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**Question Paper Code : 31205**

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2013.

Fifth Semester

Civil Engineering

CE 2301/10111 CE 501/CE 50 — IRRIGATION ENGINEERING

(Regulation 2008/2010)

(Common to PTCE 2301 – Irrigation Engineering for B.E. (Part-Time)  
Fifth Semester – Civil Engineering - Regulation 2009)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. When do the necessity of Irrigation arise?
2. What are the factors affecting consumptive use/water requirement?
3. Recommend a suitable method of irrigation for a hilly terrain.
4. State the site conditions in which drip irrigation is recommended to be adopted.
5. Distinguish between a masonry weir and rock fill weir.
6. List the forces which are acting on a dam.
7. Write three important factors to be considered during the alignment of canals.
8. What is super passage?
9. Define participatory approach.
10. What are the various functions of water users association?

PART B — (5 × 16 = 80 marks)

11. (a) Discuss in detail the characteristics of two cropping seasons in India and the principle crops that are commonly cultivated and harvested during the season.

Or

- (b) What is meant by irrigation efficiency? List various efficiencies under which irrigation performance is evaluated. Discuss about each one and mention how it could be improved.
12. (a) Explain in detail with the aid of neat sketches, the various methods of surface irrigation.

Or

- (b) Explain the salient features of sprinkler irrigation system and also its mode of operation.
13. (a) Draw a neat sketch and explain the different parts of an earth dam.

Or

- (b) Discuss the necessity of spillways and how to locate them.
14. (a) Explain the classification of canals with the help of line sketches.

Or

- (b) Explain various functions of river training works.
15. (a) Discuss the role of farmers in water management.

Or

- (b) Discuss in detail about various aspects on-farm development works.
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