

**DEPARTMENT OF GEOGRAPHY
FACULTY OF NATURAL SCIENCES
JAMIA MILLIA ISLAMIA
NEW DELHI - 110 025**

(A Central University by an Act of Parliament)



B.Sc. (General) Geography

Syllabus (w.e.f. 2015-2017)

COURSE STRUCTURE OF B.Sc. (General) Geography

Semester - I

Paper No	Code	Title	Credit
Paper - I	GE-1	Physical Basis of Geography	3
Practical - I	GE-1 (Lab 1)	Mapping of Physical data	1

Semester - II

Paper No	Code	Title	Credit
Paper - II	GE-2	Human Geography	3
Practical - II	GE-2 (Lab 2)	Mapping of Socio-economic data	1

Semester - III

Paper No	Code	Title	Credit
Paper - III	GE-3	Fundamentals of Remote Sensing and GIS	3
Practical - III	GE-3 (Lab 3)	Image Interpretation	1
Paper - IV	GE-4	World Regional Geography	4

Semester - IV

Paper No	Code	Title	Credit
Paper - V	GE-5	Environmental Issues	4
Paper - VI	GE-6	Geography of India	4

Semester - V

Paper No	Code	Title	Credit
Paper - VII	GE-7	Regional Development and Planning	4
Paper - VIII	GE-8	Population and Development	4

Semester - VI

Paper No	Code	Title	Credit
Paper - IX	GE-9	Economic Geography	4

GRAND TOTAL

Semester	Core Course			Skill Enhancement	Total Papers	Credits
	Theory	Practical	Total			
I	01	01	02	-	02	05
II	01	01	02	-	01	05
III	02	01	03	-	03	08
IV	02	-	02	-	02	06
V	02	-	02	-	02	06
VI	01	-	01	01	02	07
Total Papers	09	03	9+3 = 12	01	12+1 = 13	
Total Credits	9 * 3 = 27	3*2 = 6	27+6 = 33	1*4 = 4		33+4 = 37

B.Sc. (General) Geography
Semester - I
Credits: 4 (3+1)
Paper - I (GE - 1)
Physical Basis of Geography

UNIT - I

Definition, Nature and Scope of Physical Geography; Origin of Solar System; Earth's Rotation and Revolution and its effects; Interior of the Earth; Wegner's theory of Continental Drift; Rocks: Types, Origin and Composition.

UNIT - II

Geomorphic processes: Weathering, Erosion, Transportation and Deposition, Folds and Faults, Earthquakes and Volcano.

UNIT - III

Topographic landforms: River, Glacier, Wind; Geomorphic Hazards and their management:

UNIT - IV

Representation of Physical Data:

- i) Methods of depicting relief feature:-contour, Hachure, hill shading
- ii) Representation of physical features through contours: hill, mountain, waterfall, spur, escarpment, valley (V-shaped and U-shaped)
- iii) Determination of slope: convex, concave, gentle and steep
- iv) Representation of climatic data: Rainfall and Temperature through Bar graph and line graph.

Books Recommended:

1. Dayal, P., 2015. Text-Book of Geomorphology, Shukla Book Depot, Patna.
2. Kale, V. and Gupta, A., 2004. Elements of Geomorphology. Oxford University Press, Calcutta.
3. Gautam, A. 2015. Geomorphology. Sharda Pustak Bhawan.
4. Worcester, P.C. 1969. Text Book of Geomorphology. East West Press, New Delhi.
5. Savindra Singh. Fundamental Concepts in Geomorphology. Prayag Pustak Bhavan, Allahabad.
6. Monkhouse. F. J. and Wilkinson. H. R. 1972. Maps and Diagrams. Methuen, London.
7. Misra. R. P. 1969. Fundamentals of Cartography. Prasaranga. University of Mysore, Mysore.

B.Sc. (General) Geography

Semester - II

Credits: 4 (3+1)

Paper - I (GE-2)

Human Geography

Unit - I

Nature and Scope of Human Geography; Approaches to the Study of Human Geography: Determinism, Possibilism, Neo-Determinism and Ecological.

Unit - II

Theories of Population Growth: Malthus and Demographic Transition; Theories and Models of Migration: Lee; Consequences of Migration; Growth and Distribution of World Population.

