

Eighth Semester B.E. Degree Examination, June/July 2018

Water Resources Engineering

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, selecting at least TWO questions from each part.

PART - A

- 1 a. List and explain any five water management sectors. (10 Marks)
 - b. Explain the role of any five water management community in water resource engineering.
 (10 Marks)
- 2 a. What is hydrological cycle? Discuss briefly on different forms and types of precipitation.
 (10 Marks)
 - b. What is meant by design storm? Write briefly on disposal of rainfall on a watershed by bringing issues regarding time of concentration. (10 Marks)
- 3 a. Give the concept of unit hydrograph for arriving run-off for a storm of specified duration.
 What are factors controlling run-off from watershed? (10 Marks)
 - b. Explain in brief various losses from precipitation.

(10 Marks)

a. Mention the methods used to water for agriculture.b. What are the positive and negative impacts of irrigation projects?

(10 Marks)

(10 Marks)

PART - B

- 5 a. Bring out the different stages involved in flood plain management. (05 Marks)
 - b. Write a note on benefit/cost analysis of flood control projects.

(08 Marks)

- c. How do you carry out regulation of flood control reservoir by flood routing?
- (07 Marks)
- 6 a. Briefly discuss on the different stages involved in storm water management including the hydrological and hydraulic design. (10 Marks)
 - b. With neat sketch, explain detention basin outlet works.

(10 Marks)

- a. Discuss the importance of highway drainage and the requirement of a good highway drainage system. (10 Marks)
 - b. What are the functions of a spillway? Explain with sketches straight drop spillway, ogee spillway and chute spillway. (10 Marks)
- 8 a. List the essential requirements of spillway.

(06 Marks)

b. Briefly describe the various components of spillway.

(07 Marks)

c. Write a note on classification of buttress dam.

(07 Marks)

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