

Four Year Under Graduate Programme (FYUGP)

As per the provisions of NEP- 2020

Binod Bihari Mahto Koylanchal University



Subject: Geography

To be Implemented from the Academic Session 2022-2026

Syllabus for Semester I, II, III, IV

**Members of Board of Studies of Four Year Under-Graduate Programme
(FYUGP)**

**Syllabus as per Guidelines of the Binod Bihari Mahto Koyalanchal
University, Dhanbad**

1. Chairman:

Dr. Anil Kumar Singh

HOD, Department of Geography,

B.B.M.K.U., Dhanbad.

2. Internal Members:

i) **Dr. Madhumita Debnath**

Department of Geography,

B.M.C., Bokaro.

ii) **Dr. K. P. Singh**

Department of Geography,

R.V.S. College, Chas, Bokaro.

3. Expert Members:

i) **Dr. Saroj Kumar Singh**

HOD, University Department of Geography,

VBU, Hazaribagh.

ii) **Dr. P. K. Singh**

HOD, P.G. Department of Geography, MCC,

Hazaribag.

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Course Structure for FYUGP “Honours/Research”

Credit Framework for Four Year Undergraduate Programme (FYUGP) under State Universities of Jharkhand [Total Credits = 160]

Level of Courses	Semester	MJ; Discipline Specific Courses – Core or Major (80)	MN; Minor from discipline (16)	MN; Minor from vocational (16)	MDC; Multidisciplinary Courses from all the streams (9)	AEC; Ability Enhancement Courses (8)	SEC; Skill Enhancement Courses (9)	VAC; Value Added Courses (6)	IAP; Internship/ Dissertation (4)	RC; Research Courses (12)	AMJ; Advanced Courses in lieu of Research (12)	Credits
1	2	3	4	5	6	7	8	9	10	11	12	13
100-199: Foundation or Introductory courses	I	4	4		3	2	3	4				20
	II	4+4		4	3	2	3					20
Exit Point: Undergraduate Certificate provided with Summer Internship/ Project (4 credits)												
200-299: Intermediate-level courses	III	4+4	4		3	2	3					20
	IV	4+4+4		4		2		2				20
Exit Point: Undergraduate Diploma provided with Summer Internship in 1st or 2nd year/ Project (4 credits)												
300-399: Higher-level courses	V	4+4+4	4						4			20
	VI	4+4+4+4		4								20
Exit Point: Bachelor's Degree												
400-499: Advanced courses	VII	4+4+4+4	4									20
	VIII	4		4						1 2	4+4+ 4	20
Exit Point: Bachelor's Degree with Hons. /Hons. with Research												160

Note: Honours students not undertaking research will do 3 courses for 12 credits in lieu of a Research project / Dissertation.

Semester wise Course Code and Credit Points

Semester	Major, Minor subject related, Minor Vocational, Skill Enhancement, Value added, Ability enhancement & Internship Courses		Credits
	Code	Papers	
I	AEC-1	Language and Communication Skills (English or Hindi)	2
	VAC-1	Value Added Course-1	4
	SEC-1	Skill Enhancement Course-1	3
	MDC-1	Multi-disciplinary Course-1	3
	MN-1A	Minor from Discipline-1	4
	MJ-1	Major paper 1 (Disciplinary/Interdisciplinary Major)	4
II	AEC-2	Language and Communication Skills (English)	2
	SEC-2	Skill Enhancement Course-2	3
	MDC-2	Multi-disciplinary Course-2	3
	MN-2A	Minor from Vocational Studies/Discipline-2	4
	MJ-2	Major paper 2 (Disciplinary/Interdisciplinary Major)	4
	MJ-3	Major paper 3 (Disciplinary/Interdisciplinary Major)	4
III	AEC-3	Language and Communication Skills (MIL-2; Modern Indian language including TRL)	2
	SEC-3	Skill Enhancement Course-3	3
	MDC-3	Multi-disciplinary Course-3	3
	MN-1B	Minor from Discipline-1	4
	MJ-4	Major paper 4 (Disciplinary/Interdisciplinary Major)	4
	MJ-5	Major paper 5 (Disciplinary/Interdisciplinary Major)	4
IV	AEC-3	Language and Communication Skills (MIL-2/ English-2)	2
	VAC-2	Value Added Course-2	2

	MN-2B	Minor from Vocational Studies/Discipline-2	4
	MJ-6	Major paper 6 (Disciplinary/Interdisciplinary Major)	4
	MJ-7	Major paper 7 (Disciplinary/Interdisciplinary Major)	4
	MJ-8	Major paper 8 (Disciplinary/Interdisciplinary Major)	4
V	MN-1C	Minor from Discipline-1	4
	MJ-9	Major paper 9 (Disciplinary/Interdisciplinary Major)	4
	MJ-10	Major paper 10 (Disciplinary/Interdisciplinary Major)	4
	MJ-11	Major paper 11 (Disciplinary/Interdisciplinary Major)	4
	IAP	Internship/Apprenticeship/Field Work/Dissertation/Project	4
VI	MN-2C	Minor from Vocational Studies/Discipline-2	4
	MJ-12	Major paper 12 (Disciplinary/Interdisciplinary Major)	4
	MJ-13	Major paper 13 (Disciplinary/Interdisciplinary Major)	4
	MJ-14	Major paper 14 (Disciplinary/Interdisciplinary Major)	4
	MJ-15	Major paper 15 (Disciplinary/Interdisciplinary Major)	4
VII	MN-1D	Minor from Discipline-1	4
	MJ-16	Major paper 16 (Disciplinary/Interdisciplinary Major)	4
	MJ-17	Major paper 17 (Disciplinary/Interdisciplinary Major)	4
	MJ-18	Major paper 18 (Disciplinary/Interdisciplinary Major)	4
	MJ-19	Major paper 19 (Disciplinary/Interdisciplinary Major)	4
VIII	MN-2D	Minor from Vocational Studies/Discipline-2	4
	MJ-20	Major paper 20 (Disciplinary/Interdisciplinary Major)	4
	RC/	Research Internship/Field Work/Dissertation	12/
	AMJ-1	OR Advanced Major paper-1 (Disciplinary/Interdisciplinary Major)	4
	AMJ-2	Advanced Major paper-2 (Disciplinary/Interdisciplinary Major)	4
AMJ-3	Advanced Major paper-3 (Disciplinary/Interdisciplinary Major)	4	
		Total Credit	160

NUMBER OF CREDITS BY TYPE OF COURSE

The hallmark of the new curriculum framework is the flexibility for the students to learn courses of their choice across various branches of undergraduate programmes. This requires that all departments prescribe a certain specified number of credits for each course and common instruction hours (slot time).

