

DEPARTMENT OF GEOGRAPHY
School of Earth and Atmospheric Sciences
University of Madras, Chepauk, Chennai-600005

Entrance Test for M.Sc. Applied Geography-June, 2017

1	Date of Entrance Test	28 th June, 2017 (Wednesday)
2	Certificate Verification	8.30 A.M – 9.30 A.M
3	Time of Entrance Test	10.00 A.M – 12.00 P.M
4	Venue of Entrance Test	Department of Geography University of Madras Chepauk Campus, Chennai - 600 005
5	Criteria of marks for selection	A. Qualifying examination marks : 50 % B. Entrance Examination marks : 50 % C. Total marks : 100

Syllabus - M.Sc. Applied Geography

1. GEOGRAPHICAL THOUGHT

Modern schools of geography- British, French, German, American and Indian schools of thought.- traditions in Geography.

2. PHYSICAL GEOGRAPHY

Earth's physical environment- Atmosphere- Isolation and Temperature- Atmospheric Pressure and Wind- Isolation and- Climatic Zones and Types- Cycles and Patterns in the Biosphere- Soils- landforms and Processes- Fluvial Process- Topography of Arid Lands- Karst Topography- Coastal Processes and Terrain- Glacial Modification of Terrain- Ocean relief, temperature and salinity distribution- ocean currents- Coral Reefs-El Nino and La Nino.

3. POPULATION AND SETTLEMENT GEOGRAPHY

Population Geography and its significance – developments of population studies in India- migrations – causes and consequences of migration-growth of world population – birth and death rates population explosion – rural settlement, rural settlement types and pattern – houses and house types –Urban Settlement- classification according to size and functions.

4. GEOGRAPHY OF INDIA

Physiography and Regional Divisions – Geological Foundations – Geology – Climate – Drainage Resources – Vegetation – Soils – Population of India – Languages and Religion and their Consequences - Settlement types and Characteristics in India – Land Use – Agriculture and Agricultural Regions - Rural Development – Industries – Regional Disparities – Trade – Science and Technology.

5. CARTOGRAPHY AND GEOINFORMATICS

Development of cartography- Spatial data and Map projections- types of maps – mapping techniques - Map scale-latitude and longitude, time and distance- map design and symbolisation- map elements – relief, climatic and economical maps- map reproduction and reproduction process- aerial photographs- satellite remote sensing - GIS - GPS and applications- Basic Quantitative techniques.

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Entrance Test for M.Tech Geoinformatics –June, 2017

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Syllabus - M.Tech Geoinformatics

1. INFORMATION SYSTEMS AND DATABASE MANAGEMENT

Scope and developments of information technology; Concepts and overview of information systems; Information systems design, analysis and management; Database Management Systems for Information Systems; Data models; Internet, Intranet, and Extranet; web-publishing; decision support system.

2. GEOGRAPHICAL INFORMATION SYSTEMS

Spatial data and information, Reference systems and datums; Approaches and Components; History and Development of GIS - Spatial Data Models; DBMS and GIS - Data Capture and Geoprocessing; GIS for spatial modelling and applications

3. PHOTOGRAMMETRY, REMOTE SENSING and GPS

Basics of aerial photography- photo interpretation and Photogrammetric applications; Fundamentals of remote sensing and its applications; basics of GPS and its applications

4. SPATIAL STATISTICS AND MATHEMATICS

Scales of measurement and nature of data- statistical summaries; Basics of simple correlation and regression; Algebra, Matrix Algebra - Fundamentals and applications; Boolean algebra and set operations; Spatial problems of sampling and data gathering - data collection by field methods

5. CARTOGRAPHY

Scope of Cartography- Spatial data and map projections- types of maps – mapping techniques - Map scale-latitude and longitude, time and distance- map design and symbolisation- map elements ; Computer and Cartography, Information age and mapping, Web Cartography.

PATTERN OF MODEL QUESTION PAPER

**Department of Geography, School of Earth and Atmospheric Sciences
University of Madras, Chepauk, Chennai-600005**

Admission - Post Graduate Degree Course - June, 2017

Entrance Test for M.Sc Applied Geography

Time: 2 Hours

Maximum Marks: 100

INSTRUCTIONS

1. Keep the Question Book upside down until instruction is given to open the book. It has to be kept as it is.
2. Defects in the Question Book like missing page, printing mistakes etc., should be brought to the attention within five minutes after opening the book. Therefore a careful inspection has to be made for such defects.
3. Enter on the Response Answer Sheet, your Hall Ticket Number in the space provided. Double check to see that the number is entered correctly.
4. Checking has to be made about Community and Percentage of marks obtained in the qualifying examination.
5. After the test the Question book and Response Answer sheet should be handed over before leaving the seat.
6. No marking will be made on the question paper and all answers should be provided in the response answer sheet.
7. From four alternative answers (A) (B) (C) (D) for each of the multiple-choice questions the correct answer has to be circled appropriately.
8. Even if the test has been completed within the available time, please remain in the seat till the announcement is made for optionally leaving the hall.
9. Use only pens or ball pens or felt pens with Blue or Black ink and avoid fancy color inks.
10. The short Essay has to be written in the given SINGLE PAGE only. The number of words would be 200-300 and the lines would be about 25-30.

PART- A (50 x 1 = 50)

MULTIPLE CHOICE QUESTIONS

Answer all questions, Mark the answers in the response sheet

1. What does GIS stand for?
 - a. Geological information systems
 - b. Geographical information systems
 - c. Global information system
 - d. Geographical identity sightings

50. The Salinity of Ocean Water is measured in terms of
 - a. Percent
 - b. Per thousand
 - c. Per cubic Meter
 - d. Per million

PART- B (40 x 1 = 40)

Answer all questions, Mark the answers in the response sheet

51. World's largest producer of Natural gas
 - a. China
 - b. USSR
 - c. USA
 - d. Canada

90. Cartographers may use a number of visual resources such as:
 - a. Size and shape
 - b. Texture or pattern
 - c. Orientation
 - d. A, b and c

PART- C (1 x 10 = 10)

Write an Essay on only one page; Answer (Any One) the question

- C1. What is Tsunami? Describe its impact on Coastal Community.
- C2. How does the Northeast Monsoon originate and impact on Tamil Nadu?
- C3. Describe the methods of obtaining contour lines from the spot height

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PART- A (50 x 1 = 50)

MULTIPLE CHOICE QUESTIONS

Answer all questions, Mark the answers in the response sheet

2. What does GIS stand for?
 - a. Geological information systems
 - b. Geographical information systems
 - c. Global information system
 - d. Geographical identity sightings
50. The Salinity of Ocean Water is measured in terms of
 - e. Percent
 - f. Per thousand
 - g. Per cubic Meter
 - h. Per million

PART- B (40 x 1 = 40)

Answer all questions, Mark the answers in the response sheet

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 - e. China
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 - a. Size and shape
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PART- C (1 x 10 = 10)

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- C2. How does the Northeast Monsoon originate and impact on Tamil Nadu?
- C3. Describe the methods of obtaining contour lines from the spot height