

Total No. of Questions : 8]

SEAT No. :

P-1478

[Total No. of Pages : 2

[6002]-105

S.E. (Civil Engineering)

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 indicate full marks.
- 3) Neat diagrams must be drawn wherever necessary.

Q1) a) What is unconformity and Describe various types of unconformities. [6]

b) Define fault and explain the significance of fault in Civil Engineering. [6]

c) What is plate tectonics? Explain divergent and convergent plates. [5]

OR

Q2) a) Define fold and explain any three types of folds. [6]

b) What is mountain building process? Describe types of mountains. [6]

c) Write short notes on: [5]

i) Inlier and Outlier

ii) Strike and Dip of rocks.

Q3) a) Explain importance of preliminary geological exploration in civil engineering. [6]

b) Explain applications of remote sensing in civil engineering. [6]

c) Compare direct and indirect methods of subsurface geological investigations. [6]

OR

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- Q4)** a) Describe in detail core drilling method of subsurface geological exploration with its significance. [6]
b) What will be the effects of faulting on civil engineering structures? [6]
c) Explain how GIS is an important tool for civil engineers. [6]

- Q5)** a) Discuss on tunnel excavated through faulted area. [6]
b) Discuss on unfavorable geological conditions for reservoir area 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) Explain influence of geological conditions on the choice and type of dam. [6]
c) Explain significance of dipping strata in site selection for construction of dam. [5]

- Q7)** a) What is landslide? Describe preventive measures against landslides. [6]
b) Explain various types of aquifers. [6]
c) Describe requirements of good building stone. [6]

OR

- Q8)** a) What is earthquake? Explain causes of earthquake. [6]
b) What is groundwater? Describe methods of artificial recharge of groundwater. [6]
c) Describe suitability of basalt, granite and limestone as a building stone. [6]