Overall Course Credit Points for Single Major

Courses	Nature of Courses	3 yr UG Credits	4 yr UG Credits
Major	Core courses	60	80
Minor	i. Discipline/ Interdisciplinary courses and ii. Vocational Courses	24	32
Multidisciplinary	3 Courses	9	9
AEC	Language courses	8	8
SEC	Courses to be developed by the University	9	9
Value Added Courses	Understanding India, Environmental Studies, Digital Education, Health & wellness, Summer Internship/ Apprenticeship/ Community outreach activities, etc.	6	6
Internship (In any summer vacation for Exit points or in Semester-V)		4	4
Research/ Dissertation/ Advanced Major Courses	Research Institutions/ 3 Courses		12
Total Credits =		120	160

Overall Course Code and Additional Credit Points for Double Major

Courses	Nature of Courses	3 yr UG Credits	4 yr UG Credits
Major 1	Core courses	60	80
Major 2	Core courses	48	64
Minor	i. Discipline/ Interdisciplinary courses and ii. Vocational Courses	24	32
Multidisciplinary	3 Courses	9	9
	Language courses	8	8
SEC	Courses to be developed by the University	9	9
Value Added Courses	Understanding India, Environmental Studies, Digital Education, Health & wellness, Summer Internship/ Apprenticeship/ Community outreach activities, etc.	6	6
Internship (In any summer vacation for Exit points or in Semester-V)		4	4
Research/ Dissertation/ Advanced Major Courses	Research Institutions/ 3 Courses		12
Total Credits =		168	224

Semester wise Course Code and Additional Credit Points for Double Major:

Semester	Common, Introductory, Major, Minor, Vocational & Internship Courses		Credits
	Code	Papers	
I	DMJ-1	Double Major paper-1 (Disciplinary/Interdisciplinary Major)	4
	DMJ-2	Double Major paper-2 (Disciplinary/Interdisciplinary Major)	4
II	DMJ-3	Double Major paper-3 (Disciplinary/Interdisciplinary Major)	4
	DMJ-4	Double Major paper-4 (Disciplinary/Interdisciplinary Major)	4
III	DMJ-5	Double Major paper-5 (Disciplinary/Interdisciplinary Major)	4
	DMJ-6	Double Major paper-6 (Disciplinary/Interdisciplinary Major)	4
IV	DMJ-7	Double Major paper-7 (Disciplinary/Interdisciplinary Major)	4
	DMJ-8	Double Major paper-8 (Disciplinary/Interdisciplinary Major)	4
V	DMJ-9	Double Major paper-9 (Disciplinary/Interdisciplinary Major)	4
	DMJ-10	Double Major paper-10 (Disciplinary/Interdisciplinary Major)	4
VI	DMJ-11	Double Major paper-11 (Disciplinary/Interdisciplinary Major)	4
	DMJ-12	Double Major paper-12 (Disciplinary/Interdisciplinary Major)	4
VII	DMJ-13	Double Major paper-13 (Disciplinary/Interdisciplinary Major)	4
	DMJ-14	Double Major paper-14 (Disciplinary/Interdisciplinary Major)	4
VIII	DMJ-15	Double Major paper-15 (Disciplinary/Interdisciplinary Major)	4
	DMJ-16	Double Major paper-16 (Disciplinary/Interdisciplinary Major)	4
		Total Credit	64

Abbreviation:

AEC: Ability Enhancement Courses

SEC: Skill Enhancement Courses

IAP: Internship/Apprenticeship/Project

MDC: Multidisciplinary Courses

MJ: Major Disciplinary/Interdisciplinary Courses

DMJ: Double Major Disciplinary/Interdisciplinary Courses

MN: Minor Disciplinary/Interdisciplinary Courses

AMJ: Advanced Major Disciplinary/Interdisciplinary Courses

RC: Research Course

**Semester wise Course Structure and Examination Structure for
Geography Major**

Semester	Courses		Exam Structure			
	Code	Paper	Credits	Mid-semester Theory F.M.	End-semester Theory F.M.	End-semester Practical / Viva F.M.
I	MJ1	History of Geographical Thought	4	25	75	
II	MJ2	Physical Geography	4	25	75	
	MJ3	Practical	4	-	-	100
III	MJ4	Human Geography	4	25	75	
	MJ5	Practical	4	-	-	100
IV	MJ6	Geography of India	4	25	75	
	MJ7	Geography of Jharkhand	4	25	75	
	MJ8	Practical	4	-	-	100

**Semester wise Course Structure and Examination Structure for Geography
Minor**

Semester	Courses		Exam Structure			
	Code	Paper	Credit	Mid-semester Theory F.M.	End-semester Theory F.M.	End-semester Practical/ Viva F.M.
I	MN-1A	Physical Geography	3	15	60	25
III	MN-1B	Human Geography	4	15	60	25

Instruction to the Question Setter

SEMESTER INTERNAL EXAMINATION (SIE):

There will be Only One Semester Internal Examination in Major, Minor and Research Courses, which will be organized at college/institution level. However, Only One End semester evaluation in other courses will be done either at College/ Institution or University level depending upon the nature of course in the curriculum.

A. (SIE 10+5=15 marks):

There will be two group of questions. **Question No.1 will be very short answer type in Group A** consisting of five questions of 1 mark each. **Group B will contain descriptive type** two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks.

