

Maharaja Ganga Singh University, Bikaner

## B.A./B.Sc. (HONOURS) GEOGRAPHY

3hrs duration

Maximum marks: 80

Note: The question paper will be divided into three sections.

Section A will contain 10 questions in all (two questions from each unit). Each question will carry 2 marks. All 10 questions are compulsory.

Section B will contain 10 questions in all (two questions from each unit). Candidates have to attempt 5 questions by selecting 1 question from each unit. Each question will carry 6 marks.

Section C will contain 5 questions (one from each unit). Candidates have to attempt any three questions. Each question will carry 10 marks.

(Note: For the subsidiary papers, the evaluation scheme is similar to the B.A./B.Sc Pass course scheme.)

### Course Contents

<b>B.A./B.Sc. Part I</b>	<b>Paper I</b>	<b>Geomorphology</b>
	<b>Paper II</b>	<b>Human Geography</b>
	<b>Paper III</b>	<b>Geographic Information System</b>
	<b>Paper IV</b>	<b>Geography of Rajasthan</b>
		<b>Practical Geography</b>
	<b>Paper V</b>	<b>Micro Economics</b>
	<b>Paper VI</b>	<b>Economy of Rajasthan</b>
<b>B.A./B.Sc. Part II</b>	<b>Paper VII</b>	<b>Climatology and Oceanography</b>
	<b>Paper VIII</b>	<b>Settlement Geography</b>
	<b>Paper IX</b>	<b>Remote Sensing</b>
	<b>Paper X</b>	<b>Geography of India</b>
		<b>Practical Geography</b>
	<b>Paper XI</b>	<b>Macro Economics</b>
	<b>Paper XII</b>	<b>Indian Economy</b>
<b>B.A./B.Sc. Part III</b>	<b>Paper XIII</b>	<b>Hydrology</b>
	<b>Paper XIV</b>	<b>Economic Geography</b>
	<b>Paper XV</b>	<b>Environmental Geography</b>
	<b>Paper XVI</b>	<b>Regional Planning and Development</b>
		<b>Practical Geography</b>
	<b>Paper XVII</b>	<b>Money, Banking and Public Finance</b>
	<b>Paper XVIII</b>	<b>History Of Economic Thought</b>

## **BA/BSc Part 1**

### **PAPER 1. GEOMORPHOLOGY**

1. Earth: Interior Structure; Isostasy; Earth Movements: Plate Tectonics, Earthquakes and Volcanoes; Folds and Faults.
2. Rocks: Characteristics and Classification; Geomorphic Processes: Weathering, Mass Wasting, Cycle of Erosion (Davis and Penck).
3. Evolution of Landforms (Erosional and Depositional): Fluvial, Karst, Aeolian, Glacial, and Coastal.
4. Drainage Basin Morphometry: Drainage Types and Patterns, Stream Orders, Bifurcation Ratio, Stream Frequency, Relief Ratio, Drainage Texture and Density.
5. Slope - Types and Analysis, Hypsometric Curve, River Profiles, Universal Soil Loss Equation.

#### **Reading List**

1. Bloom A. L., 2003: *Geomorphology: A Systematic Analysis of Late Cenozoic Landforms*, Prentice-Hall of India, New Delhi.
2. Bridges E. M., 1990: *World Geomorphology*, Cambridge University Press, Cambridge.
3. Chorley R. J. (ed.), 1972: *Spatial Analysis in Geomorphology*, Harper and Row.
4. Christopherson, Robert W., (2011), *Geosystems: An Introduction to Physical Geography*, 8 Ed., Macmillan Publishing Company
5. Gerrarda A. J., 1988: *Rocks and Landforms*, Unwin-Hyman, UK.
6. Kale V. S. and Gupta A., 2001: *Introduction to Geomorphology*, Orient Longman, Hyderabad.
7. Knighton A. D., 1984: *Fluvial Forms and Processes*, Edward Arnold Publishers, London.
8. Mayer L., 1990: *Introduction to Quantitative Geomorphology*, Prentice-Hall, New Jersey.
9. Richards K. S., 1982: *Rivers: Form and Processes in Alluvial Channels*, Methuen, London.
9. Monkhouse F. J., 1970: *Principles of Physical Geography*, American Elsevier.
10. Morisawa M., 1983: *Geomorphological Laboratory Manual*, John Wiley & Sons, New York.
11. Nkapp B. J., 1979: *Elements of Geographical Hydrology*, Unwin- Hyman, UK.
12. Pal S. K., 1998: *Statistics for Geoscientists: Techniques and Application*, Concept, New Delhi. Selby, M.J., (2005), *Earth's Changing Surface*, Indian Edition, OUP
13. Skinner, Brian J. and Stephen C. Porter (2000), *The Dynamic Earth: An Introduction to physical Geology*, 4th Edition, John Wiley and Sons
14. Strahler A. H., 2008: *Modern Physical Geography (4th Edition)*, Wiley-India.
15. Thornbury W. D., 1968: *Principles of Geomorphology*, Wiley.
16. Upton W. B., 1970: *Landforms and Topographic Maps*, John Wiley & Sons, New York.
17. Zavoianu I., 1978: *Morphometry of Drainage Basins*, Elsevier, USA.

