

# **B.Sc – GEOGRAPHY (2018-2019 Onwards)**

## **SEMESTER-I**

### **CORE –I- GEOMORPHOLOGY- I**

- UNIT I**      **Definition of geomorphology - Origin of the earth - Gaseous Hypothesis of Immanuel Kant - Nebular theory of Laplace - Tidal hypothesis of James Jeans and Modification by Jeffrey - Binary star theory of Russell - Structure of the earth's interior - Crust - mantle - core - Rocks - classification of rocks - igneous, sedimentary and metamorphic rocks.**
- UNIT II**      **Earth movements - Endogenetic forces - sudden forces and movements - diastrophic forces and movements - epeirogenetic movements - orogenetic movements - folds - faults - rift valleys - exogenetic forces.**
- UNIT III**      **Volcanoes - components of volcanoes - classification of volcanoes - volcanic materials - world distribution of volcanoes - hazardous effects of volcanism - earthquakes - causes of earthquakes - types and world distribution distribution- hazardous effects of earthquake - Wegner's Continental drift theory - Isostasy.**
- UNIT IV**      **Major landforms - mountains - classification - plateaus - classification - plains - classification.**
- UNIT V**      **Weathering - Meaning - controlling factors - types - physical - chemical and biological weathering- geomorphic importance of weathering - mass movement - concept- classification - resultant features- Soil - formation of soil - characteristics, types and distribution - soil profile.**

#### **REFERENCE BOOKS**

1. Balbir Singh Negi, Physical Geography, S.J Publications Meerut, 1993
2. Das Gupta, A., and Kapoor, A.N, Principles of Physical Geography, S.C. Chand & Company Ltd, 2001
3. Lobeck. A.K., An Introduction to the study of Landscapes, Mc Graw -Hill Book company, 1939

4. Robinson .H., Physical Geography, Mac Donald and Evans Ltd, 1971 Sharma. V.K., Earth Surface Process and forms, Tata Mc Graw – Hill Publishing Company Ltd, New Delhi, 1986.
5. Thorn Bury.D., - Principles of Geomorphology, Wiley Eastern Ltd, New Delhi, 1984
6. Strahler A.H and Strahler A.N – Modern Physical Geography, New York, John Wiley and Sons. INC, 1975

## **SEMESTER-I**

### **CORE II - CARTOGRAPHY**

- UNIT I** Nature, scope and content of cartography – maps – classification and uses – development of cartography – branches in cartography.
- UNIT II** Earth as a cartographic problem – shape, size and direction - dimension of the earth – plane, spherical and rectangular systems – latitudes, longitudes and time.
- UNIT III** Map scale – types of scale – enlargement and reduction – map projection – basic principles of cylindrical, conical and zenithal projections.
- UNIT IV** Principles of map generalization – map design and layout – components of layout – map index with reference to SOI and NATMO maps.
- UNIT V** Map symbolization – point, line and area symbols – qualitative and quantitative symbols.

### **REFERENCE BOOKS**

1. Misra. R.P and A,Ramesh – Fundamentals of cartography, concept publishing Company, New Delhi, 2000.
2. Erwin and Raisz – principles of cartography, Mc graw Hill book company 1962
3. Robinson.H.,Elements of Cartograhphy, John Wiley and Son INC,1960
4. Monhouse – Map and diagrams – methuan 1971

5. **RL Singh – Elements of practical geography – Students to friends  
Allahabad 1968**

## **SEMESTER-II**

### **CORE – III - GEOMORPHOLOGY - II**

- UNIT I**      **Drainage systems – sequent – insquent – drainage patterns -  
Work of running water (river) – types of fluvial erosion -  
erosional landforms – transportational work of rivers-  
depositional landforms - river development stages – river  
capture- Normal cycle of erosion by Davis.**
- UNIT II**      **Glacial processes –types and movement of glacier- - Erosional  
work of glacier - Depositional landforms of glacier.**
- UNIT III**      **Work of Wind – erosional work of wind and erosional landforms  
– transportational work - depositional landforms in arid  
regions.**
- UNIT IV**      **Underground water and karst topography – Geomorphic work  
of groundwater – erosional landforms developed in limestone  
regions- depositional landforms of karst region.**
- UNIT V**      **Work of Waves – agents of coastal erosion - erosional land  
forms - transportational work - depositional landforms in arid  
regions - coast – Johnson’s classification of coast.**

### **REFERENCE BOOKS**

1. **Balbair Singh Negi, Physical Geography, S.J Publications Meerut, 1993**
2. **Das Gupta, A., and Kapoor, A.N, Principles of Physical Geography, S.C. Chand  
& Company Ltd, 2001**
3. **Lobeck. A.K., An Introduction to the study of Landscapes, Mc Graw –Hill Book  
company, 1939**

