

20U524S

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Name:

Reg. No:

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2022

(CUCBCSS-UG)

CC15U GL5 B13 – METAMORPHIC GEOLOGY

(Geology- Core Course)

(2015 to 2018 Admissions – Supplementary/Improvement)

Time: Three Hours

Maximum: 80 Marks

Draw neat diagrams wherever necessary.

Part- A

Answer *all* questions. Each question carries 1 mark.

1. Which type of pressure will result in the alignment of metamorphic minerals?
2. The metamorphic product of pure limestone.
3. Metamorphism localized in a halo around a pluton during contact metamorphism.
4. The pyroxene mineral present in Eclogite.
5. Structure showing alternate dark and light-coloured bands in metamorphic rocks.
6. Facies associated with contact metamorphism.
7. Which facies belong to medium grade metamorphism?
8. Diagnostic mineral in blue schist facies.
9. Omphacite is a diagnostic mineral present in facies.
10. Presence of anhydrous minerals like chlorite, actinolite, epidote and albite are characteristic of facies.

(10 × 1 = 10 Marks)

Part- B

Answer any *ten* questions. Each question carries 2 marks.

11. Burial metamorphism.
12. Metasomatism.
13. Prograde metamorphism
14. Geothermometry.
15. Slaty cleavage
16. Index minerals.
17. Hornfels.
18. Mineral paragenesis.
19. Foliations.

20. Isograd.
21. Schistosity.
22. Limits of metamorphism.

(10 × 2 = 20 Marks)

Part- C

Answer any *five* questions. Each question carries 6 marks.

23. Structures of metamorphic rocks.
24. Paired metamorphic belt.
25. Petrography and origin of slate.
26. Factors affecting metamorphism.
27. Detail on following metamorphic rocks - slate, schist, gneiss.
28. Eclogite facies metamorphism.
29. Regional metamorphism.
30. Miyashiro facies series.

(5 × 6 = 30 Marks)

Part- D

Answer any *two* questions. Each question carries 10 marks.

31. Describe Barrowian sequence in reference with metamorphic rocks.
32. Explain type of metamorphism based on plate tectonic setting.
33. Describe the metamorphism of argillaceous rocks.
34. Describe various textures of metamorphic rocks with neat figures.

(2 × 10 = 20 Marks)
