

FYUGP/5th Sem/25(NEP)

2025

Four Year Under Graduate Programme (FYUGP)

5th Semester Examination (Under NEP)

(Session 2023-24)

GEOGRAPHY (Major)

Paper Code : GEOMJ MC-08

(Social and Cultural Geography)

Full Marks : 30

Time : Two Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Group - A

Answer any four questions : $6 \times 4 = 24$

1. Write about the different components of race. Distinguish between Caste and Class. 4+2
2. Define Society. Write a short note on Social Space. 2+4
3. Distinguish between material and non-material culture. Write about the different types of cultural diffusion. 2+4

P.T.O.

(2)

4. Define Cultural Landscape. Write about the different cultural regions of India after Sopher. 1+5
5. Distinguish between language and dialect. Write about the Indo-Aryan language group in India. 2+4
6. Define the term 'Social Geography' in your own words. What is Social Exclusion? Give one example. 2+4
7. Discuss major social problems in India like dowry. Define the term 'Social Process'. 4+2
8. What is a 'Cultural Landscape'? Briefly explain the concept of a 'Cultural Hearth'. 3+3

Group - B

Answer *all* the questions :

1×6=6

Choose the correct alternative.

9. The concept of *social space* refers to —
 - (A) Physical distance between places
 - (B) Space created by social relations
 - (C) Economic market area
 - (D) Political boundary
10. Which of the following is a major indicator of social segregation in Indian cities?
 - (A) Industrial zoning
 - (B) Slum concentration

(C) River systems

(D) Transport networks

11. Assertion (A) : Social well-being goes beyond economic development.

Reason (R) : It includes health, education, equality, and quality of life.

(A) Both A and R are true and R is the correct explanation of A

(B) Both A and R are true but R is NOT the correct explanation of A.

(C) A is true but R is false

(D) A is false but R is true

12. Cultural ecology studies the relationship between —

(A) Culture and politics

(B) Culture and environment

(C) Culture and economy

(D) Culture and population

13. Which language family has the largest number of speakers in India?

(A) Dravidian

(B) Austro-Asiatic

(4)

(C) Sino-Tibetan

(D) Indo-Aryan

14. Which of the following is a major cause of *language extinction*?

(A) Increased tourism

(B) Globalization and dominance of major languages

(C) Development of writing systems

(D) Government preservation policies

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GEOGRAPHY (Major)

Paper Code : GEOMJ MC-09

(Fundamentals of Surveying and Mapping)

Full Marks : 30

Time : Two Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Group - A

Answer any *four* questions : $6 \times 4 = 24$

1. Write a short note on Whole Circle Bearing and Reduced Bearings. What are the sources of error in prismatic compass surveying? 4+2
2. Explain the **principle of triangulation** in surveying. Discuss the **importance of a topographic survey** in geographic studies. What is Azimuth? 2+3+1
3. Write a short note on Bench Mark. Explain the procedure of levelling using a **Dumpy level** (brief steps). 3+3

P.T.O.

(2)

4. Define **contours** and state their **characteristics**. Explain any one method of **contouring**. (1+2)+3
5. Define **cartography** and mention its **scope**. Write the **components of a map**. (1+2)+3
6. What is a **thematic map**? Mention its **significance**. Discuss any **two types of thematic maps** used in spatial analysis. 1+2+3
7. Explain any **two coordinate systems** used in mapping. Distinguish between the **Geoid** and the **Ellipsoid**. 4+2
8. Define **map projection** and explain its need. Write a short note on the **UTM projection**. (1+2)+3

Group - B

Answer *all* the questions : 1×6=6

Choose the correct alternative.

9. Plane surveying is based on the assumption that —
 - (A) Earth is flat
 - (B) Earth is spherical
 - (C) Earth is ellipsoidal
 - (D) Earth is a geoid only
10. The instrument commonly used for measuring horizontal angles accurately is —
 - (A) Prismatic compass

(3)

- (B) Theodolite
- (C) Clinometer
- (D) Abney level

11. Levelling is mainly used to determine —

- (A) Distance between two points
- (B) Height difference between two points
- (C) Area of land
- (D) Bearing of a line

12. The science of map-making is called —

- (A) Photogrammetry
- (B) Cartography
- (C) Geodesy
- (D) Remote sensing

13. Geodetic surveying is preferred over plane surveying when —

- (A) Area surveyed is very small
- (B) High precision is required over large areas
- (C) Only compass survey is used
- (D) Survey is for cadastral mapping only

P.T.O.