4. Robinson .H., Physical Geography, Mac Donald and Evans Ltd, 1971  
Sharma. V.K., Earth Surface Process and forms, Tata Mc Graw - Hill Publishing Company Ltd, New Delhi, 1986.
5. Thorn Bury.D., - Principles of Geomorphology, Wiley Eastern Ltd, New Delhi, 1984
6. Strahler A.H and Strahler A.N - Modern Physical Geography, New York, John Wiley and Sons. INC, 1975

## **SEMESTER – II**

### **CORE IV - PRACTICAL – I - MAP MAKING AND REPRESENTATION OF RELIEF**

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|-----------------|---|
| <b>UNIT I</b>   | <b>Scales – definition - types – construction of map scales – comparative and diagonal scales – time scale.</b> |
| <b>UNIT II</b>  | <b>Enlargement and reduction by square methods - similar triangle method</b>                                    |
| <b>UNIT III</b> | <b>Map direction and bearing - Measurements of Distance - using Thread, Divider and Rotometer.</b>              |
| <b>UNIT IV</b>  | <b>Measurement of area by square, linear and by planimeter methods.</b>   |

#### **REFERENCE BOOKS:**

1. Gopal Singh – Map work and practical geography , Vikas Publishing House .
2. Ishtiaq – Practical geography , published by Jawahar publishing and distributors, 1994
3. Monkhouse. F.J., and H.R Wilkinson – Maps and Diagrams , B.I publications , 1952
4. Zamir Alvi – A text book of Practical Geography , Vikas Publishing house Pvt ltd , 1994
5. Zulfequar Ahmad Khan. M.D., Text boom of Practical Geography, concept publishing company, New Delhi, 1998.

## **SEMESTER III**

### **CORE – V - CLIMATOLOGY – I**

- UNIT I**      **Climatology – meaning – elements of weather and climate composition of atmosphere – structure of the atmosphere.**
- UNIT II**      **Insolation – meaning – distribution of insolation – factors affecting the distribution – heat budget of the earth and the atmosphere.**
- UNIT III**      **Temperature – transfer of heat energy – heating of the atmosphere by conduction- convection – radiation - absorption - reflection and scattering – controlling factors of temperature distribution - diurnal- seasonal- horizontal and vertical – distribution of temperature - normal lapse rate – inversion of temperature .**
- UNIT IV**      **Pressure – definition – Pressure gradient – pressure types – variations in atmospheric pressure – horizontal distribution of pressure and pressure belts.**
- UNIT V**      **Atmospheric motion- pressure gradient and air circulation – coriolis force- frictional force- geostrophic winds – gradient winds - General circulation – Planetary wind belt – seasonal winds – monsoon – concepts of origin of monsoon wind ( thermal and dynamic ) – local winds – periodic local winds and non-periodic local winds. - ElNino – LaNino.**

#### **REFERENCE BOOKS:**

1. Lal. D.S., Climatology, Chatianya Publishing House, Allahabad, 1990
2. Howard J. Chritchfield, General Climatology, Prentice – Hall of India Pvt Ltd, 1987
3. Glen. T.Trewartha and Lyes H.Horn An Introduction to Climate, International student Edition, Mc Graw Hill International Book Company, 1980.
4. Patterson – Climatology.
5. Barry & Chorley – Atmosphere, weather and climate – Methuen 1968.

## **SEMESTER – III**

### **CORE ELECTIVE – I- OCEANOGRAPHY**

- UNIT I    Oceanography – meaning – scope and branches of oceanography- Distribution of continents and ocean – Bottom topography of Indian, Atlantic and Pacific Ocean.**
- UNIT II    Temperature – Process of Heating and Cooling- distribution of temperature – horizontal and vertical - Salinity- Sources - Controlling factors - distribution of salinity – horizontal and vertical.**
- UNIT III    Surface Currents – origin - Factors controlling currents – types of currents - Currents of Indian, Atlantic and Pacific Oceans – Waves and Tides.**
- UNIT IV    Marine resources – classification - coral reef – conditions of growth - types and distribution of coral reefs.**
- UNIT V    Marine deposits- Sources and types – Classification – Marine Sediments – Distribution of Sediments.**

#### **REFERENCE BOOKS**

- 1.    Lal .D.S., Oceanography**
- 2.    Grant Gross – Oceanography, Prentice – Hall International Editions , 1987**
- 3.    Sharma.R.C., and M.Vital – Oceanography for Geographers , Chatianya publishing house , Allahabad , 1987**
- 4.    Paul R. Pinet – Oceanography, West Publishing Company, 1992**

