

Total No. of Questions : 8]

SEAT No. :

PE4239

[Total No. of Pages : 2

[6582]-10

S.E. (Civil)

ENGINEERING GEOLOGY

(2019 Pattern) (Semester-III) (207009)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Figures to the right indicates full marks.
- 3) Neat diagrams must be drawn wherever necessary.

- Q1)** a) Define unconformity and Describe various types of unconformities. [6]
b) Describe types of mountains building activity. [6]
c) Write short notes on: [5]
i) Parts of Fold
ii) Strike and Dip of rocks

OR

- Q2)** a) Define fold and explain any three types of folds. [6]
b) Define fault and Describe the types of fault with their engineering significances. [6]
c) What is plate tectonics? Explain divergent and convergent plates. [5]

- Q3)** a) Explain the concept of RQD and its importance in Civil Engineering. [6]
b) Explain importance of preliminary geological exploration in civil engineering. [6]
c) Define Remote Sensing? Explain its applications in civil engineering. [6]

OR

- Q4)** a) What is GIS? Explain components of GIS. [6]
b) Discuss in detail core drilling method of subsurface geological exploration with its significance. [6]
c) Explain methods of subsurface investigation. [6]

P.T.O.

- Q5)** a) Explain with appropriate example the feasibility of dam alignment which is crossing DYKE. [6]
- b) What are the geological requirements for the foundation of dam? [6]
- c) A site is proposed for excavation of tunnel along A-B and M-N, passing through axial and limb region of fold respectively. Justify the suitability of tunnel in such conditions. [5]

OR

- Q6)** a) Explain Preliminary Geological Investigations carried out for Tunneling. [6]
- b) Discuss on the dam located in folded geological structure. [6]
- c) Explain tunneling conditions in Deccan trap region. [5]

- Q7)** a) Explain geological conditions favorable for natural springs and artesian wells. [6]
- b) Explain in brief the geological work done by groundwater. [6]
- c) Define aquifers. Explain in brief the types of aquifers. [6]

OR

- Q8)** a) Describe in brief the various preventive measures against landslides. [6]
- b) Define Earthquakes and What are the causes of earthquakes. [6]
- c) Discuss on good building stones. [6]

