

Total No. of Questions : 8]

SEAT No. :

**P9085**

[Total No. of Pages : 2

**[6179]-210**

**S.E. (Civil Engineering)**

**ENGINEERING GEOLOGY**

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

**Time : 2½ Hours]**

**[Max. Marks : 70**

**Instructions to the candidates:**

- 1) Attempt Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6 and Q.7 or Q.8.
- 2) Figures to the right indicate full marks.
- 3) Neat diagrams should be drawn wherever necessary.

- Q1)** a) What is fold? Describe parts of fold with neat sketch. [6]  
b) Describe the types of joints and their significance in civil engineering. [6]  
c) Write short notes on: [5]  
i) Angular unconformity  
ii) Strike and dip of rocks.

OR

- Q2)** a) Define fault and describe any four types of fault. [6]  
b) Define unconformity and Describe the types unconformity. [6]  
c) Describe various types of igneous intrusions. [5]
- Q3)** a) Describe the applications of remote sensing in civil engineering field. [6]  
b) Describe preliminary geological explorations in civil engineering projects. [6]  
c) Explain how GIS is an important tool for civil engineers. [6]

OR

- Q4)** a) Discuss in detail core drilling method of subsurface geological exploration with its significance. [6]  
b) Explain applications of GIS in civil engineering. [6]  
c) Compare direct and indirect methods of subsurface geological investigations. [6]

**P.T.O.**

- Q5)** a) Discuss on favorable geological conditions for reservoir area of dam. [6]  
b) Discuss on tunnel excavated through faulted area. [6]  
c) What are the geological requirements for the foundation of dam? [5]

OR

- Q6)** a) Explain geological investigations required to select site for tunneling. [6]  
b) Explain the suitable and unsuitable dipping strata conditions at dam site. [6]  
c) Discuss on stability of tunnels through limb and axial region of folds. [5]

- Q7)** a) Describe in brief the various preventive measures against landslides. [6]  
b) Describe requirements of good building stone. [6]  
c) Define aquifers. Explain in brief the types of aquifers. [6]

OR

- Q8)** a) Explain geological conditions favorable for natural springs and artesian wells. [6]  
b) Define earthquake and note on the Seismic zones of India. [6]  
c) Explain in brief the geological work done by groundwater. [6]