## **SEMESTER – III**

### **SBE – I - DISASTER MANAGEMENT**

- UNIT I      Environmental Hazards – earthquake, volcanoes, landslide**
- UNIT II      Global Warming – Greenhouse effect – cyclones, floods, tsunami – drought.**
- UNIT III      Human impact on agriculture – industries**
- UNIT IV      Deforestation – Desertification – Pollution – nature and classification**
- UNIT V      Environmental Impact Assessment and Disaster management.**

#### **REFERENCE BOOKS**

- 1. Robinson H. – Biogeography, Plymouth, MacDonald and Evans Ltd., - 1972.**
- 2. Mohammad safi – Mehdi Raza – New Delhi, Rawat Publications - 1994.**
- 3. Sharma P.D. – Ecology and Environment, Meerut, Rasogi Publications.**
- 4. Trivedi P.R – Water Pollution, New Delhi, Akashdeep, Publishing House – 1992.**

## **SEMESTER – III**

### **NME – I - PRICIPLES OF REMOTE SENSING**

- UNIT I      Principles of remote sensing – History.**
- UNIT II      EMR – Electromagnetic spectrum – Energy interactions with atmosphere and earth surface features.**
- UNIT III      Platforms – Sensors.**
- UNIT IV      Aerial photographs – types – elements of interpretation and uses of aerial photographs.**
- UNIT V      Satellite imagery – types – visual image interpretation – uses of satellite imageries.**

#### **BOOK FOR REFERENCE.**

- 1. C.S.Agarwal & P.K.Grag – Text Book of Remote Sensing – Wheeler Publishing 2000**
- 2. Gampbell. James B.I Introduction to Remote Sensing – The Guild Press ,New York**
- 3. Curran – Fundamentals of Remote Sensing – Longman, London**
- 4. Lillesend TM & Kiefer R.W – Remote Sensing & Image Interpretation – John Wiley & sons, New York**
- 5. Luedev D.R. Aerial Photographic Interpretation Mc. Graw Hill Company, New York**



## **SEMESTER – IV**

### **CORE – VI - CLIMATOLOGY – II**

- UNIT I**      **Humidity – water vapor – evaporation – latent heat - types of humidity - measurement of humidity - Evaporation – evapotranspiration - Condensation – forms of condensation - fog- classification of fogs.**
- UNIT II**      **Clouds – classification and characteristic features of clouds – Precipitations – forms - types and distribution of precipitation.**
- UNIT III**      **Air mass – characteristics – source region - classification of air masses – fronts – concepts – classification - cyclones – origin and distribution of tropical and temperate cyclones - anti cyclones - thunderstorms- tornado – Jet streams.**
- UNIT IV**      **Climatic classification – Koppen’s and Thornthwaite’s classifications.**
- UNIT V**      **Weather forecasting – meaning and importance – procedures for forecasting – tools in weather forecasting – types of weather forecasting - benefits of weather forecasting.**

#### **REFERENCE BOOKS:**

- 1. Lal .D.S., climatology, chatanya publishing house, Allahabad, 1990**
- 2. Howard J.Chritchfield, General Climatology, Prentice – Hall of India Pvt, Ltd, 1987.**
- 3. Glenn.T.Trewartha and Iyes H.Horn An Introduction to Climate, International Student Edition, Mc Graw Hill International Book Company, 1980**
- 4. Nizamuddin khan, An introduction to Physical Geography**

## **SEMESTER-IV**

### **CORE VII – PRACTICAL II - CLIMATIC DIAGRAMS AND WEATHER MAPS INTERPRETATION**

- UNIT I**      Diagrammatic representation of Climatic data - Hyther graph -  
Climograph-Wind Rose diagram and Ergo graph.
- UNIT II**     Temperature and rainfall – Line graphs – Dispersion diagram.
- UNIT III**    Weather symbols, station model – weather map interpretation.
- UNIT IV**    Field work and local geography.

