

III B. Tech I Semester Supplementary Examinations, October/November - 2018**ENGINEERING GEOLOGY**

(Civil Engineering)

Time: 3 hours

Max. Marks: 70

- Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
 2. Answering the question in **Part-A** is compulsory
 3. Answer any **THREE** Questions from **Part-B**

PART -A

- 1
 - a) Define frost action? What is the role of freezing of water in weathering process? [3M]
 - b) What is specific gravity? How can it determined for minerals? [4M]
 - c) Discuss chevron and drag fold? [3M]
 - d) Describe isoseismal lines and their relation to epicenter. [4M]
 - e) Define deformability modulus and shear strength [4M]
 - f) What are the factors affecting the water-tightness of a dam reservoir. [4M]

PART -B

- 2
 - a) Define hydration? Discuss geological work of rivers. [6M]
 - b) Write short note on i) river meandering ii) escarpments [4M]
 - c) What is the importance of engineering geology related to civil engineers in working site? [6M]
- 3
 - a) Write short note on i) Granulose ii) Maculose iii) Schistose [6M]
 - b) What are igneous rocks? How they are formed? [4M]
 - c) Describe the physical properties of i) Quartz ii) Hornblende iii) Talc [6M]
- 4
 - a) What are unconformities? Discuss types of unconformities, What engineering problems are created by the presence of unconformities. [8M]
 - b) What is meant by folding of rock? How is it produced and classify types of fold? [8M]
- 5
 - a) Discuss and describe the causes of earthquake? What precautions are taken in building constructions in seismic zones? [8M]
 - b) Discuss in details about resistivity survey method and applications of electrical resistivity method for ground water exploration. [8M]
- 6
 - a) Discuss the importance of geophysical methods, and give its significance [8M]
 - b) Write various electrical methods of geophysical prospecting? Explain using self potential method in geophysical prospecting. [8M]
- 7
 - a) Write short note on i) purpose of tunnel ii) over break in tunnels. [8M]
 - b) What are the geological conditions necessary for the stability of a dam and life of a reservoir? [8M]
