Maharshi Dayanand University, Rohtak  
Scheme of Examination  
B.A. / B.Sc. (Honours) Geography

B.A./ B.Sc. (Hons.) programme in Geography shall be of three years duration spread over six semesters. Each semester shall consist of four theory papers and one practical paper carrying 100 marks each. The theory paper will comprise of 80 marks for end-semester examination and 20 marks for internal assessment. The first two semesters shall contain one theory paper English from other than Geography. All the semesters shall contain one theory paper as subsidiary paper from other than Geography. The end-term examination of all theory and practical papers shall be of three and four hours respectively. A board of two examiners shall conduct the Practical Examination.

**Semester I Examination (2011-12 onwards)**

<table>
<thead>
<tr>
<th>Paper Code</th>
<th>Nomenclature of Paper</th>
<th>End-Term Exam</th>
<th>Internal Assessment</th>
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<tbody>
<tr>
<td>101</td>
<td>Introduction to Geography</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>102</td>
<td>Fundamentals of Physical Geography</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>103</td>
<td>English-I</td>
<td>80</td>
<td>20</td>
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<tr>
<td>104</td>
<td>Subsidiary Paper</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>105</td>
<td>General Cartography (Practical)</td>
<td>100</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>a) Lab Test</td>
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<td>b) Practical Record</td>
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**Semester-II Examination (2011-12 onwards)**

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<tr>
<th>Paper Code</th>
<th>Nomenclature of Paper</th>
<th>End-Term Exam</th>
<th>Internal Assessment</th>
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<tbody>
<tr>
<td>201</td>
<td>Ecology and Environment</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>202</td>
<td>Fundamentals of Human Geography</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>203</td>
<td>English-II</td>
<td>80</td>
<td>20</td>
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<tr>
<td>204</td>
<td>Subsidiary Paper</td>
<td>80</td>
<td>20</td>
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<tr>
<td>205</td>
<td>Representation of Physical Features (Practical)</td>
<td>100</td>
<td>60</td>
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<tr>
<td></td>
<td>a) Lab Test</td>
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<td>b) Practical Record</td>
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<td>c) Viva-Voce</td>
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**Semester- III Examination (2011-12 onwards)**

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<th>Paper Code</th>
<th>Nomenclature of Paper</th>
<th>End-Term Exam</th>
<th>Internal Assessment</th>
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<tbody>
<tr>
<td>301</td>
<td>Geomorphology</td>
<td>80</td>
<td>20</td>
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<tr>
<td>302</td>
<td>Regional Development</td>
<td>80</td>
<td>20</td>
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<tr>
<td>303</td>
<td>Geography of India</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>304</td>
<td>Subsidiary Paper</td>
<td>80</td>
<td>20</td>
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<tr>
<td>305</td>
<td>Thematic Cartography (Practical)</td>
<td>100</td>
<td>60</td>
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<tr>
<td></td>
<td>a) Lab Test</td>
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<td>b) Practical Record</td>
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<td>c) Viva-Voce</td>
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### Semester-IV Examination (2011-12 onwards)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Theory</th>
<th>Practical</th>
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<tbody>
<tr>
<td>401</td>
<td>Climatology</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>402</td>
<td>Population Geography</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>403</td>
<td>Statistical Techniques in Geography</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>404</td>
<td>Subsidiary Paper</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>405</td>
<td>Basic Principles of Land Surveying (Chain-Tape, Plane Table Survey and Clinometer) (Practical)</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Lab Test</td>
<td>60</td>
<td></td>
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<tr>
<td></td>
<td>b) Practical Record</td>
<td>30</td>
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<td>c) Viva-Voce</td>
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### Semester-V Examination (2012-13 onwards)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Theory</th>
<th>Practical</th>
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<tbody>
<tr>
<td>501</td>
<td>Modern Geographical Thought</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>502</td>
<td>World Regional Geography</td>
<td>80</td>
<td>20</td>
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<tr>
<td>503</td>
<td>Optional – 1. Agricultural Geography</td>
<td>80</td>
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</tr>
<tr>
<td></td>
<td>2. Urban Geography</td>
<td>80</td>
<td>20</td>
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<tr>
<td></td>
<td>3. Geography of Tourism</td>
<td>80</td>
<td>20</td>
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<tr>
<td>504</td>
<td>Subsidiary Paper</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>505</td>
<td>Map Projections, Prismatic Compass Surveying and Field Report (Practical)</td>
<td>100</td>
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</tr>
<tr>
<td></td>
<td>a) Lab Test (Unit I &amp; II)</td>
<td>60</td>
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</tr>
<tr>
<td></td>
<td>b) Practical Record and Field Report</td>
<td>30</td>
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<td>c) Viva-Voce</td>
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### Semester-VI Examination (2012-13 onwards)