#### **REFERENCE BOOKS**

- 1. M. Ishtiaq- Practical Geography-published by Jawahar publishers  
and Distributors-1994.**
- 2. F.J. Monkhouse and H.R. Wilkinson-Maps and Diagrams-  
B.I.Publications-1952.**
- 3. MD.Zulfequar Ahmad Khan-Text Book of Practical Geography-  
Concept Publishing Company, New Delhi-1998.**
- 4. Gopal singh-Map work and practical geography- Vikas publishing  
House pvt.Ltd-1996.**
- 5. R.L Singh – Elements of Practical Geography, Kalyani publishers,  
1979**

## **SEMESTER-IV**

### **CORE ELECTIVE – II - TRAVEL AND TOURISM**

- UNIT I** Concepts of tourism and leisure – principles and purpose of geography of tourism- history of tourism- ancient – medieval – modern – Types of tourism.
- UNIT II** Determinants and motivation of tourism – measurement of tourism
- UNIT III** Elements of tourism – attraction, accommodation and accessibility Socio economic impact on tourism development
- UNIT IV** Travel formalities- Tour Itinerary- Travel Agencies- International Concessions- Travel abroad- facilities- Visa, Passport, Bank restrictions- Traveler's Cheques.
- UNIT V** Tourism and environment, tourism and planning and development in India with Special reference to Tamil Nadu. Tourist potential- problems – planning – medical tourism.

#### **REFERENCE BOOKS**

1. Kaul R.N., - Dynamics of Tourism, NewDelhi, Sterling Publishers – 1985.
2. Sharma J.K. – Tourism Planning and Development A New Perspective, New Delhi, Kanishka Publisher.
3. Francois Vellas and Lionel B'echerel, Greate Britain, Antony Raw Ltd., - 1995.
4. Pushpinder S. Gill – New Delhi, Anmol Publication Pvt. Ltd.,
5. Bhatia A.K. – Tourism Development Bangalore sterling Publishers (p) Ltd. – 1999.

## **SEMESTER-IV**

### **SBE – II - COMPUTER APPLICATIONS IN GEOGRAPHY**

- UNIT-I**      **Concept of computer system- Components and memory- Concept of hardware, software, algorithms, systems analysis and computer programming.**
- UNIT-II**      **MS office: Use of Word, Excel, Access and Power point**
- UNIT-III**      **Software operating system- Programming languages application oriented software-Mapping remote sensing, GIS and statistical software's.**
- UNIT-IV**      **Use of SPSS-Statistical summaries of mean, median, mode and standard deviation.**
- UNIT-V**      **Use of computer in generating correlation regression and hypothesis testing.**

#### **REFERENCE BOOKS**

- 1.      Microsoft Office 2000 – Maria Reid and Karl Schwartz, BPB Publications, New Delhi.**
- 2.      Fundamentals of Computers – V. Raja Raman.**
- 3.      Introduction to Computers – Peter Norton – Tata Mc Graw – Hill publishing company limited – New Delhi – 2000.**
- 4.      PC Software made simple( MS Office ) – R.K. Taxali.**

## **SEMESTER-IV**

### **NME – II - GEOGRAPHICAL INFORMATION SYSTEM**

- UNIT I**      **GIS – Definition – history – components – hardware – software – data – people.**
- UNIT II**      **Geographic data – point, line and area – spatial data and non spatial data.**
- UNIT III**      **Data model – raster and vector – data conversation – digitization – errors.**
- UNIT IV**      **Database Management System (DBMS) – use of GIS.**
- UNIT V**      **GPS - Definition – history – segments – uses.**

#### **REFERENCE BOOKS**

- 1. Ball D.R. – Babbage – Geographic Information System for Defence Application – Pergamon Press – Australia**
- 2. Barrette & Burough – Principles of GIS for Land Resource Assessment – Clarendon Press – Oxford**
- 3. Bidhanesh Misra – Geographic Information System & Economic Development.**
- 4. Lan Heywod, Sarah Cornelines, An Introduction to Geographical Information System I Addison – Wesley, Longman Ltd,2000**

## **SEMESTER-V**

### **CORE – VIII - GEOGRAPHY OF RESOURCES – I**

- UNIT-I**      **Resource – Meaning -- Concept of resources- functional – dynamic concepts- Classification of resources – renewable – nonrenewable resources.**
- UNIT-II**      **Land as a resource – land use types and conservation; soil as a resource – erosion and conservation; man as a resource.**
- UNIT-III**      **Water as a resource – uses – irrigation – transport – problems – conservation – fisheries – major fishing grounds of the world – problems.**
- UNIT-IV**      **Natural vegetation – forest – types – products and conservation.**
- UNIT-V**      **Grassland types –livestock distribution.**

#### **REFERENCE BOOKS:**

- 1. Prithvish Roy & Somnath mukerjee – Economic geography an appraisal of resources, new central book agency, culcutta-700 009.**
- 2. V.K. Gupta – Economic and Commercial Geography, Sultan Chand and Sons, 1977.**
- 3. S.K. Sadhukhan – Economic Geography an Appraisal of resources, S.Chand and company Ltd.-1982.**
- 4. A.Das Gupta – Economic and Commercial Geography, Mukhrjee and Co. Pvt.Ltd.-1978.**
- 5. M.C.Agarwal – Commercial Geography, Himalaya Publishing House, 1981.**
- 6. B.S.Negi – Economic and Commercial Geography of the World, S.Chand and Co.Ltd. 1980.**