(4)

14. The Universal Transverse Mercator (UTM) projection divides the earth into —

(A) 24 zones

(B) 30 zones

(C) 60 zones

(D) 180 zones

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GEOGRAPHY (Major)

Paper Code : GEOMJ MC-10

(Quantitative Techniques in Geography)

Full Marks : 30

Time : Two Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Group - A

Answer any *four* questions : $6 \times 4 = 24$

1. Differentiate between discrete data and continuous data.
Mention the various sources of secondary data. $4+2$
2. Write down the various measures of relative dispersions.
Mention the uses of Quartile deviation. Why Standard
Deviation is considered to be a superior over all
dispersions? $2+2+2$
3. Define Probability. What is an event? Briefly explain the
various types of event in probability. $1+1+4$

P.T.O.

(2)

4. What do you understand by geographical data?
Distinguish between spatial and non-spatial data. 2+4
5. Discuss the merits and demerits of median as a measure
of central tendency. 3+3
6. What are the different measures of dispersion? Mention
the advantages of standard deviation. 3+3
7. What is time-series data? What are the merits and
demerits of moving average method in analysing time-
series data? 1+5
8. Distinguish between correlation and regression analysis.
Write the regression equation of Y on X. 5+1

Group - B

Answer *all* the questions : 1×6=6

Choose the correct alternative.

9. Measurement of soil types such as alluvial, black, and
laterite is based on which scale?
(A) Nominal
(B) Ordinal
(C) Interval
(D) Ratio
10. The 70th percentile is —
(A) Greater than D_8

(3)

(B) Less than D_6

(C) Equal to D_6

(D) Equal to D_7

11. In case of normal distribution, relation between mean, median and mode is —

(A) Mean = Median = Mode

(B) Mean > Median > Mode

(C) Mean < Median < Mode

(D) None of the above

12. Which measure of central tendency is most affected by extreme values?

(A) Arithmetic Mean

(B) Median

(C) Mode

(D) Quartiles

13. Which of the following is an absolute measure of dispersion?

(A) Standard Deviation

(B) Coefficient of Variation

(C) Coefficient of Quartile Deviation

(D) Coefficient of Mean Deviation

P.T.O.

(4)

14. Standard deviation is widely used because it —

- (A) Is simple to compute
- (B) Uses all observations and has algebraic properties
- (C) Is based on only extreme values
- (D) Is independent of units of measurement

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GEOGRAPHY (Major)

Paper Code : GEOMJ MC-11

(Economic and Political Geography)

Full Marks : 30

Time : Two Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Group - A

Answer any *four* questions : $6 \times 4 = 24$

1. Discuss major approaches of Economic Geography.
What is meant by services? $4+2$
2. Classify the resources based on availability and exhaustibility with examples. Mention any two factors responsible for resource creation. $4+2$
3. Discuss the characteristics of intensive paddy cultivation in India. Name two major paddy-producing states of India. $4+2$

P.T.O.

4. Explain central theme of Weber's Least Cost Theory of industrial location. Mention any two demerits of industrial location theory according to Weber. 4+2
5. Define Political Geography and discuss its scope. What is a Buffer State? 4+2
6. Distinguish between Nation and Nation-State. What is meant by Enclave? 4+2
7. Explain the Heartland Theory of Mackinder in context of 1919. Mention any two demerits of the Heartland Theory. 4+2
8. Discuss the geostrategic importance of the Siliguri Corridor. Mention one major vulnerability of the Siliguri Corridor. 4+2

Group - B

Answer *all* the questions :

1×6=6

Choose the correct alternative.

9. Which activity involves extraction of natural resources?
 - (A) Primary
 - (B) Secondary
 - (C) Tertiary
 - (D) Quaternary

(3)

10. Which crop is known as the "Golden Fibre"?

- (A) Cotton
- (B) Jute
- (C) Tea
- (D) Sugarcane

11. Who proposed the Profit Maximization Theory of industrial location?

- (A) Weber
- (B) Christaller
- (C) Losch
- (D) Mackinder

12. Which treaty governs water sharing between India and Pakistan?

- (A) Kaveri Water Treaty
- (B) Indus Water Treaty
- (C) Teesta Agreement
- (D) Ganga Treaty

13. The Rimland Theory was proposed by —

- (A) Mackinder
- (B) Spykman

P.T.O.

