

M. A. - Geography (Semester III)

Code- GEO-M 301 (Core Course - 10)

Quantitative Techniques and Research Methodology (5 Credits)

Time : 3 Hours (ESE)

Full Marks : 100

ESE : 70 Marks

CIA : 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part - A

Ten objective type Question : All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20$ marks

Part - B

Five short Answer Questions - Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20$ marks

Part - C

Five long answer Questions. Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit). $3 \times 10 = 30$ marks

Unit I Quantitative Methods in Geography : Merits and limitations, Research types and Methodology, Review of Literature

Unit II Data collection and classification, Questionnaire and Schedules, Sampling Types - Random, Stratified and Purposive

Unit III Hypothesis: Concept and Types, Procedure for Hypothesis Testing, Chi-Square Test, Student's T test

Unit IV Correlation Coefficient Techniques-Pearson and Spearman, Simple Linear Regression Analysis, Analysis of Variance (ANOVA).

Unit V Models and Analogue, Types of Model, Gravity Potential Model, Population Potential Model

CIA 30 Marks

Note : Use of MS-Excel shall be promoted during the classroom teaching

*Institute No
24/04/19*

*By
27/04/19*

*Gupta
24/04/19*

Selected Readings :

1. Mahmood, Asla, "Statistical Methods for Geographical Studies".
2. Koshari, K. C. "REsearch Methodology in Social Sciences".
3. Suleman, M. Research Techniques and Methods in Social Sciences
4. Adhikari, S. (2005) : Fundamentals of Geographical Thought, Allahabad
5. Chorley, R. J. & Haggett, P. (ed.) (1967) : Models in Geography, London.
6. Hartshorne, R. (1994 Indian Print) : The Nature of Geography, Jaipur, Rawat Publication.
7. Harvey : Explanation in Geography.
8. Kaushik D. S. D. (2001) Bhousolik chitan aur Vidhantra (Hindi).
9. Hammond / Mc Cullah, Quantitative Techniques in Geography, Oxford, 1974.
10. Gregory, S., Statistical Method for Geography, Longman, 1975.
11. Berry, B. J. L. & Marble, D. F. Spatial Analysis : A Reader in Statistical Geography, New Jersey, 1968.
12. Cole, J. P. & King, C. A. M. Quantitative Methods in Geography, New York, 1968.
13. King,L.J. Statistical Analysis in Geography, New Jersey.
14. Johnson, R. J. Multivariate Statistical Analysis in Geography, 1978.
15. Elbance, D.N., Elementary Statistics
16. Pal, S. K. Statistical Methods in Geography.
17. Alvi, Zamiruddin, Statistical Geography.

M. A. Geography (Semester - III)
Code- GEO-M 302 (Core Course - 11)

Remote Sensing and Geographical Information System (5 Credits)

Time : 3 Hours (ESE)

Full Marks : 100

ESE : 70 Marks

CIA : 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part - A

Two objective type Question : All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20$ marks

Part - B

Five short Answer Questions - Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20$ marks

Part - C

Five long answer Questions. Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit) $3 \times 10 = 30$ marks

Unit I Meaning and Definition of Remote Sensing, Historical Development, Significance and Utility of Remote Sensing in Geography, Role of ISRO in the space study

Unit II Remote Sensing Platforms, Geo-Stationary and Sun-Synchronous Satellites : LANDSAT, IRS, and QUICK-BIRD Series.

Unit III Sensors and Resolution, Interpretation of Aerial Photographs and Satellite Imagery Digital Elevation Model (DEM)

Unit IV Concept and Principles of GIS, Elements of GIS, Nature and Source of Data, Digital cartography

Unit V Raster Vs. Vector Data structure, G.P.S. Concept and Application, Application of Remote Sensing and GIS : Land Information System, Urban Management and Disaster management

CIA

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Selected Readings :

1. Avery, T. E. (1962) : Interpretatin of aerial photograph. Minneapolis.
2. Dury, G. M. (1952) Map Interpretation
3. Cunam, R. J. (1983) : Principles of Remote Sensing.
4. Lillesand, T. M. & Kiefer, R. W. (1979) : Remote Sensing and Image Interpretation, New York.
5. Sabins, F. F. (1997) : Remote Sensing and Interpretation. Yew York.
6. Campbell, J. B. Introduction to Remote Sensing, London.
7. Fraser Taylor, D. R. (1991) : Geographical Information System, London.
8. Devidata Chaumiyal, SudoorSamvedarevambhaugolkSoochnaVasai?
9. Siddiqui, An Introduction to Geographical Information System.
10. American Society of Photogrammetry : Manual of Photographic Interpretation Banta Pub. Co., Wisconsin, 1960.
11. Barrett, E. C. & Curtis, L. F. Introduction of Engrgn, Remote Sensing, 1976.
12. Hord, R. M., Remote Sensing : Methods and Applications, N. Y., 1986.
13. Lender, D. R. Aerial Photography, Mc Graw Hill, N. Y., 1960.
14. Luder, D., Aerial Photography Interpretation : Princ. and App., McGraw Hill, New York, 1959.
15. Lilles & Kiefer, Remote Sensing & Image Interpretation.
16. Reeves, R. G. (Ed.), manual of Remote Sensing (Vol. 2) Virginia, 1975.
17. Smith, H. T. V. Aerial Photographs & their Applications, New York, 1943.
18. Spurs S. H. Photogrammetry & Photo Interpretation, New Delhi, 1960.
19. Stershew, A. J. Aerial Photography.
20. Tomar, M. A. & Mashkar, A. R., Aerial Photographs in Landuse & Forest Survey, Dehra-Duha.
21. Thomas, E. A. Interpretation of Aerial Photographs, Minnesota.
22. Usill, G. W. (Revised by Hearn, G.S.g.) Pract, Surveying, London, 1960.
23. White, L. P., Aerial Photography & Remote Sensing for Soil Survey.