## **SEMESTER- V**

### **CORE – IX - WORLD REGIONAL GEOGRAPHY**

- UNIT – I    Region – Definition – evolution of regional concept- characteristics of region – Types of region – Generic regions- - Major generic regions - Formal – Functional - specific region.**
- UNIT – II    Natural Region of the world- Meaning - Criteria of delimitation of natural regions - Tropical Regions – Equatorial region - savanna region or Sudan type - tropical monsoon region- tropical deserts or Sahara type region.**
- UNIT – III    Warm temperate regions- Mediterranean region – temperate desert region- China type region.**
- UNIT – IV    Cold temperate regions- prairie type region- west European region- St.Lawrence type region-**
- UNIT – V    Cold regions- Taiga type- Tundra type- high mountain regions.**

#### **REFERENCE BOOKS:**

- 1.    Heintzelman and Highsmith – World Regional Geography > Prentice – Hall, India – 1965.**
- 2.    Don R.Hoy – Geography and Development a World Regional Approach, Collier Mac Millan Publisher – 1978.**
- 3.    Goh-Cheng leong– Certificate Human and Economic Geography – Oxford University Publications – 1995.**

## **SEMESTER- V**

### **CORE - X - HUMAN GEOGRAPHY**

- |                 |  |
|-----------------|--|
| <b>UNIT I</b>   | <b>Scope and content, definition – different viewpoints – concept of determinism, Possibilism and Probabilism – Recent trends in human geography - branches in human geography.</b>                                |
| <b>UNIT II</b>  | <b>World cultural regions – Food gatherers – Semang and Sakai; Hunters – Bushmen – Cultivators – People of the Malabar coast – Nomads- Masai and levels of culture in twentieth century.</b>                       |
| <b>UNIT III</b> | <b>Human Races – Classification – Distribution – Religion – Major types and distribution.</b>  |
| <b>UNIT IV</b>  | <b>Population – Spatial pattern of distribution – growth – problems of over population and under population – population Theory - Malthus and optimum theory - Migration – Causes - consequences and problems.</b> |
| <b>UNIT V</b>   | <b>Rural and Urban settlement – factors – types - growth – Urban morphology and functional classification of towns – Urbanization – Trend, level, - World , India.</b>   |

#### **REFERENCE BOOKS :**

- 1. Majid Husain-Human Geography-Rawat Publications 1994.**
- 2. Gillian C.Morgan – Human and Economics Geography, Oxford University Publications 1999.**
- 3. Aime Vincent Perpillou-Human Geography, Longman Group limited London 1977.**



4. C.Daryll Forde-Habitat, Economy and Society, Methuen Publishers 1977.
5. Ray-M.Northam-Urban Geography, John Wiley and sons Publications - 1979.

## **SEMESTER- V**

### **CORE – XI- GEOGRAPHY OF INDIA**

- UNIT – I**      Location – Continent of unity in diversity- Relief – drainage-climate-soil – types and distribution - Natural vegetation-types and distribution.
- UNIT – II**      Irrigation - Need for Irrigation – Types – canal – tank - well - Multipurpose projects.
- UNIT - III**      Agriculture – types - Major crops- rice, wheat, millets, cotton, oilseeds, tea, coffee and jute – Agricultural regions - problems – Animal husbandry.
- UNIT –IV**      Minerals – coal, oil, iron ore, manganese , bauxite, copper – Power resources – Hydel, thermal and atomic - Industries-Iron and Steel, Cement, Textile, Sugar , Paper, Shipbuilding – Small scale and Cottage Industries.
- UNIT – V**      Population Growth – distribution- density and problems.- Transport and trade.

#### **REFERENCE BOOKS**

1. Ranjit              Tirtha              and              Gopal              Krishnan              –  
GeographyofIndiaRawatpublications, Jaipur-NewDelhi-1996.
2. Prithvish Nag and Smita Sengupta- Geography of India, Concept Publishing Company – New Delhi-1999.
3. C.B. Mamoria- Geography of India, Shivalal Agarwala & Company- Agra-1975.
4. R.L. Singh – India A Regional Geography, National Geographical Society of India, 1971.

