

19. (a) Explain seafloor spreading.

Or

- (b) Write an essay causes of Plate motion.
20. (a) Explain Feldspar group of minerals with their properties and uses.

Or

- (b) Elaborate Quartz group of minerals with their properties and uses.

SECTION C — (3 × 10 = 30)

Answer any THREE questions.

21. Write an essay internal structure of the earth and its composition with neat sketches.
22. Explain about origin, occurrence, and cause of the December 26th Tsunami, 2004.
23. Explain the Ring of Fire and why Japan is prone to earthquakes.
24. Write an essay on continental drift and the mode of formations.
25. Different types of rocks and their classifications, mode of origin, and occurrences in Tamil Nadu.

S.No. 6028

P 22 AGNME 1

(For candidates admitted from 2022–2023 onwards)

P.G. DEGREE EXAMINATION, NOVEMBER 2023.

Applied Geology — Non Major Elective

GEOLOGY FOR COMPETITIVE EXAMINATION – I

Time : Three hours

Maximum : 75 marks

SECTION A — (20 marks)

Answer ALL questions.

- I. (A) Choose the correct answer: (5 × 1 = 5)
1. Moho temperatures beneath continents range from _____ °C.
- (a) 500–700 (b) 700–800
- (c) 900–1000 (d) 1000–1500
2. Which of the following classes represent earthquakes with magnitudes between 6 and 6.9?
- (a) Moderate (b) Great
- (c) Strong (d) Light

3. Which one of the following is a volcanic eruption
 - (a) Shield
 - (b) Cone
 - (c) Lava domes Composite
 - (d) Vulcanian
4. The oceanic crust is not older than
 - (a) Permian
 - (b) Triassic
 - (c) Jurassic
 - (d) Cretaceous
5. Which one of the following is not the coloured variety of Quartz
 - (a) Smoky Quartz
 - (b) Amethyst
 - (c) Pink Quartz
 - (d) Andesine
- (B) Fill in the blanks: (5 × 1 = 5)
 6. _____ is the study of ancient plants, which are existing in fossilized forms.
 7. The position on the land surface immediately above the hypocenter is called _____.
 8. Composite volcanoes, sometimes known as _____ volcanoes.
 9. The youngest oceanic crust is _____ ocean.
 10. Chemical formula for Anorthoclase _____

- II. Answer the following questions: (5 × 2 = 10)
11. Define Geomorphology
 12. What is epicenter?
 13. Short notes on explosive type of volcanoes.
 14. Write any three name of the continental plates.
 15. Define metamorphism?

SECTION B — (5 × 5 = 25)

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

16. (a) Briefly explain Big-bang theory.
 Or
 (b) Write a note on Tidal hypothesis.
17. (a) Explain about earthquake magnitude and intensity.
 Or
 (b) Write the prediction, causes, and mitigation technique for Tsunami.
18. (a) Write a note on the classification of volcanoes based on the mode of eruption.
 Or
 (b) Write a note on how to predict the volcanoes and different techniques to mitigate the damages.