

End Semester Examinations - 2015-16 Even Semester - May 2016

14CE3032 Water Resources Planning and Development

Set A

Time : 3 hrs
Total Marks: 100

1. a. What are the different phases of water resources planning and explain them in detail. Also list down the physical and environmental conditions influencing the water resources planning project (10)
b. Explain in detail about five sections of National Water Policy adopted to meet challenges for water resources development and management (10)

OR

2. Explain the following: a. Master plan approach b. Shadow pricing (20)
3. a. What are the component parts of a diversion headwork? Explain in detail with neat sketches. Also, explain the functions of each component (15)
b. What are the different factors to be considered while considering the construction of diversion head networks (5)

OR

4. Why are cross drainage works necessary? Explain the various types of cross drainage works with neat sketches (20)
5. a. Explain in detail (with sketch) about the gravity and masonry dams with advantages and disadvantages (7)
b. Write in detail about any one method of flood routing (6)
c. Explain the formulation of rule curves for reservoirs in Parallel and Series (7)

OR

6. a. Explain in detail methods of determine the capacity of the reservoir. (20)
7. a. Write short notes on flood cushioning (10)
b. Flood mitigation through structural and non-structural measures – Explain. (10)
8. a. How does one achieve an optimum cost allocation among different uses in a multi- purpose project? (10)

OR

- b. Write short notes on flood plain management (10)
9. a. Explain rule curve along with its application (10)
b. Describe how a decision support system aids in efficiently managing a multi-purpose water resources project. (10)

Wishing you All the Best