

## West Bengal State University

B.A./B.Sc./B.Com (Honours, Major, General) Examinations, 2013

Part - I

GEOGRAPHY — Honours

Paper - I

Duration : 4 Hours ]

[ Full Marks : 100

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

*The figures in the margin indicate full marks.*

**GROUP - A**

(Geotectonics)

Category - A

Answer any *one* question within 600 words :

1 × 10 = 10

1. How are the mountains formed at collision sites between two continental plates ? What is mobile core ? 8 + 2
2. Elucidate the concept of 'Sea floor spreading'. Explain its consequences. 5 + 5

Category - B

Answer any *four* questions within 150 words each :

4 × 5 = 20

3. What are the various types of gravity anomaly ?
4. What are the palaeomagnetic evidences in favour of the drift of continents ?
5. How do the earthquake waves prove the existence of liquid outer core of the earth interior ?
6. Classify Mesozoic era into different periods mentioning the major topographic evidences.
7. What is Benioff zone ? How is its existence proved ? 3 + 2
8. Distinguish between the isostatic concepts of J. Airy and A. Pratt.
9. Distinguish between 'aa lava' and 'pahoehoe' lava.

## GROUP - B

## (Geomorphology)

## Category - A

Answer any *two* questions within 600 words each :

2 × 10 =

10. Classify and define various types of folds on different bases of classification with relevant sketches and diagrams.
11. Trace the evolution of drainage and resultant landforms in the regions of unclastic structure.
12. Describe the typical landforms that are developed on granitic rocks under humid tropical climate and explain their formation.
13. Describe the erosional processes and resultant landforms along the rocky coast of the world with sketches and example.

## Category - B

Answer any *four* questions within 150 words each :

4 × 5 =

14. Distinguish between fault scarp and fault-line scarp.
15. What are the factors that control mass-wasting processes ?
16. Distinguish between superimposed and antecedent drainage.
17. Describe the processes of formation of cirque in a glaciated valley.
18. Write a brief note on Hack's concept of landscape evolution.
19. What is meant by rejuvenation ? What are the different types of rejuvenation ?
20. Explain the formation of beaches along the shoreline.

## GROUP - C

## ( Hydrology and Oceanography )

## Category - A

Answer any *one* question within 600 words :

1 × 10 = 10

21. What is run-off cycle ? Describe its different phases with illustrations. 2 + 8
22. How do the temperature and salinity of ocean water vary horizontally and vertically ?

## Category - B

Answer any *four* questions within 150 words each :

4 × 5 = 20

23. How does Darcy's law relate ground water movement to permeability ?
24. Distinguish between aquifer and aquitard.
25. How is the global water balance maintained through evaporation and precipitation ?
26. Classify marine sediments and briefly describe the characteristics of deep sea sediments.
27. Define inner cycle and minor cycle.
28. Discuss the factors affecting infiltration capacity.
29. Explain why there is a wide variation of salinity of surface water of ocean.
-