

GEOGRAPHY SYLLABUS

S.Y.B.Sc. (FROM JUNE, 1993)

ECONOMIC GEOGRAPHY

Section-I (First Term)

No.	Topic	Sub Topics
1.	Nature of Economic Geography	i) Definition ii) Nature iii) Scope iv) Purpose v) Approaches.
2.	Climatic regions Vegetation	i) Climatic regions- defination. ii) Study of following climatic regions with relation to economic activities. a) The Equatorial region b) The Monsoon region. iii) Types of Vegetation in equatorial & Monsoon forests in India.
3.	Economic Activities	i) Primary ii) Secondary iii) Tertiary with Examples.
4.	Types of Agriculture	i) Intensive Subsistance. ii) Plantation Agriculture. iii) Commercial grain farming. iv) Dairy farming. v) Mediterranean farming.

Food crops and Cash crops.

Geographical conditions and world distribution for following crops Rice, Wheat, Tea, Sugar Cane and Cotton.

SECOND SECTION (SECOND TERM)

5. Mineral and Power resources
- a) Production & distribution of following minerals & Power resources.
 - i) Iron Ore - USA & India.
 - ii). Bauxite - All countries.
 - iii) Manganese - Major Producing Countries & India.
 - iv) Coal - USA, China & India
Hydel Power - USA, Japan & India.
 - vi) Oil - S.W. Asian Countries, USA & India.
 - b) Wind, Solar & Nuclear Energy.
6. Industries
- i) Factors of Localization :
Raw material, Land, labour, capital, transportation, facilities, Power resources
Weber's theory.
 - ii) Location, Production & World distribution of following industries.
 - a) Iron & Steel Industries USA & India.
 - b) Cotton Textile + India, Japan & U.K.
7. Trade and Transport
- a) i) Land Transport-Merits & Demerits. Continental Roads, Railway.
 - ii) Water Transport - Major ocean routes merits & Demerits.
 - iii) Air Transport - Major routes merits & Demerits.
 - b) Trade - Factors influencing trade - Types of trade - regional, national & International. Foreign trade of India.

Subject :- ENVIRONMENTAL SCIENCE.

SECTION - I

Chapter	Topics	Subtopics	Periods
1. Environmental Science.	Nature & Scope	i) Defination of Env-Science. ii) Dynamic, Scientific and interdisciplinary nature and scope of Env-Science (6)	
2. Man & Environment Approaches		i) Environmental deterministic ii) Possibilistic iii) Economic deterministic(4) iv) Ecological.	
3. Ecosystem.	A. Meaning of an Ecosystem. B. Structure C. Function. D. Types of Ecosystem	A. Concept and defination of Ecosystem. A. Abiotic Components (18) B. Biotic components. i) Producer. ii) Consumers. iii) Decomposers. C. Organism, Population & Communities. i) Nutrient cycling in Ecosystems carbon & Witrogen cycle. ii) Energn flow in Ecosystem. a) Trophic levels. b) Food chain. c) Food Web. d) Ecological niche. A) Basis of classification. i) Habitat. ii) Ecocline. iii) Use (odum) B) A detailed study of major Ecosystems- i) Forest. ii) Pond. iii) Hot & Cold desert ecosystem.	
4. Resources	A. Energy Resource B. Water Resource.	Renewable, Non-Renewable Energy resources. i) Utilization of surface and ground water, Methods of irrigation. ii) Methods of irrigation and (flood-Drip-Sprinkle) Problems due to over irrigation.	

- C. Mineral Resource Exploitation and Related problems
- D. Forest Resource i) Environmental significance of forest.
 ii) Deforestation and Environmental Degradation.
- E. Conservation of resources. i) Soil.
 ii) Water.
 iii) Forest.

