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Reg. No. :

Question Paper Code : **50347**

B.E./B.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2023.

Sixth Semester

Civil Engineering

CE 8603 – IRRIGATION ENGINEERING

(Regulations 2017)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List any two demerits of irrigation.

2. What is the need for irrigation?

3. What do you mean by irrigation efficiency?

4. Define irrigation scheduling.

5. What are the forces acting on a dam?

6. Define barrages.

7. List the different types of canal drop.

8. Define canal outlet.

9. What is meant by On Farm Development Works?

10. Define Water Users Association (WUA).

PART B — (5 × 13 = 65 marks)

11. (a) Describe in detail historical development and merits and demerits of irrigation.

Or

(b) Discuss in detail about the various types of crops and its cropping seasons.

12. (a) Explain about the well and tank irrigations and its advantages.

Or

(b) Describe the following

(i) Micro irrigation (6)

(ii) Surface and sub surface irrigation (7)

13. (a) Describe in detail about the difference between the earthern dam and arch dam with a neat sketch.

Or

(b) Discuss in detail about the diversion head works and its functions.

14. (a) Elaborate in detail about the canal regulator and its function with the neat sketch.

Or

(b) Discuss about the design of an unlined canal and its characteristics.

15. (a) Explain in detail about the Participatory Irrigation Management (PIM).

Or

(b) Elaborate in detail about the difference between optimization of water use and minimizing water losses.

PART C — (1 × 15 = 15 marks)

16. (a) Explain with the neat sketch about the different irrigation methods.

Or

(b) Discuss about the following :

(i) Derive the relationship between the duty, delta and base period. (8)

(ii) Consumptive use of crops. (7)

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