



**WEST BENGAL STATE UNIVERSITY**

B.A./B.Sc. Honours Part-I Examination, 2019

**GEOGRAPHY**

**PAPER-GEOA-I**

Time Allotted: 4 Hours

Full Marks: 100

*The figures in the margin indicate full marks.  
Candidates should answer in their own words and adhere to the word limit as practicable.*

**GROUP-A**

**GEOTECTONICS**

**CATEGORY-I**

**Answer any one question from the following within 600 words** 10×1 = 10

1. Discuss in detail the palaeo-climatic and structural evidences as put forward by Wegener in support of the Continental Drift theory. What is polar wandering? 8+2
2. Compare and contrast the concept of Isostasy as put forward by Airy and Pratt. 10

**CATEGORY-II**

**Answer any four questions from the following within 150 words** 5×4 = 20

3. State the various types of gravity anomaly. 5
4. How do earthquake waves prove the existence of liquid outer core of the earth's interior? 5
5. What is Benioff-Zone? How is it related to earthquakes? 5
6. Classify Palaeozoic Era into different periods mentioning the major geologic events during this Era. 5
7. Describe how lithospheric plates move with suitable diagrams. 4+1
8. Distinguish between 'aa lava' and 'pahoehoe lava'. 5
9. Explain the formation of intra-oceanic island arcs with examples. 5

**GROUP-B**

**GEOMORPHOLOGY**

**CATEGORY-I**

**Answer any two questions from the following within 600 words** 10×2 = 20

10. Describe the typical landforms developed on granitic rocks and explain their formation. 10
11. Elucidate Penck's concept of landscape evolution. Give suitable sketches. 8+2

12. Classify and describe the different types of folds on different bases of classification with relevant diagrams. 10
13. Describe different processes of coastal erosion. Give an account of the landforms developed due to coastal deposition with suitable sketches. 3+7

**CATEGORY-II**

**Answer any *four* questions from the following within 150 words**

5×4 = 20

14. Explain the formation of alluvial fans. 5
15. Describe 'inversion of relief' over folded structure. 5
16. Explain briefly the concept of dynamic equilibrium. 5
17. Analyse different processes of chemical weathering. 5
18. Discuss different landforms produced by glacial deposition. 5
19. How are river terraces formed? Classify different types of river terraces. 2+3
20. Explain the process of river capture. 5

**GROUP-C**

**HYDROLOGY AND OCEANOGRAPHY**

**CATEGORY-I**

**Answer any *one* question from the following within 600 words**

10×1 = 10

21. Elaborate upon the factors influencing the recharge and discharge of groundwater. 10
22. Classify marine sediments according to their origin and describe each type. 10

**CATEGORY-II**

**Answer any *four* questions from the following within 150 words**

5×4 = 20

23. Explain the significance of T-S diagrams. 5
24. Differentiate between interception and infiltration. 5
25. How do slope and natural vegetation cover influence surface runoff? 3+2
26. Explain the significance of Global Hydrological Cycle. 5
27. Distinguish between zone of aeration and zone of saturation. 5
28. Explain the factors influencing the salinity of Ocean water. 5
29. State the different phases of runoff cycle. 5

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