

RVK/KW/13/3262/3601

Faculty of Engineering &amp; Technology

Eighth Semester B.E. (Civil)/Eighth Semester B.E.

P.T. (Civil) Examination

ADVANCED ENGINEERING GEOLOGY

Elective—II

Sections—A &amp; B

Time—Three Hours]

[Maximum Marks—80

## INSTRUCTIONS TO CANDIDATES

- (1) All questions carry marks as indicated.
- (2) Answer **THREE** questions from Section A and **THREE** questions from Section B.
- (3) Illustrate your answers wherever necessary with the help of neat sketches.

## SECTION—A

1. Explain Creep in the rock mass. Describe Kelvin Rheological Model. 13
2. Describe the Griffith's theory of failure. 13
3. Explain the principles of rock stress measurements and in-situ tests. Describe Load Bearing Test. 13
4. Describe Rock Quality Designation. How rock classification is done on the basis of RQD ? 13

5. Write notes on (any **THREE**) :

- (a) Electrical Resistivity Method of Exploration
- (b) Young's modulus of Elasticity
- (c) Brazilian Test
- (d) Ground water modeling. 14

## SECTION—B

6. Describe the principle of Remote sensing and explain how Remote Sensing Technique is used for accomplishing various objectives in Hydrological works. 13

7. What is Artificial Recharging of Ground Water ? Explain various methods of Artificial Recharging of Ground Water. 13

8. Define land cover/land use planning in detail. Explain various criteria for site selection for Municipal waste disposal. 13

9. Explain the various types of slides. Describe the causes of land slides. Explain the preventive measures of slides in the hilly region. 13

10. Write notes on (any **THREE**) :

- (a) Pumping Test
- (b) Rehabilitation Procedure
- (c) Ground water trends and Fluctuation
- (d) Safe Yield. 14