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## DEPARTMENT OF GEOGRAPHY, M.D. UNIVERSITY, ROHTAK

Geog./18/ **737**-Date: 15.10.2018

Sub: Syllabus for Entrance Test for M.Phil/ URS and Ph.D. Programme-2017-18.

The Department has already been sent the syllabi for Entrance Test for Ph.D. Programme vide this office letter No. Geog./16/702 dated 09.12.2016 and 20.7.2018.

However a fresh copy of the above is enclosed for further necessary action at your end please.

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Department of Geography M.D. University, Rohtak

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## DEPARTMENT OF GEOGRAPHY

Geog./16/ 702

Date: 09.12 2016

Subject: Entrance exam to M.Phil./Ph.D Programme and Award of URS-Department of Geography.

The Departmental Committee in its meeting held on 8.12.2016 has approved as under:-

- That the admission to M.Phil./Ph.D Programme and Award of URS be based on the UGC NET syllabus.
- There will be 15 parts in all containing 100 questions of multiple choice type (MCQ). Each question will be of one mark. The question paper will contain at least 6 questions from each part and the remaining 10 questions will be spread over all the parts. The examination duration will be of 1 hour15 minutes.

The broad heading are as follows.:

- 1.Geomorphology
- 2. Climatology
- 3. Oceanography
- 4.Bio-Geography
- 5.Geographical Thought
- 6.Population and Settlement Geography
- 7. Economic Geography
- 8. Political Geography
- 9. Social Geography
- 10.Regional Planning
- 11.Geography of India
- 12.Cartography
- 13.Statistical Methods
- 14. Agricultural Geography
- 15. Geography of Transport and Trade
- Detailed contents of broad headings are given below, which may be posted on the university website

- 1. Geomorphology: Fundamental concepts; Endogenetic and Exogenetic forces; Denudation and weathering; Geosynclines, continental drift and plate tectonics; Concept of geomorphic cycle; Landforms associated with fluvial, glacial, arid, coastal and karst cycles.
  - **2.** Climatology: Composition and structure of the atmosphere; Heat budget of the earth; Distribution of temperature; Atmospheric pressure and general circulation of winds; Monsoon and jet stream; Tropical and temperate cyclones; Classification of world climates; Koppen\*s and Thoramwaite's schemes.
  - **3. Oceanography**: Ocean deposits; Coral reefs; Temperature and salinity of the oceans; Density of sea water; Tides and ocean currents.
  - **4. Bio Geography**: World distribution of plants and animals; Forms and functions of ecosystem; Conservation and management of ecosystems; Problems of pollution.
  - **5. Geographic Thought**: General character of Geographic knowledge during the ancient and medieval period; Foundations of Modern Geography; Determinism and possibilism; Areal differentiation and spatial organisation.
  - **6. Population Geography and Settlement Geography**: Patterns of world distribution; Growth and density of population; Patterns and processes of migration; Demographic transition. **Settlement Geography**: Site, situation, types, size, spacing and internal morphology of rural and urban settlements; City region; Primate city; Rank size rule; Settlement hierarchy; Christaller's Central Place theory; August Losch's theory of market Centres.
  - **7. Economic Geography : Sectors of Economy :** primary, secondary, tertiary and quaternary; Natural resources: renewable and non-renewable.

Measurement of agricultural productivity and efficiency; Crop combination and diversification; Von Thimen's Model.

Classification of industries: Weber's and Losch's approaches; Resource based and footloose industries.

Models of transportation and transport cost: Accessibility and connectivity.

- **8. Political Geography**: Heartland and Rimland theories; Boundaries and frontiers; Nature of administrative areas and Geography of public policy and finance.
- **9. Social Geography**: Ethnicity; tribe; dialect; language, caste and religion; Concept of social well-being.
- **10. Regional Planning**: Regional concept in Geography; Concept of planning regions; Types of regions; Methods of regional delineation; Regional planning in India; Indicators of development; Regional imbalances; Evolution, nature and scope of town planning with special reference to India, and Fundamentals of Town and Country planning.
- 11. Geography of India: Physiographic divisions; Climate: Its regional variations; Vegetation types and vegetation regions; Major soil types; Irrigation and agriculture; Population distribution and growth; Settlement patterns; Mineral and power resources; major industries and industrial regions.

**12. Cartography**: Types of maps: Techniques for the study of spatial patterns of distribution; Choropleth; Isopleth and Chorochromatic maps and pie diagrams; Mapping of location – specific data; Accessibility and flow maps.

Remote sensing and Computer application in mapping; Digital mapping; Geographic Information System (GIS).

13. Statistical Methods: Data sources and types of data; Frequency distribution and cumulative frequency; Measures of central, tendency; Selection of class intervals for mapping; Measures of dispersion and concentration; Standard deviation; Lorenz Curve; Methods of measuring association among different attributes; Simple and Multiple correlation; Regression.

Nearest – neighbour analysis; Scaling techniques; Rank score; Weighted score; Sampling techniques for Geographical analysis.

- **14. Agricultural Geography**: Concept and techniques of delimitation of agricultural regions; Measurement of agricultural productivity and efficiency; Crop combinations and diversification; Von Thunen's Model; Agricultural systems of the world.
- **15. Geography of Transport and Trade**: Models of transportation and transport cost; Accessibility and connectivity: Inter-regional and Intra-regional: Comparative cost advantages.

Please get the same approval by the Vice-Chancellor.

Head

Department of Geography M.D. University, Rohtak

Bui Saywar HODS 10/18

Incharge Academic Branch