

GOVERNMENT OF KARNATAKA
KARNATAKA SCHOOL EXAMINATION AND ASSESSMENT BOARD
MODEL QUESTION PAPER - 01 2025-26

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. What kind of structure is characterized by an essentially granular and equidimensional mineral grain arrangement?
 - a. Schistose structure
 - b. Gneissose structure
 - c. Granulose structure
 - d. Cataclastic structure
2. The presence of angular grains in a sedimentary rock like breccia suggests:
 - a. Long transport distance
 - b. Short transport distance
 - c. Chemical precipitation
 - d. High temperature formation
3. The mesozone is characterized by which of the following conditions?
 - a. Low temperature and high shear stress
 - b. Moderate temperature and mixed pressure types
 - c. High temperature and hydrostatic pressure
 - d. Low pressure and low temperature
4. The main orogeny that created the Alps and Carpathians took place during which era?
 - a. Mesozoic
 - b. Cenozoic
 - c. Paleozoic
 - d. Precambrian
5. Inliers are areas of:
 - a) Older rocks surrounded by younger rocks
 - b) Younger rocks surrounded by older rocks
 - c) Rocks formed by igneous activity
 - d) Rocks altered by faulting



II. Fill in the blanks**(5X1=5)****(Mollusca, Cenozoic, Columella, Limbs, Mesozoic, Lava)**

6. The two bends located on either side of the fold axis are known as _____.
7. The part of a coral where the largest septa meet is called the _____.
8. When magma erupts to the Earth's surface, it is called _____.
9. Gasteropods have a single-piece shell and belong to the phylum _____.
10. The Era known as the "Age of Reptiles" is the _____.

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

11.

A**B**

- | | |
|-----------------|-----------------|
| a. Dolerite | I. Reverse |
| b. Argillaceous | II. Brachiopod |
| c. Marble | III. Shale |
| d. Fault | IV. Metamorphic |
| e. Inequivalved | V. Sandstone |
| | VI. Ophitic |

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

12. What is the role of temperature in metamorphism?
13. What is pillow lava?
14. What is lithification?
15. Define true dip.
16. Define Suture.

**PART-B****V. Answer any Seven of the following****(7X2=14)**

17. Define petrology.
18. What is poikilitic texture?
19. What is acidic lava?
20. What is holohyaline?
21. Define lamination?
22. Draw neat labelled diagram of Graded bedding.
23. Name the zones of metamorphism.
24. What is anticline fold?
25. Define correlation.
26. What is petrification?

27. Name the different kinds of metamorphism.

VI. Answer any seven questions from the following. (7X3=21)

- 28. Write a note on attitude of beds.
- 29. Explain parts of fold?
- 30. What is the difference between breccia and conglomerate?
- 31. Describe the principles of stratigraphy.
- 32. Explain glossopteris plant fossil.
- 33. With neat labelled diagram explain columnar structure.
- 34. Write the classification of igneous rocks.
- 35. Write a note on agents of metamorphism.
- 36. Draw a neat labelled diagram of Horst and Graben fault
- 37. Draw a chart showing periods and time range of mesozoic era.
- 38. Draw a chart showing distribution of gastropods.

VII. Answer any five questions from the following. (5X5=25)

- 39. Discuss the classification of Archaean rocks in Karnataka and their significance.
- 40. Discuss the morphology and geological range of brachiopods.
- 41. How do vesicular and amygdaloidal structures form? Explain their importance
- 42. Explain with neat labelled diagram morphology of corals.
- 43. Describe the significance of the Glossopteris fossil in understanding the geological history of Gondwana.
- 44. With neat labeled diagram explain gneissose structure.
- 45. Discuss types of unconformity.
- 46. Explain the properties of Pumice and Basalt.
- 47. Discuss the significance of structural geology in the exploration of groundwater.

