing the backlog.
- Regulation related with any concern not mentioned above shall be guided by the Regulations of the University for FYUGP.

COURSE STRUCTURE FOR FYUGP 'HONOURS/ RESEARCH'

Table 1: Credit Framework for Four Year Undergraduate Programme (FYUGP) under State Universities of Jharkhand [Total Credits = 176]

- There will be four disciplinary areas: A-Natural Science, B-Humanities, C-Social Science, and D-Commerce; each having basket of courses. A student will have to select a 'Major' from any of the four disciplinary areas (out of A, B, C & D). The selection for admission will be primarily based on availability of seats in Major and marks imposed by the institution.
- A student has to select three subjects for 'Introductory Regular Courses' from a pool of subjects associated with the Major offered by the institution. One of the three subjects will continue as 'Minor' from semester IV onwards, based on the academic interest and performance of the student.

Jharkhand, NEP, FYUGP 2022 onwards

Table 1: Credit Framework for Four Year Undergraduate Programme (FYUGP) under State Universities of Jharkhand [Total Credits = 176]

Semester	Common Courses (29)								Introductory Courses (15)		Minor* (32)				Research Courses (18)				Total Credit			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		19	20	21
I	6				2	2			3	3												22
II		6						2	2	3	3											22
Exit Point: Undergraduate Certificate																						
III			3						3	3												22
IV											4			6	6	4						22
Exit Point: Undergraduate Diploma																						
V														6+6	6	4						22
VI														6+6	6	4						22
Exit Point: Bachelor's Degree																						
VII														6+6 (Adv. Topics)			6	4				22
VIII														6+6 (Adv. Topics)	2				4	4	4	22
Exit Point: Bachelor's Degree with Hons./Research																						

*There will be four disciplinary areas: A-Natural Science, B-Humanities, C-Social Science, and D-Commerce; each having basket of courses. A student will have to select a 'Major' from any of the four disciplinary areas (out of A, B, C & D). The selection for admission will be primarily based on availability of seats in Major and marks imposed by the institution.
 ** A student has to select three subjects for 'Introductory Regular Courses' from a pool of subjects associated with the Major offered by the institution. One of the three subjects will continue as 'Minor' from semester IV onwards, based on the academic interest and performance of the student.

Jharkhand, NEP, FYUGP 2022 onwards

Table 2: Course structure for Undergraduate Certificate Programme [May Exit after Sem.-II]

Semester	Common Courses			Introductory Courses		Major	Total Credits
Sem.-I	LCS (MIL/TRL) (6 Credits)	Understanding India (2 Credits)	Health & Wellness, Yoga Education, Sports & Fitness (2 Credits)	IRC-1 (3 Credits)	IVS-1A (3 Credits)	MJ-1 (6 Credits)	(22)
Sem.-II	LCS (English) (6 Credits)	Global Citizenship Education (2 Credits)	Mathematical & Computational Thinking (2 Credits)	IRC-2 (3 Credits)	IVS-1B (3 Credits)	MJ-2 (6 Credits)	(22)

Total = 44 Credits

(LCS: Language and Communication Skills; MIL: Modern Indian Languages; TRL: Tribal Regional Languages;

IRC: Introductory Regular Courses; IVS: Introductory Vocational Studies, MJ: Major)

Table 3: Course structure for Undergraduate Diploma Programme [May Exit after Sem.-IV]

Semester	Common Courses			Introductory Courses	Major	Minor	Internship/ Project	Vocational	Total Credits
Sem.-III	Environmental Studies (3 Credits)	Community Engagement/ NCC/ NSS (3 Credits)	Digital Education (3 Credits)	IRC-3 (3 Credits)	MJ-3 (6 Credits)		Internship/ Project (4 Credits)		(22)
Sem.-IV					MJ-4, MJ-5 (6+6=12 Credits)	MN-1 (6 Credits)		VS-1 (4 Credits)	(22)

Total = 88 Credits

(MN: Minor; VS: Vocational Studies)

Table 4: Course structure for Bachelor's Degree Programme*[May Exit after Sem.-VI]*

Semester	Major Courses	Minor Courses	Vocational	Total Credits
Sem.-V	MJ-6, MJ-7 (6+6 = 12 Credits)	MN-2 (6 Credits)	VS-2 (4 Credits)	(22)
Sem.-VI	MJ-8, MJ-9 (6+6= 12 Credits)	MN-3 (6 Credits)	VS-3 (4 Credits)	(22)

Total = 132 Credits**Table 5: Course structure for Bachelor's Degree with Hons./Research Programme**

Semester	Advance Courses	Research Courses		Vocational	Total Credit
Sem.-VII	AMJ-1, AMJ-2 (6+6=12 Credits)	Research Methodology (6 Credits)	Research Proposal (4 Credits)		(22)
Sem.-VIII	AMJ-3, AMJ-4 (6+6=12 Credits)	Research Int./Field Work (4 Credits)	Research Report (4 Credits)	VSR (2 Credits)	(22)

Total = 176 Credits

(AMJ: Advance Major; VSR: Vocational Studies associated with Research)

SEMESTER WISE COURSES OF STUDY FOR FOUR YEAR UNDERGRADUATE PROGRAMME

Semester	Common, Introductory, Major, Minor, Vocational & Internship Courses		Credits
	Code	Paper	
I	CC-1	Language and Communication Skills (Modern Indian language including TRL)	6
	CC-2	Understanding India	2
	CC-3	Health & Wellness, Yoga Education, Sports & Fitness	2
	IRC-1	Introductory Regular Course-1	3
	IVS-1A	Introductory Vocational Studies-1	3
	MJ-1	Major paper 1 (Disciplinary/Interdisciplinary Major)	6
II	CC-4	Language and Communication Skills (English)	6
	CC-5	Mathematical & Computation Thinking Analysis	2
	CC-6	Global Citizenship Education & Education for Sustainable Development	2
	IRC-2	Introductory Regular Course-2	3
	IVS-2B	Introductory Vocational Studies-2	3
	MJ-2	Major paper 2 (Disciplinary/Interdisciplinary Major)	6
III	CC-7	Environmental Studies	3
	CC-8	Digital Education (Elementary Computer Applications)	3
	CC-9	Community Engagement & Service (NSS/ NCC/ Adult Education)	3
	IRC-3	Introductory Regular Course-3	3
	IAP	Internship/Apprenticeship/ Project	4
	MJ-3	Major paper 3 (Disciplinary/Interdisciplinary Major)	6
IV	MJ-4	Major paper 4 (Disciplinary/Interdisciplinary Major)	6
	MJ-5	Major paper 5 (Disciplinary/Interdisciplinary Major)	6
	MN-1	Minor Paper 1 (Disciplinary/Interdisciplinary Minor)	6
	VS-1	Vocational Studies-1 (Minor)	4
V	MJ-6	Major paper 6 (Disciplinary/Interdisciplinary Major)	6
	MJ-7	Major paper 7 (Disciplinary/Interdisciplinary Major)	6
	MN-2	Minor Paper 2 (Disciplinary/Interdisciplinary Minor)	6
	VS-2	Vocational Studies 2 (Minor)	4
VI	MJ-8	Major paper 8 (Disciplinary/Interdisciplinary Major)	6
	MJ-9	Major paper 9 (Disciplinary/Interdisciplinary Major)	6
	MN-3	Minor Paper 3 (Disciplinary/Interdisciplinary Minor)	6
	VS-3	Vocational Studies 3 (Minor)	4
VII	AMJ-1	Advance Major paper 1 (Disciplinary/Interdisciplinary Major)	6
	AMJ-2	Advance Major paper 2 (Disciplinary/Interdisciplinary Major)	6
	RC-1	Research Methodology	6
	RC-2	Research Proposal	4
VIII	AMJ-3	Advance Major paper 3 (Disciplinary/Interdisciplinary Major)	6
	AMJ-4	Advance Major paper 4 (Disciplinary/Interdisciplinary Major)	6
	RC-3	Research Internship/Field Work	4
	RC-4	Research Report	4

	VSR	Vocational Studies (Associated with Research)	2
		Total Credit	176

Abbreviations:

CC Common Courses

IRC Introductory Regular Courses

IVS Introductory Vocational Studies

IAP Internship/Apprenticeship/ Project

VS Vocational Studies

MJ Major Disciplinary/Interdisciplinary Courses

MN Minor Disciplinary/Interdisciplinary Courses

AMJ Advance Major Disciplinary/Interdisciplinary Courses

RC Research Courses

VSR Vocational Studies associated with Research

Jamshedpur Women's University

List of all Papers in Eight Semester

Semester-wise Titles of the Papers in GEOGRAPHY

SEMESTER WISE COURSES IN GEOGRAPHY FOR FYUGP

Semester wise Examination Structure in Discipline Courses:

