

B.A./B.Sc. Part III Geography

The courses shall be effective from the examinations of 2010.

The examination shall comprise three theory papers and one practical examination. The division of marks shall be as follows:

Paper I	:History of Geographical Thought (50 marks)
Paper II	:Earth's Dynamic System (50 marks)
Paper III	: Geography of Population and Settlement (50 marks)
Practicals	:75 marks

Candidates are required to pass separately both in theory and practical examinations. Each theory paper shall be of three hours duration and the practical examination will be of four hours duration and will be conducted by two internal and one external examiners.

Paper I: History of Geographical Thought (Time 3 hours, Maximum marks 50)

The question paper will consist of 9 questions. The candidate will be required to attempt five questions in all. Question nos. 1 will be compulsory and short note type consisting of two topics from each unit of which only five are to attempt. The remaining eight questions will be from the four units- two from each unit. The candidate will be required to attempt one question from each unit.

UNIT I

Meaning and scope of geography; Changing philosophy of geography; Geography as an interdisciplinary science; Geography as social science; Geography as a synthesizing science; Explanations in Geography

UNIT II

Development of Geography in the ancient classical period; Contributions of Greek, Roman, Indian and Chinese scholars; Geography in the dark ages –contributions of Arab geographers; Period of renaissance age of explorations and discoveries and their impacts.

UNIT III

Development of Geography in the modern classical period; Rise of philosophical and scientific analysis in geography; Contributions of German, French, British, American and Russian schools of thought

UNIT IV

Dichotomies in geography: physical vs human, systematic vs regional etc. Different approaches to the study of geography – areal differentiation, landscape, ecological and locational. Development of geography in the first half of the 20th century; fundamental concepts in physical, human, economic and settlement geography.

Books Recommended:

1. Minshull: The Changing Nature of Geography
2. Dickinson: The Makers of Modern Geography.
3. Chisholm: Human Geography-Evolution and Revolution
4. D.Harvey: Explanations in Geography, Edward Arnold.
5. East and Wooldridge: The Spirit and Purpose of Geography.
6. P.Haggett: Geography: A Modern Synthesis
7. M.Hussain:Evolution of Geographical Thought,Rawat Publication,Jaipur.
8. R.D.Dixit:Geographical Thought,Prentice Hall of India Pvt .Ltd.New Delhi.
9. R.Hartshorne:Perspective on the Nature of Geography,Rawat Publication,Jaipur.

10. R.J.Chorley & P.Haggett:Models in Geography
11. Majid Hussain:Bhaugolik Vichardharaon ka Itihas,Rawat Pub.,Jaipur
12. R.D.Dixit:Bhaugolik Vichardhara,Prentice Hall of India,Pvt .Ltd.New Delhi.

B.A.Part III

Paper II: Earths Dynamic System

Time: 3 Hours, MM: 50

The courses in the paper are arranged in 4 units and the question paper shall comprise 3 sections (A, B and C) having short answer questions of 50 words each, medium answer questions of 200 words each and long answer questions of 600 words each respectively. All the questions of section A and B shall be compulsory and the candidates have to answer 2 questions from section C. There shall be 8 questions in section A comprising 2 questions from each unit, 4 questions with internal choice in section B comprising one question with internal choice from each unit, and four questions in section C comprising one question from each unit. Each short, medium and long answer questions shall carry 2, 4 and 9 marks respectively.

UNIT –I

Diastrophism; Origin of Continents, Ocean, Basins; Theories of Lothian Green, F.B.Taylor, A.G.Wegenen; Plate Tectonic Theory;Isostasy; Volcanism and associated landforms.

UNIT-II

Folding and faulting; Formation of folded mountains; Theories of mountain building-geosynclinal theory of Kober, Thermal convection theory of Teffreys, Convection current theory of Holmes, sliding continent theory of Daly, Plate Tectonic Theory; Earthquakes and Tsunamis

UNIT-III

Concept of cycle of erosion by W.M.Davis and W.Penck;Interruption in normal cycle of erosion and polycyclic relief; Mass movement of rock wastes; Mecharism of coastal, ground water and periglacial processes and resultant landforms.

UNIT-V

Atmospheric dynamics global radiation and global warming; General atmospheric circulation; Walker circulation and southern oscillation; El Nino phenomena-Jet Stream and Monsoon; Tropical and temperate cyclones; hurricanes; tornadoes; thurderstorm; Precipitation dynamics-processes and theories of precipitation.