Code- GEO-M 303 (Core Course - 12)
Human and Social Geography (5 Credits)

Time : 3 Hours (ESE)

Full Marks : 100

ESE : 70 Marks

CIA : 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part - A

Ten objective type Question : All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20$ marks

Part - B

Five short Answer Questions - Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20$ marks

Part - C

Five long answer Questions. Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit.) $3 \times 10 = 30$ marks

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|-----------------|--|
| Unit I | Meaning, Definition and Scope of Human Geography
Approaches to Human Geography
Growth, Distribution and Density of World's Population with reference to U.S.A.
China and India
Migration : Causes and Consequences |
| Unit II | Human Settlement: types and Patterns of Rural Settlements.
Processes and Pattern of Urbanization in the Developed and Developing Countries;
Problems of urbanisation
Age and Sex Composition of the World Population
Occupational Structure of the World Population |
| Unit III | Meaning and Scope of Social Geography : Evolution of Man, Aryan Civilization
Culture : Elements of Culture
Major Human Races in the World-Negroid, Mongoloid, Caucasoid
Major World Religions : their Origin, Diffusing and Spatial Distribution.
Major World Languages : Their Origin, Diffusion and Spatial Distribution |
| Unit IV | Concept of Social Justice and Social Well-being
Social Structure, Process and Social Pattern
Components of Quality of life and its Spatial Pattern
Globalization and Social Transformation |
| Unit V | Social Transformation and Gandhian doctrine of Social Change
Panchayati Raj Institution and Social Transformation in India
Role of Media in India in Societal Changes |

CIA

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1/1/2014

23/1/2019

23/1/2019

23/1/2019

Selected Readings :

1. An Introduction of Social Geography, Emery Jones and John Eyles.
2. Cultural Geography - Mike Craig
3. Sociology and Social Anthropology - M. S. Golal
4. Social Geography - A. Ahmad
5. Social Geography - Majid Husain
6. Social Geography - Ruth Paselli
7. Rural Sociology in India - A. R. Desai
8. Readings in Social Geography - Emery Jones
9. Human Geography - Paul L. Knox, S. A. Marston
10. International Encyclopedia of Geography, Vol. VIII (Social Geography) - Subhash Mehtani, Amarjit Sinha, Common Wealth Publication Pvt. Ltd., New Delhi.
11. Cultural Geography : Form & Process - Neelam Grover and Kashi Nath Singh, Concept Publishing Company, Delhi.
12. Social Geography of India - Ashok Kumar, Atri Publ. Publications, New Delhi.
13. सामाजिक भूगोल - शीर्षकानन्दसिंह एवं महेश्वर रित्ती, रामेश्वर प्रकाशन, गोदावरी.
14. सामाजिक भूगोल - राम एवं रमेश नीरंजन.
15. सामाजिक भूगोल - डॉ विजय रित्ती, सुनीलसिंह प्रकाशन, अस्सी रित्ती.
16. सामाजिक भूगोल - गायत्री प्रकाश

Topic 11

Landuse pattern in India

Topic 12

Landuse pattern in India

Topic 13

New Agricultural Techniques

Green Revolution and White Revolution in India

Agroforestry and its importance

Organic Farming and its importance

Q.A.

1
2
22/4/19

24
22/4/19

22/4/19

22/4/19

M. A. Geography (Semester - III)
Code- GEO-M 304 (Core Course - 13)

Land use and Agriculture Geography (5 Credits)

Time : 3 Hours (ESE)

Full Marks : 100

ESE : 70 Marks

CIA : 30 Marks

The questions for End Semester Examination Comprises of three parts as mentioned below

Part - A

Ten objective type Question : All questions to be answered (Questions shall be selected from the whole syllabus preferably two questions from each unit) $10 \times 2 = 20$ marks

Part - B

Five short Answer Questions - Four questions to be answered (Questions shall be selected from the whole syllabus preferably one question from each unit) $4 \times 5 = 20$ marks

Part - C

Five long answer Questions. Three questions to be answered. (Questions shall be selected from the whole syllabus preferably one question from each unit) $3 \times 10 = 30$ marks