REVISIONS MADE BY THE AUTHOR :

SECTION -II-

- 5. Environmental Pollution. Meaning & Definition i) Definition of Pollution and Pollutents. (14)
 - A. Air. i) Air pollution-
 ii) Sources, types, Effect and Remedies.
 - B. Water i) Water Pollution.
 ii) Sources, types, Effects and Remedies.
 - C. Noise. i) Noise pollution and Noise level.
 ii) Sources, Effects & remedies.
 - D. Solid wast, Biodegradable & Non degradable solid waste (6)
- 6. Environmental Hazards.
 - A. Physical i) Geophysical- Earthquake, Flood, Volcnaoes, Land slide, land brosion.
 ii) Climatic-Droughts, cyclone, cold and heat waves.
 - B. Biological. Due to
 i) Macro organisms.
 ii) Micro ortanisms.
 Problems created due to
 - C. Man-Made Social, Political, Economical activities.
- 7. Environmental Management and planning.
 - A. Management. i) Concept and need of management & planning (8)
 ii) Aspect and Approaches to Environmental management.
 - B. Planning with example i) Micro and Mesolevel planning
 ii) Short term and longterm planning.
- 8. Environmental issues and Assessment.
 - A. Environmental Impact Assesement i) Meaning and scope of EIA (12)
 ii) Methodology adapted in EIA
 iii) A case study of sardar sarovar project.

- B. Important Global
Regional
Environmental
Problems.
- i) Green House Effect.
 - ii) Depletion of ozone layer
 - iii) Nuclear disaster & their impact.
 - iv) Bhopal Gas disaster
 - v) Ganga pollution.

: LIST OF REFERENCE BOOKS :

1. Environmental Geography - Savindra Singh
"Prayag Pustak Bhawan,
Allahabad - 211 002.
2. Introduction to Environmental- J.Turk & Turk.
Studies
3. Introduction to Environmental - I.M. Moray.
Science
4. Man & his environment - I.P. Singh.
5. Environmental Biology - Odum.
6. Environmental Science - Ahirrao & Others.
(Part I & Part II)
7. Ecology - Odum.
8. Fundamentals of Environmental - Kannan K.
Pollution.
9. Hazard Geography - Ross Simon.
10. Pollution control and - M. Kovacs.
conservation
11. Environmental and Natural - V.P. Agarwal.
Resources
12. Environmental Conservation - J.B. Lal.
13. Environmental Geography - R.B. Singh.
14. Environmental Pollution : - I.Sethi.
Causes, effects & control
15. Environmental impact of Industrial - Patnaik L.N.
& mining activities.
16. Environment and pollution - Bais & Gupta.

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S.Y.B.Sc. GEOGRAPHY

PRACTICAL SYLLABUS

(MAP PROJECTION - SURVEYING and - FIELD EXCURSION).

Unit	Sub-Units	Areas to developed	Periods
Map Projections	A- <u>Introduction - Definition of map projection, Necessity of map Projection, Developable and Undevelopable surface.</u>	To develop an ability to organise map-making ideas and statement and apply the Practical (Geog) Knowledge.	4
	B- <u>Classification of Map-Projections</u>		
	I) <u>According to the Qualitative Approach.</u>		
	a) Equidistant Projection. To know various types of		4
	b) Homolographic Projection.		
	c) Orthomorphic Projection.		
	d) Azimuthal Projection.		
	II) <u>According to the con- structional Approach.</u>		
	a) Perspective Projection		4
	b) Non-Perspective Projection.		
III) <u>According to the deve- lopable. surface</u>			
a) Zenithal Projection.		4	
b) Conical Projection.			
c) Cylindrical Projection.			
d) Conventional Projection.			
C- <u>Construction (by Graphical methods only) and study of uses, Properties, merits and demerits of the following Projections.</u>	To develop skill in drawing different map Projections.		
I) <u>Zenithal Projections</u>	To know the properties, characteristics and uses of different Projections.	8	
a) Zenithal Polar central (Gnomonic) Projection.			
b) Zenithal Polar Stereographic Projection.			
II) <u>Conical Projections</u>		8	
a) Conical Proj. with one standard Parallel.			
b) Conical Proj. with two standard Parallel.			
c) Conical Equal Area (Bonne's) Proj.			
III) <u>Cylindrical Projec- tions.</u>		4	
a) Cylindrical Equal-Area Proj.			