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
<th>Theory</th>
<th>Practical</th>
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<tbody>
<tr>
<td>601</td>
<td>Oceanography</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>602</td>
<td>Economic Geography</td>
<td>80</td>
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<td>603</td>
<td>Optional – 1. Industrial Geography</td>
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<tr>
<td></td>
<td>2. Political Geography</td>
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<td></td>
<td>3. Social and Cultural Geography</td>
<td>80</td>
<td>20</td>
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<tr>
<td>604</td>
<td>Subsidiary Paper</td>
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<tr>
<td>605</td>
<td>Fundamentals of Remote Sensing (Practical)</td>
<td>100</td>
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</tr>
<tr>
<td></td>
<td>a) Lab Test (Interpretation of Aerial Photographs)</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Practical Record</td>
<td>30</td>
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<tr>
<td></td>
<td>c) Viva-Voce</td>
<td>10</td>
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</tbody>
</table>
INTRODUCTION TO GEOGRAPHY

Max. Marks: 100
End Term Exam: 80
Internal Assessment: 20

Unit-I

The nature of Geography; core Geographic concepts: location, direction, patterns and distance; physical and cultural attributes; the pattern concepts and process concepts; geography and society.

Unit-II

Developments of geography during ancient period; contributions of Greeks and Romans: Herodotus, Eratosthenes, Strabo, Ptolemy; developments of geography in India during Vedic period; contributions of Arab scholars: Ibn Batuta, Ibn Khaldun, Al Baruni.

Unit-III

Age of exploration and discoveries: contribution to expansion of geographic horizons; revival of geography as scientific discipline: contributions of Kant and Varenius.

Unit-IV

Dualisms in geography: systematic and regional geography; physical and human geography; study of the following viewpoints: areal differentiation, landscape school, locational school, spatial organization.

Note:

The question paper will have five units. Each of the first four units of the question will contain two questions from each unit of the syllabus. Candidate is required to attempt one question from each unit. Unit-V shall be compulsory and contain 8 multiple choice/objective type questions covering the entire syllabus. All questions carry equal marks.
Suggested Reading List:
Maurya, S.D (2010 in Hindi), Bhugolik Chintan Ka Itihas, Prayag Pustak Bhawan, Allahabad.
Prasad, D. (in Hindi), Bhugolik Chintan Ki Samiksha, Sharda Pustak Bhawan, Allahabad.
Husain, M. (in Hindi), Bhugolik Chintan Ka Itihas, Rawat Publications, Jaipur.
Paper-102
FUNDAMENTALS OF PHYSICAL GEOGRAPHY

Max. Marks:
100
End Term exam: 80
Internal Assessment: 20

Unit-I
Nature and scope of Physical Geography; origin of earth: Binary Star Hypothesis of Russel, Hypothesis of Otto Schimidt, Gaseous hypothesis of Kant, Nebular hypothesis of Laplace; distribution of land and water, shape and size of the earth: latitude, longitude, movements, rotation and revolution.

Unit-II
Origin of continent and ocean basin: sliding continents theory of Daly, continental drift theory of Wegner; definition and classification of rocks: igneous, sedimentary and metamorphic; Earth movements: orogenic and epirogenic; weathering and erosion.

Unit-III
Composition and structure of atmosphere; insolation and temperature: vertical and horizontal distribution; air pressure and winds: planetary, periodic and local.

Unit- IV
Relief of ocean floor; temperature and salinity; circulation of oceanic water: sea waves, ocean currents and tides.