	Semester	Common, Introductory, Major, Minor, Vocational & Internship Courses		Examination Structure			
		Code	Papers	Credits	Mid Semester Theory (F.M.)	End Semester Theory (F.M.)	End Semester Practical/ Viva (F.M.)
<i>Certificate Course in GEOGRAPHY</i>							
1 ST YEAR	I	MJ-1	Introduction to Geography (Theory + practical)	6	15	60	25
	II	MJ-2	Physical Geography and Biogeography, (Theory + practical)	6	15	60	25
<i>Diploma in GEOGRAPHY</i>							
2 ND YEAR	III	MJ-3	Contemporary Issues in Geography (Theory + practical)	6	15	60	25
	IV	MJ-4	Human Geography and Cultural landscape (Theory + practical)	6	15	60	25
		MJ-5	World Geography (Theory + practical)	6	15	60	25
<i>Bachelor of GEOGRAPHY</i>							
3 RD YEAR	V	MJ-6	Geography of India And Jharkhand (Theory + practical)	6	15	60	25
		MJ-7	Economic Geography (Theory+ practical)	6	15	60	25
	VI	MJ-8	Regional planning and sustainable development (Theory + practical)	6	15	60	25
		MJ-9	Geography of Tourism (Theory + practical)	6	15	60	25
<i>Bachelor's Degree with Hons/ Research Programme</i>							
	VII	AMJ-1	Demography and Population Studies (Theory + practical)	6	15	60	25

4 TH YEAR		AMJ-2	Agriculture and Food Security (Theory + practical)	6	15	60	25
		RC-1	Research Methodology	6			
		RC-2	Research Proposal	4			
	VIII	AMJ-3	Social Geography (Theory + practical)	6	15	60	25
		AMJ-4	Political Geography (Theory + practical)	6	15	60	25
		RC-3	Research Internship/Field Work	4			
		RC-4	Research Report	4			
		VSR	Vocational Studies (Associated with Research)	2			
		Total Credit		98			

Semester wise Course Code and Credit Points:

Semester		Common, Introductory, Major, Minor, Vocational & Internship Courses		Examination Structure			
				Code	Papers	Credits	Mid Semester Theory (F.M.)
1 st & 2 nd year	I/II/III	IRC	Introductory Geography	3	--	100	--
2 nd year	IV	MN-1	Disaster Management	6	15	60	25
3 rd year	V	MN-2	Rural Development	6	15	60	25
	VI	MN-3	Climate change and Sustainable Resource Development	6	15	60	25
		Total Credits		21			

AIM OF BACHELOR'S DEGREE PROGRAMME IN GEOGRAPHY

The FYUGP educational program in GEOGRAPHY aims to

- Create the facilities and learning environment in educational institutions to consolidate the knowledge acquired at +2 levels, motivate students to develop a deep interest in Geography, and to gain a broad, balanced knowledge and understanding of physical concepts, principles and theories of Geography.
- Develop the ability in students to apply the knowledge and skills they have acquired to get to the solutions of specific theoretical and applied problems in Geography.
- To prepare students for pursuing the interdisciplinary and multidisciplinary higher education and/or research in interdisciplinary and multidisciplinary areas, as Geography is one of the important branches of Social Science necessary for interdisciplinary and multidisciplinary research.
- To prepare students for developing new industrial technologies and theoretical tools for applications in diverse branches of the economic life of the country, as Geography is one of the branches of Social Science which contribute directly to National development.
- In light of all of the above to provide students with the knowledge and skill base that would enable them to undertake further studies in Geography and related areas, or in Interdisciplinary/multidisciplinary areas, or join and be successful in diverse professional streams including entrepreneurship.
- Appreciate the relevance of geographical knowledge to everyday life.
- Demonstrate the ability to communicate geographic information by utilizing both lecture and practical exercises.
- Inculcate the ability to evaluate and solve geographical problems effectively.
- Demonstrate the skills in using geographical research tools including spatial statistics, cartography, remote sensing, GIS, IRNSS and GIScience.
- Based on the field knowledge and advanced technologies, the students should be able to understand the on-going geographical problems in different regions and levels with appropriate pragmatic solutions.

PROGRAM LEARNING OUTCOMES

Geography curriculum revision incorporates dynamic processes including fundamental and modern techniques, contemporary paradigms such as global initiatives like Sustainable Development Goals (SDGs), Disaster Risk Reduction (DRR), Paris Climate Action and national initiatives like smart cities, Securities of food, water, energy, human health and livelihood, biodiversity, and disaster management. The approaches are to make geography more scientific and societal-need oriented that could be the panacea of India's developmental challenges. Geography uses scientific knowledge with the current focus that includes spatio-temporal analysis, skill development, GIScience, sustainable development and human security.

Nature and Extent of the B.A.Geography/Research Programme

Geography curriculum inculcates knowledge of essential concepts of physical and human geography together with appropriate techniques using lectures, tutorials, group discussions, presentations, assignment evaluation, lab work and field visits. Thus, pedagogy process includes:

- Identifying and explaining the physical and cultural characteristics globally and processes at varied spatio-temporal contexts.
- Understanding human-environment and nature-society interactions as well as various global environmental challenges.
- Analyzing geographic information by using geo-spatial technologies.
- Responding towards the global and national challenges and initiatives.

Qualification Descriptors for B.A.Geography/Research Programme

The qualification descriptors for the B.A.Geography/Research Programme in Geography shall have the learning attributes such as field knowledge, use of advance tools and techniques for better comprehension of space and society etc. It also involves awareness among the students regarding the issues of different regions and socio-cultural aspects. The main qualification descriptors for the geography B.A.Geography/Research Programme students are to develop the critical evaluation and understanding. Each student in Geography should be able to;

- Demonstrate systematically geographical knowledge and understanding the theoretical as well as practical applications with understanding of various aspects.
- Demonstrate the ability to understand the significance of geographical aspects in relation to development of the regions and minimizing regional inequalities.
- Demonstrate the ability and geographical thinking critically regarding rural and urban spaces and their day to day problems with the application of geographical knowledge.
- Students have to demonstrate their geographical knowledge acquired in the class and apply the same in real world.
- Recognize the scope of geography in terms of exploring the career opportunities, employment and life-long engagement in teaching and utilize the knowledge for publication for the future academic endeavors. The students have to develop the ability through the theoretical and practical means for realizing the Sustainable Development Goals (SDG) both in rural and urban spaces to minimize the differentials in developmental aspects.

Learning Outcomes

Three distinct and new learning outcomes have been incorporated from each course such as to:

1. Understand the relevance of geographical knowledge to everyday life.
2. Getting the ability to communicate geographic information utilizing both lecture and practical exercises.

3. Inculcate the ability to evaluate geographical problems effectively.
4. Exhibit the skill in using geographical research tools including spatial statistics, cartography, remote sensing, GIS, IRNSS and GIScience.

Course Level Learning Outcomes

The course level learning outcomes includes:

- **Basic Concept:** The fundamental concepts and philosophical foundation of each course need to be discussed.
- **Understanding Landscape:** An understanding of landscape at different levels needs to be discussed and understood for a thorough knowledge of spatial dimensions.
- **Understanding Ecosystem Structure and Potential:** To comprehend the dynamic dimensions of human and ecosystem relationships.
- **Human Perception and Behaviour:** Learning human perception and behaviour to acquire the geographical knowledge evolved over time, is essential to improve decision making process.
- **Identification of Critical Problems and Issues:** Detection and identification of the critical problems and spatial issues are essential for sustainable development.
- **Field Based Knowledge:** Field based knowledge is essential to understand the ground reality, spatial patterns and processes.
- **Spatial Tools and Techniques:** The basics and applications of spatial tools and techniques are essential to make the studies more scientific and applicable.
- **Statistical Techniques:** Use of statistical tools and techniques is essential for precise and objective geographic analysis and interpretation of complex phenomena.
- **Applied Dimensions:** Identification of the critical problems and spatial issues form the core of the modern geography for various applications and decision making, including Resources, Environment & Disaster Management, Land Use Planning, and Urban and Regional Development together with Climate Change Mitigation and Adaptation, etc.
- **Case Study based Analysis:** There is a need to understand the specificities of the problems in specific areas for their in-depth comprehension and solution. The case studies are essential, especially to find out the solutions to the lagging regions for their solutions based on first-hand information.

Teaching Learning Processes

Curriculum for geography incorporates dynamic processes including fundamental and modern techniques, contemporary paradigms such as global initiatives like Sustainable Development Goals (SDGs), Disaster Risk Reduction (DRR), Paris Climate Action and national initiatives like smart cities, food security, water security, energy security, biodiversity, disaster management, human health and wellbeing and livelihood security. The approaches are to make geography more scientific and societal-need oriented that could be the panacea of India's development. Geography uses scientific knowledge with the present focus that includes spatio-temporal analysis, skill development, GIScience, sustainable development and human security.

Learning is a challenging, engaging, and enjoyable activity. Learners should be encouraged to engage in a rigorous process of learning and self-discovery by adopting a highly focused and yet flexible approach to education. Each day learners should be encouraged to focus on key areas of the course and spend time on learning the course fundamentals and their application in life and society. In teaching and learning pedagogy, there should be a shift from domain or conclusions-based approach to the experiential or process-based approach.