(4)

(C) Ratzel

(D) Hartshorne

14. PMGSY is related to —

(A) Urban transport

(B) Rural road connectivity

(C) Industrial corridors

(D) Inland waterways

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GEOGRAPHY (Major)

Paper Code : GEOMJ MC-08

[Social and Cultural Geography]

(Practical)

Set - 2

Full Marks : 20

Time : Two Hours

The figures in the margin indicate full. marks.

Answer *all* the questions.

1. (a) Measure the dissimilarity index to show Asian-White Residential Segregation in the New York City Boroughs (2020)

4

Borough	Asian Population	White Population	Total Population
Manhattan	219,624	793,294	1,694,251
Brooklyn	370,776	968,427	2,736,074
Queens	656,583	549,358	2,405,464
Bronx	67,766	130,796	1,472,654
Staten Island	58,753	277,981	495,747

P.T.O.

(b) HPI-2 Datasets from UNDP reports

Country	P1(%)	P2(%)	P3(%)	P4(%)
Sweden	6.7	7.5	1.1	6.5
Finland	9.4	10.4	1.8	5.4

P1 : Probability at birth of not surviving to age 60 (%);

P2 : Adults lacking functional literacy skills (%);

P3 : Long-term unemployment rate (%); P4 : Population below income poverty line (%).

Measure Human Poverty Index of the given countries.

$$1\frac{1}{2} + 1\frac{1}{2} = 3$$

2. Represent the following data with Bar Graph.

4

District of Meghalaya	Total Bengali Speakers
West Garo Hills	1,60,224
East Khasi Hills	56,370
West Khasi Hills	4,951
South Garo Hills	3,867
East Garo Hills	3,091
Jaintia Hills	2,068
Ri Bhoi (Ribhoi)	1,954

3. Prepare a questionnaire to evaluate housing conditions and types of dwelling units in an urban neighbourhood.

5

4. Laboratory Notebook and Viva-voce.

2+2

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GEOGRAPHY (Major)

Paper Code : GEOMJ MC-09

[Fundamentals of Surveying and Mapping]

(Practical)

Set - 2

Full Marks : 20

Time : Two Hours

The figures in the margin indicate full marks.

Answer all the questions.

[Q. No. 1 will be decided through lottery]

[maximum allotted time for each instrument-20 minutes]

1. Take staff reading of the given 8 stations with at least one change point (at given interval) by a Dumpy level and prepare a field book (Rise and Fall Method) with first RL 50 metres. Plot the profile with suitable scale.

4+3

(2)

Or,

Determine the height of a given object with the help of Transit Theodolite (Base Inaccessible with same vertical plan and same instrument height). Prepare a table and plot with suitable scale.

5+2

Or,

Make a Close Traverse Survey by Prismatic Compass of the given station PQRS (parallelmeridian method) and plot it with necessary correction.

4+3

230°15'

315°15'

39°

133°15'

— small (—)
Large (+)

Or, + small (+)
Large (—)

Transfer the given objects on the given sheet (paper) from the ground using Plane Table (intersection method) with suitable scale. [the number of objects should be 4 and will be decided by the examiner(s)]

7

2. Draw the graticules of Polar Zenithal Stereographic Projection for northern hemisphere up 50° latitude at an interval of 10° on a scale of 1 : 60000000. 5
3. The following data represent district wise literacy rate of Himachal Pradesh in 2011. Prepare a thematic map on the given map using Choropleth technique. 4

Sl. No.	District	Literacy rate
1	Kangra	85.67%
2	Mandi	81.53%
2	Shimla	83.64%
4	Solan	83.68%
5	Sirmaur	78.80%
6	Una	86.53%
7	Chamba	72.17%
8	Hamirpur	88.15%
9	Kullu	79.40%
10	Bilaspur	84.59%
11	Kinnaur	80.00%
12	Lahul and Spiti	76.81%

4. Laboratory Note Book and Viva-voce.

2+2

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Paper Code : GEOMJ MC-10

[Quantitative Techniques in Geography]

(Practical)

Set - 1

Full Marks : 20

Time : Two Hours

The figures in the margin indicate full marks.