## **SEMESTER- V**

### **CORE – XII - BASICS OF REMOTE SENSING AND GIS**

**UNIT – I Principles of remote sensing – History.**

**UNIT – II EMR - Electromagnetic spectrum – energy interactions with atmosphere and earth surface features – platforms – types of remotely sensed data.**

**UNIT – III Aerial photographs – types, elements and uses of aerial photographs - photogrammetry.**

**UNIT – IV Satellite imagery – Sensors – Multi spectral – Landsat - Thematic Mapper – LISS - Comparison of maps with aerial photographs and satellite imageries.**

**UNIT –V GIS – Definition – history – components – DBMS – Geographic Database – Hardware and Software – Use of GIS – raster and vector – GPS – history – segments.**

#### **BOOKS FOR REFERENCE**

- 1. C.S.Agarwal & P.K.Grag – Text Book of Remote Sensing – Wheeler Publishing 2000**
- 2. Ball D.R. – Babbage – Geographic Information System for Defence Application – Pergamon Press – Australia**
- 3. Barrette & Burough – Principles of GIS for Land Resource Assessment – Clarendon Press – Oxford**
- 4. Bidhanesh Misra – Geographic Information System & Economic Development.**
- 5. Gampbell. James B.I Introduction to Remote Sensing – The Guild Press , New York**

**6. Curran – Fundamentals of Remote Sensing – Longman, London**

**7. Ian Heywood, Sarah Cornelines, An Introduction to Geographical Information System I Addison – Wesley, Longman Ltd, 2000**

## **SEMESTER- V**

### **CORE ELECTIVE – III- GEOGRAPHY OF TAMILNADU**

**UNIT – I    Location – relief – Drainage – Climate - soil and Natural Vegetation.**

**UNIT – II    Irrigation types – multipurpose projects**

**UNIT – III    Agriculture – Rice – Cotton    – Sugarcane – Coffee Tea – Agricultural regions.**

**UNIT – IV    Minerals – Iron – Coal – Bauxite; Industries – textile Industries – sugar Industry – cement Industry – Industrial regions.**

**UNIT – V    Population – growth, distribution, density and problems; Transport and Trade.**

### **REFERENCE BOOKS**

- 1. R.L. Singh – India Regional Geography – VBS publishers and Distributors Ltd., NewDelhi – 1995.**
- 2. Dr. A. Ramesh and P.S. Tiwari – Basic Resource Atlas        TamilNadu , University of Madras -1983**
- 3. Poduval R.N – Foodgrain Economy of TamilNadu Problems and Prospects, Emerald Publishers, Chennai – 1987.**
- 4. Velappan D – Economic Development of TamilNadu – Emerald Publishers, Chennai – 1986.**
- 5. Ranjet Tirtha & Gopala Krishnan – Geography of India – Rawat Publications, Jaipur – 1996.**
- 6. Prithvish Nag & Smitha Sengupta – Geography of India – Concept publishing company – NewDelhi – 1999.**

7. Gopal Singh – Geography of India – Athma Ram & Sons, Delhi – 1988.

## **SEMESTER- V**

### **SBE – IV - GEOGRAPHY OF HEALTH**

- UNIT-I**                      **Geography of health- Nature, Scope, Significance and development.**
- UNIT-II**                      **Geographical factors affecting human health- Physical – Social and environmental Factors**
- UNIT-III**                      **Classification of diseases- infectious, degenerative and chronic, inherited and genetic disease.**
- UNIT-IV**                      **Geographical perspectives of Communicable and Non communicable diseases- disease mapping techniques at macro, meso and micro levels.**
- UNIT- V**                      **Health care planning in India-Health care services- Primary health, family welfare and Immunization.**

### **BOOKS FOR REFERENCE**

1. Hunter, J.M – The geography of Health and Diseases , paper of the first Caroline Geographical Symposium.
2. M.C.Glashan, M.D.- Medical Geography – Techniques & Field Studies, Methuen University Paper Packs.
3. Shannan, G.W & Devar Gea – Health Care Delivery Spatial perspectives, New York, Mecgrawhill.
4. White, K.L – Health Services, Concept & information for national Planning and Management, WHO Geneva.
5. R.P. Misra – Medical Geography of India , National Book trust, New Delhi

**6. May J.M – Studies in Disease Ecology, Hefiner New York.**

## **SEMESTER – VI**

### **CORE – XIII - GEOGRAPHY OF RESOURCES – II**

- UNIT I**      **Agriculture – types – intensive, extensive, wet and dry, mixed farming, subsistence farming, commercial farming and plantation agriculture.**
- UNIT II**      **Energy as a resource – coal, oil, water and a nuclear power, - non conventional – solar and wind.**
- UNIT III**      **Minerals – ferrous, non ferrous – iron ore, manganese, mica, copper and bauxite.**
- UNIT IV**      **Major Industries – location factors, iron and steel, automobile, shipbuilding and textile industries.**
- UNIT V**      **Transport – land, water and air – trade – internal and international.**

