Reg. No. : ☐☐☐☐☐☐☐☐☐☐

Question Paper Code: 35106

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2018

Fifth Semester

Civil Engineering

01UCE506 – IRRIGATION ENGINEERING

(Regulation 2013)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. What is the purpose of irrigation?

2. What are the techniques of water distribution in the farms?

3. Define delta of a crop.

4. What is crop period?

5. Define diversion headwork.

6. What are the forces acting on arch dam?

7. What is meant by canal escape?

8. What is meant by canal escape?

9. What is meant by system of rice intensification?

10. What are the works of on-farm developments?

PART - B (5 x 16 = 80 Marks)

11. (a) (i) Explain briefly the classification of soil water.   (10)

    (ii) Explain the movement of water in a soil.   (6)

Or

(b) Discuss about various types of irrigation methods generally adopted. (16)

12. (a) After how many days you will supply water to soil in order to insure sufficient irrigation of the crop, if field capacity of the soil = 30 %, permanent wilting point is 12%, density of soil = 1.25 *gm/cc*, effective depth of root zone = 60 *cm*, and daily consumptive use of water for the given crop = 12.5 *mm*. (16)

Or

(b) Explain the direct methods to measure the consumptive use. (16)

13. (a) (i) What are the factors affecting the selection of type of dam? (10)

(ii) Write in detail about the components of diversion works. (6)

Or

(b) Explain the component parts of a spillway. (16)

14. (a) What is a cross drainage works? Explain any two cross drainage works with neat sketches. (16)

Or

(b) (i) Explain the border strip method and discuss its merits and demerits. (6)

(ii) Explain the subsurface methods of irrigation and discuss its merits and demerits. (10)

15. (a) Write notes on

(i) Participatory irrigation management. (8)

(ii) Principles and advantages of irrigation water management. (8)

Or

(b) Explain briefly about water user's association and its scope and possible functions on irrigation water management. (16)

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