B. (SIE 20+5=25 marks):

There will be two group of questions. **Group A is compulsory** which will contain two questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** two questions of ten marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 20 Marks, (b) Class Attendance Score (CAS) of 5 marks.

Conversion of Attendance into score may be as follows:

Attendance Upto 45%, 1mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks.

END SEMESTER UNIVERSITY EXAMINATION (ESE):

A. (ESE 60 marks):

There will be two group of questions. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No.2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer.

B. (ESE 75 marks):

There will be two group of questions. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type six questions of fifteen marks each, out of which any four are to answer.

C. (ESE 100 marks):

There will be two group of questions. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type six questions of twenty marks each, out of which any four are to answer

SEMESTER- I

MAJOR COURSE- MJ 1: History of Geographical Thought

Marks: 25 (5 Attd. + 20 SIE: 1 Hr) + 75 (ESE: 3 Hr.) = 100	Pass Marks: Th (SIE + ESE) = 40
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(Credits: Theory- 04) 60 Hours

Instruction to Question Setter

Semester Internal Examination (SIE 20+5=25 marks):

The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Marks, (b) Class Attendance Score (CAS) including the behaviour of the students towards teachers and other students of college of 5 marks.

End Semester Examination (ESE 75 marks):

There will be two groups of questions A and B. Group A is compulsory which will contain three questions. Question No. 1 will be very short answer type consisting of five questions of 1 mark each. Question No. 2 & 3 will be short answer type of 5 marks each. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

Note: There may be subdivisions in the questions of group B.

Course Objectives:

- 1) To understand the conceptual framework of geography.
- 2) To study the historical development and contribution of geography
- 3) Understanding modern techniques in geography.

Learning Outcomes:

After the completion of this course, the students will be able to understand the various themes of geography and its development through time as well as changing views on man-environment relationship.

Course Content:

Module-I: Nature, scope and purpose of Geography; Place of Geography in the classification of Sciences; Fundamental concepts of Geography; Concept of Earth's Surface; Concept of Location/Situation; Concept of Landscape.

Module-II: Geography in Ancient (Greek, Rome, and India) and Medieval Period; Development of Geography in Modern Period (German School, French School, British School, and American School); Contribution of Humboldt, Ritter, Ratzel, Blache, and Hartshorne to Geography.

Module-III: Geographical Knowledge and people- Career in Geography; Methods and Techniques in Geography- Quantitative, Behavioural, Radical, Humanistic, and Environmental; Remote Sensing, GIS, GPS, and Computer Cartography.

Module-IV: Dualism in Geography: Physical versus Human, Regional versus Systematic; Man-Environment Relationship Determinism, Possibilism, and Neo-Determinism.

Books Recommended:

- Arentsen, M., Stam R. and Thuijjs R., *Post-Modern Approaches to Space*, ebook.
- Bhat, L.S., *Geography in India* (Selected Themes), Pearson.
- Bonnett, A., *What is Geography?* Sage.
- Dikshit, R. D., *Geographical Thought: A Contextual History of Ideas*, Prentice– Hall India.
- Hartshorne R., *Perspectives of Nature of Geography*, Rand MacNally and Co.
- Holt-Jensen A., *Geography: History and Its Concepts: A Students Guide*, SAGE.
- Johnston R. J., (Ed.), *Dictionary of Human Geography*, Routledge.
- Kapur A., *Indian Geography Voice of Concern*, Concept Publications.
- Martin Geoffrey J., *All Possible Worlds: A History of Geographical Ideas*, Oxford.
- Soja, Edward, *Post-modern Geographies*, Verso, London.
- Husain, Majid, *Evolution of Geographical Thought*, Rawat Publication, Delhi.
- Rawat, D. S. & Kaushik, S. D., *Geographical Thoughts and Methodology*, Rastogi Publication, Meerut.
- Maurya, S. D., *Bhaugolik Chintan Ka Itihas*, Pravalika Publications, Allahabad.
- Kaushik, S. D., *Bhaugolik Vichardharaen evam Vidhi Tantra*, Rastogi Publications, Meerut.

SEMESTER- II

MAJOR COURSE- MJ 2: Physical Geography**Marks: 25 (5 Attd. + 20 SIE: 1 Hr) + 75 (ESE: 3 Hr.) = 100****Pass Marks: Th (SIE + ESE) = 40****(Credits: Theory- 04) 60 Hours*****Instruction to Question Setter******Semester Internal Examination (SIE 20+5=25 marks):***

The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Marks, (b) Class Attendance Score (CAS) including the behaviour of the students towards teachers and other students of college of 5 marks.

End Semester Examination (ESE 75 marks):

There will be two groups of questions A and B. Group A is compulsory which will contain three questions. Question No. 1 will be very short answer type consisting of five questions of 1 mark each. Question No. 2 & 3 will be short answer type of 5 marks each. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

Note: There may be subdivisions in the questions of group B.

Course Objectives:

- 1) To understand the conceptual framework of geomorphology, climatology, and oceanography.
- 2) To study the various concepts related to the land surface, climate, and ocean.

Learning Outcomes:

After the completion of this course, the students will be able to understand the various themes of geomorphology, climatology, and oceanography including various theories, concepts, and weather phenomenon.

Course Content:

Module-I: Origin of the Earth with particular reference to Big Bang Theory; Interior Structure of the Earth; Plate Tectonics; Earthquake and Vulcanicity; Geological Time Scale.

Module-II: Geomorphic Process: Denudation, Weathering, Erosion, and Deposition; Landforms: Fluvial, Aeolian, Glacial, Karst, and Marine.

Module-III: Composition and Structure of the Atmosphere; Insolation; Heat Budget; General Circulation of Wind; Atmospheric Pressure and Temperature; Air Mass; Fronts; Cyclone and Anti-Cyclone; Climates of the World (Köppen Classification).

Module-IV: Relief features of Ocean; Ocean Current and Tides; Oceanic Salinity; Coral Reef and Ocean Deposits.