Note:
The question paper will have five units. Each of the first four units of the question will contain two questions from each unit of the syllabus. Candidate is required to attempt one question from each unit. Unit-V shall be compulsory and contain 8 multiple choice/objective type questions covering the entire syllabus. All questions carry equal marks.

Suggested Reading List:
Paper-102
FUNDAMENTALS OF PHYSICAL GEOGRAPHY

Max. Marks:
100
End Term exam: 80
Internal Assessment:
20

Unit-I
Nature and scope of Physical Geography; origin of earth: Binary Star Hypothesis of Russel, Hypothesis of Otto Schmidt, Gaseous hypothesis of Kant, Nebular hypothesis of Laplace; distribution of land and water, shape and size of the earth: latitude, longitude, movements, rotation and revolution.

Unit-II
Origin of continent and ocean basin: sliding continents theory of Daly, continental drift theory of Wegner; definition and classification of rocks: igneous, sedimentary and metamorphic; Earth movements: orogenic and epirogenic; weathering and erosion.

Unit-III
Composition and structure of atmosphere; insolation and temperature: vertical and horizontal distribution; air pressure and winds: planetary, periodic and local.

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Note:
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Suggested Reading List:
Unit-I
Basic Concepts of Cartography: Meaning, nature and subject matter of Cartography; Maps – Elements and Classification of maps

Unit-II
Map Scales.
(i) Methods of expressing a scale
(ii) Conversion of Statement of Scale into R.F. and R.F. to statement of scale.
(iii) Plain Scale (Km and mile)
(iv) Comparative Scale
(v) Diagonal Scale

Unit-III
Measurement of distances and areas on Maps; enlargement and reduction of Maps; Latitude and Longitude; Global Time: Indian standard time, World time-zones, International date-line.

Note:
At least fifteen exercises are to be prepared covering all the topics. In the examination, the lab test shall comprise of six questions in all with at least two questions from each unit. The candidate has to attempt three questions selecting one from each unit.

Suggested Reading List:
Sharma, J.P. (2001), Prayogik Bhugol, Rastogi Publication, Meerut
Unit-I

Meaning and component of environment; geography as study of environment; man-environment relationship; Ecology and Ecosystem; Components of the ecosystem: abiotic, biotic.

Unit-II

Functional characteristics of ecosystems: Food chains and food webs; ecological pyramids; energy flow; biomes and its types; biodiversity: importance, causes for the loss of biodiversity.

Unit-III

Environmental pollution: meaning, types and causes of pollution; air pollution, water pollution, noise pollution, land degradation; depletion of ozone layer; green house effect and climate change

Unit-IV

Conservation and management of environment; role of international and national policies; role of UNO: RIO summit, Kyoto protocol, Copenhagen summit.

Note:

The question paper will have five units. Each of the first four units of the question will contain two questions from each unit of the syllabus. Candidate is required to attempt one question from each unit. Unit-V shall be compulsory and contain 8 multiple choice/objective type questions covering the entire syllabus. All questions carry equal marks.

Suggested Reading List:

Agarwal K.C. (2001), Environmental Biology, Nidhi publishers Ltd, Bikaner
Paper- 202
FUNDAMENTALS OF HUMAN GEOGRAPHY
Max. Marks: 100
End Term exam: 80
Internal Assessment: 20

Unit-I
Nature and scope of Human Geography; branches of Human Geography; man-environment relationship; determinism and Possibilisim

Unit-II
Evolution of man; classification and characteristics of races; human adaptation to environment: Eskimo, Bushman, Pygmy, Naga, Bhil.

Unit-III
Classification of economic activity: primary, secondary and tertiary, Models in Geography: Von-Thunen’s model of agricultural location and Edward Ullman’s model of spatial interaction

Unit-IV
Human settlements: Types and pattern of settlements with reference to India; Christaller’s central place theory.

Note:
The question paper will have five units. Each of the first four units of the question will contain two questions from each unit of the syllabus. Candidate is required to attempt one question from each unit. Unit-V shall be compulsory and contain 8 multiple choice/objective type questions covering the entire syllabus. All questions carry equal marks.

