

P. Pages : 2

Time : Three Hours



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**GUG/S/25/13717**

Max. Marks : 80

- Notes :
1. All questions carry equal marks.
  2. Due credit will be given to neatness and adequate dimensions.
  3. Assume suitable data wherever necessary.
  4. Illustrate your answers wherever necessary with the help of neat sketches.

- 1.** a) What is earthquake? State earthquake zones of India Give the examples of major earthquake in India. **10**
- b) What is Volcano? Describe various products of Volcanoes. **6**

**OR**

- 2.** What is Mineral? Describe various physical properties of Mineral with suitable examples. **16**
- 3.** What is fold? Describe the classification of fold. Add a note on their importance in Civil Engineering part of view. **16**

**OR**

- 4.** a) A limestone bed is dipping in a dam site at the rate of 1 in 4 along N $15^{\circ}$  W and its apparent dip along N $50^{\circ}$  W. Give procedure scale 1 unit = 1 cm. **8**
- b) A shale bed is dipping at  $60^{\circ}$  West in a slope of  $30^{\circ}$  in East direction with its outcrop 200m wide. find the true and vertical thickness of shale bed. Write procedure scale 1 cm = 50m. **8**
- 5.** Define term "rock" Describe the classification of rocks& their characteristics? **16**

**OR**

- 6.** Differentiate between the following: **16**
- a) Porphyritic and poikilitic texture.
  - b) Sill and dyke.
  - c) Schistose and Granulose Structures
  - d) Granite and Gneiss Rocks.
- 7.** What is Prospecting? Explain the electrical resistivity method of geophysical exploration in detail. **16**

**OR**

- 8.** Discuss the various geological problems met during the construction of dams. **16**
- 9.** What is hydrologic cycle? Describe the hydrologic cycle with a neat sketch Add a note of “zones of groundwater” and “springs” **16**

**OR**

- 10.** Differentiate between following. **16**
- a) Aquifer and Aquiclude.
  - b) Unconfined and confined aquifer.
  - c) Artesian well and Non Artesian well.
  - d) Porosity& Permeability.

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