Books Recommended:

- Dayal, P., *Bhuaakriti Vigyan*, Rajesh Prakashan, New Delhi.
- Gautam, Alka, *Jalvayu Vigyan evam Samudra Vigyan*, Rastogi Prakashan, Meerut.
- Lal, D. S., *Jalvayu Vigyan*, Sharda Pustak Bhawan, Allahabad.
- Sharma, J. P., *Bhuaakriti Vigyan*, Rastogi Prakashan, Meerut.
- Singh, S., *Jalvayu Vigyan*, Pravalika Publication, Allahabad.
- Singh, S., *Physical Geography*, Pravalika Publication, Allahabad.
- Singh, Savinder, *Bhuaakriti Vigyan*, Vasundhara Prakashan,
- Singh, Savinder, *Geomorphology*, Pravalika Publication, Allahabad.
- Singh, Savinder, *Samudra Vigyan*, Pravalika Publication, Allahabad.
- Strahler, A., *Introducing Physical Geography*, Wiley, India.

MAJOR COURSE- MJ 3: Practical**Marks: Pr (ESE: 3 Hrs) = 100****Pass Marks: Pr (ESE) = 40****(Credits: Practical-04) 120 Hours*****Instruction to Question Setter******End Semester Examination (ESE):***

There will be one Practical Examination of 3 Hrs duration. Evaluation of practical Examination may be as per the following guidelines:

Experiment = 80 marks

Practical record notebook & Viva-Voce = 20 marks

Course Objectives:

- 1) To explain the concept of scale, cross profiles, and weather maps.
- 2) To familiarise students about topographical maps, and weather maps.

Learning Outcomes:

After the completion of the course, students will have the ability to:

- 1) Read and prepare maps.
- 2) Importance of scale in the preparation of a map.
- 3) Understand the elements of weather and climate, and its impacts at different scales.
- 4) Use and importance of maps for regional development and decision making.

Course Content:

Module-I: Types of Maps; Meaning of Representative Fraction (R.F.); Construction of Scale (Simple, Comparative and Diagonal).

20x1=20 Marks

Module-II: Indexing of Topographical Sheet and Interpretation of Topographical Sheets (Under the head of relief, drainage, settlement, transport and communication); Conventional Signs.

20x1=20 Marks

Module-III: Construction of Profile (Serial, Superimposed, Projected, and Composite); River Profile.

20x1=20 Marks

Module-IV: Interpretation of Weather Map (July, October, and January); Weather Symbols; Rainfall and Temperature Graph; Hythergraph; Climograph.

20x1=20 Marks

Module-V: PNB (Practical Notebook) + Viva-Voce

10+10=20 Marks

Books Recommended:

- Singh, L.R., *Fundamentals of Practical Geography*, Sharda Pushtak Bhawan, Allahabad.
- Sharma, J. P., *Prayogik Bhugol*, Rastogi Prakashan, Meerut.
- Singh, L. R., *Prayogik Bhugol Ke Mool Siddhant*, Sharda Pustak Bhawan, Allahabad.
- Singh and Singh, *Elements of Practical Geography*, Kalyani Publishers, New Delhi.
- Chauhan, R. P., *Ramsurat, Prayogatmak Bhugol Ki Rooprekha*, Vasundhara Prakashan, Gorakhpur.
- Sinha evam Bala, *Uchh Cartography*, Sharda Pustak Bhawan, Allahabad.
- Sarkar, Ashish, *A Practical Geography*, Orient Blackswan Private Limited, New Delhi.
- Saha, P., *Advanced Practical Geography*, Orient Blackswan Private Limited, New Delhi.

SEMESTER- III

MAJOR COURSE- MJ 4: Human Geography

Marks: 25 (5 Attd. + 20 SIE: 1 Hr) + 75 (ESE: 3 Hr.) = 100	Pass Marks: Th (SIE + ESE) = 40
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(Credits: Theory- 04) 60 Hours

Instruction to Question Setter

Semester Internal Examination (SIE 20+5=25 marks):

The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Marks, (b) Class Attendance Score (CAS) including the behaviour of the students towards teachers and other students of college of 5 marks.

End Semester Examination (ESE 75 marks):

There will be **two groups** of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No. 1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks each. **Group B will contain descriptive type** seven questions of fifteen marks each, out of which any four are to be answered.

Note: There may be subdivisions in the questions of group **B**.

Course Objectives:

- 1) To explain the concept, definition and themes of human geography.
- 2) To familiarise students about human settlement types and patterns.

Learning Outcomes:

After the completion of this course, the students will be able to understand:

- 1) The changing human and cultural landscape at different levels.
- 2) The patterns and processes of population growth and its implications.
- 3) Appreciate the nature and quality of human landscapes.

Course Content:

Module-I: Meaning, Nature and Scope of Human Geography; Principles of Human Geography; Schools of thought in Human Geography; Possibilism; Welfare and Gender Approach.

Module-II: Evolution of Man: Classification of Races; Characteristics of Races and their Broad Distribution; Human Adaptation to Environment: Eskimo, Masai, Semang, and Bushman; Primitive People of Jharkhand: Mal Pahadia, Oraon, and Birhor.

Module-III: Growth of Population; Distribution of Population; Major Human Agglomerations; Types of Migration; Trends of Urbanisation.

Module-IV: Rural Settlement: Characteristics, Types and Regional Pattern; urban Settlements: Evolution and Classification; Rural Houses in India: Types, Classification and Regional Pattern.

Books Recommended:

- Johnston R; Gregory D, Pratt G. et al. *The Dictionary of Human Geography*, Blackwell Publication.
- Kaushik, S.D., *Manav Bhugol*, Rastogi Publication, Meerut.
- Maurya, S.D., *Manav Bhugol*, Sharda Pustak Bhawan. Allahabad.
- Hussain, Majid, *Manav Bhugol*, Rawat Publications, Jaipur.
- Garg, H. S., *Manav Bhugol*, Rajesh Publications, New Delhi.
- Chandna, R.C., *Population Geography*, Kalyani Publisher.
- Hassan, M.I., *Population Geography*, Rawat Publications, Jaipur
- Daniel, P.A. and Hopkinson, M.F., *The Geography of Settlement*, Oliver & Boyd, London.