Suggested Reading List:
Singh, D.P. (in Hindi), Manav Bhugol Ke Mool Tatav, Sharda Pustak Bhawan, Allahabad.
Unit-I
Intervisibility: determination methods; Interpolation of Contours.

Unit-II
Profiles: types of profiles, drawing of profils and cross sections; representation of relief – methods.

Unit-II
Representation of different landforms with the help of profiles and cross sections; area: height diagrams, hypsometric curve and altimetric frequency histogram.

Note:
At least fifteen exercises are to be prepared from covering all the topics. In the examination, the lab test shall comprise of six questions in all with at least two questions from each unit. The candidate has to attempt three questions selecting one from each unit.

Suggested Reading List:


Paper-301
GEOMORPHOLOGY

Max. Marks: 100
End. term exam: 80
Internal Assessment: 20

Unit-I
Nature and scope of Geomorphology; fundamental concepts; Plate tectonics; Theory of Isostasy: Pratt and Airy; geological time scale.

Unit-II
The earth’s interior; Endogenetic forces: folds and faults and associated topography; volcanoes and earthquakes.

Unit-III
Exogenetic forces: weathering and mass wasting; the work of river, wind, glacier, sea wave and underground water and their associated features; Cycle of erosion: Davis and Penk.

Unit-IV
Application of geomorphology to hydrology, economic activities; resource exploration, military action, highway construction, dam site selection.

Note:
The question paper will have five units. Each of the first four units of the question will contain two questions from each unit of the syllabus. Candidate is required to attempt one question from each unit. Unit-V shall be compulsory and contain 8 multiple choice/objective type questions covering the entire syllabus. All questions carry equal marks.

Suggested Reading List:
Parsad, G. (in Hindi), Bhu-akriti Vighan, Sharda Pustak Bhawan, Allahabad.
Goutam, A. (in Hindi), Bhu-akriti Vighan , Rastogi Publication, Meerut.
Concept of region: types of region; methods of delineation of region; growth and
development; concept of regional development.

Growth and development theories: growth pole theory; spatial diffusion theory;
cumulative-causation model; polarization and trickle down effects; Human Development
Index & its indicators

Regional patterns of development and imbalances in India; planning for regional
development; role of agriculture, industry and infrastructure in regional development.

Five year planes in India: features, objectives and assessment (a general introduction);
programmes on poverty alleviation and unemployment with special reference to the post
economic reform period.

Note:
The question paper will have five units. Each of the first four units of the question will
contain two questions from each unit of the syllabus. Candidate is required to attempt one
question from each unit. Unit-V shall be compulsory and contain 8 multiple
choice/objective type questions covering the entire syllabus. All questions carry equal
marks.

Suggested Reading List:
Bhat, L.S. (1972): Regional Planning in India, Indian Statistical Institute, Calcutta
Delhi, reprint.
Delhi.
Perspectives, Sijthoff-Leyder
GEOGRAPHY OF INDIA

Max. Marks-100
End Term exam-80
Internal Assessment-20

Unit-I

Physiographic divisions; drainage system; climate; climatic regions (Koeppen); soil and natural vegetation.

Unit II

Minerals and power resources (iron ore, coal and petroleum); multipurpose projects; irrigation; major industries: iron and steel, cotton textile, sugar and automobile.

Unit III

Major Crops (rice, wheat, sugarcane, cotton and tea); Green revolution and its consequences; Macro-regions of India (agricultural, industrial).

Unit IV

Population growth: trends and pattern; sex and age-structure; literacy and urbanization.

Note:
The question paper will have five units. Each of the first four units of the question will contain two questions from each unit of the syllabus. Candidate is required to attempt one question from each unit. Unit-V shall be compulsory and contain 8 multiple choice/objective type questions covering the entire syllabus. All questions carry equal marks.

Suggested Reading List:

Deshpande, C.D., India: A Regional Interpretation, Northern Book Centre, New Delhi
Spate, O.H.K. & Learmonth, India and Pakistan: Land, People and Economy, Methuen, London.
Unit-I

Cartography: an introduction; techniques in thematic data presentation: bar, line and circle diagram, ergograph, hythergraph and climograph.