- Geography curriculum inculcates knowledge of essential concepts of physical and human geography together with appropriate techniques using lectures, tutorials, group discussion, presentation, assignment evaluation, lab work and field visits. Thus, pedagogy process includes: Identifying and explaining the physical and cultural characteristics globally and processes at varied spatio-temporal contexts.
- Understanding human-environment and nature-society interactions as well as various global environmental challenges.
- Analyzing geographic information by using geo-spatial technologies.
- Responding towards the global and national initiatives.

In order to achieve its objective of focused process based learning and holistic development, the Institution/University may use a variety of knowledge delivery methods:

Lectures:

Lectures should be designed to provide the learners with interesting and fresh perspectives on the subject matter. Lectures should be interactive in a way that students work with their teachers to get new insights in the subject area, on which they can build their own bridges to higher learning.

Discussions:

Discussions are critical components of learning, and can be used as a platform for students to be creative and critical with old and new ideas. Besides developing critiquing skills, arriving at consensus on various real-life issues and discussion groups lead to innovative problem solving and, ultimately to success.

Life Skills:

Life skills provide students opportunities to understand real life situations and scenarios (i.e. coping with disaster), and solve challenges in a controlled environment or make use of them in simulating cultural experiences by locating/transposing them in new (local, regional, national and international) situations.

Case Studies:

Case studies, wherever possible, should be encouraged in order to challenge students to find creative solutions to complex problems of individual, community, society and various aspects of knowledge domain concerned.

Role Playing:

Assuming various roles, as in real life, is the key to understanding and learning. Students are challenged to make strategic decisions through role-plays, and to analyze the impact of these decisions. For this purpose, incidents from literary texts may also be used.

Team Work

Positive collaboration in the form of teamwork is critical in the classroom environment, for which it is necessary to transcend one's prejudices and predilections so as to achieve the desired outcomes. In the process of teamwork, learners will acquire the skills of managing knowledge acquisition and other collaborative learners, thereby understanding how to incorporate and balance personalities.

Study Tours/Field Visits:

Study Tours/ Field trips provide opportunities to the learners to test their in-class learning in real life situations as well as to understand the functional diversity in the learning spaces. These may include visits to sites of knowledge creation, preservation, dissemination and application. Institutions may devise their own methods to substitute/modify this aspect.

Assessment Methods:

The assessment of students' achievement in geography will be aligned with course/program learning outcomes and the academic and geographical skills that the program is designed to be developed. Different assessment methods that are appropriate within the discipline of geography will be used. Learning outcomes will be assessed through continuous evaluation using the oral and written examinations, cartographic and computer-based exercises (GIS), practical assignments, observations of practical skills, project and field work reports, seminar presentations, viva voce, output from collaborative work activities and attendances, etc.

FORMAT OF QUESTION PAPER FOR SEMESTER INTERNAL EXAMINATION**Question format for 10 Marks**

F.M = 10	Subject /Code Time = 1 Hrs.	Exam Year
General Instructions:		
<ul style="list-style-type: none"> i. Group A Carries very short answer type compulsory question ii. Answer 1 out of 2 Subjective/descriptive questions given in Group B. iii. Answer in your own words as far as practicable iv. Answer all sub parts of a question at one place v. Numbers in right indicate full marks of the question 		
B.	<u>Group A</u>	
i.		[5x1=5]
ii.		
iii.		
iv.		
v.		
	<u>Group B</u>	
2.		[5]
3.		[5]
Note: There may be subdivisions in each question asked in Theory Examination		

Question format for 20 Marks

F.M = 20	Subject /Code Time = 1 Hrs.	Exam Year
General Instructions:		
i. Group A Carries very short answer type compulsory question ii. Answer 1 out of 2 Subjective/descriptive questions given in Group B. iii. Answer in your own words as far as practicable iv. Answer all sub parts of a question at one place v. Numbers in right indicate full marks of the question		
<u>Group A</u>		
i. ii. iii. iv. v.		[5*1=5]
2.		[5]
<u>Group B</u>		
3.		[10]
4.		[10]
Note: There may be subdivisions in each question asked in Theory Examination		

FORMAT OF QUESTION PAPER FOR END SEMESTER UNIVERSITY EXAMINATION**Question format for 50 Marks**

F.M = 50	Subject /Code Time = 3 Hrs.	Exam Year
General Instructions:		
i. Group A Carries very short answer type compulsory question ii. Answer 3 out of 5 Subjective/descriptive questions given in Group B. iii. Answer in your own words as far as practicable iv. Answer all sub parts of a question at one place v. Numbers in right indicate full marks of the question		
<u>Group A</u>		
i.		[5x1=5]
ii.		
iii.		
iv.		
v.		
<u>Group B</u>		
2.		[15]
3.		[15]
4.		[15]
5.		[15]
6.		[15]
Note: There may be subdivisions in each question asked in Theory Examination		

Question format for 60 Marks

F.M = 60	Subject /Code Time = 3 Hrs.	Exam Year
General Instructions:		
<ul style="list-style-type: none"> i. Group A Carries very short answer type compulsory question ii. Answer 3 out of 5 Subjective/descriptive questions given in Group iii. Answer in your own words as far as practicable iv. Answer all sub parts of a question at one place v. Numbers in right indicate full marks of the question 		
1.	Group A	[5*1=5]
i.	
ii.	-----	
iii.	-----	
iv.	-----	
2.	-----	[5]
3.	-----	[5]
<u>Group B</u>		
4.	-----	[15]
5.	-----	[15]
6.	-----	[15]
7.	-----	[15]
8.	-----	[15]
Note: There may be subdivisions in each question asked in Theory Examination		

Question format for 75Marks

F.M = 75	Subject /Code Time = 3 Hrs.	Exam Year
General Instructions:		
i. Group A Carries very short answer type compulsory question ii. Answer 4 out of 6 Subjective/descriptive questions given in Group B. iii. Answer in your own words as far as practicable iv. Answer all sub parts of a question at one place v. Numbers in right indicate full marks of the question		
<u>Group A</u>		
i.		[5*1=5]
ii.		
iii.		
iv.		
v.		
2.		[5]
3.		[5]
<u>Group B</u>		
4.		[15]
5.		[15]
6.		[15]
7.		[15]
8.		[15]
9.		[15]
Note: There may be subdivisions in each question asked in Theory Examination		

Question format for 100 Marks

F.M = 100	Subject /Code Time = 3 Hrs	Exam Year
General Instructions:		
i. Group A Carries very short answer type compulsory question ii. Answer 4 out of 6 Subjective/descriptive questions given in Group B. iii. Answer in your own words as far as practicable iv. Answer all sub parts of a question at one place v. Numbers in right indicate full marks of the question		
1.	<u>Group A</u>	[10*1=10]
	i. ii. iii. iv. v.	Vi. vii. viii. ix. x.
2.	-----	[5]
3.	-----	[5]
	<u>Group B</u>	
4.	-----	[20]
5.	-----	[20]
6.	-----	[20]
7.	-----	[20]
8.	-----	[20]
9.	-----	[20]
Note: There may be subdivisions in each question asked in Theory Examination		

B.A. 1st Year***Semester I******Introduction to Geography*****Major paper- 1: MJ 1****Full Marks: 60*****Course Content:******Unit-1***

- Nature and Scope of Geography, Geography as a science: place of geography in classification of science.

Unit-2

- **Pre-Modern** – Early Origins of Geographical Thinking with reference to the Classical and Medieval Philosophies.

Unit-3

- **Modern** – Evolution of Geographical Thinking and Disciplinary Trends in Germany, France, Britain, United States of America.

Unit-4

- **Debates** – Environmental Determinism and Possibilism, Neo-Determinism, Systematic and Regional, Ideographic and Nomothetic.

Unit-5

- **Trends** – Quantitative Revolution and its Impact, Behaviouralism, Systems Approach, Radicalism, Feminism; Towards Post-Modernism – Changing Concept of Space in Geography.

Unit-6

- Career in Geography, Future of Geography.

References:

1. Bhat, L.S., (2009): *Geography in India* (Selected Themes). Pearson
2. Bonnett, A., (2008): *What is Geography?* Sage.
3. Dikshit, R. D., (1997): *Geographical Thought: A Contextual History of Ideas*, Prentice–Hall India.
4. Freeman, R., (1970): *Hundred year of Geography*, Hutchinson. London.
5. Hartshone, R., (1959): *Perspectives of Nature of Geography*, Rand MacNally and Co.
6. Harvey, David., (1969): *Explanation in Geography*, London: Arnold.

7. Holt-Jensen, A., (2011): *Geography: History and Its Concepts: A Students Guide*, SAGE.
8. Hussain, M., (2005): *Bhougolik Chintan Ka Itihas*, Rawat Publications
9. Johnston, R. J., (1997): *Geography and Geographers*, Anglo-American Human Geography since (1945), Arnold, London.
10. Johnston, R. J., (Ed.): *Dictionary of Human Geography*, Routledge.
11. Kapur, A., (2001): *Indian Geography Voice of Concern*, Concept Publications.
12. Martin Geoffrey J., (2005): *All Possible Worlds: A History of Geographical Ideas*, Oxford.
13. Singh, R.B. (2016): *Progress in Indian Geography*, Indian National Science Academy, New Delhi.
14. Soja, Edward (1989): *Post-modern Geographies*, Verso, London. Reprinted 1997: Rawat Publ., Jaipur and New Delhi.
15. Sudepta, Adhikari., (2015): *Fundamentals of Geographical Thought*, Orientblackswan private limited.