#### **REFERENCE BOOKS:**

- 1. Prithvish Roy & Somnath mukerjee – Economic geography an appraisal of resources, new central book agency, culcutta-700 009.**
- 2. V.K. Gupta – Economic and Commercial Geography, Sultan Chand and Sons, 1977.**
- 3. S.K. Sadhukhan – Economic Geography an Appraisal of resources, S.Chand and company Ltd.-1982.**
- 4. A.Das Gupta – Economic and Commercial Geography, Mukhrjee and Co. Pvt.Ltd.-1978.**
- 5. M.C.Agarwal – Commercial Geography, Himalaya Publishing House, 1981.**

6. **B.S.Negi – Economic and Commercial Geography of the World, S.Chand and Co.Ltd. 1980.**

## **SEMESTER – VI**

### **CORE - XIV- REGIONAL GEOGRAPHY OF NORTH AMERICA**

- UNIT – I**    **Relief – The Canadian shield – Western mountains- interior plains- Appalachian mountains – coastal plains - drainage- The Artic – Pacific – Atlantic and Inland drainage systems- climate- Winter- Summer – climatic regions - soil- Major types - natural vegetation – major natural vegetation zones of North America.**
- UNIT – II**    **Agriculture-Main crops – wheat- rice corn – cotton – tobacco – sugarcane- sugar beet-Agricultural regions of North America.**
- UNIT – III**    **Mineral and power resources- iron ore, -copper- zinc-lead- gold- coal-petroleum-natural gas- hydroelectricity- Industries- iron and steel- cotton textile-woollen – automobile- ship building – air craft- chemical industries.**
- UNIT – IV**    **Population – distribution-density-problems- urbanization.**
- UNIT – V**    **Transport-land, water and air - Trade.**

#### **REFERENCE BOOKS:**

1.    **Jone S and Briyan – North America – Methuen. – 1963**
2.    **Paterson – North America – Oxford University Press – 1984**
3.    **White C – Regional Geography of Anglo America, Methuen -1979**
4.    **B.S. Negi – Economic and Commercial Geography of the World, S. Chand and Company Ltd., - 1982.**

5. **S.K. Sadhukhan – Economic Geography and appraisal of resources**  
**Chand S and company Ltd., - 1982.**

## **SEMESTER – VI**

### **CORE – XV - GEOGRAPHICAL THOUGHT**

- UNIT – I**    **Prehistory of geographical ideas – Greek, Roman, Arab – impact of exploration and discoveries.**
- UNIT – II**    **Modern geographical thought – American, British, German, French – development of geography of India**
- UNIT – III**    **Dualism and dichotomy in Geography - physical Vs human, determinism Vs possibilism, qualitative Vs quantitative,**
- UNIT – IV**    **Recent trends in geography – tradition in geography – quantitative revolutions – regional concepts.**
- UNIT – V**    **New synthesis in geography – multi disciplinary approach – role of remote sensing – GPS and GIS**

### **REFERENCE BOOKS**

- 1. Negi B.S. Geographical thought – Karinath Ramnath meerat 1994.**
- 2. Freeman. R. Hundred Years of geography – Hutchinson London 1970.**
- 3. Harvey D. explanation to geography Edward Arnold publication, London.**

## **SEMESTER - VI**

### **CORE – XVI –PRACTICAL – III SOCIO ECONOMIC DIAGRAMS, MAP AND IMAGE INTERPRETATION**

- UNIT – I**     Population represented by bar and pie diagrams - Population - Distribution - Density - maps- dot map-located bar - Sphere diagrams- Star diagrams
- UNIT – II**     Pyramidal diagrams - Scatter diagram - Graphs- Simple, multiple graphs- Lorenz curve - Traffic flow diagrams.
- UNIT – III**     Conventional signs and symbols in topographical maps, NATMO maps and ordinance survey maps.
- UNIT – IV**     Isopleth and Choropleth maps - construction and interpretation- Interpretation of SOI Topographic sheets - Relief features, land use, settlement and transportation and vegetation type.
- UNIT –V**     Interpretation of NATMO maps - Ordinance survey maps - Interpretation of aerial photographs and satellite images.

