

M.Sc. (Geology) (CBCS Pattern) Sem-I
PSCGEOT03 - Metamorphic Petrology & Geological Mapping Paper-III

P. Pages : 2

Time : Three Hours



GUG/W/22/11164

Max. Marks : 80

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- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw neat sketches wherever necessary.

1. Describe the factors controlling metamorphism.

OR

Write notes on.

- a) Regional metamorphism
- b) Contact metamorphism
- c) Hydrothermal metamorphism
- d) Retrograde metamorphism

2. Describe in detail metamorphic facies.

OR

Write notes on.

- a) Metamorphic differentiation.
- b) Metasomatism
- c) Granitization
- d) Anatexis

3. Describe mineralogical phase rule for closed and open systems.

OR

Write notes on.

- a) Entropy
- b) Fugacity
- c) Reaction isogrades
- d) Geothermometry

4. Describe topographic maps and base maps for geological mapping.

OR

Write notes on.

- a) Geological mapping in igneous terrain
- b) Topographic maps by survey of India
- c) Types of Geological maps
- d) Precision required in geological mapping.

5. Write short notes on

- a) Ocean floor metamorphism
- b) Transient geotherm
- c) Paired metamorphic belts
- d) Metamorphic minerals
- e) Enthalpy
- f) ACF diagram
- g) Mapping in metamorphic terrain.
- h) Geological sections.