Unit - III

Rural and Urban Settlements: Origin, Types and Patterns; Habitat, Economy and Society of Eskimos, Pygmies and Nagas.

Unit - IV:

Representation of Socio-Economic Data

Population Distribution: Rural (Dots) and Urban (Proportional Circles); Population Growth (Line Graph); Age and Sex Pyramid; Economic Data by Simple, Compound and Multiple Bars; Production of Crops (Pie Diagram).

Books Recommended:

1. Hoyt, J. B. 1973. Man and the Earth. Prentice Hall , New Jersey
2. Husain, M. 1994. Human Geography. Rawat Publication, Jaipur.
3. Chandna, R.C. 2015. Geography of Population: Concepts Determinants and Patterns, Kalyani Publishers.
4. Monkhouse. F. J. and Wilkinson. H. R. 1972. Maps and Diagrams. Methuen , London
5. Misra. R. P. 1969. Fundamentals of Cartography, Prasaranga. University of Mysore, Mysore

B.Sc. (General) Geography

Semester - III

Credits: 4 (3+1)

Paper - III (GE-3)

Fundamentals of Remote Sensing and GIS

Unit - I: Basics of Remote Sensing

Energy Sources and Radiation Principles; Energy Interaction In Atmosphere and with Earth Surface Features; Remote Sensing Platforms and Sensors.

Unit - II: Basics of Photogrammetry and Image Interpretation

Basic Geometric Characteristics of Aerial Photographs; Classification of Aerial Photographs, Ground Coverage of Aerial Photographs; Elements of Image Interpretation.

Unit - III: Concepts of Geographic Information System

Scope and Components of GIS; Data Models-Raster and Vector; Spatial Analysis-Overlay, Proximity and Buffer; 3-D GIS, GIS Application in Geographical Studies.

Unit - IV: Image Interpretation

Detection of defined objects; Preparation of image interpretations keys; Interpretation of stereo-grams: fluvial and industrial; Interpretation of stereo-pairs; Satellite Imageries: referencing, types, border information; Feature identification from multi-band imageries; Interpretation of FCC for land cover/ land use mapping: salt affected areas, ravenous lands, Chandigarh and Delhi.

Books Recommended:

1. Lillesand, T. and Keifer, 1979. Remote Sensing and Image Interpretation, John Wiley, New York.
2. Lillesand, T.M. and M.K. Ralph (2011) Remote Sensing and Image Interpretation, New York, John Wiley & Sons, Inc.
3. Campbell, J.B. (1996) Introduction to Remote Sensing, London, Taylor and Francis, Second Edition.
4. Dickinson, G.C; 1979. Maps and Air Photographs, Arnold Heinemann, New Delhi.
5. Curran P. (1985) principles of Remote Sensing, London, Longman.
6. Sabins, J.F.F.9 (1997) Remote Sensing: Principles and Interpretation, New York, San Francisco, W.H. Freeman and Co.
7. Jenson, JR (2011) Remote Sensing of Environment, New Delhi, McGraw Hill.
8. NRSA, 1998. IRS- IA, Data User Handbook, National Remote Sensing Agency, Hyderabad.
9. NRSA, 1995. IRS- IC, Data User handbook, National Remote Sensing Agency, Hyderabad.

10. Patel, A.N. and Singh, S. 1992. Remote Sensing: Principles and Applications, Scientific Publishers, Jodhpur.

B.Sc. (General) Geography
Semester - III
Credits: 4 (4)
Paper - IV (GE-4)
World Regional Geography

Unit - I: Physical Landscape

Landforms and Drainage, Climate, Vegetation, Soil, World Natural Regions.

Unit - II: Economic Resources

Main Economic resources, Mineral resources, Iron, Energy; Major Economic Regions: Agriculture and Industrial.

Unit - III: Human Resources

Population Distribution, Density, Migration and Growth; Population Composition: Rural-Urban, Economic; Major Demographic Regions.

Unit - IV: Regional Study

Detailed study of any one region with emphasis on Physical, Economic and Population characteristics; Sub regionalization of the continent.