b) Cylindrical orthomorph- phic (Mercator's) Proj.	
IV) <u>Conventional</u> Projections	8
a) Globular Projection.	
b) Sinusoidal Projection.	
c) Mollweide Projection.	
D. <u>Choice</u> of Map Projections	To understand the importance and usefulness of different Pro- jections. 4

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SECTION - II

2. Surveying	A. <u>Introduction</u>	To acquire the knowledge of surveying.	
	a) Definition of surveying.		
	b) Purpose of surveying.		
	c) Principles of surveying.	To understand the purpose and Principles of surveying.	
	d) Kinds of surveying-		
	i) Geodetic survey.		
	ii) Plane survey.		
	c) Methods of surveying.	To know the various types and methods of surveying.	4
	i) Triangulation.		
	ii) Traverse.		
	B. <u>Plane</u> - Table survey	To acquire the skill of doing survey by plane Table.	
	a) Accessories to the Plane Table survey.		
	b) Methods of Plane-Tab- ling-		
	i) Radiation method.		
	ii) Intersection method.		
	c) Finding Directions (Methods)	To know the various methods of finding directions.	8
	i) The Polestar and the Great Bear.		
	ii) The shadow of the Rod.		
	iii) The sun and the watch.		
	d) Advantages and disadvan- tages of plane-table survey.	To know the merit & demerit of plane table survey.	
	C. <u>Prismatic</u> Compass survey.	To acquire the skill of doing survey by prismatic compass survey.	
	a) Structure of Prisma- tic compass.		
	b) Bearing of line.	To understand the mechanism of Prismatic compass.	12
	i) A True meridian		
	ii) The magnetic Meri- dian.		
	iii) Arbitrary Meridian.		

- c) Magnetic Declination
- d) Designation of bearings
 - i) Whole circle bearing system.
 - ii) Quadrantal bearing (R.B.) System.
 - iii) Conversion of bearings from one system to the other.
- e) Field Book
- f) Types of bearing -
 - i) Fore bearing
 - ii) Back bearing.
- g) Procedure of Prismatic compass survey.
 - i) Open traverse and
 - ii) Closed traverse.
- h) Local attraction, closing error and closing error's correction by Bowditch's method.
 - i) Merits and demerits of Prismatic compass survey.

To know the various Bearing lines.

To know the recording of the bearing in field-book.

To acquire the skill of doing survey by prismatic compass.

To understand the importance and usefulness of Prismatic compass.

- D. Leveling with the help of Dumpy-level
 Methods-i) Collimation
 ii) Rise and Fall.

To know the mechanism of Dumpy-level. 8

To know and Practice the various methods of survey done by Dumpy-level.

- E. Contouring with the help of Indian clinometer.

To understand the meaning of contours.

- a) Structure and use of Indian clinometer.
- b) Interpolation of contour with the help of given spot heights (spot heights determined by clinometer)
- c) Precaution in Interpolation of contour lines.

To understand the Principle.

Construction, Working and use of Indian clinometer.

To develop the skill of drawing contours. 8

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3. Excursion
 OR
 Village Survey.

Excursion - Visit to place of Geographical interest and submission of its report.

OR

Village survey OR Problem relating to any Geographical interest and submission of its report.

To observe the geographical phenomena.

To Know Knowledge of other places and to take interest and develop proper attitude

towards the study of
geography.

- NOTE :-
- i) Journal should be maintained.
 - ii) Journal should be certified by the Head of Dept. and Incharge of the Batch.
 - iii) There will be 4 Periods of Practical for a Batch of 12 Students per week.
 - iv) Number of expected periods are guide line for teachers to facilitate the Planning of teaching of Practical course.
 - v) Weightage to the topic Practical will last for more than 4 hours.

1. Map Projection : 40 Marks.

2. Surveying : 40 Marks.

3. Oral, Journal and Excursion or village survey report :
20 Marks.

BOOKS :

- 1) Map Projections - Kellaway.
- 2) Map work & Practical Geography - Singh & Dutta.
- 3) Elements of cartography - R.P. Mishra.
- 4) Surveying & Leveling - Kanitkar and Kulkarni.
- 5) Surveying & leveling - V.S. Gajare.

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dbb./-