Books Recommended:

1. A.L.Bloom: Geomorphology, Prentice Hall, New Delhi.
2. B.W.Sparks Geomorphology Longmans,London
3. C.Embleton and C.A.M.King:Glacial and Preiglacial Geomorphology,Edward Arnold Publishers,London
4. M.J.Bradshaw et. al:The Earths Changing Suface,ELBS,U.K.
5. R.J.Chorley,et.al.G geomorphology, Methuen, London.
6. R.J.Small:The Study of Landforms, Cambridge University Press, Cambridge.
7. Savindra Sin gh:Geomorphology,Prayag Pustak Bhawan,Allahabad
8. V.S.Kale and A.Gupta:Introduction to Geomorphology, Orient Longman Ltd.Hyderabad.
9. Savindra Singh Bhuakriti Vigyan,Vasundhara Prakashan,Gorakhpur.
10. D.S.Lal:Climatology,Sharda Pustak Bhawan,Allahabad

11. G.T.Trewartha and L.A.Horn: An Introduction to Climate, International Studies.
12. H.J.Critchfield: General Climatology, Prentice Hall of India, New Delhi.
13. P.K.Das: Monsoons, National BookTrust, New Delhi
14. R.J.Chorley and R.G.Barry: Atmosphere, Weather and Climate, Mathuen & Co. Ltd.London.
15. Savindra Singh : Climatology, Prayag Pustak Bhawan,Allahabad.
16. Savindra Singh :Jalvayu Vigyan, Prayag Pustak Bhawan,Allahabad.

Paper III: Geography of Population and Settlement

(Time 3 hours, Maximum marks 50)

The courses in the paper are arranged in 4 units and the question paper shall comprise 3 sections (A, B and C) having short answer questions of 50 words each, medium answer questions of 200 words each and long answer questions of 600 words each respectively. All the questions of section A and B shall be compulsory and the candidates have to answer 2 questions from section C. There shall be 8 questions in section A comprising 2 questions from each unit, 4 questions with internal choice in section B comprising one question with internal choice from each unit, four questions in section C comprising one question from each unit. Each short, medium and long answer questions shall carry 2, 4 and 9 marks respectively.

UNIT I

Meaning and scope of population geography; population processes -- growth and demographic transition; distribution and density pattern of population; structure and composition of population with special reference to India; migration of population -- causes and types; distribution and migration of population in India; Population policy in India.

UNIT II

Population problems - over population, under population; optimum population; population and resources; population -- resource regions; population problems in India; population planning and control -- theories of Malthus, Marx and Rostov; measures of population control in India.

UNIT III

Meaning and scope of settlement geography; evolution and types of settlements; rural settlements - types and patterns, size, spacing and morphology; distribution of rural settlements in Ganga plain; urban settlements -- types and patterns, size, spacing and morphology, classification of towns.

UNIT IV

Hierarchy of towns, central place theory; urbanization processes; trends of urbanization in the world and in India; problems of urbanization in India; Urban slums and Urban pollution in India; urban fields, suburbs and small towns; rural-urban fringe; problems and planning of urban settlements; Urban policy in India.

Books Recommended:

(Population)

1. Baljit Singh : Population and Food Planning in India.
2. B.Bhattacharya : Population Geography of India, Jain Book Depot, Hathras.
3. B.N.Ghosh : Fundamentals of Population Geography, Sterling Publisher Pvt. Ltd., New Delhi.
4. Chandana and Mehta : Population Geography.
5. J.I.Clark : Population Geography.
6. W.Thompson : Population Problems, McGraw Hill, New Delhi.

7. Heera Lal :Jansansankhya Bhoogol,Vasundhara Prakashan
8. S.D.Maurya: Jansansankhya Bhoogol ,Sharda Pustak Bhawan,Allahabad

(Settlement)