#### **REFERENCE BOOKS**

- 1. Dr.M. Kudrat – Digital Remote Sensing concept publishing company, NewDelhi – 1998.**
- 2. K.K. Rampal – Handbook of Aerial Photography and Interpretation – concept publishing company, NewDelhi-1999.**
- 3. R.K.Banerjee Bireswar Banerjee – Remote Sensing Techniques for Regional Development – Ashok Kumar Mittal Concept publishing Company – 2000.**



4. **R.P.Misra, A. Ramesh – Fundamentals of cartography – concept publishing company – 2000.**
5. **Paul. J. Curran-Principles of Remote Sensing –Longman Group UK Ltd. – 1985.**

## **SEMESTER - VI**

### **CORE – XVII – PRACTICAL – IV - FUNDAMENTALS OF MAP PROJECTIONS AND PRINCIPLES OF SURVEY**

- UNIT – I     Map Projections – Meaning and use – classification of map Projections.**
- UNIT – II     Projections (graphical methods only) Zenithal Projection (Polar case only)**
- UNIT – III     Cylindrical projection – types - Conical projections – one standard – two standard parallel – Polyconic – Bonne’s Projection - Sinusoidal and Mollweide’s – choice of projections**
- UNIT – IV     Principles of survey – Chain, Prismatic Compass, Plane Table, Indian Clinometer, Dumpy level and GPS.**

### **REFERENCE BOOKS**

1. **M. Ishtiaq- Practical Geography-published by Jawahar publishers and Distributors-1994.**
2. **F.J. Monkhouse and H.R. Wilkinson-Maps and Diagrams-B.I.Publications-1952.**
3. **MD.Zulfequar Ahmad Khan-Text Book of Practical Geography-Concept Publishing Company, New Delhi-1998.**

4. Gopal singh-Map work and practical geography- Vikas publishing House pvt.Ltd-1996.
5. R.L Singh – Elements of Practical Geography, Kalyani publishers, 1979

## **SEMESTER - VI**

### **SBE – IV – BIOGEOGRAPHY**

- UNIT I**      **Definition, scope and significance of biogeography – basic ecological concepts and principles - ecosystem – types of ecosystems – components of ecosystem – functioning of ecosystem – concepts of biome - types , ecotone and community – bio diversity.**
- UNIT II**      **Origin of fauna and flora – plant and animal evolution through geological times, - distribution of plant life on earth and its relation to soil types – climates and human practices.**
- UNIT III**      **Problem of extinction of plant and animal life – habitat decay and their conservation – process of desertification – its consequences and its management principles.**
- UNIT IV**      **Industrial effluent and its effect on fresh water biology – management practices (special reference to India)**
- UNIT V**      **Study of ecological regions of Himalayas and Western Ghats in relations to their plant and animal life, their Interrelations, problems – conservation and management measures.**

### **REFERENCE BOOKS**

1. Robinson – Biogeography – ELBS Mc Donald and Evans London, 1982
2. L.G. Simons – Biogeographically process – Allen and Unwell, London.
3. C Barry – Cox, Black Well - Biographical – an Ecological Evolutionary approach - Oxford 1977
4. B,Seddon – Biogeography – Duck worth, London 1971.

## **SEMESTER – VI**

### **CORE ELECTIVE – IV - REGIONAL PLANNING**

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|-----------------|---|
| <b>UNIT I</b>   | <b>Geography and Regional planning: basic concepts – Geographic space and regions – concept and regions –types of regions – goals and objectives of regional planning process</b>   |
| <b>UNIT II</b>  | <b>Approaches to regional planning analysis: systems concept; Spatial temporal dimensions – grouping of dimensions in regional analysis methods of Indian regional problems.</b>  |
| <b>UNIT III</b> | <b>Planning in India; historical development – appraisal of five year planning and annual plans – dimension- regional imbalances- development programme; command area , drought prone , metropolitan , river valley, tribal and hill area</b>   |
| <b>UNIT-IV</b>  | <b>Regional planning in Tamilnadu; evaluation of regional planning- planning regions – backward area development – metropolitan, rural planning – local planning authorities – 73<sup>rd</sup> and 74<sup>th</sup> amendment of constitution of India – Powers and functions of Nagar Panchayat, municipal council and Municipal Corporation.</b> |
| <b>UNIT-V</b>   | <b>Town planning: basic concepts of town planning need of town planning – functions of town planning activities in Tamilnadu.</b>   |

### **REFERENCE BOOKS**

1. Misra R.P (1971) Regional Planning: Concept Techniques. Politics and case studies. University Mysore, Mysore

- 2. Misra R.P., Sundaram K.V. and V.L.S Prakasa Rao (1974); regional development in India, Vikas publishing house, New Delhi**
- 3. V.L.S Prakasa Rao (1963); regional planning, Asia publishing house, Kolkatta.**