

2023

GEOGRAPHY — MDC

Paper : CC-1

(Physical Geography)

Full Marks : 75

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

*প্রাপ্তলিখিত সংখ্যাগুলি পূর্ণমান নির্দেশক।*

Category - A

*যে-কোনো দশটি প্রশ্নের উত্তর দাও (প্রতিটি ৫০ শব্দের মধ্যে)।*

২×১০

- ১। বৃহৎ স্কেল মানচিত্র কী?
- ২। অভিক্ষেপ তলের সংজ্ঞা দাও।
- ৩। ভার্নিয়ার প্রবক কী?
- ৪। L-wave-এর তাৎপর্য কী?
- ৫। জেট বায়ু কাকে বলে?
- ৬। পৃথিবীর বায়ুচাপ বলয়গুলি উল্লেখ করো।
- ৭। অপরিণত মাটি কী?
- ৮। স্কিওফাইট কী?
- ৯। ক্যানিয়ন কী?
- ১০। হিউমিফিকেশন কী?
- ১১। জলজ উদ্ভিদের দুটি অভিযোজন লেখো।
- ১২। শঙ্কমোচন কী?
- ১৩। নিরক্ষীয় অঞ্চলে রাসায়নিক আবহবিকার অধিক মাত্রায় কেন দেখা যায়?
- ১৪। দুর্যোগ ও বিপর্যয়ের পার্থক্য কী?

Please Turn Over

**Category - B**

যে-কোনো পাঁচটি প্রশ্নের উত্তর দাও (প্রতিটি ১২৫ শব্দের মধ্যে)।

৫×৫

- ১৫। দৃশ্যানুগ ও অদৃশ্যানুগ অভিক্ষেপ বলতে কী বোঝো?
- ১৬। পৃথিবীর ভূত্বকের গঠন ব্যাখ্যা করো।
- ১৭। ইনডেক্স সাইকেল বলতে কী বোঝায়?
- ১৮। পলল ব্যজনী ও পলল শঙ্কুর গঠন সম্বন্ধে আলোচনা করো।
- ১৯। একটি আদর্শ মৃত্তিকা পরিলেখের চিত্রসহ বিবরণ দাও।
- ২০। “জলের পরিমাণ উদ্ভিদের প্রকৃতিকে সর্বাধিক নিয়ন্ত্রণ করে।”— উক্তিটির যথার্থতা ব্যাখ্যা করো।
- ২১। ভারতের দুটি গুরুত্বপূর্ণ প্রাকৃতিক দুর্যোগের কারণ আলোচনা করো।

**Category - C**

যে-কোনো দুটি প্রশ্নের উত্তর দাও (প্রতিটি ৫০০ শব্দের মধ্যে)।

- ২২। উদাহরণ সহ স্কেল ও কার্যকারিতার ভিত্তিতে মানচিত্রের শ্রেণিবিভাগ করো। ১৫
- ২৩। যান্ত্রিক আবহবিকারের বিভিন্ন প্রক্রিয়াগুলি চিত্রসহ আলোচনা করো। ১৫
- ২৪। বায়ুমণ্ডলের বিভিন্ন স্তরগুলির বৈশিষ্ট্য চিত্রসহকারে আলোচনা করো। ১৫
- ২৫। জলের প্রাপ্যতা অনুযায়ী উদ্ভিদের শ্রেণিবিভাগ করো। ১৫

**[ English Version ]**

*The figures in the margin indicate full marks.*

**Category - A**

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

2×10

1. What is large scale map?
2. Define projection plane.
3. What is vernier constant?
4. What is the significance of L-wave?
5. What is jet stream?
6. Mention the pressure belts of the earth.

7. What is immature soil?
8. What are sciophytes?
9. What is canyon?
10. What is humification?
11. Write two adaptations found in hydrophytes.
12. What is exfoliation?
13. Why chemical weathering is most common in the equatorial region?
14. What is the difference between hazard and disaster?

**Category - B**

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

5×5

15. What do you mean by perspective and non-perspective projection?
16. Discuss the structure of the earth's crust.
17. What is meant by index cycle?
18. Discuss the formation of alluvial fans and alluvial cones.
19. Describe an ideal soil profile with diagram.
20. "Quantity of water greatly determines the nature of the plant."– Justify the statement.
21. Discuss the causes of any two significant natural hazards in India.

**Category - C**

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

22. Classify maps on the basis of scale and function with examples. 15
  23. Discuss different processes of physical weathering with sketches. 15
  24. Discuss the characteristics of different layers of the atmosphere with diagrams. 15
  25. Classify plants according to availability of water. 15
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**2023**

**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 are the three ways of representing scales?
2. Define generating globe.
3. Differentiate between P-wave and S-wave.
4. What is mantle?
5. Distinguish between carbonation and oxidation.
6. What is cavitation?
7. What are the major agents of erosion?
8. What is tropopause?
9. Define index cycle.
10. What is regolith?
11. Define soil catena.
12. Define humus.
13. State any two adaptations of xerophytes.
14. Differentiate between hazard and disaster.

