

**GOVERNMENT OF KARNATAKA**  
**KARNATAKA SCHOOL EXAMINATION AND ASSESSMENT BOARD**  
**MODEL QUESTION PAPER - 04 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. Sediments: Sand, gravel, clay and silt.

Arrange the sediments in their increasing grain size order.

- |                            |                          |
|----------------------------|--------------------------|
| a. Gravel→sand→silt → clay | c. Clay→silt→sand→gravel |
| b. Silt→sand→gravel→clay   | d. Sand→silt→gravel→clay |

2. Assertion (A): The rocks occurring in the epizone are slate and chlorite schist.

Reason (R): Because epizone occurs near the earth's surface and is characterized by low temperature and strong shear stress.

- a. (A) is true, but (R) is false
- b. (A) is false, but (R) is true
- c. Both (A) and (R) are true and (R) is the correct explanation of (A)
- d. Both (A) and (R) are true, but (R) is not the correct explanation of (A)

3. Rocks in the epizone are metamorphosed chiefly under the influence of:

- |                         |                          |
|-------------------------|--------------------------|
| a. Dynamic metamorphism | c. Plutonic metamorphism |
| b. Thermal metamorphism | d. None of the above     |

4. Rifting of super-continent Pangaea is featured in:

- |                  |                   |
|------------------|-------------------|
| a. Paleozoic Era | c. Cenozoic Era   |
| b. Mesozoic Era  | d. Archeozoic Era |

5. Which type of joint forms due to cooling and contraction of igneous rocks?

- a. Bedding joint
- b. Columnar joint
- c. Dip joint
- d. Strike joint

**II. Fill in the blanks (5X1=5)**

**(Divericator, Dyke, Septa, Anticline, Axial planes, Stratigraphy)**

- 6. \_\_\_\_\_ is a fold which is convex upward.
- 7. The vertical plates extending from margin towards centre are \_\_\_\_\_
- 8. \_\_\_\_\_ intrusive body is a discordant form.
- 9. \_\_\_\_\_ is muscle which opens the valves of brachiopods.
- 10. \_\_\_\_\_ is a branch of geology which deals with formation, sequence and correlation of stratified rocks.

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

11.

**A**

**B**

- |                |                 |
|----------------|-----------------|
| a. Basalt      | I. Trilobites   |
| b. Non-Clastic | II. Metamorphic |
| c. Gneissose   | III. Laterite   |
| d. Fault       | IV. Umbo        |
| e. Glabella    | V. Graben       |
|                | VI. Volcanic    |

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

- 12. Define rock.
- 13. What is porphyritic texture?
- 14. Give an example of arenaceous rock?
- 15. Define true dip.
- 16. What is spire?

**PART-B**

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

- 17. Define sedimentary rocks. Give example.
- 18. What is concordant form? Give example.
- 19. Write the characteristics of acidic lava.
- 20. What is ophitic texture?
- 21. What is diagenesis?

22. Draw neat labelled diagram of graded bedding.
23. Name the different types of metamorphism.
24. What is limb of fold?
25. What is uniformitarianism?
26. What is mummification?
27. Give the example for the rocks formed in mesozone?

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

28. Explain non-conformity?
29. Write a note on attitude of beds?
30. Explain roundness and shape in sedimentary rock?
31. What is law of order of superposition?
32. What is the significance and uses of fossil?
33. With neat labelled diagram explain columnar structure.
34. With neat labelled diagram explain inequigranular textures.
35. Write a note on agents of metamorphism.
36. Draw a neat labelled diagram of horst and graben.
37. Write a note on periods and time range of Mesozoic era.
38. Draw a labelled diagram of brachiopods with shell measurement.

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

39. Describe Paleozoic era with reference to orogeny, flora and fauna.
40. Explain the morphology of coral.
41. Explain the classification of igneous rocks based on mode of occurrence.
42. Describe the morphology of fusus with a labeled diagram?
43. Draw a neat labelled diagram of ptillophyllum.
44. Describe the physical properties of any two metamorphic rocks.
45. Discuss with labelled diagram the parts of fault.
46. Explain the types of structures in igneous rocks.
47. What are folds? Describe with neat sketches the different types of folds.