Practical

MJ(P)-1

Full Marks : 25

<i>UNIT: 1</i>	10
<ul style="list-style-type: none"> ➤ Construction of scale: Simple, Diagonal, Comparative. ➤ Interpretation of Topographical Maps (Relief, Drainage). ➤ Contours. ➤ Conventional Signs. 	
<i>UNIT:2</i>	10
<ul style="list-style-type: none"> ➤ History of Cartography. ➤ Classification of Map. ➤ Isoleth. ➤ Hythergraph. ➤ Climograph . ➤ Wind rose Diagram. 	
<i>UNIT:3</i>	
Practical note book + VIVA-VOCE	05

B.A. 1st Year
Semester II
Physical Geography and Biogeography

Major paper- 2: MJ 2

Full Marks: 60

Course Content:

Unit -1

- Geological time scale, Internal Structure of Earth, Earthquakes and Volcanoes.
- Continental Drift Theory of Wegener, Plate Tectonics, Isostasy (Airy and Prat).
- Weathering, Cycle of Erosion (Davis and Penck), Karst, Aeolian.

Unit -2

- Atmospheric Composition and Structure, Insolation, Heat Budget, Atmospheric Pressure and Atmospheric Circulation, Jet Streams, Front and Airmass, Climatic Regions (Koppen).
- Cyclones, Monsoon - Origin and Mechanism, El Nino, La lino.

Unit -3

- Ocean Floor Topography, Ocean Currents and Tides.
- Ocean Salinity and Temperature, Coral Reefs and Marine Deposits, Bottom relief of Indian and Atlantic Ocean.

Unit -4

- Ecosystem – Concept and Structure; Ecosystem Functions.
- Evolution of major groups of floral and faunal provinces.
- Ecological successions: stages and climax.
- Human-Environment Relationship in Equatorial, Desert and Mountain Regions.

Unit -5

- Environmental Degradation, pollution, Depletion of Ozone Layer, Acid Rain, Global Warming, Climate change.

Unit -6

- Nature, scope of Bio-geography, biogeographical regions.
- Biodiversity; bio-diversity hotspots (World and India) , biodiversity conservation.

References:

1. Bloom, A. L., (2003): *Geomorphology: A Systematic Analysis of Late Cenozoic Landforms*, Prentice-Hall of India, New Delhi.
2. Bridges, E. M., (1990): *World Geomorphology*, Cambridge University Press, Cambridge.
3. Christopherson, R. W. and Birkeland, G. H., (2012) *Geosystems: An Introduction to Physical Geography* (8th edition), Pearson Education, New Jersey.
4. Das Gupta, A and Kapoor, A.N., (2001) *Principles of Physical Geography*, S.C. Chand & Company Ltd. New Delhi.
5. Dayal, P., (1996) A Text book of Geomorphology. Shukla Book Depot, Patna.
6. Huggett, R.J. (2007) *Fundamentals of Geomorphology*, Routledge, New York.
7. Kale, V. S. and Gupta A., (2001): *Introduction to Geomorphology*, Orient Longman, Hyderabad.
8. Khullar, D.R., (2012)*Physical Geography*, Kalyani Publishers, New Delhi.
9. Mal, Suraj, Singh, R.B. and Huggel, Christian (2018): *Climate Change, Extreme Events and Disaster Risk Reduction*, Springer, Switzerland, pages 309.
10. Selby, M.J., (2005): *Earth's Changing Surface*, Indian Edition, OUP
11. Singh, S (2009):*Bhautik Bhugol ka Swaroop(Hindi)*, Prayag Pustak, Allahabad.
12. Skinner, Brian J. and Stephen C. Porter (2000), *The Dynamic Earth: An Introduction to Physical Geology*, 4th Edition, John Wiley and Sons.
13. Strahler, A. H. and Strahler, A N., (2001):*Modern Physical Geography* (4/E), John Wiley and Sons, Inc., New York.
14. Summerfield M. A. (2013): *Global Geomorphology*, Routledge, New York
15. Thornbury, W. D., (2004): *Principles of Geomorphology*, Wiley, New York.
16. Tikka, R N (1989): *Bhautik Bhugol ka Swaroop(Hindi)*, Kedarnath Ram Nath, Meerut.
17. Anikouchine, W. A. and Sternberg, R. W., (1973): *The World Oceans: An Introduction to Oceanography*, Prentice-Hall.
18. Barry, R. G., and Chorley, R. J., (2009): *Atmosphere, Weather and Climate*(9th Edition),Routledge, New York.
19. Bhutani, S., (2000): *Our Atmosphere*, Kalyani Publishers, Ludhina.
20. Critchfield, H. J., (1987): *General Climatology*, Prentice-Hall of India, New Delhi
21. Gupta, L.S., (2000): *Jalvayu Vigyan (Hindi)*, Madhyam Karyanvay Nidishalya, Delhi Vishwa Vidhyalaya, Delhi.
22. Kershaw, S., (2000): *Oceanography: An Earth Science Perspective*, Stanley Thornes, UK.
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24. Lutgens, F. K., Tarbuck E. J. and Tasa D., (2009): *The Atmosphere: An Introduction to Meteorology*, Prentice-Hall, Englewood Cliffs, New Jersey.
25. Oliver, J. E., and Hidore J. J., (2002): *Climatology: An Atmospheric Science*, Pearson Education, New Delhi.
26. Pinet, P. R., (2008): *Invitation to Oceanography (Fifth Edition)*, Jones and Barlett Publishers, USA, UK and Canada.
27. Singh, S., (2009): *Jalvayu Vigyan (Hindi)*, Prayag Pustak Bhawan, Allahabad
28. Strahler, A.N., (1987) *Modern Physical Geography*, John Wiley and Sons, New York, Singapore.
29. Sverdrup, K. A. and Armbrust, E. V., (2008): *An Introduction to the World Ocean*, McGraw Hill, Boston.
30. Trewartha, G. T., and Horne L. H., (1980): *An Introduction to Climate*, McGraw.
31. Bhattacharyya, N.N.(2003): *Biogeography*, Rajesh Publications, New Delhi.
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34. Hoyt, J.B. (1992): *Man, and the Earth*, Prentice Hall, U.S.A.
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40. *Mountain and Tree cover in Mountain Regions Report - 2002*, UNEP-WCMC.
41. Parmesan, C., Yohe, G. (2003): A globally coherent fingerprint of climate change impacts across natural systems. *Nature*, 421 (6918), 37–42
42. Singh, Savindra (2015): *Paryawaran Bhoogol (Hindi)*, Prayag Pushtak Bhawan, Allahabad (Hindi).
43. Sivaperuman, Chandrakasan et al., (2018): *Biodiversity and Climate Change Adaptation in Tropical Islands*, Academic Press, London.

Practical

MJ(P)-2

Full Marks : 25

UNIT: 1 10

- Preparation and interpretation of Ombrothermic chart.
- Rainfall dispersion diagram (based on IMD data).
- Hydrographs.
- Computation of human development index and ranking of countries based and HDI.
- Age-sex pyramid.

UNIT:2 10

- Simple bar diagram.
- Duo direction bar diagram.
- Water budget graph.
- Lorenz curve.
- Ogive.

UNIT:3

Practical note book + VIVA-VOCE 05

B.A. 2nd Year**Semester III*****Contemporary Issues in Geography*****Major paper- 3: MJ 3****Full Marks: 60****Course Content:*****Unit-1***

- Ecological issues, Environmental Hazards, Earthquakes, Tsunami, Floods and Droughts.

Unit-2

- Epidemics, issues Relating to Environmental Pollution.

Unit-3

- Principles of Environmental Impact Assessment and Environment Management.

Unit-4

- Population explosion and Food Security, Problems of Agrarian and Industrial Unrest, Problems of Industrial Unrest.

Unit-5

- Regional Disparities in Economic Development, Concept of Sustainable Growth and Development.

Unit-6

- Linkage of River, Water Conflict.

References:

1. Singh, R.B., (Eds.) (2001): *Urban Sustainability in the Context of Global Change*, Science Pub., Inc., Enfield (NH), USA and Oxford & IBH Pub., New Delhi.
2. Chandna, R.C., (2017): *Population Geography*, Kalyani Publishers, New Delhi.
3. Khullar, D.R. (2014): *India: A Comprehensive Geography*, Kalyani Publishers, New Delhi.
4. Majid Husain (2009): *Geography of India*, Tata McGraw hill Education Private Ltd, New Delhi.
5. Singh, Savindra (2001). *Paryavaran Bhugol*, Prayag Pustak Bhawan, Allahabad. (in Hindi).

Practical

MJ(P)-3

Full Marks : 25

UNIT: 1

10

- Plane table survey: - Radiation and Intersection method.
- Population Projection.
- Ring diagram for Urban Population.
- Choropleth method.
- Geological sheet: sheet no.-1,2,3,4,5,6

UNIT:2

10

- Prismatic compass survey: - open traverse and closed traverse survey.
- Mean.
- Median.
- Mode
- Bandgraph.
- Pie diagram.
- Multiple and Compound Bar diagram.