MAJOR COURSE- MJ 5: Practical**Marks: Pr (ESE: 3 Hrs) = 100****Pass Marks: Pr (ESE) = 40****(Credits: Practical-04) 120 Hours*****Instruction to Question Setter******End Semester Examination (ESE):***

There will be one Practical Examination of 3 Hrs duration. Evaluation of practical Examination may be as per the following guidelines:

Experiment = 80 marks

Practical record notebook & Viva-Voce = 20 marks

Course Objectives:

- 1) To know the drawing process of geological cross-section in order to understand the structure of earth surface and its interiors.
- 2) To know the drawing process and importance of different graphs and diagrams.
- 3) To familiarise students with various instruments, methods, tools, and techniques of ground survey.

Learning Outcomes:

After the completion of the course, students will have the ability to:

- 1) Read and prepare maps and diagrams.
- 2) To use geological cross-section for the interpretation of earth.
- 3) To use graphs, diagrams for quantitative and qualitative analysis.
- 4) Undertake various methods of ground survey.

Course Content:

Module-I: Construction of Geological Cross-Section on Geological Map and its Interpretation; Geological Symbols.

20x1=20 Marks

Module-II: Bar Diagram (Simple, Multiple, and Compound); Pie Diagram; Line Graph; Ring Diagram.

20x1=20 Marks

Module-III: Instrumental Survey- 1) Chain and Tape Survey, 2) Plain Table Survey- Radiation and Intersection Method.

20x1=20 Marks

Module-IV: Instrumental Survey- 1) Prismatic Compass Survey- Open Traverse and Closed Traverse Method, 2) Dumpy Level- Traverse Survey, Spot Height Determination.

20x1=20 Marks

Module-V: PNB (Practical Notebook) + Viva-Voce

10+10=20 Marks

Books Recommended:

- Singh, L. R., *Fundamentals of Practical Geography*, Sharda Pushtak Bhawan, Allahabad.
- Sharma, J. P., *Prayogik Bhugol*, Rastogi Prakashan, Meerut.
- Singh, L. R., *Prayogik Bhugol Ke Mool Siddhant*, Sharda Pustak Bhawan, Allahabad.
- Singh and Singh, *Elements of Practical Geography*, Kalyani Publishers, New Delhi.
- Chauhan, R. P., *Ramsurat, Prayogatmak Bhugol Ki Rooprekha*, Vasundhara Prakashan, Gorakhpur.
- Sinha evam Bala, *Uchh Cartography*, Sharda Pustak Bhawan, Allahabad.
- Sarkar, Ashish, *A Practical Geography*, Orient Blackswan Private Limited, New Delhi.
- Saha, P., *Advanced Practical Geography*, Orient Blackswan Private Limited, New Delhi.

SEMESTER- IV

MAJOR COURSE- MJ 6: Geography of India

Marks: 25 (5 Attd. + 20 SIE: 1 Hr) + 75 (ESE: 3 Hr.) = 100	Pass Marks: Th (SIE + ESE) = 40
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(Credits: Theory- 04) 60 Hours

Instruction to Question Setter

Semester Internal Examination (SIE 20+5=25 marks):

The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Marks, (b) Class Attendance Score (CAS) including the behaviour of the students towards teachers and other students of college of 5 marks.

End Semester Examination (ESE 75 marks):

There will be two groups of questions A and B. Group A is compulsory which will contain three questions. Question No. 1 will be very short answer type consisting of five questions of 1 mark each. Question No. 2 & 3 will be short answer type of 5 marks each. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

Note: There may be subdivisions in the questions of group B.

Course Objectives:

- 1) To familiarise students about physical geography, demography, social attributes.
- 2) To explain the concepts of regionalisation on the basis of physiography, socio-cultural and economic characteristics.

Learning Outcomes:

After the completion of this course, the students will be able to understand:

- 1) Understand the physical profile of the country.
- 2) Study the resource endowment and its spatial distribution and utilization for sustainable development.
- 3) Synthesis and develop the idea of regional dimensions.

Course Content:

Module I: India: Structure and Physiography, Drainage (Peninsular and Extra Peninsular), Climate and Climatic Regions; Edaphic and Biotic Regions of India; Indian Forests and their Economic Importance.

Module II: Agriculture systems in India, Cropping Patterns in India, Divide India into Agricultural Regions (as per ICAR); Green revolution and its Consequences; Industries: Cotton, Sugar, Mineral Based; Iron and steel, Granite Industries in Jharkhand. Transport: Surface, Water & Air-Foreign Trade.

Module III: Minerals: Distribution of Iron ore, Bauxite, Manganese, Atomic Minerals; Power Resources- Coal, Petroleum, Wind Energy in India; Regions of Geography: Middle Ganga Plain, Lower Ganga Plain, and Chhotanagpur Plateau.

Module IV: Studies of Geographical Problems: Problems of Unreliability of Rainfall; Problems of Soil Salinity and its Mitigation; Problems of Development (Land Acquisition), Displacement and Rehabilitation; Problems of Slum and Urban Rehabilitation in India.

Books Recommended:

- Deshpande C. D., *India: A Regional Interpretation*, ICSSR, New Delhi.
- Johnson, B. L. C., ed., *Geographical Dictionary of India*, Vision Books, New Delhi.
Mandal R. B. (ed.), *Patterns of Regional Geography – An International Perspective*, Vol. 3, Indian Perspective.
- Sdyasuk Galina and P Sengupta, *Economic Regionalisation of India*, Census of India.
- Sharma, T. C., *India - Economic and Commercial Geography*, Vikas Publ., New Delhi.
- Singh R. L., *India: A Regional Geography*, National Geographical Society of India.
Singh, Jagdish, *India - A Comprehensive & Systematic Geography*, Gyanodaya Prakashan, Gorakhpur.
- Chauhan, Birendra Singh, & Gautam, Alka, *Bharatvarsha Ka Vistrit Bhugol*, Rastogi Publications, Meerut.