#### **Hindi Reading List**

1. Gautam, A (2010): *Bhautik Bhugol*, Rastogi Publications, Meerut.
2. Prasad, G (2008): *Bhu-Akriti Vigyan – Sidhant tatha Sathalroop*, Sharda Pustak Bhawan, Allahabad.
3. Tikkaa, R N (1989): *Bhautik Bhugol ka Swaroop*, Kedarnath Ram Nath, Meerut.
4. Singh, S (2009): *Bhautik Bhugol ka Swaroop*, Prayag Pustak, Allahabad.
5. Singh R L & Rana P B Singh (1991): *Prayogtmak Bhugol ke Mool Tatva*, Kalyani Publishers, New Delhi.

### **PAPER 2. HUMAN GEOGRAPHY**

1. Nature & Scope; Traditional and Contemporary Approaches; Fundamental Principles; Man-environment relationship: Determinism, Possibilism, Probabilism; Dichotomy in Physical & Human Geography.
2. Races -classification & distribution; Early economic activities of Mankind (Grazing, Fishing & Shifting Cultivation)-Patterns & Changes; Concept of Ethnicity & it's implications; Tribal groups in India-Ecology & adaptation.
3. Population growth & distribution- factors and distribution; Population Composition (Age, Sex, Rural-Urban, Economic)- determinants and patterns; Population Dynamics; Migration- Patterns, Causes, Effects, Theories; Concepts of Under-population, Over-population & Optimum population.
4. Classification and distribution of Religions; Major Linguistic families; Cultural Regions; Geographic elements of the State; Unitary & Federal States; Frontiers & Boundaries.
5. Human population, resource & technology- Malthusian and Boserupian models; Demographic Transition Theory; Human Adaptation in Modern Society- Agricultural, Urban & Metropolitan; Globalisation- Historical forms, causes, impacts, Globalisation & development debate.

### Reading List

1. Chandna, R.C. (2010) *Population Geography*, Kalyani Publisher.
2. Hassan, M.I. (2005) *Population Geography*, Rawat Publications, Jaipur
3. Daniel, P.A. and Hopkinson, M.F. (1989) *The Geography of Settlement*, Oliver & Boyd, London.
4. Johnston R; Gregory D, Pratt G. et al. (2008) *The Dictionary of Human Geography*, Blackwell Publication.
5. Jordan-Bychkov et al. (2006) *The Human Mosaic: A Thematic Introduction to Cultural Geography*. W. H. Freeman and Company, New York.
6. Kaushik, S.D. (2010) *Manav Bhugol*, Rastogi Publication, Meerut.
7. Maurya, S.D. (2012) *Manav Bhugol*, Sharda Pustak Bhawan, Allahabad.
8. Hussain, Majid (2012) *Manav Bhugol*. Rawat Publications, Jaipur.
9. Raj Kumar Sharma. *Manav Bhugol*, Himanshu Publications, Udaipur.
10. Shrikant Dikshit & Ramdev Tripathi, *Sanskritik Bhugol*, Vasundhara, Gorakhpur.
11. Gayatri Prasad, *Sanskritik Bhugol*, Sharda Pustak Bhagwan, Allahabad.
12. H.M. Saxena, *Rajnitik Bhugol*, Rastogi, Meerut.
13. Sudepta Adhikari, *Political Geography*, Rawat Publications, Jaipur.
14. Joseph Stiglitz, *Making Globalisation Work*. Norton 2006.
15. Manfred B. Seger, *Globalisation: A Very Short Introduction*.
16. Sunanda Sen. *Globalisation and Development*. National Book Trust 2015.

