B.E. (Civil Engineering) Eighth Semester

Elective - II : Advanced Engineering Geology

P. Pages : 1 **TKN/KS/16/2402**

Time : Three Hours * 0 6 2 4 * Max. Marks : 80

Notes : 1. All questions carry marks, as indicated.
2. Answer **three** questions from section A and **three** questions from section B.
3. Due credit will be given to neatness and adequate dimensions.
4. Illustrate your answers wherever necessary with the help of neat sketches.

SECTION – A

1. Describe the method for determination of modulus of elasticity and Poisson's ration of a rock sample. **13**

2. Explain creeping in rock under combined loading condition? Explain Maxwell Rheological model. **13**

3. Describe the dynamic properties of rocks. **13**

4. Give the principles of rock stress Measurements and in situ tests specially plate bearing load test. **13**

5. Write notes on **any three.** **14**
a) Mohr's theory of failure.
b) R.Q.D.
c) Kelvin model.
d) Seismic method for exploration.

SECTION – B

6. Describe the pumping test conducted for unconfined aquifer under steady and non-steady state. **13**

7. Classified land use/cover planning? Discuss various criteria for site selection for municipal waste disposal. **13**

8. Explain artificial rechanging of ground water? Describe the various methods of artificial recharging. **13**

9. Explain the principles of remote sensing? How remote sensing method is useful in hydrogeological investigation? **13**

10. Writes noes on **any three** **14**

a) Rehabilitation process. b) Prevention of land slide.

c) Transmissivity and Storativity. d) Earth quake waves.

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