MAJOR COURSE- MJ 7: Geography of Jharkhand

Marks: 25 (5 Attd. + 20 SIE: 1 Hr) + 75 (ESE: 3 Hr.) = 100

Pass Marks: Th (SIE + ESE) = 40

(Credits: Theory- 04) 60 Hours

Instruction to Question Setter

Semester Internal Examination (SIE 20+5=25 marks):

The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Marks, (b) Class Attendance Score (CAS) including the behaviour of the students towards teachers and other students of college of 5 marks.

End Semester Examination (ESE 75 marks):

There will be two groups of questions A and B. Group A is compulsory which will contain three questions. Question No. 1 will be very short answer type consisting of five questions of 1 mark each. Question No. 2 & 3 will be short answer type of 5 marks each. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

Note: There may be subdivisions in the questions of group B.

Course Objectives:

- 1) To understand the physical features, its demography, social attributes, and resources of Jharkhand.
- 2) To explain the concept of regionalisation on the basis of physiography, socio-cultural and economic characteristics.

Learning Outcomes:

After the completion of this course, the students will be able to understand:

- 1) The physical, economic, and demographic attributes of Jharkhand.
- 2) The mineral and energy wealth of Jharkhand.

Course Content:

Module I: Physiography and Relief, Drainage Pattern, Forest Resource and its Economic Importance.

Module II: Agriculture: Irrigation- Types and Distribution, Major crops- Food Crops; Population Growth and Distribution; Population Composition- Sex, Age, Religion.

Module III: Resources: Natural Resources- Soil, Water, Mineral Resources; Coal and Uranium- Distribution & development; Conventional and Non-conventional Energy Resources; Major Hydel Power Projects-Thermal Power Plants; Industries: Location Factors-Distribution of Iron and Steel, Cement.

Module IV: Educational Development and Structure of Education in Jharkhand; House Types of Munda Villages in South Chhotanagpur; Transport: Roads and Railways and Development of Tourism, Eco-Tourism in Jharkhand; Economy and Habitats of Santhals, Oraons; Social, Economic and Environmental Problems of Jharkhand.

Books Recommended:

- Tiwari Ram Kumar, *Jharkhand ka Bhugol*, Rajesh Publication New Delhi.
- Sdyasuk Galina and P Sengupta, *Economic Regionalisation of India*, Census of India.
- Tiwari Ram Kumar, *Jharkhand ki Rooprekha*, Shivangan Publication Ranchi.
- Singh R. L., *India: A Regional Geography*, National Geographical Society of India. Singh, Jagdish, *India - A Comprehensive & Systematic Geography*, Gyanodaya Prakashan, Gorakhpur.
- Spate O. H. K. and Learmonth A. T. A., *India and Pakistan: A General and Regional Geography*, Methuen.
- Tirtha, Ranjit, *Geography of India*, Rawat Publications, Jaipur & New Delhi.
- Pathak, C. R., *Spatial Structure and Processes of Development in India*. Regional Science Assoc., Kolkata.
- Tiwari, R.C., *Geography of India*. Prayag Pustak Bhawan, Allahabad.
- Singh, Saroj Kumar, *Jharkhand Pradesh ki Bhaugolik Vyakhya*, Rajesh Publication, New Delhi.

MAJOR COURSE- MJ8: Practical**Marks: Pr (ESE: 3 Hrs) = 100****Pass Marks: Pr (ESE) = 40****(Credits: Practical-04) 120 Hours*****Instruction to Question Setter******End Semester Examination (ESE):***

There will be one Practical Examination of 3 Hrs duration. Evaluation of practical Examination may be as per the following guidelines:

Experiment = 80 marks

Practical record notebook & Viva-Voce = 20 marks

Course Objectives:

- 1) To familiarise students with the various types of map projections.
- 2) To explain the concept of quantitative information in general and geographical data in particular.

Learning Outcomes:

After the completion of the course, students will have the ability to:

- 1) Read and prepare maps.
- 2) Usage of statistical methods and techniques in geographical analysis.

Course Content:

Module-I: Map Projection: Simple Conical Projection with One Standard Parallel and Two Standard Parallels, Cylindrical Equidistant and Equal Area Projection, Mercator's Projection.

20x1=20 Marks

Module-II: Map Projection: Polar Zenithal Equidistant and Equal Area Projection, Gnomonic Polar Zenithal Projection.

20x1=20 Marks

Module-III: Population Projection of Jharkhand; Ring Diagram for Urban Population; Cube Diagram.

20x1=20 Marks

Module-IV: Sources of Data; Classification and Tabulation of Data; Measures of Central Tendency: Mean, Median, Mode, and Quartile.

20x1=20 Marks

Module-V: PNB (Practical Notebook) + Viva-Voce

10+10=20 Marks

Books Recommended:

- Singh, L. R., *Fundamentals of Practical Geography*, Sharda Pushtak Bhawan, Allahabad.
- Sharma, J. P., *Prayogik Bhugol*, Rastogi Prakashan, Meerut.
- Singh, L. R., *Prayogik Bhugol Ke Mool Siddhant*, Sharda Pustak Bhawan, Allahabad.
- Singh and Singh, *Elements of Practical Geography*, Kalyani Publishers, New Delhi.
- Chauhan, R. P., *Ramsurat, Prayogatmak Bhugol Ki Rooprekha*, Vasundhara Prakashan, Gorakhpur.
- Sinha evam Bala, *Uchh Cartography*, Sharda Pustak Bhawan, Allahabad.
- Sarkar, Ashish, *A Practical Geography*, Orient Blackswan Private Limited, New Delhi.
- Saha, P., *Advanced Practical Geography*, Orient Blackswan Private Limited, New Delhi.

Geography Minor

Geography may be opted as Minor-1 by the students having any Major subject.

