

2025

GEOGRAPHY — HONOURS

Paper : DSCC-5

(Geomorphology)

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 landform ordering?
2. What is mudflow?
3. Define 'solifluction'.
4. Name the processes of bedload transportation.
5. What is pyramidal peak?
6. What are moraines?
7. What is a tombolo?
8. How does a spit form?
9. What is a gloup?
10. Define bajada.
11. What is cyclic time?
12. What is dynamic equilibrium?
13. Distinguish between open system and closed system.
14. What is endrumpf?

Please Turn Over
(2696)

Category - B

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

5×5

15. Explain Schumm and Litchy's model on role of time in Geomorphology.
16. Discuss the processes of sediment entrainment by rivers.
17. Differentiate between fault scarp and fault line scarp.
18. Explain the formation of granitic tors.
19. Explain the formation of cliffs and wavecut platforms.
20. Describe the formation of barchans and star dunes.
21. Briefly discuss the role of humans in landform development.

Category - C

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

15×2

22. Give an account of the landforms produced by erosional features of glaciers with suitable sketches.
 23. Describe the development of drainage network on uniclinal structure.
 24. Classify the rapid processes of mass wasting and their resultant landforms.
 25. Explain the evolution of landform as put forward by Penck.
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2025

GEOGRAPHY — HONOURS

Paper : DSCC-6

(Climatology)

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.

Group - A

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

2×10

1. What is albedo?
2. Define solar constant.
3. What is frontogenesis?
4. Define condensation.
5. How is fog formed?
6. What is the 'eye' of a cyclone?
7. What are hygroscopic nuclei?
8. Define dew point.
9. What is insolation?
10. Name four greenhouse gases.
11. Define atmospheric stability.
12. What is burst of monsoon?
13. How is occluded front developed?
14. Why do water bodies remain cooler than land during summer days?

Please Turn Over

(2532)

Group - B

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

5×5

15. Distinguish between barotropic and baroclinic condition.
16. Explain 'radiation inversion of temperature'.
17. Distinguish between conditional and convective instability.
18. State the characteristic of a thunderstorm.
19. Enumerate the controlling factors of temperature distribution.
20. Distinguish between warm front and cold front.
21. Explain adiabatic change of temperature.

Group - C

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

15×2

22. Assess the importance of the ozone layer and mention the consequences of its depletion.
 23. Explain the genesis and specify the characteristics of tropical cyclone.
 24. Elucidate the mechanism of rain drop formation in the atmosphere as depicted in the Ice-crystal theory.
 25. Classify the global air-masses and discuss in brief any one of them.
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2025

GEOGRAPHY — HONOURS

Paper : DSCC-7

(Social 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.

Group - A

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

2×10

1. Name two geographers who contributed to Social Geography.
2. What do you mean by social mobility?
3. What do you mean by 'plural society'?
4. Which region is termed as 'Global South'?
5. Define social security.
6. Define Multidimensional Poverty Index.
7. Identify any four social indicators of development.
8. What is social structure?
9. What is Gender Development Index?
10. Name two social welfare schemes formulated by Government of India for tribes.
11. What is social segregation?
12. Name any two parameters of social well-being applicable to India.
13. What is the difference between migration and commuting?
14. What are the causes of cybercrime among youth?

Please Turn Over

(2521)

Group - B

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

5×5

15. Why are the tribal people of India socially vulnerable?
16. What is the importance of ICDS in Indian society?
17. What is the impact of urbanization on social structure?
18. What are the major developmental challenges for the cities of Global South with respect to social segregation?
19. Explain the relationship between gender empowerment and social well-being.
20. What are the demographic consequences of migration on source areas?
21. Elaborate on social segregation found in rural India.

Group - C

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

22. Discuss the nature, scope and content of Social Geography. 15
23. Discuss the importance of education and health as social indicators of development. 15
24. Discuss the social and cultural consequences of rural male out-migration in India with suitable examples. 15
25. What are the major reasons of gender disparity in India? What remedial measures can be taken to reduce this disparity in the present context? 8+7

2025

GEOGRAPHY — HONOURS

Paper : DSCC-8

(Cartographic Techniques)

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.

(Use of scientific calculator is allowed in this examination paper.)

Category - A

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

2×10

1. Differentiate between a graticule and a grid.
2. What is WGS-84?
3. What is a tangential and a radial scale factor?
4. What is the length of a meridian and an equator on globe?
5. Name any one projection in which pole is represented as an arc of a circle and why?
6. Differentiate between polar and rectangular co-ordinate systems.
7. Name the map projection and datum on which open series maps are drawn.
8. Define a standard parallel.
9. What is orthomorphism?
10. Find the rectangular co-ordinates of a point Q when its polar co-ordinates are (20 m, 45°).
11. Differentiate between perspective and non-perspective projection.
12. Write down the RF of the following Survey of India topographical map :
 - (a) 72
 - (b) 72 K
 - (c) 72 K / NW
 - (d) $72 \frac{K}{10}$

Please Turn Over

(2969)

13. Differentiate between Geoid and Spheroid.

14. What is true bearing?

Category - B

Answer *any five* questions (each within 150 words).

15. Illustrate the numbering of zones in the Universal Transverse Mercator System. 5

16. What are the informations given along the margins of a toposheet? 5

17. What is a rhumbline? How is a great circle and a rhumbline represented on a mercators projection? 3+2

18. Which cartographic techniques would be the best to represent the following and why? 2½+2½

(a) Density of population

(b) Distribution of urban population.

19. Which types of data are represented by divided proportional circles? Give examples. 5

20. If the measured distance from P to Q on a map A with a scale of 1:10,000 is 10 cms, then what would be the scale of map B, if the distance between P and Q on that map is 2 cms? 5

21. Convert the following Bearings from one form to the other : 5

	Whole Circle Bearings	Reduced Bearings
(a)	122°30'	_____
(b)	_____	N 48°30' E
(c)	325°40'	_____
(d)	_____	S 30°45' W
(e)	68°20'	_____

Category - C

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

22. What are the characteristics of Isopleth, Choropleth and Chorochromatic maps? How does the index of Choropleth map differs from a isopleth map? 10+5
23. What is map projection? Classify map projection on the basis of their properties. Give suitable examples. 3+12
24. What are the properties, uses and limitations of Bonne's and Cylindrical Equal Area Projection? $7\frac{1}{2}+7\frac{1}{2}$
25. Compare the reference scheme of old and open series Topographical maps of Survey of India, highlighting the advantages and disadvantages of both. 15
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