## **PAPER 3. GEOGRAPHICAL INFORMATION SYSTEM**

1. Geographical Information System (GIS): Definition and Components; Geographic Phenomenon - Discrete and Continuous; Global Positioning System (GPS); Basic Elements of GIS: People, Data, Hardware, Software, Methods.
2. Spatial Data Types – Nominal, Ordinal, Interval and, Ratio; Raster Data Structure – regular tessalations and irregular tessalations; Vector Data Structure - Point, Line, Polygon; Topology; Scale and Resolution; Attribute data-Queries and Analysis

3. Spatial data import; Geo-referencing of analogue maps; applying reference spheroids, datums and projections; Coordinate System; Digitizing; Linking spatial and attribute data; Spatial Queries
4. Mapping - qualitative data; quantitative data; elevation data; time-series data; Element of map design; Color Symbolology
5. Spatial Analysis: Classification; retrieval; measurement functions; Overlay functions; Neighborhood Classification, Connectivity functions; GIS Applications: suitability analysis for finding best site for a new school or municipal water storage facility; Mapping Population Density; Flood Hazard Risk Mapping; Landslide/Earthquake Hazard Risk Mapping

### **Reading List**

1. *Bhatta, B. (2010) Analysis of Urban Growth and Sprawl from Remote Sensing, Springer, Berlin Heidelberg.*41
2. *Burrough, P.A., and McDonnell, R.A. (2000) Principles of Geographical Information System-Spatial Information System and Geo-statistics. Oxford University Press*
3. *Chauniyal, D.D. (2010) Sudur Samvedan evam Bhogolik Suchana Pranali, Sharda Pustak Bhawan, Allahabad*
4. *Heywoods, I., Cornelius, S and Carver, S. (2006) An Introduction to Geographical Information system. Prentice Hall.*
5. *Otto Huisman and Rolf A. de By (2009), Principles of Geographic Information Systems, ITC, Hengelosestraat, the Netherlands*

## **PAPER IV: GEOGRAPHY OF RAJSTHAN**

1. Introduction: Formation and administrative setting of the state, Geological structure, Relief, Physiographic regions, Drainage, Climate, Soils, Natural vegetation.
2. Agricultural and economic aspects of the state: Food and commercial crops, Main irrigation sources, types and their intensity, waste land and desert land development programmes, Livestock and dairy development.
3. Power and energy resources: Hydro based, Thermal, Atomic, Solar, Biogas; Mineral resources and industries.
4. Demographic structure: growth, distribution, density, urban- rural, occupational structure, literacy and cultural heritage; Tribes of Rajasthan: Bhil and Grasia; Factors affecting the development of transportation and trade in the state.
5. Geographical regions of Rajasthan, Detailed study of Marusthali, Aravalli, Hadoti and Eastern Plain.

### **Reading List:**

1. *Mishra, V C: Geography Rajasthan, National Book Trust, New Delhi, 1967.*

2. *Sharmas H.S. & M.L.: Geographical Facts of Rajasthan.*
3. *Bhalla L R: Rajasthan ka Bhoogol, Kuldip Prakashan, Ajmer.*
4. *Sharm & Sharma: Rajasthan ka Bhoogol, Pancheel Prakashan, Jaipur.*
5. *Saxena, H M: Rajasthan ka Bhoogol, Rajsthn Hindi Granth Academy, Jaipur.*
6. *Sharma Dinesh Chandra & Puspa Sharma: Rajasthan Aaj Tak.*

## **Practical Geography B.A/B.Sc. Part I**

1. Scales – concept, application and graphical construction of plain, comparative and diagonal scales.
2. Map Projections – Classification, properties, uses and graphical construction of zenithal, cylindrical, conical and conventional
4. Representation of Relief Features: Qualitative (Hachure, Hill-shading, Layer-tinting) and Quantitative (Contours and Form-lines; Construction of slopes, conical hill, plateau, waterfall, ridge, saddle, valleys, gorge, and cliff)
5. Topographical Maps – Scheme and Interpretation; Profiles: Meaning, Significance, Types, Vertical Scale and Exaggeration
6. Chain-tape survey

**Practical Record:** A Project File, comprising exercise on scales, map projections, interpretation of topographic sheet, and relief features.