1. B.Garnier and G.Chabot : Urban Geography, Longman, London.
2. H.Carter : Study of Urban Geography, Hutchinson, London.
3. J.H.Hudson : Geography of Settlements, McDonald and Evans, Plymouth, U.K.
4. J.H.Johnson : Urban Geography, Pergman, Oxford.
5. J.A.Everson and B.P.Fitzerald : Settlement Patterns, Longman, London.
6. R.L.Singh (Ed): Geographic Dimensions of Rural Settlements,N.G.S.I.Varanasi
7. M.Northam Ray : Urban Geography, John Wiley and Sons, London.
8. Om Prakash Singh: Nagariya Bhoogol,Tara Prakashan,Varanasi
9. R.L.Singh (Ed) Rural Settlements in Monsoon Asia,N.G.S.I.Varanasi.
10. L.N.Verma:Adhivas Bhoogol , Rajasthan Hindi Granth Academy,Jaipur.
11. Ram Chandra Tiwari:Adhivas Bhoogol,Prayag Pustak Bhawan,Allahabad
12. S.C.Bansal: Nagariya Bhoogol,Minakshi Prakashan,Meerut.
13. S.D.Maurya: Adhivas bhoogol,Sharda Pustak Bhawan,Allahabad

PRACTICALS

Division of marks in practicals shall be as follows:

Cartographic laboratory work	:	50 marks
Sessional Record Work	:	15 marks
Viva-Voce Test	:	10 marks

Note: Cartographic laboratory work examination shall be of 3 hours duration. Five questions will be set selecting at least one question from each section. The candidate has to attempt 3 questions selecting at least one question from each section. The courses of practicals are arranged in three sections (A, B & C)).

Section A: Primary and Special Purpose Maps

20 marks

1. Topographical maps

- (a) Scales of different topographical maps
- (b) Representation of reliefs: contours - types, intervals, slopes, characteristics and Patterns representation of important landforms by contours and their cross-sections.
- (c) Representation of physical and man-made features by conventional symbols. Description of topographical maps of different physical regions of India.

2. Weather Maps

- (a) Representation of weather elements
- (b) Reading of weather maps
- © Preparation of weather map through given weather summaries.

3. Geological Map

- (a) Representation of rock outcrops, bedding planes, dips and strikes, unconformity and faults.
- (b) Drawing of cross sections and determination of dip angles and bed thickness.
- © Interpretation of Geological Features.

Section B: Processing of mapped information

MM:30 marks

1. Analysis of Settlement- mean centre, standard distance, quadrate count method nearest neighbour method.

2. Analysis of Transport and Drainage network- measurement of length, Transport network-cyclometric number, B Indias and connectivity, matrix. Drainage network ordering, bifurcation ratio and length ratio, drainage density and drainage district.
3. Analysis of Areas-Slope Indices and contract number measurement of area,
4. Analysis relief, profiles, areas height diagram, relative relief, slope analysis, altimetric and hypsometric analysis.
5. Inferential statistics-parametric and non parametric lists-population and sample, the null hypothesis, level of significance, one and two tailed tests, by type I and Type II errors procedure for conducting a statistical test , chi-square test ,student's T test, variance test (F test)

Section C: Basics of Computer System

Starting word, creating, serving and inserting files; formatting pages, paragraphs and sections; Editing texts; Tabs and tables; Working with charts and graphs; Printing; Application in geographical mapping.

Sessional Record Work: Valuation of sessional exercises presented by the candidate: 15 marks

Viva-Voce Test

MM:10 marks

Books Recommended:

1. A.H.Robinson et.al. : Elements of Cartography, John Wiley.
2. G.M.Bennison : An Introduction to Geological Structures and Maps, Edward Arnold, London.
3. G.C.Dickinson : Maps and Air Photographs, Edward Arnold, London.
4. J.S.Keates : Cartographic Design and Production, Longman, London.
5. M.S.David : Patterns in Human Geography, David Charles, Penguin.
6. N.M.Downie and R.W.Heath : Basic Statistical Methods, Harper Row and Co.
7. S.Gregory : Statistical Methods and Geographer, Longman, London.
8. T.W.Birch : Maps - Topographical and Statistical, Oxford University Press.
9. J.P.Sharma :Prayogatmak Bhoogol,Rastogi & Co. Meerut.
10. J.Singh,V.K.Srivastava & B.P.Rao: Baumikiya Manchitron ki Ruprekha, Vasundhara Prakashan,Gorakhpur .
11. R.C.Tiwari and Sudhaker Tripathi: Abhinav Prayogatmak Bhoogol, Pryag Pustak Bhawan,Allahabad.
12. R.L.Singh: Prayogatmak Bhoogol ke Mool Tatwa,Tara Publication,Varanasi.
13. Russel A.Stulz: Learn Microsoft Word 6.0 for Windows in a day BPB Publications, New Delhi.