UNIT:3

05

Practical note book + VIVA-VOCE

B.A. 2nd Year**Semester IV*****Human Geography and Cultural landscape*****Major paper- 4: MJ 4****Full Marks: 60****Course Content:*****Unit-1***

- Human Geography: Definition, Scope and Principles; Contemporary Relevance.

Unit-2

- Population: Population Growth and Distribution; Population Composition; Malthusian and Demographic Transition Theories.

Unit-3

- Space and Society: Cultural Regions; Race; Tribes, Religion and Language.

Unit-4

- Rural Settlements: Types and Patterns of Rural Settlements, factors affecting rural settlement (social, economic and cultural).

Unit-5

- Urban Settlements: Classification, trends and structure and Patterns of World Urbanization.
- Contemporary urban issues:- urban sprawl, slums and urban heat island.

Unit-6

- Population-Resource Relationships and Regional Resource Development.

References:

1. Chandna, R.C., (2017):*Population Geography*, Kalyani Publishers, New Delhi.
2. Daniel, P.A. and Hopkinson, M.F. (1989):*The Geography of Settlement*, Oliver & Boyd, London.
3. Hassan, M.I. (2005):*Population Geography*, Rawat Publications, Jaipur
4. Hussain, Majid., (2012):*ManavBhugol*, Rawat Publications, Jaipur.
5. Johnston, R., Gregory, D., & Pratt, G., et al. (2008):*The Dictionary of Human Geography*, Blackwell Publication.
6. Jordan-Bychkov., et al., (2006):*The Human Mosaic: A Thematic Introduction to*

- Cultural Geography*, W. H. Freeman and Company, New York.
7. Kaushik, S.D., (2010):*ManavBhugol*, Rastogi Publication, Meerut.
 8. Maurya, S.D., (2012):*Manav Bhugol*, Sharda Pustak Bhawan, Allahabad.
 9. Rozenblat., Celine., Pumain., Denise and Velasquez., Elkin Eds. (2018): *International and Transnational Perspectives on Urban Systems*, Springer, Japan, pages 393.
 10. Singh, R.B., Ed. (2015): *Urban Development Challenges, Risk and Resilience in Asian Mega Cities-Sustainable Urban Future of Emerging Asian Mega Region*, Springer, Tokyo, Pages 488, 2015.

B.A. 2nd Year***Semester IV******World Geography******Major paper- 5: MJ 5******Full Marks: 60******Course Content:******Unit-1***

- **North America:** Physiography, Natural Vegetation, Population, Cotton textile Industry and Iron & Steel Industry.

Unit-2

- **Europe:** Physiography, Climate, Industry, Ocean routes of Europe.

Unit-3

- **Asia:** Physiography, Soil, Population.

Unit-4

- **South America:** Physiography, Agriculture, population and Regional study of Brazil.

Unit-5

- **Australia and New Zealand:** physiography, Dairy farming, demography, regional study of New Zealand.

Unit-6

- **Africa:** Physiography, Agriculture, grasslands (Savanna) and desert environment, Regional Account of Egypt.

References:

1. Husain, mazid.(2004): vishav bhugol, Rawat Publications, New Delhi.

Practical

MJ(P)-4

Full Marks :25

UNIT: 1

10

- Projection: polar zenithal, Equi-distant and Equal area, conical projection with one and two standard parallel.
- Gall's projection.
- Mercator's world map.

UNIT:2

10

- proportionate pie diagram.
- Traffic flow diagram

UNIT:3

05

Practical note book + VIVA-VOCE.

Practical

MJ(P)-5

Full Marks : 25

UNIT: 1

10

- Weather symbols.
- Representation of atmospheric features.
- Interpretation of Indian daily weather maps (July and January)

UNIT:2

10

- Aerial photography.
- Geographical information system.

UNIT:3

05

Practical note book + VIVA-VOCE.

B.A. 2nd Year***Semester IV******Disaster Management******Minor paper- 1: MN 1******Full Marks: 60******Course Content:******Unit-1***

- Disasters: Definition, Concepts and classification; Risk and Vulnerability.

Unit-2

- Disasters in India: (a) Flood: Causes, Impact, Distribution and Mapping; Landslide: Causes, Impact, Distribution and Mapping; Drought: Causes, Impact, Distribution and Mapping.

Unit-3

- Disasters in India: (b) Earthquake and Tsunami: Causes, Impact, Distribution and Mapping.

Unit-4

- Disasters in India: (c) Cyclone: Causes, Impact, Distribution and Mapping, Thunderstorm: Causes, Impact, Distribution and Mapping.

Unit-5

- Manmade disasters: Causes, Impact, Distribution and Mapping.

Unit-6

- Response and Mitigation to Disasters: Mitigation and Preparedness, NDMA and NIDM; Indigenous Knowledge and Community-Based Disaster Management; Do's and Don'ts During and Post-disasters.

References:

1. Government of India, (2008): *Vulnerability Atlas of India*. New Delhi, Building Materials & Technology Promotion Council, Ministry of Urban Development, Government of India.
2. Govt. of India, (2011): *Disaster Management in India*, Ministry of Home Affairs, New Delhi.
3. Kapur, Anu., (2010): *Vulnerable India: A Geographical Study of Disasters*, Sage

Publication, New Delhi.

4. Modh, S., (2010): *Managing Natural Disaster: Hydrological, Marine and Geological Disasters*, Macmillan, Delhi.
5. Singh, Jagbir., (2007): “*Disaster Management Future Challenges and Opportunities*”, 2007.
6. Singh, R. B., (ed.), (2006): *Natural Hazards and Disaster Management: Vulnerability and Mitigation*, Rawat Publications, New Delhi.
7. Singh, R.B., (2005): *Risk Assessment and Vulnerability Analysis*, IGNOU, New Delhi. Chapter 1, 2 and 3
8. Sinha, A., (2001): *Disaster Management: Lessons Drawn and Strategies for Future*, New United Press, New Delhi.
9. Stoltman, J.P., et al. (2004): *International Perspectives on Natural Disasters*, Kluwer Academic Publications. Dordrecht.

Practical

MN 1(P)

Full Marks: 25

Project / Report on relevant topics pertaining to Disaster Management preferably on any Major Disaster in World (Natural and Man-made).	20
Project files and viva- voce	05

B.A. 3rd Year**Semester V*****Geography of India And Jharkhand*****Major paper- 6: MJ 6****Full Marks: 60****Course Content:****India****Unit -1**

- Physical: Location, Physiographic Divisions, Climate: characteristics and classification; Soil and Natural vegetation.

Unit -2

- Population: Growth, Distribution and density; Social: Distribution of Population by Race, Caste, Religion, Language, Tribes and their Correlates.

Unit -3

- Economic: Mineral and Power Resources: Distribution and Utilization of Iron Ore, Coal, Petroleum, Natural Gas; Agricultural Production of Rice, Wheat, Cotton and Sugarcane.
- Spatial Patterns of Industrial Development: Automobile and Information Technology.

Jharkhand**Unit -4**

- Physical: physiography division, Drainage, climate, soil and natural vegetation.

Unit -5

- Economic: Agriculture: major crop, Irrigation; Mineral resources: coal, Iron ore, Mica, Uranium; Industries: Iron and steel, Cement; Transport: Roads and Railways.

Unit -6

- Tribes: Munda, Oraons, Santhal.

References:

1. Deshpande, C. D., (1992): *India: A Regional Interpretation*, ICSSR, New Delhi.
2. Douglas, L. Johnson., (2009): *World Regional Geography*, Tenth edition, Pearson Education Inc, New Jersey.
3. Johnson, B. L. C., ed. (2001): *Geographical Dictionary of India*. Vision Books, New Delhi.
4. Khullar, D.R. (2014): *India: A Comprehensive Geography*, Kalyani Publishers, New Delhi.

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6. Mandal, R. B. (ed.), (1990): *Patterns of Regional Geography—An International Perspective. Vol. 3—Indian Perspective.*
7. Tiwari, R.K.(2001): *Jharkhand ka bhugol*. Rajesh publication, New delhi.
8. Singh, S.K. (2015): *Jharkhand Pradesh ki bhogolik vyakhya*, Rajesh publication, New delhi.

B.A. 3rd Year**Semester V*****Economic Geography*****Major paper- 7: MJ 7****Full Marks: 60****Course Content:****Unit-1**

- Economic Geography: Definition and scope of economic geography, Approaches and Fundamental Concepts.

Unit-2

- Locational Theories: Agriculture (Von Thunen), Industrial (Weber) and Services (Christaller).

Unit-3

- Primary Activities: Food gathering, hunting, forestry and lumbering, Mining (Iron Ore, Coal and Petroleum).

Unit-4

- Primary Activities: Subsistence Agriculture, Intensive Farming, Commercial Grain Farming, Plantation, Commercial Dairy Farming, Commercial Fishing.

