2025

GEOGRAPHY — HONOURS

Paper : DSCC-9

(Hydrology and Oceanography)

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 hydrological cycle?
2. Define drainage basin.
3. Differentiate between porosity and permeability of rocks.
4. What is water harvesting?
5. Define aquifer.
6. What is groundwater table?
7. Define infiltration.
8. Classify water mass on the basis of depth.
9. What is T–S diagram?
10. Define salinity.
11. What is Thermohaline circulation?
12. Define the term pycnocline.
13. What is coral bleaching?
14. Mention any two important roles of ocean currents.

Group - B

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

15. Why is drainage basin considered as a hydrological unit?

16. Distinguish between vadose zone and phreatic zone.

17. How do evaporation and transpiration control surface run-off?

18. Distinguish between transverse and longitudinal wave.

19. State the various objectives of watershed management.

20. Differentiate between spring tide and neap tide.

21. Write a short note on marine resource potential.

Group - C

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

22. Explain the physical and biological role of global hydrological cycle.

23. Discuss with diagrams the physical properties of ocean water.

24. Analyse in detail, the factors controlling recharge and discharge of groundwater.

25. Examine the causes and implications of sea level changes.

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GEOGRAPHY — HONOURS

Paper : DSCC-10

(Cultural And Settlement 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 do you mean by non-material culture?
2. Write any two processes of cultural segregation with examples.
3. What do you mean by Cultural Trait?
4. Write the names of any two major cultural realms of the world.
5. What is language family? Give an example.
6. Mention two factors influencing house types of any rural area.
7. What are the building materials of houses in rural mountainous region of India?
8. Write two criticisms of Concentric Zone Model.
9. What is wet-point settlement?
10. What do you mean by C.B.D.?
11. What is urban fringe?
12. What is Hamlet?
13. What do you mean by temporary and permanent settlement?
14. Name a cultural geographer from France.

Category - B

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

15. Discuss the components of culture.

16. What is the significance of cultural diversity in a country?

17. What do you understand by social morphology of rural settlements?

18. Distinguish between metropolis and megalopolis.

19. Briefly explain the formation of a conurbation.

20. Which factors favour the formation of dispersed settlements?

21. Describe the elements of morphology of rural settlement.

Category - C

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

22. Discuss the scope and content of cultural geography.

23. Describe the distribution of major cultural hearths of the world with their characteristics.

24. Critically discuss Hagerstrand's model of cultural diffusion.

25. Discuss critically the model of urban morphology propounded by Harris and Ullman with proper diagram.

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GEOGRAPHY — HONOURS

Paper : DSCC-11

(Hazard Management)

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. Distinguish between Hazard and Disaster.
2. What is trauma of hazard?
3. What are the different hazard paradigms?
4. What is rock fall?
5. Define flash flood.
6. What is a fire triangle?
7. What is meant by the epicentre of earthquake?
8. State any two elements of resilience building.
9. What is soil creep?
10. Name two major landslide-prone regions of West Bengal.
11. What do you mean by hazard continuum?
12. State two functions of NDRF.
13. What is anthropogenic hazard?
14. Define Bio-war.

Category - B

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

15. What is meant by capacity building in hazard management?

16. What are the main factors responsible for causing earthquakes?

17. Explain the role of mangroves of Sundarban region in minimizing the impacts of cyclones.

18. Suggest mitigation measures of land subsidence.

19. Discuss the geospatial techniques adopted for hazard management.

20. Describe the stages of disaster preparedness and response.

21. State why West Bengal's coastline is prone to erosion.

Category - C

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

22. Discuss risk perception and vulnerability assessment as approaches to hazard study.

23. State the factors favouring the development of tropical cyclones and describe their consequences on environment and livelihood.

24. Explain the processes and management of riverbank erosion in India with suitable examples.

25. Define bio-hazards and discuss about the consequences of different bio-hazards.

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GEOGRAPHY — HONOURS

Paper : DSCC-12

(Thematic Mapping and Surveying)

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)

Category - A

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

1. Round each of the following numbers to the indicated accuracy :

   (a) 56.7 (nearest unit), (b) 259.66 (nearest tenth), (c) 588 (nearest hundred), (d) 0.0568 (nearest thousandth).

2. Express each of the following numbers without using powers of 10 :

   (a) 8.923×10^{5}, (b) 9.52×10^{-3}, (c) 1.86×10^{0}, (d) $20{,}000\times10^{-5}$.

3. What does log 3 mean? What is the antilog of 4?

4. What is the utility of log scale over natural scale?

5. What is the line of unconformity?

6. What is the use of a prism in a Prismatic compass?

7. Prove that difference between the fore and back bearing is 180°.

8. What is true dip and apparent dip?

9. Differentiate between surveying and levelling.

10. What is the difference between land use and land cover?

11. What is echo reflection?

12. Which diagrams/maps will be appropriate to represent the following socio-economic characteristics?

    (a) age-sex composition of population

    (b) occupational structure of population

    (c) number of occupied residential houses

    (d) decadal growth of population.

Please Turn Over

21. (a) Explain the use of Abney Level.

(b) Mention the parts of an Abney Level.

(c) What is the smallest accurate reading that can be measured by an Abney Level? 2+2+1

Category - C

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

22. What is socio-economic data? Discuss with suitable egs and diagrams, the different methods of representing socio-economic data. 3+12

23. The following consecutive readings were taken with a dumpy level at 30 m interval along a line XY : 3.865, 3.762, 3.453, 2.987, 1.789, 0.854, 3.790, 3.561, 3.112, 2.569, 1.762, 1.111, 1.023, 0.986 and 0.855. The level was shifted after 5th and 11th readings. RL of the first station is 32 m.

(a) Enter the readings on a neatly drawn field book

(b) Calculate the RLs of all stations and check

(c) Calculate the gradient of the line XY. 5+7+3

24. A and B are two instrument stations 15 mts apart in a theodolite survey. P is the object sighted. With the theodolite stationed at A with face left, the VC and VD readings recorded are 11°20′ and with face right the VC and VD readings recorded are 11°24′. The VC and VD readings with face left of the theodolite stationed at B are 17°42′ and with face right of the theodolite, the VC and VD readings recorded are 17°40′. The height of the instrument at station A and B are 1.30 m and 1.50 m respectively. If the RL of station A is 50 m calculate :

(a) height of P above level of collineation

(b) height of P above MSL

(c) horizontal distance between A and P

(d) slanting distance between A and P. 7+2+3+3

25. The following are the bearing of lines of a closed traverse which is done in clockwise direction :

Line	Fore bearing	Back bearing
AB	40°00′	219°00′
BC	95°30′	276°30′
CD	208°30′	25°30′
DA	282°30′	104°30′

(a) Correct the bearing for local attraction.

(b) Calculate the included angles of the traverse.

(c) Carry on checking to verify if sum of interior angles is correct. 6+6+3

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