

**West Bengal State University**  
**B.A./B.Sc./B.Com. ( Honours, Major, General ) Examinations, 2012**

**PART - I**  
**GEOGRAPHY ( Honours )**  
**Paper - I**

Duration : 4 Hours ]

[ Full Marks : 100

*The figures in the margin indicate full marks.*

**Group - A**

**( Geotectonics )**

**Category - A**

Answer any *one* question within 600 words :

1 × 10 = 10

1. Describe the structure of the earth's interior with the help of seismological evidence.  
How is the Mohorovicic Discontinuity identified ? 8 + 2
2. Discuss in detail the palaeo-climatic and structural evidences as put forward by Wegener in support of this Continental Drift theory.

**Category - B**

Answer any *four* questions within 150 words each :

4 × 5 = 20

3. Classify the Palaeozoic era into different periods mentioning the major geologic events during this era.
4. Justify why Airy assumed that mountains have roots.
5. Explain the formation of intra-oceanic island arcs with examples.
6. Discuss how earthquakes are associated with the different plate boundaries.
7. Define vulcanicity. Briefly enumerate the causes responsible for volcanic eruption.
8. Describe how the lithospheric plates move. Illustrate your answer with suitable diagram.
9. What do you understand by the 'Level of Compensation' ?



**Group - B****( Geomorphology )****Category - A**

Answer any *two* questions within 600 words each :

2 × 10 = 20

10. "Landform is a function of structure, process and stage." Critically elaborate the concept.
11. Discuss the evolution of landform in an area of faulted structure.
12. Describe the landforms produced by fluvio-glacial process.
13. What are the processes of chemical weathering ? Mention the factors influencing the rate and nature of weathering.

6 + 4

**Category - B**

Answer any *four* questions within 150 words each :

4 × 5 = 20

14. Explain the concept of parallel retreat of slope as postulated by Penck.
15. Describe with diagram how tors are formed.
16. How are spits and cusped forelands formed ?
17. Explain the development of 'inversion of relief' on folded rock strata.
18. Describe the mechanism for meander formation.
19. Differentiate between mudflow and earthflow.
20. Distinguish between obsequent and resequent streams.

**Group - C****( Hydrology and Oceanography )****Category - A**

Answer any *one* question within 600 words :

1 × 10 = 10

21. Explain the various surface and sub-surface factors affecting infiltration and runoff.
22. Classify ocean sediments according to their origin. How are red clays formed ?

8 + 2



## Category - B

Answer any *four* questions within 150 words each :

4 × 5 = 20

23. What is a T-S diagram ? Mention its utility. 4 + 1
  24. Describe the processes of recharge and discharge of ground water.
  25. Briefly discuss the runoff cycle.
  26. Distinguish between permeability and water holding capacity.
  27. What are hindrances of global hydrological cycle ?
  28. Differentiate between incessant spring and intermittent spring.
  29. Explain the factors influencing salinity of ocean water.
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