**Please Turn Over**

**Category - B**

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

5×5

15. Classify map projections on the basis of properties.
16. What is meant by seismic shadow zone?
17. Distinguish between entrenched and ingrown meanders.
18. Write a short note on composition of atmosphere.
19. Distinguish between eluviation and illuviation.
20. Describe different types of hydrophytes with examples.
21. Distinguish between quasi-natural hazard and man-made hazard.

**Category - C**

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

15×2

22. Describe the various processes of weathering with the help of diagrams.
  23. Give an account of the landforms produced by fluvial processes with suitable sketches.
  24. Explain planetary wind system with suitable sketches.
  25. Explain the factors controlling soil formation with examples.
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2023

**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.*

*Use of scientific calculators is allowed in this Examination / Paper.*

**Group - A**

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

1. Define primary survey. 2
2. What is sampling bias? 2
3. Differentiate between variable and attribute. 2
4. Differentiate between raw data and grouped data. 2
5. Mention the name of any two software used for entry and analysis of field data. 2
6. If mean temperature is 20 °C and coefficient of variation is 40%, calculate the standard deviation. 2
7. Determine the median of these rainfall (cm) observations at 12 stations : 95, 55, 61, 81, 107, 101, 73, 77, 98, 77, 89, 83. 2
8. Differentiate between range and interquartile range. 2
9. Mention one advantage and one disadvantage of undertaking smartphone levelling. 1+1
10. The yields in grams of five tomato plants are 1205, 1247, 1302, 1256 and 1260. What is the mean yield? 2
11. State the uses of distometer. 2
12. Mention any two advantages of using satellite images for mapping areal extent of riverbank shift. 2
13. What do you mean by dominant and distinctive function? 2
14. What is detour index? 2

**Please Turn Over**

**Group - B**

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

15. Define pilot survey and discuss its relevance for conducting a primary survey. 5
16. Write a short note on simple random sampling. 5
17. Mention any five differences between questionnaire and survey schedule. 5
18. What are the different parts of a master table? Explain with the help of suitable diagram. State two advantages of tabulation of data. 2+1+2
19. Calculate the detour index values from the data provided in Table-1. 5

**Table - 1**

From	To	Shortest route distance (km)	Straight line distance (km)
P	A	1.0	0.9
	B	5.0	5.0
	C	5.0	4.9
	D	9.0	7.5
	E	9.0	5.8
	F	9.5	5.9
	G	5.5	3.9
	H	4.5	3.6
	I	8.5	5.8
	J	9.5	6.6

20. Calculate the frequency densities from the data given in Table-2. 5

**Table - 2**

Daily income (Rs.)	No. of employees
124.5 – 134.5	105
134.5 – 154.5	338
154.5 – 174.5	271
174.5 – 194.5	260
194.5 – 244.5	266
<b>Total</b>	<b>1240</b>

<b>Months</b>	<b>Jaisalmer</b>	<b>Darjeeling</b>
January	0.0	12.2
February	0.0	2.6
March	0.0	17.2
April	0.6	69.4
May	37.2	309.7
June	57.4	584.3
July	96.8	722.1
August	5.6	876.8
September	113.7	356.6
October	2.4	385.9
November	0.0	21.2
	3.0	15.8



To	Shortest route distance (km)	Straight line distance (km)
A	1.0	0.9
B	5.0	5.0
C	5.0	4.9
D	9.0	7.5
E	9.0	5.8
F	9.5	5.9
G	5.5	3.9
H	4.5	3.6
I	8.5	5.8
J	9.5	6.6

21. What is the difference between absolute dispersion and relative dispersion? What is the advantage of using relative dispersion? 3+2
22. What is the utility of a ternary diagram? What data units are used along the three axes? 3+2
23. Discuss the different parts of a brunton compass. 5
24. Discuss the importance of undertaking soil particle size analysis. 5

### Group - C

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

25. State the sampling type suitable for analysis of disparity in an area where the people of different social groups reside and discuss its advantages and disadvantages. 15
26. Prepare a questionnaire with double and multiple answer types questions about the perception of the local people regarding the environmental problems in their locality. 15
27. Explain the stages involved in the textural classification of soil samples using sieve set mentioning the primary soil textural classes. 15
28. Compare the variability of rainfall for the two given districts (Table-3) using co-efficient of variation. 15

Table - 3

Monthly rainfall for two stations (mm), 2021

Months	Jaisalmer	Darjeeling
January	0.0	12.2
February	0.0	2.6
March	0.0	17.2
April	0.6	69.4
May	37.2	309.7
June	57.4	584.3
July	96.8	722.1
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September	113.7	356.6
October	2.4	385.9
November	0.0	21.2
December	3.0	15.8

29. How the areas inundated during a given flood event can be mapped using satellite images and elevation models? 15