It is intended to support the Major subject. There will be four papers of Geography minor of 4 credits each with following description:

- I. Theory: 3 credits of 75 marks.
- II. Practical: 1 credit of 25 marks.

The Geography Minor that can be opted in odd semesters are as follows:

<u>Semester</u>	<u>Minor Papers</u>	<u>No. of Credits</u>	
		<u>Theory</u>	<u>Practical</u>
I	MN-1A (Geo)	3 Credits (75 Marks) (SIE=10+5, ESE=60)	1 Credit (25 marks) (SIE=0, ESE=25)
III	MN-1B (Geo)	3 Credits (75 Marks) (SIE=10+5, ESE=60)	1 Credit (25 marks) (SIE=0, ESE=25)
V	MN-1C (Geo)	3 Credits (75 Marks) (SIE=10+5, ESE=60)	1 Credit (25 marks) (SIE=0, ESE=25)
VII	MN-1D (Geo)	3 Credits (75 Marks) (SIE=10+5, ESE=60)	1 Credit (25 marks) (SIE=0, ESE=25)

SEMESTER- I

MINOR COURSE- MN-1A: Physical Geography (Theory)

Marks: 15 (5 Attd. + 10 SIE: 1 Hr) + 60(ESE: 3 Hr.) = 75	Pass Marks: Th (SIE + ESE) = 30
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(Credits: Theory- 03) 45 Hours***Instruction to Question Setter***

Semester Internal Examination (SIE 10+5=15 marks):

The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 10 Marks, (b) Class Attendance Score (CAS) including the behaviour of the students towards teachers and other students of college of 5 marks.

End Semester Examination (ESE 60 marks):

There will be **two groups** of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No. 1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks each. **Group B will contain descriptive type** five questions of fifteen marks each, out of which any three are to be answered.

Note: There may be subdivisions in the questions of group **B**.

Course Objectives:

- 1) To understand the physical aspects of earth.
- 2) To study the all the environmental aspects of the earth like atmosphere, lithosphere, hydrosphere and biosphere

Learning outcome:

After the completion of the course, students will have the ability to:

- 1) Students will understand the components of the earth system – atmosphere, lithosphere, hydrosphere and biosphere.
- 2) Students will study the interactions among bio-physical processes in earth space.

Course Content:

Module-I: Earth and Solar System; Types and Formation of Rocks, Distribution of Earthquake and Volcano; Denudation of Land Surface, Mountain, Plateau, Plain, Lake and Rift valley; Landforms: Fluvial, Aeolian.

Module-II: Atmosphere: Structure and Composition, Atmospheric pressure and Temperature, Planetary and Local Winds, Greenhouse Gases, Cyclone: Tropical and Temperate.

Module-III: Configuration of Oceans, Salinity and Temperature of the Ocean Water, Ocean Current, Sea Deposits and Resources.

Module-IV: Concept of Ecology and Ecosystem; Energy flow; Biomes: Grassland, Forest; Biodiversity-Loss and their Conservation.

Books Recommended:

- Dayal, P., *Bhuaakriti Vigyan*, Rajesh Prakashan, New Delhi.
- Gautam, Alka, *Jalvayu Vigyan evam Samudra Vigyan*, Rastogi Prakashan, Meerut.
- Lal, D. S., *Jalvayu Vigyan*, Sharda Pustak Bhawan, Allahabad.
- Sharma, J. P., *Bhuaakriti Vigyan*, Rastogi Prakashan, Meerut.
- Singh, S., *Jalvayu Vigyan*, Pravalika Publication, Allahabad.
- Singh, S., *Physical Geography*, Pravalika Publication, Allahabad.
- Singh, Savinder, *Bhuaakriti Vigyan*, Vasundhara Prakashan,
- Singh, Savinder, *Geomorphology*, Pravalika Publication, Allahabad.
- Singh, Savinder, *Samudra Vigyan*, Pravalika Publication, Allahabad.
- Strahler, A., *Introducing Physical Geography*, Wiley, India.

MINOR COURSE- MN-1A: Physical Geography (Practical)**Marks: Pr (ESE: 3 Hrs) = 25****Pass Marks: Pr (ESE) = 10****(Credits: Practical-01) 30 Hours**

- 1) Meaning of Representative Fraction (R.F.), Construction of Scale (Simple and Comparative), Interpretation of Topographical Sheets.

10 Marks

- 2) Interpretation of Weather Map, Rainfall and Temperature Graph, Hythergraph, Climograph, Weather Symbols, Relief Features, Representation-Choropleth and Isopleth.

10 Marks

- 3) Viva-Voce.

05 Marks**Books Recommended:**

- Singh, L. R., *Fundamentals of Practical Geography*, Sharda Pushtak Bhawan, Allahabad.
- Sharma, J. P., *Prayogik Bhugol*, Rastogi Prakashan, Meerut.
- Singh, L. R., *Prayogik Bhugol Ke Mool Siddhant*, Sharda Pustak Bhawan, Allahabad.
- Singh and Singh, *Elements of Practical Geography*, Kalyani Publishers, New Delhi.
- Chauhan, R. P., *Ramsurat, Prayogatmak Bhugol Ki Rooprekha*, Vasundhara Prakashan, Gorakhpur.
- Sinha evam Bala, *Uchh Cartography*, Sharda Pustak Bhawan, Allahabad.
- Sarkar, Ashish, *A Practical Geography*, Orient Blackswan Private Limited, New Delhi.
- Saha, P., *Advanced Practical Geography*, Orient Blackswan Private Limited, New Delhi.

SEMESTER- III

MINOR COURSE- MN-1B: Human Geography (Theory)

Marks: 15 (5 Attd. + 10 SIE: 1 Hr) + 60(ESE: 3 Hr.) = 75	Pass Marks: Th (SIE + ESE) = 30
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(Credits: Theory- 03) 45 Hours***Instruction to Question Setter***

Semester Internal Examination (SIE 10+5=15 marks):

The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 10 Marks, (b) Class Attendance Score (CAS) including the behaviour of the students towards teachers and other students of college of 5 marks.