Unit-5

- Secondary Activities: Cotton Textile Industry, Petro-Chemical Industry, Major Manufacturing Regions.

Unit-6

- Tertiary and Quaternary Activities: Modes of Transportation, Patterns of International Trade, and Information and Communication Technology Industry.

References:

1. Alexander, J. W., (1963): *Economic Geography*, Prentice-Hall Inc., Englewood Cliffs, New Jersey.
2. Bagchi-Sen, S. and Smith, H. L., (2006): *Economic Geography: Past, Present and Future*, Taylor and Francis.
3. Clark, Gordon L.; Feldman, M.P. and Gertler, M.S., eds. (2000): *The New Oxford Handbook of Economic Geography*, Oxford Press.
4. Coe, N. M., Kelly P. F. and Yeung H. W., (2007): *Economic Geography: A Contemporary Introduction*, Wiley-Blackwell.
5. Combes, P., Mayer T. and Thisse, J. F., (2008): *Economic Geography: The*

Integration of Regions and Nations, Princeton University Press.

6. Durand, L., (1961): *Economic Geography*, Crowell.
7. Hodder, B. W. and Lee, Roger, (1974): *Economic Geography*, Taylor and Francis.
8. Knowles, R. & Wareing, J., (2004): *Economic and Social Geography Made Simple*, Rupa & Co., Kolkata.
9. Knox, P. & Marston, S., (2013): *Human Geography: Places and Regions in Global Context*, 6th Edition, Pearson Education, New Delhi
10. Prithwish, Roy (2014): *Economic Geography - A study of Resources*, New Central Book Agency, Kolkata.
11. Saxena, H.M., (2013): *Economic Geography*, Rawat Publications, Jaipur.
12. Siddhartha, K., (2013): *Economic Geography*, Kosalaya Publications Pvt. Ltd., New Delhi.
13. Wheeler, J. O., (1998): *Economic Geography*, Wiley.
14. Willington, D. E., (2008): *Economic Geography*, Husband Press.

Practical

MJ(P)-6

Full Marks :25

UNIT: 1

10

- Type of toposheet / Indexing of toposheets
 1. 1:1000000/ Million Sheet.
 2. 1:250000/ Degree Sheet or Quarter Inch Sheet.
 3. 1:100000/ Half Inch or Half Degree Sheet.
 4. 1:50000/ One-Inch Sheet or Quarter Degree Sheet.
 5. 1:25000/ Special sheet
- Analysis of landforms and correlation between physical and cultural elements under the heads of relief, drainage, natural vegetation, settlements and transport.

UNIT:2

10

- Drawing and analysis of profiles

UNIT:3

05

- Practical note book + VIVA-VOCE

Practical

MJ(P)-7

Full Marks :25

UNIT: 1

10

- calculation of human development index (HDI).
- growth of population-line graph.
- Pyramid Diagram.
- Dot method
- Rectangular Diagram

UNIT:2

10

- Remote sensing Techniques.
- GPS.
- Computer cartography: History, techniques, methods.

UNIT:3

05

Practical note book + VIVA-VOCE

B.A. 3rd Year**Semester V****Rural Development****Minor paper- 2: MN 2****Full Marks: 60****Course Content:****Unit-1**

- Defining Development: Inter-Dependence of Urban and Rural Sectors of the Economy; Need for Rural Development, Gandhian Approach of Rural Development.

Unit-2

- Rural Economic Base: Panchayati Raj System, Agriculture and Allied Sectors, Seasonality and Need for Expanding Non-Farm Activities, Co-operatives, PURA.

Unit-3

- Area Based Approach to Rural Development: Drought Prone Area Programs, PMGSY.

Unit-4

- Target Group Approach to Rural Development: SJSY, MNREGA, Jan Dhan Yojana and Rural Connectivity.

Unit-5

- Provision of Services – Physical and Socio-Economic Access to Elementary Education and Primary Health Care and Micro credit.

Unit-6

- Rural development and planning: concept and definition of rural planning, micro level planning and rural development, rural development planning and disparities in Jharkhand.

References:

1. Anand, Subhash.,(2013): *Dynamics of Rural Development*, Research India Press, Delhi
2. Gilg, A. W., (1985): *An Introduction to Rural Geography*, Edwin Arnold, London.
3. Krishnamurthy, J.,(2000): *Rural Development - Problems and Prospects*, Rawat Publs., Jaipur
4. Lee, D. A. and Chaudhri, D. P., (eds.)(1983): *Rural Development and State*, Methuen,

London.

5. Misra, R. P., and Sundaram, K. V., (eds.)(1979): *Rural Area Development: Perspectives and Approaches*, Sterling, New Delhi.
6. Misra, R. P., (ed.), (1985): *Rural Development: Capitalist and Socialist Paths*, Vol. 1, Concept, New Delhi.
7. Palione, M., (1984): *Rural Geography*, Harper and Row, London.
8. Ramachandran, H., and Guimaraes, J.P.C., (1991): *Integrated Rural Development in Asia—Learning from Recent Experience*, Concept Publishing, New Delhi.
9. Robb, P.,(1983): *Rural South Asia: Linkages, Change and Development*, Curzon Press.
10. Singh, R.B., (1985): *Geography of Rural Development*, Inter India, New Delhi.
11. UNAPDI (1986):*Local Level Planning and Rural Development: Alternative Strategies*. (United Nations Asian & Pacific Development Institute, Bangkok), Concept Publs. Co., New Delhi.
12. Wanmali, S., (1992): *Rural Infrastructure Settlement Systems and Development of the Regional Economy in South India*, International Food Policy Research Institute, Washington, D.C.
13. Yugandhar, B. N. and Mukherjee, Neela., (eds.) (1991): *Studies in Village India: Issues in Rural Development*, Concept Publications. Co., New Delhi.

Practical

MN 2(P)

Full Marks: 25

- Project work/report on relevant topics pertaining to Rural Development in India. Preferably on a flagship programme of the Government of India or the State Government (Jharkhand). 20
- Project file and viva -voce. 05

B.A. 3rd Year***Semester VI******Regional Planning and Sustainable Development*****Major paper- 8: MJ 8****Full Marks: 60*****Course Content:******Unit-1***

- Definition of Region and Regional Planning, Evolution and Types of Regional planning: Formal, Functional, and Planning Regions; Need and types of Regional Planning.

Unit-2

- Choice of a Region for Planning: Characteristics of an Ideal Planning Region; Delineation of Planning Region; Regionalization of India for Planning (Agro- Ecological Zones).

Unit-3

- Theories and Models for Regional Planning: Growth Pole Model of Perroux; Growth Centre Model in Indian Context; Myrdal, Hirschman, Rostow and Friedmann; Village Cluster.

Unit-4

- Sustainable Development: Concept of Development and Underdevelopment; Efficiency-Equity Debate: Definition, Components and Sustainability for Development. Indicators of sustainable development (Economic, Social and Environmental).

Unit-5

- Higher education, Regional Planning and Sustainable Development goals and challenges of planning and sustainable development.

Unit-6

- Sustainable Development Policies and Programmes: Rio+20; Goal-Based Development; Financing for Sustainable Development; Principles of Good Governance.

References:

1. Agyeman, Julian, Robert, D. Bullard and Bob, Evans., (Eds.) (2003): *Just Sustainability's: Development in an Unequal World*. London: Earthscan. (Introduction and conclusion.).

2. Anand, Subhash.,(2011):*Ecodevelopment : Global Perspectives*, Research India Press, New Delhi.
3. Ayers, Jessica and David Dodman., (2010): “*Climate change adaptation and development I: the state of the debate*”. *Progress in Development Studies* 10 (2): 161-168.
4. Baker, Susan., (2006): *Sustainable Development*. Milton Park, Abingdon, Oxon; New York, N.Y.: Routledge. (Chapter 2, “*The concept of sustainable development*”).
5. Blij, H. J. De., (1971): *Geography: Regions and Concepts*, John Wiley and Sons.
6. Friedmann, J. and Alonso W. (1975): *Regional Policy - Readings in Theory and Applications*, MIT Press, Massachusetts.
7. Gore C. G., (1984): *Regions in Question: Space, Development Theory and Regional Policy*, Methuen, London.
8. Haynes J., (2008): *Development Studies*, Polity Short Introduction Series.
9. Johnson E. A. J., (1970): *The Organization of Space in Developing Countries*, MIT Press, Massachusetts.
10. Mishra, R. P., Sundaram, K.V.and V.L.S.Prakasa Rao, (1974): *Regional Development planning in India*, Vikas Publishing House Delhi.
11. Peet, R., (1999): *Theories of Development*, The Guilford Press, New York.
12. Singh, R.B. (2002): *Human Dimensions of Sustainable Development*, Rawat Pub., Jaipur, pages
13. UNDP (2001-04): *Human Development Report*, Oxford University Press.

B.A. 3rd Year**Semester VI****Geography of Tourism****Major paper- 9: MJ 9****Full Marks: 60****Course Content:****Unit-1**

- Nature and Scope: Concepts and Issues of Tourism, Recreation and Leisure Inter-Relations; Geographical Parameters of Tourism by Robinson.