Unit-II

Techniques in thematic mapping: selection of class intervals; areal data: choropleth, dot method, proportional circles and spheres; point data: isopleths; linear data: flow line.

Unit-III

Cartographic overlays: areal, point and line data; choropleth maps to be overlain by bar diagrams/line graphs/circles, dot map to be overlain by proportional circles/spheres.

Note:
At least fifteen exercises are to be prepared from all the units covering all the topics. In the examination, the lab test shall comprise of six questions in all with at least two questions from each unit. The candidate has to attempt three questions selecting one from each unit.

Suggested Reading List:

Meaning and scope of Climatology; Climate and Weather; elements of climate; Factors affecting climate; composition and structure of atmosphere; atmospheric temperature: vertical and horizontal distribution.

Unit-II
Atmospheric pressure and wind distribution; Atmospheric moisture: humidity, evaporation and forms of condensation; types of precipitation; world patterns of rainfall.

Unit-III
Air masses: concepts and classification; atmospheric disturbances; tropical and temperate cyclones and anticyclones.

Unit-IV
Climatic regions; Classification of Koppen and Thornthwaite; climate changes and Global warming: evidences, causes, consequences and measure of its control.

Note:
The question paper will have five units. Each of the first four units of the question will contain two questions from each unit of the syllabus. Candidate is required to attempt one question from each unit. Unit-V shall be compulsory and contain 8 multiple choice/objective type questions covering the entire syllabus. All questions carry equal marks.

Suggested Reading List:
Unit I
Nature and scope of Population Geography; sources and types of population data: census, sample surveys and vital registration system.

Unit II
World population: growth, causes and consequences; factors affecting population distribution; Migration: types and determinants.

Unit III
Population characteristics: fertility and mortality, age and sex structure, occupational structure.

Unit IV
Population Theories: Malthus and Marx; demographic transition theory; problems of population growth in India; population policy in India.

Note:
The question paper will have five units. Each of the first four units of the question will contain two questions from each unit of the syllabus. Candidate is required to attempt one question from each unit. Unit-V shall be compulsory and contain 8 multiple choice/objective type questions covering the entire syllabus. All questions carry equal marks.

Suggested Reading List:
Maurya, S.D.: *Janskhya Bhugol*, Sharada Pustak Bhawan Allahabad
Meaning of statistics; classification and tabulation of statistical data; representation of statistical data: line, bar diagram, histogram ogives; significance of statistical techniques in geography.

Measures of central tendency: mean, median, mode; partition values: quartile, pentile and percentile.

Measures of dispersion: mean deviation, standard deviation; co-efficient of variation; Lorenz’s curve.

Correlation (Karl Pearson and Spearman); significance testing of correlation and co-efficient of determination.

The question paper will have five units. Each of the first four units of the question will contain two questions from each unit of the syllabus. Candidate is required to attempt one question from each unit. Unit-V shall be compulsory and contain 8 multiple choice/objective type questions covering the entire syllabus. All questions carry equal marks.

Suggested Reading List:
Gupta, S.P and Alka. : Sankhiki Bhugol: Sarda Pustak Bhawan, Allahabad.
Unit-I

Chain and Tape Survey: plan preparation; fixing of chains; methods: open and close traverse, Triangulation.

Unit-II

Plane Table Survey: plan preparation, methods: radiation and intersection; two point and three point problems; error correction.

Unit-III

Measurement of height and contouring: clinometer.

Note:

At least fifteen exercises are to be prepared from covering all the topics. In the examination, the lab test shall comprise of six questions in all with at least two questions from each unit. The candidate has to attempt three questions selecting one from each unit.

Suggested Reading List:

Sharma, J.P. (2001), Prayogik Bhugol, Rastogi Publication, Meerut
Unit I

Unit II
Schools of geographical thought: French, British, German and American.

Unit III
Paradigms in geography; approaches in geography: nomothetic and ideographic; concept of region; space and place in geography.

Unit-IV
Contemporary approaches in geography: positivism, behaviourism, humanism and radicalism.