End Semester Examination (ESE 60 marks):

There will be **two groups** of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No. 1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks each. **Group B will contain descriptive type** five questions of fifteen marks each, out of which any three are to be answered.

Note: There may be subdivisions in the questions of group **B**.

Course Objectives:

- 1) To understand the man-environment relationship on the earth.
- 2) To study the cultural aspects of human i.e., settlement, functions etc.

Learning outcome:

After the completion of the course, students will have the ability to:

- 1) Know the changing human and cultural landscape at different levels.
- 2) Understand patterns and processes of population growth and its implications.
- 3) Appreciate the nature and quality of human landscapes.

Course Content:

Module-I: Meaning, Nature and Scope of Human Geography; Schools of Thought in Human Geography: Determinism, Possibilism, Neo- determinism, Probabilism.

Module-II: Classification and Characteristics of Races in World and India; Human Adaptation to Environment: Eskimo, Masai, Semang, Bushman.

Module-III: Growth and Distribution of World Population; Malthusian and Demographic Transition Theory; Human and Environment Interface.

Module-IV: Rural Houses in India: Types, Classification and Regional Pattern; Evolution of Urban Settlements and Their Functional Classification

Books Recommended:

- Johnston R; Gregory D, Pratt G. et al. *The Dictionary of Human Geography*, Blackwell Publication.
- Kaushik, S.D., *Manav Bhugol*, Rastogi Publication, Meerut.
- Maurya, S.D., *Manav Bhugol*, Sharda Pustak Bhawan. Allahabad.
- Hussain, Majid, *Manav Bhugol*, Rawat Publications, Jaipur.
- Garg, H. S., *Manav Bhugol*, Rajesh Publications, New Delhi.
- Chandna, R.C., *Population Geography*, Kalyani Publisher.
- Hassan, M.I., *Population Geography*, Rawat Publications, Jaipur
- Daniel, P.A. and Hopkinson, M.F., *The Geography of Settlement*, Oliver & Boyd, London.

MINOR COURSE- MN-1B: Human Geography (Practical)**Marks: Pr (ESE: 3 Hrs) = 25****Pass Marks: Pr (ESE) = 10****(Credits: Practical-01) 30 Hours**

- 1) Bar Diagram (Simple, Multiple and compound), Pie diagram, Line Graph.
10 Marks
- 2) Map projection: Simple Conical Projection with One Standard Parallel and Two Standard Parallels, Mercator's Projection.
10 Marks
- 3) Viva-Voce.
05 Marks

Books Recommended:

- Singh, L. R., *Fundamentals of Practical Geography*, Sharda Pushtak Bhawan, Allahabad.
- Sharma, J. P., *Prayogik Bhugol*, Rastogi Prakashan, Meerut.
- Singh, L. R., *Prayogik Bhugol Ke Mool Siddhant*, Sharda Pustak Bhawan, Allahabad.
- Singh and Singh, *Elements of Practical Geography*, Kalyani Publishers, New Delhi.
- Chauhan, R. P., *Ramsurat, Prayogatmak Bhugol Ki Rooprekha*, Vasundhara Prakashan, Gorakhpur.
- Sinha evam Bala, *Uchh Cartography*, Sharda Pustak Bhawan, Allahabad.
- Sarkar, Ashish, *A Practical Geography*, Orient Blackswan Private Limited, New Delhi.
- Saha, P., *Advanced Practical Geography*, Orient Blackswan Private Limited, New Delhi.

MULTI-DISCIPLINARY COURSE- MDC: Geography**Marks: Th (ESE: 3 Hrs) = 75****Pass Marks: Th (ESE) = 30****(Credits: Theory- 03) 45 Hours*****Instruction to Question Setter******End Semester Examination (ESE 75 marks):***

There will be two groups of questions A and B. Group A is compulsory which will contain three questions. Question No. 1 will be very short answer type consisting of five questions of 1 mark each. Question No. 2 & 3 will be short answer type of 5 marks each. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

Note: There may be subdivisions in each question of group B.

Course Objectives:

- 1) To familiarise students with the meaning, nature, and scope of Geography.
- 2) To understand the origin of earth and the man-environment relationship.
- 3) To familiarise students about physical geography, demography, social, and economic attributes.

Learning Outcomes:

On the successful completion of this course, the students will be able to understand Geography as a:

- 1) Study of man-environment relationship.
- 2) Study of physical aspects of the earth surface.
- 3) The human and economic aspects of geography.

Course Content:

Module-I: Meaning, Nature, and Scope of Geography; Relationship of Geography with other Sciences; Man- Environment Relationship; Importance and Types of Maps, Scale and Diagrams; Remote Sensing, GIS, GPS, Careers in Geography.

Module-II: Origin of the Earth- Big Bang Theory, Earth's Materials- Rocks; Landforms- Continent, Ocean, Mountain, Plateau, Plain, Lake; Composition and Structure of Atmosphere; Cyclone's Impact and Mitigation- Tropical and Temperate; Monsoon Winds; Ocean Currents- Indian Ocean and Atlantic Ocean.

Module-III: Earth and its Life; Evolution of Man; Population distribution of the World and India; Migration; Resource- Types, Utilisation and Conservation; Agriculture Types- Intensive Subsistence Agriculture, Commercial Farming, Plantation Agriculture; Industries- Iron and Steel, Cotton Textile, Food Processing; Problems of Rural and Urban settlements; Tourist Places of India and Jharkhand.

Books Recommended:

- Getis, Arthur, Mark D. Blelland, Victoria Getis, *Introduction to Geography*, McGraw hills.
- Hussain, Majid, *Human Geography*, Rawat Publication, Jawahar Nagar, Jaipur.
- Kaushik, S. D., *Geographical Thought and Methodology*, Rastogi Publication, Meerut.
- Lal, D. S., *Climatology*, Sarda Pustak Bhawan, Allahabad.
- Singh, Savinder, *Physical Geography*, Pravalika Publications, Allahabad.