[EURCE-701A]
B.Tech. Degree Examination
Civil Engineering
VII SEMESTER
WATER RESOURCES ENGINEERING-II
(Effective from the admitted batch 2012–13 to 2014-15)

Time: 3 Hours
Max.Marks: 60

Instructions: Each Unit carries 12 marks.
Answer all units choosing one question from each unit.
All parts of the unit must be answered in one place only.
Figures in the right hand margin indicate marks allotted.

UNIT-I

1. a) Give the preliminary investigations that are to be carried out to select a site for a dam 6
b) When do you go for foundation treatment for a gravity dam. And why? 6

OR

2. a) List the forces that act on a gravity dam 6
b) Explain the practical profile of a gravity dam 6

UNIT-II

3. Give the criteria for safe design of earth dams 12

OR

4. What are stilling basins and IS standard basins? 12

UNIT-III

5. a) Give the design principles of a notch fall 6
b) What is fall. Also give its necessity and location 6

OR

6. What is a diversion head work? Explain the various components of a diversion head work with sketch 12
UNIT-IV

7. Design a cross-regulator for a distributary channel taking off from the parent channel for the following data:
   - Discharge of parent channel = 100 cumecs
   - Discharge of distributary = 15 cumecs
   - F.S.L. of parent channel: u/s/d/s = 218.10/217.90
   - Bed width of parent channel: u/s/d/s=42m/38m
   - Depth of water in parent channel: u/s/d/s=2.5m/2.5m
   - F.S.L. of distributary: 217.10m
   - Bed width of distributary: 15m
   - Depth of water in distributary: 1.5m
   - Permissible exit gradient = 1/5

OR

8. What is a cross drainage work? Explain the various types

UNIT-V

9. What is a river training work? Give the classification of river training works

OR

10. Write short note on utilization factor, load factor and diversity factor

[2/VII S/117]