Note:
The question paper will have five units. Each of the first four units of the question will contain two questions from each unit of the syllabus. Candidate is required to attempt one question from each unit. Unit-V shall be compulsory and contain 8 multiple choice/objective type questions covering the entire syllabus. All questions carry equal marks.

Suggested Reading List:
Prasad, D. (in Hindi), Bhugolik Chintan Ki Samiksha, Sharda Pustak Bhawan, Allahabad
Unit-I
Geographic realms and regions, criteria for realms and regions, world geographic realms.

Unit-II
Natural regions of the world- location, climate, human life and economic life of- equatorial, monsoon, tropical deserts, Mediterranean & taiga regions

Unit-III
Economics region – major industrial regions of Japan, U.S.A. and China; cultural regions of the world on the basis of religion.

Unit-IV
Regional geography of South Asia: physiographic divisions; demographic characteristics; industrialization and urbanization.

Note:
The question paper will have five units. Each of the first four units of the question will contain two questions from each unit of the syllabus. Candidate is required to attempt one question from each unit. Unit-V shall be compulsory and contain 8 multiple choice/objective type questions covering the entire syllabus. All questions carry equal marks.

Suggested Reading List:
Heintzelman and High Smith: World Regional Geography, Prentice Hall, New Delhi
Husain .M (2004), World Geography, Rawat Publications, Jaipur,
Ranganath (2009), Regional Geography of the World Vidyanidhi, Gadag,
Singh,D. A Regional Geography of the World, Kalyani Publication, New Delhi
Gautam,A (in Hindi), Vishwa Bhugol, Sharda Pustak Bhawan, Allahabad.
Shakshana,H.S and Rahul and Pooja (in Hindi), Vishwa Ka Pradeshik Bhugol, Rastogi Publication, Meerut
Rashid, R.E. (1977), Geography of Bangladesh, University Press Bangladesh,
Jonson, B.L.C. (1970), Geography of South Asia, Cooke Ceylon.
AGRICULTURAL GEOGRAPHY

Max. Marks: 100
End Term exam: 80
Internal Assessment: 20

Unit- I

Nature and scope of Agricultural Geography; Approaches to agricultural geography; physical, cultural and institutional factors affecting agriculture.

Unit- II

World farming systems: subsistence, commercial, plantation, dairying and mixed farming; crop concentration and crop diversification; delineation of crop combination regions (Weaver’s method).

Unit- III

Agricultural in India: land-use and cropping pattern; development of irrigation and agriculture; agricultural efficiency and agricultural productivity.

Unit –IV

Agricultural planning and policies in India; Agro-climatic regions of India, Green revolution in India; Second generation reforms in Indian agriculture: Land and institutional reforms.

Note:
The question paper will have five units. Each of the first four units of the question will contain two questions from each unit of the syllabus. Candidate is required to attempt one question from each unit. Unit-V shall be compulsory and contain 8 multiple choice/objective type questions covering the entire syllabus. All questions carry equal marks.

Suggested Reading List:

- Sharma, B.L. (in Hindi) Krishi Bhugol, Rastogi Publication, Meerut
- Kumar, P. (in Hindi) Krishi Bhugol, Madhya Pradesh Hindi Academy, Bhopal.
Nature and scope of Urban Geography; definition of urban places; evolution of city through historical times: ancient, medieval and modern.

Size and spacing of cities; Rank size rule; Primate city concept and Central Place Theory (Christaller); ecological processes: centripetal and centrifugal forces.

Internal structure of cities: concentric zone theory, sector theory, multi nuclei theory; functional classification of towns.

Definition and measures of urbanization; urbanization processes; geographical approaches to urbanization; salient features of urbanization in developed and developing countries.

The question paper will have five units. Each of the first four units of the question will contain two questions from each unit of the syllabus. Candidate is required to attempt one question from each unit. Unit-V shall be compulsory and contain 8 multiple choice/objective type questions covering the entire syllabus. All questions carry equal marks.

