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# FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2016

(CUCBCSS—UG)

Geology

#### GLY 5B 13-METAMORPHIC GEOLOGY

Time: Three Hours

Maximum: 80 Marks

Draw neat sketches wherever necessary.

#### Part A

Answer all ten questions in one word or one sentence each.

- 1. The type of metamorphism which produces mylonites.
- 2. The texture in non-schistose rocks with a mosaic of equidimensional grains.
- 3. Prehnite in a metamorphic rock indicates grade of metamorphism.
- 4. A metamorphic rock showing alternate dark and light coloured bands.
- 5. A metamorphic rock composed of omphacite and almandine.
- 6. The carbon mineral in Khondalites is -
- 7. Coal belonging to the highest rank.
- 8. The person who gave facies classification of metamorphic rocks.
- 9. The type of metamorphism in which high temperature is dominant.
- 10. The gneiss formed from pre-existing igneous rock.

 $(10 \times 1 = 10 \text{ marks})$ 

# Part B (Short Answer Type Questions)

Answer any ten questions.

- 11. Thermal metamorphism.
- 12. Paragneiss.
- 13. Phyllite.
- 14. Relict texture.
- 15. Isograd.
- 16. Geobarometry.
- 17. Metasomatism.

- 18. Symplectite.
- 19. Skarn.
- 20. Metamorphic diffusion.
- 21. Anatexis.
- 22. Khondalite.

 $(10 \times 2 = 20 \text{ marks})$ 

## Part C (Paragraph Type Questions)

2

Answer any five questions.

- 23. Agents of metamorphism.
- 24. Metamorphism in plate interiors.
- 25. Porphyroblastic texture.
- 26. Mineral paragenesis.
- 27. Greenschist facies metamorphism.
- 28. Paired metamorphic belts.
- 29. Petrography and origin of eclogites.
- 30. UHT metamorphism.

 $(5 \times 6 = 30 \text{ marks})$ 

### Part D (Essay Type Questions)

Answer any two questions.

- 31. Describe the metamorphism of argillaceous rocks.
- 32. Give an account of different types of metamorphism based on geologic setting.
- 33. Describe different kinds of metamorphic structures.
- 34. Give an account of prograde and retrograde metamorphism.

 $(2 \times 10 = 20 \text{ marks})$