PVP 14

Code: CE6T3

III B.Tech - II Semester – Regular/Supplementary Examinations
March 2020

WATER RESOURCES ENGINEERING-II
(CIVIL ENGINEERING)

Duration: 3 hours Max. Marks: 70

PART – A

Answer *all* the questions. All questions carry equal marks

11x 2 = 22 M

1.

a) What is a diversion head work?

b) Explain the significance of river training works.

c) What is useful storage in a reservoir?

d) Explain Uplift pressure in a gravity dam?

e) What is phreatic line in an earthen dam?

f) Describe the term ‘piping’ in earthen dam.

g) Classify different falls.

h) Illustrate the functions of canal regulator.

i) List out different types of cross drainage works.

j) Illustrate the functions of syphon aqueduct.

k) What is Ogee spillway? Where is it preferred?

PART – B

Answer any *THREE* questions. All questions carry equal marks.

3 x 16 = 48 M

2. a) Explain different components of diversion head works with neat sketches. 8 M

   b) Explain Bligh's theory and its limitations. 8 M

3. a) Explain different types of zones of storage in a reservoir. 8 M

   b) Discuss advantages and disadvantages of Buttress dam and Arch dam. 8 M

4. a) Explain different types of hydraulic failures in earthen dam with neat sketches. 8 M

   b) Explain with neat sketches the working and operation of the following spillway gates. 8 M

      i) Radial gates ii) Drum gates.

5. a) Explain different types of Falls with neat sketches. 8 M

   b) Distinguish clearly between Non-modular and Semi-modular outlets. Give examples. 8 M

6. a) Explain level crossing, inlet and outlet with neat sketches. 8 M

   b) Explain the design principles of Aqueduct. 8 M