



**WEST BENGAL STATE UNIVERSITY**  
B.A./B.Sc. Honours PART-I Examinations, 2017

**GEOGRAPHY-HONOURS**

**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-A**

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

1. Give a critical account of the concepts of isostasy as postulated by Pratt and Airy. 10
2. Explain the important proofs supporting the theory of Sea Floor Spreading. 7+3  
What is the significance of guyots in relation to this theory?

**CATEGORY-B**

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

3. What do you mean by "Hot Spot" in the earth's crust? Explain their development. 5
4. Mention the characteristics of Asthenosphere. What is 'P' wave? 3+2

5. What is Pangaea? Briefly describe the breaking up of Pangaea. 2+3
6. Bring out the significance of polar wandering in connection with Continental Drift Theory. 5
7. Explain how the process of subduction is related with volcanic activity. 5
8. How are earthquakes associated with different plate boundaries? 5
9. Discuss the major geologic and geomorphic events of the Mesozoic era. 5

**Group-B**

**(GEOMORPHOLOGY)**

**CATEGORY-A**

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

10. Give an account of the processes of mechanical weathering and the resultant landforms. 10
11. Analyse the evolution of landforms formed due to coastal erosion, specifying the operating processes. 10
12. Discuss Penck's concept of landscape evaluation. Support your answer with suitable sketches. 10
13. Describe with sketches the evolution of landforms in faulted structure. How do obsequent and resequent scarps develop? 6+4

**CATEGORY-B**

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

14. Discuss with examples the difference between primary and secondary rock structure. 5

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| 15. | Describe the formation of cuesta and hogback.                       | 5       |
| 16. | How do interruptions occur in a normal cycle of erosion?            | 5       |
| 17. | Explain the major weathering landforms formed in a granitic region. | 5       |
| 18. | How are eskers and kame terraces formed?                            | 2.5+2.5 |
| 19. | Differentiate between earthflow and mudflow.                        | 5       |
| 20. | What is meant by inversion of topography? Explain with diagrams.    | 5       |

**Group-C**

**(HYDROLOGY AND OCEANOGRAPHY)**

**CATEGORY-A**

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

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|-----|---|-----|
| 21. | Give an account of the global hydrological cycle. How will it be impacted by anthropogenic factors? | 7+3 |
| 22. | Discuss the factors influencing the temperature distribution of ocean water.                        | 10  |

**CATEGORY-B**

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

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|-----|---|---|
| 23. | Explain how soil and rainfall influence infiltration capacity.          | 5 |
| 24. | 'Condensation is indirectly a cooling process' – explain the statement. | 5 |
| 25. | Classify aquifers and briefly describe each type.                       | 5 |
| 26. | Differentiate between porosity and permeability.                        | 5 |

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| 27. | Discuss the characteristics of red clay and marine ooze. | 2.5+2.5 |
| 28. | Describe the characteristics of lithogenous sediments.   | 5       |
| 29. | What is T-S diagram?                                     | 5       |