Answer *all* the questions.

1. (a) Find arithmetic mean of the following data : 3

Class interval	50-59	40-49	30-39	20-29	10-19	0-9
Frequency	4	5	8	10	20	6

- (b) Calculate standard deviation from the following data : 2

Marks	10	20	30	40	50
No. of Students	2	3	2	2	1

P.T.O.

(2)

2. Find the regression equations from the following data.
Plot it graphically : 4+3

Age of Husband (x)	18	19	20	21	22	23	24	25	26	27
Age of Wife (y)	17	17	18	19	19	20	21	21	20	20

3. (a) Two coins are tossed simultaneously. List the sample space. 1

- $\frac{273}{364}$ (b) In a factory of 364 workers, 91 are married. Find the probability of selecting a worker who is not married. 1

- (c) A bag contains 3 red and 7 black balls. What is the probability of drawing a red ball? 1

- (d) In a survey of 150 college students : 85 use WhatsApp, 70 use Instagram, and 45 use both platforms. Represent the event in a Venn diagram. 1

4. Laboratory Notebook and Viva-voce.

2+2

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Paper Code : GEOMJ MC-11

[Economic and Political Geography]

(Practical)

Set - 1

Full Marks : 20

Time : Two Hours

The figures in the margin indicate full marks.

Answer *all* the questions.

1. (a) Compute the agricultural productivity of the selected states of India using Kendall's Ranking Coefficient and interpret it. 4+1

States	Yield in Kilogram per Hectare			
	Rice	Wheat	Bajra	Maize
Uttar Pradesh	2772	3708	2173	2417
Madhya Pradesh	2080	3012	2586	2812
Panjab	4516	5045	976	4299
Rajasthan	2588	3540	1033	2464

P.T.O.

States	Yield in Kilogram per Hectare			
	Rice	Wheat	Bajra	Maize
Bihar	2541	3150	1139	6975
Telangana	3602	2017	3373	5678
West Bengal	3064	3130	410	6633
Haryana	3766	4723	2200	2951
Maharashtra	2368	1899	608	1847
Karnataka	2986	1235	1217	2855
Gujarat	2259	3132	2600	1848

Source: Agricultural statistics of India, 2024

- (b) Determine the Democracy Index of the country New Zealand with the help of given data and interpret it.

2

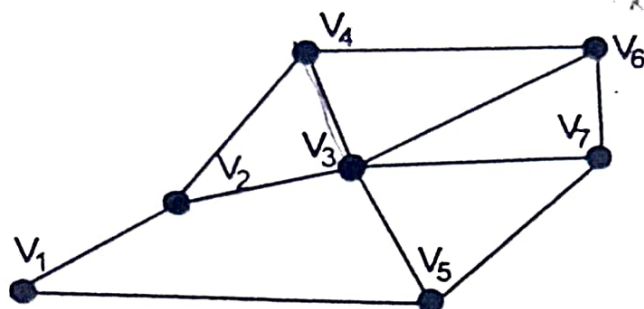
Democracy	Domain score
Electoral Process and Pluralism	10
Functioning of Government	9.29
Political Participation	10
Political Culture	8.75
Civil Liberties	10

Source : Democracy Index data, 2024

2. Measure the degree of Network connectivity using Shimble Index (S.I) and interpret it.

4+1

(3)



2-10
5-6.9
3-4.9
0-2.9

3. Calculate the World Happiness Index (WHI) of the country Japan with the help of given data and interpret it. 3+1

Factors	Co-efficient Value	Dystopia Value	Japan
Log GDP per capita	0.328	6.643	11.76
Social support	2.686	0	0.58
Healthy life expectancy	0.032	46.5	75.28
Freedom to make life choices	1.518	0	0.49
Generosity	0.382	-0.297	-0.26
Perceptions of corruption	-0.669	1	0.70
Dystopia + residual	—	—	1.038

Source : World Happiness Report, 2025

6.154

4. Laboratory Notebook and Viva-voce.

2+2=4