Unit-2

- Trends and Patterns: Nature Tourism, Cultural Tourism, Medical Tourism, Pilgrimage, Geo-tourism.

Unit-3

- Recent Trends of Tourism: International and Regional; Domestic (India); Eco-Tourism, Sustainable Tourism, Meetings Incentives Conventions and Exhibitions.

Unit-4

- Impact of Tourism: Economy, Environment, Society.

Unit-5

- Tourism in India: Tourism Infrastructure; Case Studies of Himalaya, Desert and Coastal Areas; India's World Heritage Sites and National Geological Monuments National Tourism Policy.

Unit-6

- Development of Tourism in India and Jharkhand, Tourism Policies of India and Jharkhand.

References:

1. Alan, A. Lew, (2017): *New Research Paradigms in Tourism Geography*, Routledge,.
2. Dhar, P.N., (2006): *International Tourism: Emerging Challenges and Future Prospects*, Kanishka, New Delhi.
3. Hall, M., and Stephen, P., (2006): *Geography of Tourism and Recreation – Environment, Place and Space*, Routledge, London.
4. Kamra, K. K., and Chand, M., (2007): *Basics of Tourism: Theory, Operation and Practise*, Kanishka Publishers, Pune.
5. Milton, D.,(1993): *Geography of World Tourism*, Prentice. Hall, New York,.
6. Nelson, V., (2017): *An Introduction to the Geography of Tourism*, Rowman &

Littlefield,.

7. Page, S. J., (2011): *Tourism Management: An Introduction*, Butterworth-Heinemann-USA.
8. Raj, R. and Nigel, D., (2007): *Morpeth Religious Tourism and Pilgrimage Festivals Management: An International perspective by CABI*, Cambridge, USA.
9. Robinson, H. A.,(1996): *Geography of Tourism*, Macdonald and Evans, London,.
10. Singh, Jagbir., (2014): "*Eco-Tourism*", I.K. International Pvt. Ltd. New Delhi, India.
11. Tourism Recreation and Research Journal, Centre for Tourism Research and Development, Lucknow.
12. Widawski, K., and Wyrzykowski, J.,(2017): *The Geography of Tourism of Central and Eastern European Countries*, Springer.

Practical

MJ(P)-8

Full Marks :25

UNIT: 1

10

- Ring diagram of Land use.
- Triangular Diagram
- Ergograph

UNIT:2

10

- Square Block Diagram
- Polylinear Graph
- Scatter Diagram

UNIT:3

05

Practical note book + VIVA-VOCE

Practical

MJ(P)-9

Full Marks :25

- Project work/report on Case Studies of Tourist Centers of Jharkhand (at least four Tourist Centers). 20
- Project file and viva -voce. 05

B.A. 3rd Year**Semester VI*****Climate change and Sustainable Resource Development*****Minor paper- 3: MN 3****Full Marks: 60****Course Content:*****Unit-1***

- Climate Change: Understanding Climate Change; Greenhouse Gases and Global Warming; Global Climatic Assessment- IPCC.
- Climate Change and Vulnerability: Physical Vulnerability; Economic Vulnerability; Social Vulnerability.

Unit-2

- Impact of Climate Change: Agriculture and Water; Flora and Fauna; Human Health
- Adaptation and Mitigation: Global Initiatives with Particular Reference to South Asia.

Unit-3

- National Action Plan on Climate Change; Local Institutions (Urban Local Bodies, Panchayats).
- Sustainable Resource Development: Definition, Components and Limitations.

Unit-4

- The Millennium Development Goals: National Strategies and International Experiences
- Sustainable Regional Development: Need and examples from different Ecosystems.

Unit-5

- Inclusive Development: Poverty and Inequality; Education, Health; Climate Change: The role of higher education in sustainable resource development; The Challenges of Universal Health Coverage.

Unit-6

- Sustainable Development Policies and Programs: proposal for SDGs at Rio+20; SDGs; Goal-Based Development; Financing for Sustainable Development; Principles of Good Governance; National Environmental Policy, CDM.

References:

1. IPCC (2014): *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth*

- Assessment Report of the Intergovernmental Panel on Climate Change* Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
2. IPCC (2007): *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.*
 3. OECD (2008): *Climate Change Mitigation: "What do we do?"* (Organisation and Economic Co-operation and Development).
 4. Sen, Roy, S., and Singh, R.B., (2002): *Climate Variability, Extreme Events and Agricultural Productivity in Mountain Regions*, Oxford & IBH Pub., New Delhi.
 5. Singh, M., Singh, R.B., and Hassan, M.I., (Eds.) (2014): *Climate change and biodiversity*, Proceedings of IGU Rohtak Conference, Volume 1. Advances in Geographical and Environmental Studies, Springer
 6. Singh, R.B., Mal, Suraj, and Huggel, Christian (2018): *Climate Change, Extreme Events and Disaster Risk Reduction*, Springer, Switzerland, pages 309.
 7. UNEP (2007): *Global Environment Outlook: GEO4: Environment for Development*, United Nations Environment Programme.
 8. Agyeman, Julian, Robert D. Bullard and Bob, Evans., (Eds.) (2003): *Just Sustainabilities: Development in an Unequal World*. London: Earthscan. (Introduction and conclusion.).
 9. Ayers, Jessica and David, Dodman., (2010): "*Climate change adaptation and development I: the state of the debate*". *Progress in Development Studies* 10(2): 161-168.
 10. Baker, Susan., (2006): *Sustainable Development*. Milton Park, Abingdon, Oxon; New York, N.Y.: Routledge.
 11. Brosius, Peter., (1997): "*Endangered forest, endangered people: Environmentalist representations of indigenous knowledge*", *Human Ecology* 25: 47-69.
 12. Lohman, Larry., (2003): *Re-imagining the population debate*, Corner House Briefing.
 13. Martínez-Alier, Joan., (2010): "*Sustainable de-growth: Mapping the context, criticisms and future prospects of an emergent paradigm*" *Ecological Economics* 69: 1741-1747.
 14. Merchant, Carolyn., (Ed.) (1994): *Ecology. Atlantic Highlands*, N.J: Humanities Press. (Introduction, pp 1-25.)
 15. Osorio, Leonardo., et al., (2005): "*Debates on sustainable development: towards a*

holistic view of reality", Environment, Development and Sustainability 7: 501-518.

16. Robbins, Paul., (2004): *Political Ecology: A Critical Introduction*. Blackwell Publishing.
17. Singh, R.B., (Ed.) (2001): *Urban Sustainability in the Context of Global Change*, Science Pub., Inc., Enfield (NH), USA and Oxford & IBH Pub., New Delhi.

Practical

MN 3(P)

Full Marks: 25

- Project work/report on relevant topics pertaining to Sustainable Development. Preferably on any Sustainable Development Goals/ Policies and Programs / Efforts. 20

or

- Project work/report on relevant topics pertaining to Climate change and effect to tackle it. Preferably on any major climate change issues. 20
- Project file and viva -voce 05

B.A. 4th Year**Semester VII*****Demography and Population Studies*****Advance Major paper- 1: AMJ 1****Full Marks: 60****Course Content: -*****Unit-1***

- Defining the Field – Nature and Scope; Sources of Data with special reference to India (Census, Vital Statistics and NSS).

Unit-2

- Population Size, Distribution and Growth – Determinants and Patterns, composition of population.

Unit-3

- Theories of Growth – Malthusian Theory and Demographic Transition Theory.

Unit-4

- Population Dynamics: Fertility, Mortality and Migration – Measures, Determinants and Implications.

Unit-5

- Population Composition and Characteristics – Age-Sex Composition; Rural and Urban Composition; Literacy.

Unit-6

- Contemporary Issues – Ageing of Population; Declining Sex Ratio; HIV/AIDS.

References:

1. Barrett, H. R., (1995): *Population Geography*, Oliver and Boyd.
2. Bhende, A. and Kanitkar, T., (2000): *Principles of Population Studies*, Himalaya Publishing House.
3. Chandna, R. C. and Sidhu, M. S., (1980): *An Introduction to Population Geography*, Kalyani Publishers.
4. Chandna, R C (2006): *Jansankhya Bhugol*, Kalyani Publishers, Delhi
5. Chandna,R.C., *Geography of Population*, Kalyani Publishers, Ludhiana.
6. Clarke, J. I., (1965): *Population Geography*, Pergamon Press, Oxford.
7. Debjani, Roy., *Population Geography*, Books and Allied Private Limited, Kolkata.

8. Jones, H. R., (2000): *Population Geography*, 3rd ed. Paul Chapman, London.
9. Lutz, W., Warren, C. S. and Scherbov, S., (2004): *The End of the World Population Growth in the 21st Century*, Earthscan
10. Maurya, S D (2009): *Jansankya Bhugol*, Sharda Putak Bhawan, Allahabad
11. Newbold, K. B., (2009): *Population Geography: Tools and Issues*, Rowman and Littlefield Publishers.
12. Pacione, M., (1986): *Population Geography: Progress and Prospect*, Taylor and Francis.
13. Panda, B. P., (1988): *Janasankya Bhugol*, M P Hindi Granth Academy, Bhopal
14. Wilson, M. G. A., (1968): *Population Geography*, Nelson.