1. Asia
2. Europe
3. America

Books Recommended:

1. Blij, Harm J. De Peter, O. Miller: Geography: Regions and concepts John Wiley New York, 1993.
2. English, Paul Ward and James, A. Miller: World Regional Geography: A Question of Place, John Wiley, New York, 1989.
3. Jackson, Richard H. and Lloyd, E. Hudman: World Regional Geography: Issues for Today, John Wiley, New York, 1991.
4. Don, R. Hoy (ed.): Essentials of Geography and Development, MacMillan, New York, 1980.
5. Kromm, D.E.: World Regional geography, Saunders publishing, New York, 1981.
6. Mankoo, Darshan Singh: A Regional Geography of the world, Kalyani Publishers, Ludhiana.
7. Hussain, M. 2008, World Geography, Rawat Publications, Jaipur.

B.Sc. (General) Geography

Semester - IV

Credits: 4

Paper - V (GE-5)

Environmental Issues

Unit - I: Conceptual Context

Environment: Definition and components; Environment as life- support system; Human and Environment Interaction; Environmental disorders: Human Impact on land, climate and natural vegetation.

Unit - II: Environmental Issues

Global issues: Global warming, ozone depletion and acid rain; climate change, population dynamics and disaster; Local and Regional Problems: Pollution of air and water; Depletion of fresh water resources.

Unit - III: Management Strategies

Uncertainty in managing environmental problems: Uncertainty in risk assessment; Preservation and conservation; Community participation in management; Conservation and management practices.

Unit - IV: Environmental Management

Population management; Management of air and water resources; Management of soil and forest resources; Management of biodiversity; Management of disaster.

Books Recommended:

1. Adams, W.M.1995: Green development: Environmental sustainability in the Third World, London: Rout ledge.
2. Alexander, D. 1993: Natural Disasters, New Delhi: Research Press.
3. Allaby, M. 1996: Basics of Environmental science, London: Routledge.
4. Baarrshes, W.H. 1996: Eco-fiction: Understanding the Environmental Debate, London: Routledge.
5. Brayant, E.A.1991: Natural Hazards, Cambridge: Cambridge University press.
6. Canter,L. W.!996: Environmental Impact Assessment, 2nd edition, New Yprk: McGraw hill.
7. Chapman,D. 1994: Natural Hazards, Melbourne: Oxford University Press.
8. Chapman J.L. and Reiss, M.J. 1993: Ecology: Principles and applications, Cambridge: Cambridge University Press.
9. Colls, J.1997: Air Pollution: An Introduction, London: Chapman and Hall.

B.Sc. (General) Geography

Semester - IV

Credits: 4

Paper - VI (GE-6)

Geography of India

Unit - I:

Physical Divisions of India; Drainage systems; Climate and climatic regions; Types and Distribution of Soils; Natural Vegetation.

Unit - II:

Population: Distribution, Density and Growth; Factors of Population Distribution; Sex Ratio, Literacy, Work force, Language, Religion.

Unit - III:

Agriculture: Production and Distribution of major food and commercial crops; Minerals: Production and Distribution of Metallic minerals and energy resources; Industries, Transport and Communication.

Unit - IV:

Concept of Region; Scheme of Regionalization: O.H.K. Spate and R.L. Singh; Major Regions of India.

Books Recommended:

1. Deshpande C.D. 1992, India-A Regional Interpretation, Northern Book centre, New Delhi.
2. Govt. of India- Reference Annual, 2001 Publication Division; New Delhi.
3. Govt. Of India: National Atlas of India Natmo Publication, Calcutta.
4. Hussain. M. 2009, Geography of India, Tata Mc Graw-Hill companies Book.
5. Kalpana Raja Ram, 2007, Geography of India, Spectrum Books, New Delhi.
6. Mitra, A. 1967. Levels of Regional Development of India, Census of India, Vol. I, Part I-A (i) and (ii), New Delhi,
7. Shekhar. S. (Ed.)2004, Regional Planning in India, Anmol PuKalpana Raja Ram, 2007, Geography of India, Spectrum Books, New Delhi.
8. Shafi, M. 2000, Geography of South Asia, McMillan & Co; Calcutta,
9. Singh, R.L. (Ed). India: A Regional Geography, National Geographical Society, India.