### **Reading List**

1. *Anson R. and Ormelling F. J., 1994: International Cartographic Association: Basic Cartographic Vol. Pregmen Press.*
2. *Gupta K.K. and Tyagi, V. C., 1992: Working with Map, Survey of India, DST, New Delhi.*
3. *Mishra R.P. and Ramesh, A., 1989: Fundamentals of Cartography, Concept, New Delhi.*
4. *Monkhouse F. J. and Wilkinson H. R., 1973: Maps and Diagrams, Methuen, London.*
5. *Rhind D. W. and Taylor D. R. F., (eds.), 1989: Cartography: Past, Present and Future, Elsevier, International Cartographic Association.*
6. *Robinson A. H., 2009: Elements of Cartography, John Wiley and Sons, New York.*
7. *Sharma J. P., 2010: Prayogic Bhugol, Rastogi Publishers, Meerut.*
8. *Singh R. L. and Singh R. P. B., 1999: Elements of Practical Geography, Kalyani Publishers.*
9. *Sarkar, A. (2015) Practical geography: A systematic approach. Orient Black Swan Private Ltd., New Delhi*
10. *Singh R L & Rana P B Singh(1991) Prayogmak Bhugol ke Mool Tatva, Kalyani Publishers, New Delhi*
11. *Sharma, J P (2010) Prayogmak Bhugol ki Rooprekha, Rastogi Publications, Meerut*
12. *Singh, R L & Dutta, P K (2012) Prayogatmak Bhugol, Central Book Depot, Allahabad*

## **(Subsidiary Paper BA/BSc Part I)**

### **PAPER V: MICRO ECONOMICS**

1. Introduction: Nature and scope of economics, methodology in economics Micro-Macro, Static and dynamic analysis, choice as an economic problem, basic postulates, Laws of demand and supply.
2. Consumer's Behaviour: Utility, Cardinal and ordinal approaches; Indifference curve; consumer's equilibrium (Hicks); Giffin goods, Elasticity of demand-price, income and cross elasticities. Consumer's surplus. Engel curve.
3. Theory of Production and Costs: Production function, iso-quant, law of variable proportions, returns to scale; economies of scale; Different concepts of cost and revenue and their interrelation.
4. Market Structure: Market forms - Perfect and imperfect markets; Equilibrium of a firm and industry under Perfect competition, monopoly and price discrimination. Control of Monopoly Power. monopolistic competition.
5. Factor Pricing: Marginal productivity theory of distribution; Theories of wage determination; Rent-Scarcity rent, Differential rent: Quasi rent; Classical and Keynesian theories of interest, Profit - Innovation, risk and uncertainty theories.

### **Reading List:**

- 1 Bach, G.L. (1977), *Economics*, Prentice Hall of India, New Delhi
- 2 Gauld, J.O. and Edward, P.L. (1996), *Microeconomic Theory*, Richard Irwin, Homewood.
- 3 Handerson, J. and R.E. Quandt (1980). *Microeconomic Theory: A Mathematical Approach*, McGraw Hill, New Delhi
- 4 Heathfield and Wibe (1987). *An Introduction to Cost and Production Functions*, Macmillan, London.
- 5 Koutsoyiannis, A. (1990). *Modern Microeconomics*, Macmillan.
- 6 Lipsey, R.G. and K.A. Chrystal (1999), *Principles of Economics (9th Edition)*, Oxford University Press, Oxford.
- 7 Mansfield, E. (1997). *Microeconomics (9th Edition)*, W.W. Norton and Company, New York.
- 8 Ray, N.C. (1975). *An introduction to Microeconomics*, Macmillan Company of India Ltd., Delhi.
- 9 Ryan, W.J.L. (1962). *Price Theory*, Macmillan and Co. Ltd., London.
- 10 Samulson, P.A. and W.D. Nordhaus (1996). *Economics*, Tata McGraw Hill, New Delhi.
- 11 Stonier, A.W. and D.C. Hague (1972). *A Text Book of Economic*
- 12 Varian, H.R. (2000) *Intermediate Micro economics : A Modern Approach*(5th edition) EastWest-press, New Delhi.

## **PAPER VI: ECONOMY OF RAJASTHAN**

1. Position of Rajasthan in Indian economy: Population, Area, Agriculture, Industry and Infrastructure, Population size and growth. District-wise distribution of rural and urban

population, occupational structure and human resources development (Literacy, health and nutrition indicators), Problem of poverty and unemployment.

2. Natural resource endowments; land, water, livestock, forests and minerals; state domestic products and its trends. Environmental pollution and the problems of sustainable development.

3. Agriculture land utilization, Major crops and cropping pattern. Land Reforms, Rajasthan Tenancy Act, ceiling on land and distribution of land, Animal husbandry; Importance of livestock, dairy development programme, Problems of sheep and goat husbandry. Irrigation and power infrastructure in the state.

4. Industrial development in the state during Five Year Plans. Regional variation in industrial development, small scale industries and handicrafts. Industrial policy, role of RFC, RSMDC and RIICO in the industrial development of Rajasthan.

5. Tourism development in Rajasthan. Special Area Programmes DPAP, Desert Development, Tribal Area Development and Aravallies development, IRDP Planning in the state; Objectives and achievements. Constraints in the economic development of Rajasthan.