GOVERNMENT OF KARNATAKA

KARNATAKA SCHOOL EXAMINATION AND ASSESSMENT BOARD

MODEL QUESTION PAPER - 03 2024-25

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.*

PART-A

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

1. Which of the following rocks are formed by influence of temperature and pressure?
   a. Gabbro
   b. Schist
   c. Pegmatite
   d. Dunite

2. Which of the following rock has grain size is arenaceous and has siliceous cementing material?
   a. Sandstone
   b. Conglomerate
   c. Limestone
   d. Slate

3. If a geologist observe a sequence of metamorphic rock from slate to schist and the gneiss then what can we conclude about metamorphic conditions.
   a. The rocks were subjected to lower temperature and pressure.
   b. The rock underwent changed due to increase in temperature.
   c. The rock experience metamorphic process primarily by chemical fluid.
   d. The rock experiences high to low temperature and pressure environment.

4. Which of the following is not period in geological time scale?
   a. Cambrian
   b. Devonian
   c. Jurassic
   d. Archean

5. Read the following statement and choose the correct option given below.
   i. Older rocks surrounded by younger rocks.
   ii. Younger rocks completely surrounded by older rocks.
   a. i. is Inlier & ii. is Outlier

b. i. & ii. both are Inlier

c. Both i. & ii. are Outlier

d. i. is Outlier & ii. is Inlier

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

(Paleontology, Basic, Plano-convex, Bedding, Hinge line, BIF)

6. _____ joint which are oriented parallel to the bedding plane.
7. The valve of terebratula is_____
8. _____ is also called as mafic lava.
9. _____ is the branch of geology which deals with the study of fossils.
10. _____ rock belong to dharwarian system.

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

11.

A		**B**
a. Volcanic	I.	Gastropod
b. Clastic	II.	Dacite
c. Marble	III.	Breccia
d. Fold	IV.	Metamorphic
e. Spire	V.	Hinge
	VI.	Plutonic

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

12. Give an example of metamorphic rock.
13. What is glassy texture?
14. Give an example of rudacious rock?
15. Define apparent dip.
16. What is Epithica?

PART-B

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

17. Define rock with example.
18. What is batholith?
19. Write the characteristics of basic lava.
20. What is merocrystalline?
21. What is lithification?
22. Draw neat labelled diagram of asymmetric ripple marks.
23. Mention the zone where contact metamorphism occurs.

24. What is symmetric fold?
25. What is Pangea?
26. What are track and trail?
27. What is the temperature range of hypozone?

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

28. How angular unconformity forms?
29. Explain types of outcrops?
30. Explain non clastic sedimentary rock? Give example.
31. Describe the concept of uniformitarianism.
32. Write the suitable condition for preservation of fossil as carbonation
33. With neat labelled diagram explain pillow lava structure.
34. With neat labelled diagram explain equigranular texture.
35. Write a note on zones of metamorphism.
36. Draw a neat labelled diagram of step fault
37. Draw a chart showing periods and time range of Paleozoic era.
38. Draw a chart showing distribution of ptillophyllum.

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

39. Compare life in Mesozoic era to that of Cenozoic era and comment on evolution of life.
40. Differentiate between brachiopod and coral.
41. Write the uses of igneous rocks.
42. Explain the distribution of gastropod in geological history.
43. Draw a neat labelled diagram of glassopteris.
44. With neat labeled diagram explain schistose structure.
45. Discuss types of fault.
46. Explain the properties of Basalt and Dolerite.
47. How structures are useful to solve geological problems in the construction?