

S.No. 5439

16 SCCGL 8

(For candidates admitted from 2016-2017 onwards)

B.Sc. DEGREE EXAMINATION, APRIL 2022.

Part III — Geology — Major

PETROLOGY

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20)

Answer ALL questions.

1. Define sills and dykes.
2. Define poikilitic texture.
3. What is binary system?
4. Mention the petrography of pegmatite.
5. Define non-elastic texture.
6. What are conglomerates?
7. Mention the agents of metamorphism.
8. Define palingenesis.
9. Define the facies of metamorphism.
10. Define gneissose structure.

SECTION B — (5 × 5 = 25)

Answer ALL questions, choosing either (a) or (b).

11. (a) Write a short notes on pyroclastic deposits.

Or

- (b) Tabulate the CIPW Norm classification of igneous rocks.

12. (a) Draw and describe the Albite — Anorthite system.

Or

- (b) Describe the petrography and petrogenesis of granite.

13. (a) Explain the clastic textures of sedimentary rocks.

Or

- (b) Give a detailed account on chemical deposits of sedimentary rocks with examples.

14. (a) Describe thermal metamorphism of pelitic sediments.

Or

- (b) Brief note on the metamorphic reactions of dehydration and decarbonation.

15. (a) Explain the zones and grades of metamorphism.

Or

- (b) Describe the petrography of mylonite and hornfels.

SECTION C — (3 × 10 = 30)

Answer any THREE questions.

16. Give a descriptive account on the Tyrrell's tabular classification.

17. Explain the magmatic differentiation and fractional crystallization.

18. Describe in detail about the process of sedimentation and structures of sedimentary rocks.

19. Describe the various types of metamorphism and their importance.

20. Describe the petrography of granulite, eclogite and amphibolite.