2024

GEOGRAPHY — HONOURS

Paper : DSCC-1

(Physical Geography)

Full Marks : 75

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Category - A

Answer ***any ten*** questions (each within **50** words). 2×10

1. What is a numeric ratio scale?
2. Define the term 'Graticule'.
3. Define conical projection.
4. Define 'asthenosphere.'
5. What is denudation?
6. Differentiate between physical and chemical weathering.
7. What is hydraulic action?
8. What is traction load?
9. What is ITCZ?
10. Define jet stream.
11. What is normal lapse rate?
12. What is residual soil?
13. Define leaching.
14. Distinguish between natural and anthropogenic hazard.

Category - B

Answer ***any five*** questions (each within **125** words). 5×5

15. Explain different methods of map scale representation.

16. Distinguish between hydration and hydrolysis.

17. What are the main conditions required for formation of a delta?

18. Write a short note on the composition of the atmosphere.

19. Explain planetary wind circulation with a suitable diagram.

20. Explain the role of climate in soil formation.

21. Distinguish between eluviation and illuviation.

Category - C

Answer ***any two*** questions (each within **500** words). 15×2

22. Define map. Give a concise account of types of maps.

23. Classify with suitable diagrams, the internal structure of the earth, in relation to seismic waves.

24. Describe plant adaptations and distribution in relation to water availability.

25. Distinguish between hazard and disaster. Classify hazards in the Indian context with examples.

2024

GEOGRAPHY — HONOURS

Paper : SEC-1

(Methods in Geography)

Full Marks : 100

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Category - A

Answer ***any ten*** questions (each within **50** words). 2×10

1. State the difference between primary and secondary data with suitable examples.
2. Differentiate between population and sample.
3. What is Pilot Survey? When is it carried out?
4. What do you mean by Purposive Sampling?
5. What is a Master Table?
6. Differentiate between equal and unequal class.
7. Differentiate between discrete and continuous data.
8. (a) Determine the mean of temperature observation of the given 10 stations :
   11°C, 41°C, 21°C, 31°C, 23°C, 13°C, 35°C, 27°C, 37°C, 41°C.
   (b) Can mean be determined in a grouped frequency distribution with open-ended class?
9. What are the disadvantages of absolute dispersion?
10. How is dominant function identified from Census data?
11. Define levelling. Mention one example where smartphone levelling is less suitable than traditional instrument-based level.
12. What is digital elevation model?
13. Mention one characteristic that will help to identify flooded areas from two comparable satellite images of the same place of pre- and post-monsoon season through visual interpretation.
14. What is semi-interquartile range? If semi-interquartile range of some stations is 30 cm and quartile 1(Q1) is 15 cm, determine the value of quartile 3 (Q3).

Category - B

Answer ***any seven*** questions (each within **125** words). 5×7

15. What is the difference between an interview schedule and a questionnaire? What is the utility of an open-ended question?

16. What is frequency distribution? Explain the method of formation of grouped frequency distribution table.

17. What are the advantages of computer-based field data entry?

18. Find the median geometrically from the following data :

Class	:	51 – 54	55 – 58	59 – 62	63 – 66	67 – 70	71 – 74
Frequency	:	7	13	19	21	8	6

19. Discuss in brief the concept of identifying diversification and balance of economic activities in different towns by the use of circles in a Ternary Diagram.

20. Classify soil types according to texture. How can sieve be used for differentiating soil into textural classes?

21. What statistical formulae are used for determination of distinctiveness of functions? State the formulae and give an example.

22. What diagram/chart will be used to examine commuter movement from city to suburban towns? Discuss the advantages and disadvantages of this diagram.

23. Discuss the parts of a distometer.

24. The following table provide the data regarding distribution of villages based on the following table :

    (a) Prepare a frequency distribution table of equal class.

    (b) Determine the percentage of villages with irrigated area between 45% and 75%.

Table - 1

Frequency distribution of villages in a block based on the share of their irrigated area.

Class (% of irrigated area)	F (Number of villages)
< 15	13
< 30	50
< 45	73
< 60	88
< 75	100

Category - C

Answer ***any three*** questions (each within **500** words).

25. What is the necessity of stratification in a sampling operation? Differentiate between simple random sampling with and without replacement. What are random number series? 5+8+2

26. Prepare a questionnaire with double and multiple answer type questions, showing the people's perception regarding the access to safe drinking water and the problem of water pollution and contamination in the locality. 15

27. The following table shows the frequency distribution of 200 industrial workers according to monthly income :

Monthly Income (₹) :	201 – 250	251 – 300	301 – 350	351 – 400	401 – 450	451 – 500	501 – 550
Frequency :	15	31	55	41	32	20	6

Determine the Standard Deviation of monthly income and the coefficient of variation. Obtain the percentage of workers having monthly income below 400 rupees. 8+4+3

28. What is the best method of studying landforms, river courses and coast lines from secondary sources? State the relative advantages and disadvantages of using topographic sheets and satellite imageries for the above purpose. 7+4+4

29. What is detour index? Calculate the detour index values from the data provided in Table 2. 3+12

Table - 2

From	To	Actual distance (km.)	Straight-line distance (km.)
X	A	1.5	1.4
	B	4.5	4.4
	C	8.1	5.4
	D	5.0	4.9
	E	5.2	3.4
	F	4.5	3.2
	G	8.5	5.2
	H	9.0	5.4
	I	5.5	3.8
	J	9.5	6.2
	K	8.5	4.8
	L	9.0	7.5