Kanda, A. (1992), Urban Development and Urban Research in India, Khama Publication
Singh K and Steinberg F (1998), Urban India in Crisis, New Age interns, New Delhi.
GEOGRAPHY OF TOURISM

Max. Marks: 100
End term exam: 80
Internal Assessment: 20

Unit – I
Nature, scope and significance of Geography of Tourism; geographical basis of tourism; resources & infrastructure for tourism: transportation, accommodation & basic infrastructure.

Unit – II
Type of tourism: recreational, religious and historical; Impact of tourism: physical, economic and social cultural; concept of eco-tourism and medico-tourism; new trends in tourism.

Unit – III
Globalization and tourism; growth and development of tourism in India; National Tourism Policy of India.

Unit – IV
Tourism marketing: marketing concepts & marketing in tourism; tourism circuits; tour agencies.

Note:
The question paper will have five units. Each of the first four units of the question will contain two questions from each unit of the syllabus. Candidate is required to attempt one question from each unit. Unit-V shall be compulsory and contain 8 multiple choice/objective type questions covering the entire syllabus. All questions carry equal marks.

Suggested Reading List:
Ministry of Tourism Govt. of India (1999): Report on National Tourism
Unit – I

Map projections: Zenithal, Gnomonic, Stereographic, Conical, Bonne’s, Polyconic, Cylindrical, Mercator, Conventional, Sinusoidal and Mollweide’s projections (one exercise each)

Unit – II

Prismatic Compass Survey: methods and process of surveying; elimination of error (three exercises)

Unit- III

Field trip to go any one of the following regions: Himalayas region, Vindhyan plateau, Ravalli hills, Thar Desert, Southern Plateau, coastal region, Indian islands or any Area of scheduled tribes in India; preparation of field work report for submission in examination.

Note:

In the examination the lab test shall comprise six questions in all with three questions from unit-I and II each. The candidate has to attempt any three questions selecting at least one from each unit.

Suggested Reading List:

Paper-601
OCEANOGRAPHY

Max. Marks: 100
End Term exam: 80
Internal Assessment: 20

Unit-I
Nature and scope of Oceanography, configuration of oceans floor: continental shelf; continental slope, deep sea plain/trenches and ridges; bottom relief of Atlantic and Indian oceans.

Unit-II
Factors affecting ocean temperature and salinity; ocean temperature distribution: horizontal and vertical; salinity: composition, horizontal and vertical distribution

Unit-III
Circulation of oceanic water; tides: type and origin, currents: types, origin and distribution; currents of the Atlantic, the Pacific and the Indian oceans; impact of ocean currents on climate and economy

Unit-IV
Marine deposits; nature, classification and world distribution; coral reef: condition of growth, types and world distribution; Ocean as storehouse of resources.

Note:
The question paper will have five units. Each of the first four units of the question will contain two questions from each unit of the syllabus. Candidate is required to attempt one question from each unit. Unit-V shall be compulsory and contain 8 multiple choice/objective type questions covering the entire syllabus. All questions carry equal marks.

Suggested Reading List:
Lal, D.S. (in Hindi, 1999), Samundar Vigyan, Sharda Pustak Bhawan, Allahabad.
Paper-602
ECONOMIC GEOGRAPHY

Max. Marks: 100
End. term exam :80
Internal Assessment : 20

Unit-I
Nature and Scope of Economic Geography; relation of Economic geography with other branches of social sciences; Location and spatial organization of economic activities (Primary, secondary and Tertiary).

Unit- II
Mineral resources: iron ore and bauxite; Power resources: coal, petroleum, nuclear and hydro electricity; Major industries: iron and steel, textiles, petrochemical; Theory of industrial location (Weber);

Unit -III
Agricultural regions of the world (Derwent Whittlesey); Principal crops: wheat, rice, sugarcane and tea; Theory of agricultural location (Von Thunen).

Unit-IV
Trade and Transport: main features of international trade; transport cost, accessibility and connectivity; major oceanic routes of the world.

