



R18 Regulation

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A' Grade)

Subject code: 2E7AA

B.Tech VII Semester Regular/Supplementary Examinations, November 2022

WATER RESOURCES ENGINEERING-II

(Civil Engineering)

Maximum Marks: 70

Date: 03.12.2022 Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

- 1 What is meant by Sedimentation zones?
- 2 Define Multi-Purpose Reservoirs.
- 3 What is the purpose of Stability Analysis in gravity dam?
- 4 What are the forces acting on gravity dams?
- 5 What is meant by Ogee?
- 6 Name some types of the Bucket type energy dissipators.
- 7 List the objective of Diversion Head Works.
- 8 Define Weir and Barrage.
- 9 What is meant by cross regulation work?
- 10 Write the main considerations in the selection of a type of fall.

(10x2M=20 Marks)

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 A. Discuss the effect of sedimentation in planning of reservoirs
B. List the factors affecting selection of types of dams. 5M
5M
- 12 A. Discuss the factors governing selection of site for a dam.
B. Write short notes on life of reservoir 6M
4M
- 13 A. Discuss the causes of failure of a gravity dam
B. What do you mean by the elementary profile of a gravity dam? How it differs from practical profile? 6M
4M
- 14 A. What is meant by factors of safety?
B. Discuss the methods stability analysis of gravity dams. 7M
3M
- 15 Discuss the different types of spillways. 10M
- 16 A. Discuss the measures for controlling the seepage from earth dams 5M

- B. List the criteria for safe design of earth dam 5M
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- 17 A. Briefly explain the types of weirs. 7M
B. Differentiate the barrage and weir. 3M
- OR
- 18 Draw the layout of a Diversion Head Works and explain its components 10M
- 19 Explain the design principles of Notch Fall and sarda type fall with neat sketch 10M
- OR
- 20 Explain the types of canals falls with neat sketch 10M