

**FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2025**

(CBCSS - UG)

(Regular/Supplementary/Improvement)

**CC19UGE05B12 - METAMORPHIC PETROLOGY**

(Geology - Core Course)

(2019 Admission onwards)

Time : 2.00 Hours

Maximum : 60 Marks

Credit : 3

**Part A (Short answer questions)**Answer ***all*** questions. Each question carries 2 marks.

1. Role of fluid in metamorphism.
2. Orogenic metamorphism.
3. ACF diagram.
4. Low grade metamorphism.
5. Staurolite zone.
6. The facies formed under medium pressure conditions.
7. Paired metamorphic belts.
8. Retrograde metamorphism.
9. Metasomatism.
10. Palaoesome.
11. Give the sillimanite forming reactions in metapelites.
12. Hornblende gneiss.

**(Ceiling: 20 Marks)****Part B (Short essay questions - Paragraph)**Answer ***all*** questions. Each question carries 5 marks.

13. Types of metamorphism based on geological setting.
14. Explain important non foliated metamorphic rocks.
15. Fabric in metamorphic rocks.
16. Explain metamorphic facies series proposed by Miyashiro.

17. UHT metamorphism.
18. Explain the effects of metamorphism on ultramafic rocks.
19. Describe petrography and origin of slate.

**(Ceiling: 30 Marks)**

**Part C (Essay questions)**

Answer any ***one*** question. The question carries 10 marks.

20. Give an account of various textures present in metamorphic rocks.
21. Discuss thermal metamorphism of pure and impure calcareous rocks giving important mineral reactions.

**(1 × 10 = 10 Marks)**

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