

GOVERNMENT OF KARNATAKA
DEPARTMENT OF SCHOOL EDUCATION (PRE-UNIVERSITY)
MODEL QUESTION PAPER 2024-25
PUC- I

GEOLOGY (37)

Duration: 3.00 hour

Max. Marks: 80

Instructions:

1. All parts are compulsory.
 2. Draw neat labelled diagrams wherever necessary.
 3. Write correct question numbers.
 4. For part A questions only first written answers will be considered for evaluation.
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PART-A

I. Answer all of the following questions.

(5X1=5)

1. A group of students observe a steep-sided valley with a flat bottom, which has been widened by glacial activity. Which erosional feature are they most likely observing?
 - a. Fjord
 - b. Arête
 - c. U-shaped Valley
 - d. Hanging Valley
2. **Assertion (A):** Ventifacts and Pedestal rocks are formed by abrasion.
Reason (R): These features are formed because of the action of river.
 - a. (A) is True; (R) is True, But (R) is correct explanation for (A)
 - b. (A) is False; (R) is True
 - c. (A) is True; (R) is True, But (R) is not correct explanation for (A)
 - d. (A) is True; (R) is False
3. By observing the diagram, identify the feature.
 - a. Parabolic dune
 - b. Barchans dune
 - c. Transverse dun
 - d. Lobate dune



4. Which of the following is an Indian multinational oil and gas company.

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|---------|--------|
| a. ONGC | c. DMG |
| b. AEC | d. GSI |

5. Which of the following factor is not applicable for folding.

- | | |
|------------------------|-----------------|
| a. Extension & bending | c. Displacement |
| b. Stress | d. Strain |

II. Fill in the blanks from the given list (5X1=5)

(Environment, Triclinic, Paleontology, Pythagoras, Plants, Ecology)

6. The branch of geology which deals with the study of fossils is called as_____
7. The spheroidal shape of the earth is given by_____
8. Biological weathering is caused by _____
9. In _____ crystal system three axes of unequal lengths and all are inclined.
10. The total set of circumstances which surrounds an organism is called_____

III. Match the following. (5X1=5)

- | 11. A | B |
|------------------|-------------------|
| a. Luster | I. Saturn |
| b. Outer group | II. Mercury |
| c. Geoid | III. Wind erosion |
| d. Mushroom rock | IV. Pearly |
| e. Biotite | V. Mica |
| | VI. Shape |

IV. Answer all of the following questions. (5X1=5)

12. Name the galaxy where earth belong.
13. Name the discontinuity which separate mantle and core.
14. What is snow line?
15. Define cirque.
16. What is hazard?

PART-B

V. Answer any Seven of the following (7X2=14)

17. Differentiate between meteor and comets.
18. What is hydrogeology?
19. Define meteorite.
20. Define interfacial angle.

21. Name the different shapes of the earth.
22. Write the reason for causing day and night on the earth.
23. What is focus or hypocenter?
24. Given any two characters of in axis of symmetry.
25. What is air pollution?
26. Give the full form on G.S.I.
27. Define mineral. Give any two example.

VI. Answer any Seven questions from the following.

(7X3=21)

28. Explain how and where the stalactites are formed.
29. Write a note on Eskers.
30. Write a note on P and S waves.
31. List the products of weathering and mention its types.
32. With neat labelled diagram explain zone of saturation.
33. Draw a neat labelled diagram of seismograph.
34. With neat labelled diagram explain plane of symmetry.
35. With neat labelled diagram explain crystallographic axis in tetragonal system.
36. What is tenacity? Mention its types.
37. Explain the Karst topography.
38. Explain the erosional features of Rivers.

VII. Answer any five questions from the following.

(5X5=25)

39. Discuss how mechanical weathering is responsible for disintegration of rock.
40. How do variations in wind velocity, direction, and sediment supply influence the morphology and distribution of these features?
41. Compare various causes of the origin of earthquake.
42. Write uses of commonly found minerals on earth in various industries.
43. Explain the measurements of interfacial angle of a Crystal.
44. With a neat labelled diagram explain geosphere.
45. Explain different types of springs.
46. Explain the classification of earthquakes.
47. Write the properties of non-metallic ore minerals.

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