Unit I Meaning and Scope of Landuse and Relationship between Land use and Agriculture Geography

History of Landuse survey in India

Model of Landuse : Von Thunen, Jorssan

Major Land Reforms in India

Unit II Landuse classification : U.K. and India

Landuse pattern in India

Land capability classification

Importance of land use planning in India

Unit III Fundamental concept of Agriculture Geography

History of Agriculture Geography

Factors influencing Agricultural Pattern

Chief crops of India ; Food Security in India

Unit IV Concept and Techniques of delimitation of agricultural regions

Measurement of Agricultural productivity and efficiency

Crop-combination and diversification

Cropping pattern in India

Unit V New Agricultural Technology

Green Revolution and White Revolution in India

Agro-climatic regions of India

Agricultural problems and policies

Role of irrigation in New Agricultural Technology

CIA

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10/12/2011

20/12/2011

20/12/2011

20/12/2011

**Code- GEO-M 305 (Practical) (Core Course - 14)
Instrumental Surveying, GIS and GPS (5 Credits)**

Time : 3 Hours (ESE)

Full Marks : 100

ESE : 70 Marks

CIA : 30 Marks

In the End Semester Examination questions will be set preferably from each unit out of which candidates are requested to answer any three questions.

Each Question will carry 20 marks. ($20 \times 3 = 60$ marks)

Practical record and viva voce will comprise 10 marks

Unit I	Survey by Plane Table : Levelling Instrument Finding out Rise and Fall Plotting of Longitudinal Profile
Unit II	Theodolite Survey : Formation and Calculation of Triangles Preparation of Ground plan and Ground Profiles Measurement of Base line and its extension Formation of Polygon
Unit III	Georeferencing using GIS Map Registration using GIS
Unit IV	Digitization and Map Preparation using GIS Surveying through hand held GPS
Unit V	Practical Record and Viva-Voce
CIA 30 Marks

Selected Readings :

1. M. M. P. Sinha & Seema Bala-Advanced Cartography (mPpdkVksZxzQh).
2. Kanetkar - Surveying and leveling Vol. I & II.
3. Punmia - Surveying Vol. I, II & III.
4. J. P. Sharma- विभिन्न प्रौद्योगिकीय विधियाँ.
5. Punmia, B. C., Surveying and leveling, Vol.I.
6. Alvi, Zamiruddin, A. Text Book of Surveying.
7. Basak, N.N. 2017. Surveying and Levelling, 2nd ed., McGraw Hill Education.
8. Bolton, T. 2009 (reprint) Geological Maps : Their Solution ad interpretation, Cambridge. Univ. Press.

12/11/2019

W.B. 2019
23/10/2019

W.B. 2019
23/10/2019

W.B. 2019
23/10/2019

9. Kanetkar, T.P. Kulkarni, S. v. 1988, Surveying and Levelling Part I. Pune: Vidyarthi Griha Prakashan.
10. Monkhouse, F. J., Wilkinson, H. R. 1971, Maps and Diagrams.
11. Robinson, A.H. Morrison, J. L. Phillip, C. M., Kimerling, A.J., Guptill, S.C. 1995, Elements of Cartography, 6th ed., Wiley.
12. Sarkar, A. 2015, Practical Geography : A Systematic Approach, 3rd ed. Orient Blackswan Private Ltd.
13. Singh, R. L. Singh, R. P.B. 2008, Elements of Practical Geography, Kalyani Publishers.
14. Siddiqui, An Introduction to Geographical Information System.
15. Tomlin, C. D., GIS and Cartographic Modeling, Prentice Hall.

Ques. 1. Define Geographical Information System (GIS). Explain its applications in various fields.

Ques. 2. Define Quantitative Methods. Explain its importance in geographical studies. Differentiate between Qualitative and Quantitative methods of geographical studies.

Ques. 3. Define Quantitative Methods. These questions may be asked in the examination. You are required to answer any two questions from each group.

Group A

Differences between Qualitative and Quantitative methods of geographical studies.

Ques. 4. Explain the following terms with examples.

Scale, Map, Topographic map, Planimetric map, Thematic map, Reference map.

Group B

Ques. 5. Explain the following terms with examples.

Geography, Geographical Information System (GIS), Remote Sensing, Global Positioning System (GPS).

Group C

Ques. 6. Explain the following terms with examples.

Demography, Population, Migration, Urbanization, Ruralization, Urban sprawl, Urban agglomeration, Urbanization process.

Group D

Ques. 7. Explain the following terms with examples.

Urbanization, Urban sprawl, Urban agglomeration, Urbanization process.

Group E

Ques. 8. Explain the following terms with examples.

Urban sprawl, Urban agglomeration, Urbanization process.

Group F

Ques. 9. Explain the following terms with examples.

Urban sprawl, Urban agglomeration, Urbanization process.

Group G

Ques. 10. Explain the following terms with examples.

Urban sprawl, Urban agglomeration, Urbanization process.

Group H

Ques. 11. Explain the following terms with examples.

Urban sprawl, Urban agglomeration, Urbanization process.