Note:
The question paper will have five units. Each of the first four units of the question will contain two questions from each unit of the syllabus. Candidate is required to attempt one question from each unit. Unit-V shall be compulsory and contain 8 multiple choice/objective type questions covering the entire syllabus. All questions carry equal marks.
INDUSTRIAL GEOGRAPHY

Max. Marks: 100
End term exam: 80
Internal Assessment: 20

Unit-I
Nature and scope of Industrial Geography; history of industrialization: mercantilism, colonialism and industrial revolution; core-periphery model in world industrialization.

Unit-II
Factors of industrial location; theories of industrial location: Weber, Hoover, Losch and Smith

Unit-III
Distribution, growth, production, and problems of iron and steel, cotton textile and sugar industries in India, industrial policies in India.

Unit-IV
Major industrial regions; Great Lakes region of USA, Ruhr industrial region, Yangtiz region of China, Mumbai- Ahmedabad industrial region of India

Note:
The question paper will have five units. Each of the first four units of the question will contain two questions from each unit of the syllabus. Candidate is required to attempt one question from each unit. Unit-V shall be compulsory and contain 8 multiple choice/objective type questions covering the entire syllabus. All questions carry equal marks.

Suggested Reading List:
Lodha, R.M. (2005): Audyogika Bhoogol, Rajasthan Hindi Granth Academy, Jaipur
Paper-603(2)
POLITICAL GEOGRAPHY

Max. Marks: 100
End term exam: 80
Internal Assessment: 20

Unit-I

Nature and scope of Political Geography; approaches to the study of political geography: morphological and functional.

Unit-II

Concept of nation, state and nation-state; geographic characteristics of states: size, shape, location, cores and capitals; frontier and boundaries.

Unit-IV

Global geo-strategic views: Mahan, Mackinder, Spykman and Seversky.

Forms of Government: unitary and federal; electoral abuses; Malapportionment, Gerrymandering.

Note:

The question paper will have five units. Each of the first four units of the question will contain two questions from each unit of the syllabus. Candidate(s) are required to attempt one question from each unit. Unit-V shall be compulsory and contain 8 short answer type questions covering the entire syllabus. All questions carry equal marks.

Suggested Reading List:

Unit –I

Nature and development of Social Geography; Social Geography in the realms of social sciences; concept of social space; Social differentiation and stratification; Social segregation and social morphology.

Unit–II

Elements of Social Geography: Ethnicity, Tribe, Dialect, Language, Caste & Religion; Linguistic regions in India.

Unit–III

Nature and scope of Cultural Geography; Origin and dispersal of various culture; Culture: definition, elements and components; Cultural area and realm.

Unit–IV

Habitats of man and the origin of the civilization in the world; Racial Elements in India's Population; Tribes of India (Santhal, Gond, Todda, Naga and Bhil).

Note:

The question paper will have five units. Each of the first four units of the question will contain two questions from each unit of the syllabus. Candidate is required to attempt one question from each unit. Unit-V shall be compulsory and contain 8 multiple choice/objective type questions covering the entire syllabus. All questions carry equal marks.

Suggested Reading List:
Admed, A. (2004), Social Geography, Rawat Publication, New Delhi
Maurya, S.D. (in Hindi), Samajik Bhugol, Sharda Pustak Bhawan, Allahabad.
Parsad, G. (in Hindi), Sanaskriti Bhugol, Sharda Pustak Bhawan, Allahabad.
Unit I

History and development of Photogrammetry; types of aerial photographs and their applications; Remote sensing: definition and applications; active and passive remote sensing; remote sensing platforms; comparison between aerial photographs and satellite images; basic concepts in GIS

Unit II

Interpretation of Annotations on an aerial photograph; scale determination on vertical aerial photographs; availability and acquisition of aerial photographs in India; Image interpretation (aerial photograph); elements of image interpretation (one exercise on each element).

Unit III

Stereoscope vision; pocket and mirror stereoscope: construction and applications; Identification and mapping of physical and cultural features on aerial photographs.

Note:

At least fifteen exercises are to be prepared from all the units covering all the topics. In the examination, the lab test shall comprise of six questions in all with at least two questions from each unit. The candidate has to attempt three questions selecting one from each unit.

Suggested Reading List:

Micheal, N.D.: Geographic Information Systems, Wiley India Pvt. Ltd. New Delhi