B.A. 4th Year**Semester VII*****Agriculture and Food Security*****Advance Major Paper- 2: AMJ 2****Full Marks: 60****Course Content:*****Unit-1***

- Defining the field: Defining, nature and scope; Land use: definition and classification and relevance .

Unit-2

- Determinants of Agriculture: Physical, Technological and Institutional.

Unit-3

- Agricultural Regions of India: Agro-climatic, Agro-ecological & Crop Combination Regions.

Unit-4

- Agricultural Systems of the World (Whittlesey's classification) and Agricultural Land use model (Von Thunen, modification and relevance).

Unit-5

- Major crops of the world: Rice, Wheat, Cron, Sugarcane, Tea, Cotton.

Unit-6

- Food Security: Concept, approaches, pattern, Indian revolution and government policies.

References:

1. Basu, D.N., and Guha, G.S., (1996): *Agro-Climatic Regional Planning in India*, Vol.I& II, Concept Publication, New Delhi.
2. Hussain, M. (1996):*Systematic Agricultural Geography*, Rawat Publications, Jaipur.
3. Shafi, M., (2006): *Agricultural Geography*, Doring Kindersley India Pvt. Ltd., New Delhi
4. Singh, J., and Dhillon, S.S., (1984): *Agricultural Geography*, Tata McGraw Hill, New Delhi

Practical

AMJ(P)-1

Full Marks :25

UNIT: 1

10

- Bonne's projection.
- Polyconic projection.

UNIT:2

10

- Frequency polygon.
- Quartile

UNIT:3

05

- Practical note book + VIVA-VOCE

Practical

AMJ(P)-2

Full Marks :25

Field work (Project Report)

UNIT: 1

20

Allotted by Departmental Council from Any part of Jharkhand.

Contents: - Landforms, Climate, Drainage, Soils, Vegetations, Population, Economic Activities, Settlement, Education, Transport, Land use.

Based on observation of the above Characteristics prepare a Jharkhand based Report. The Report needs to be supplemented with Maps, sketches, photographs etc.

UNIT:2

05

Project File + VIVA-VOCE

B.A. 4th Year**Semester VIII****Social Geography****Advance Major Paper- 3: AMJ 3****Full Marks: 60****Course Content: -****Unit -1**

- Social Geography: Nature, Definition, Concept, and Scope.

Unit -2

- Social Diversity: Caste, Class, Religion, Race and Gender and their Spatial distribution.

Unit -3

- Social Wellbeing and Human Development: Concept and Components – Healthcare, Housing and Education.

Unit -4

- Society and culture, society and environment.

Unit -5

- Slums, Gated Communities, Communal Conflicts, social-political conflict problems and remedies; Crime.

Unit -6

- Social welfare program and policies and social planning in India.

References:

1. Ahmed, A., (1999): *Social Geography*, Rawat Publications.
2. Casino, V. J. D., Jr., (2009): *Social Geography: A Critical Introduction*, Wiley Blackwell.
3. Cater, J. and Jones, T., (2000): *Social Geography: An Introduction to Contemporary Issues*, Hodder Arnold.
4. Holt, L., (2011): *Geographies of Children, Youth and Families: An International Perspective*, Taylor & Francis.
5. Panelli, R., (2004): *Social Geographies: From Difference to Action*, Sage.
6. Rachel, P., Burke, M., Fuller, D., Gough, J., Macfarlane, R. and Mowl, G., (2001): *Introducing Social Geographies*, Oxford University Press.
7. Ramotra, K.C., (2008): *Development Processes and the scheduled Castes*, Rawat Publication.

8. Smith, D. M., (1977): *Human geography: A Welfare Approach*, Edward Arnold, London.
9. Smith, D. M., (1994): *Geography and Social Justice*, Blackwell, Oxford.
10. Smith, S. J., Pain, R., Marston, S. A., Jones, J. P., (2009): *The SAGE Handbook of Social Geographies*, Sage Publications.
11. Sopher, David., (1980): *An Exploration of India*, Cornell University Press, Ithasa.
12. Valentine, G., (2001): *Social Geographies: Space and Society*, Prentice Hall.

B.A. 4th Year**Semester VIII****Political Geography****Advance Major Paper- 4: AMJ 4****Full Marks: 60****Course Content: -****Unit -1**

- Introduction: Concepts, Nature and Scope.

Unit -2

- State, Nation and Nation State – Concept of Nation and State, Attributes of State – Frontiers, Boundaries, Shape, Size, Territory and Sovereignty.

Unit -3

- Concept of Nation State; Geopolitics; Theories (Heartland and Rimland).

Unit -4

- Electoral Geography – Geography of Voting, Geographic Influences on Voting pattern, Geography of Representation, Gerrymandering.

Unit -5

- Political Geography of Resource Conflicts – Water Sharing Disputes, Disputes and Conflicts Related to Forest Rights and Minerals.

Unit -6

- Politics of Displacement: Issues of relief, compensation and rehabilitation: with reference to Dams, Highways and Special Economic Zones.

References:

1. Adhikari, S. (2007): *Political Geography*, Rawat Publication, New Delhi.
2. Adhikari, S. (2013): *Political Geography of India* –Sharda Pustak Bhawan, Allahabad.
3. Agnew, J., (2002): *Making Political Geography*, Arnold.
4. Agnew, J., Mitchell K. and Total G., (2003): *A Companion to Political Geography*, Blackwell.
5. Cox, K. R., Low M. and Robinson J., (2008): *The Sage Handbook of Political Geography*, Sage Publications.

6. Cox, K., (2002): *Political Geography: Territory, State and Society*, Wiley-Blackwell
7. Gallaher, C., et al, (2009): *Key Concepts in Political Geography*, Sage Publications.
8. Glassner, M., (1993): *Political Geography*, Wiley.
9. Hodder, Dick, Sarah, J, Llyod and Keith, S, McLachlan., (1998): *Land Locked States of Africa and Asia (vo.2)*, Frank Cass.
10. Jones, M., (2004): *An Introduction to Political Geography: Space, Place and Politics*, Routledg .
11. Painter, J. and Jeffrey, A., (2009): *Political Geography*, Sage Publications.
12. Taylor, P. and Flint, C., (2000): *Political Geography*, Pearson Education.
13. Verma, M. K., (2004): *Development, Displacement and Resettlement*, Rawat Publications, Delhi.

Practical

(Geographical Tour Report)

AMJ(P)-3

Full Marks :25

UNIT: 1

20

1. Geographical Tour of any part of India and prepare Fieldwork report of visited area.
2. Each student will prepare an individual report based on primary and secondary data collected during fieldwork.
3. The duration of the fieldwork should not exceed 10 days.
4. The word count of the report should be about 8000 to 12,000 excluding figures, tables, photographs, maps, references and appendices.
5. One copy of the report on A 4 size paper should be submitted in hard/soft binding.

UNIT:2

05

Project file + VIVA-VOCE

Practical

AMJ(P)-4

Full Marks :25

UNIT 1

10

- Dumpy level: Procedure of survey by dumpy level.
- Theodolite: procedure of survey by theodolite.
- Sinusoidal projection.

UNIT 2

10

- Abney level and Indian clinometer survey.
- Mollweide's Projection.

UNIT 3

05

Practical note book + VIVA-VOCE

B.A. 1ST & 2ND Year**Semester – I to III****Introductory Regular Course (IRC) Geography*****Unit 1*****INTRODUCTORY GEOGRAPHY**

- Nature, objective, Scope and relevance of Geography.
- Place of geography in classification of science.
- Environmental Determinism and Possibilism, Neo-Determinism.

Unit 2**PHYSICAL GEOGRAPHY**

- Interior Structure of earth, Plate Tectonics.
- Atmospheric Composition and Structure, Insolation, Atmospheric Pressure.
- Ocean Floor Topography and Oceanic Currents, Ocean Salinity.
- Ecosystem Functions, Human-Environment Relationship, Global Warming.

Unit 3**GEOGRAPHY OF INDIA**

- Physiographic Divisions of India, Climate, Soil and Natural vegetation.
- Population Distribution and Growth,
- Mineral and Power Resources: Iron Ore, Coal, Petroleum; Agricultural Production of Rice and Cotton.

Unit 4**ECONOMIC GEOGRAPHY**

- Economic Geography: Definition and Approaches.
- Primary Activities: Intensive Farming, Commercial Grain Farming and Mining (Iron Ore and Coal).
- Secondary Activities: Cotton Textile Industry, Iron and Steel Industry.
- Tertiary and Quaternary Activities: Modes of Transportation.

Unit 5**HUMAN GEOGRAPHY**

- Human Geography: Definition and Scope.
- Population: Population Growth and Distribution.
- Race, Tribes and Language.
- Settlements: Types of Rural Settlements; Types of Urban Settlements.

Unit 6**GEOGRAPHY OF JHARKHAND**

- Physiography Division, Soil and Natural Vegetation.
- Mineral resources: coal, Iron ore, Mica, Uranium.
- Industries: Iron and steel.
- Tribes: Munda, Oraons, Santhal.

