



C14-C-504

4621

BOARD DIPLOMA EXAMINATION, (C-14)

OCT/NOV—2018

DCE—FIFTH SEMESTER EXAMINATION

IRRIGATION ENGINEERING

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

Instructions : (1) Answer **all** questions.

(2) Each question carries **three** marks.

(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. State the principal crop seasons in our country. Mention the main crops grown in the respective seasons.
2. Describe the hydrological cycle with the help of a neat sketch.
3. Define (a) percolation, (b) percolation gradient, and (c) uplift.
4. State the situations in which earthen dams are suitable.
5. State any six types of canal lining.
6. Sketch and explain about the typical cross-section of a canal in partial cutting and in partial embankment.
7. Explain about drip irrigation.
8. State any three duties of water user associations.
9. List any three objectives of watershed management.
10. Explain the method of water harvesting through check dams.

*

PART—B

10×5=50

- Instructions** : (1) Answer *any five* questions.
(2) Each question carries **ten** marks.
(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

- 11.** List the advantages and disadvantages of irrigation.
- 12.** What is run-off? Explain the factors affecting run-off from a catchment.
- 13.** Describe the component parts of diversion works with sketch.
- 14.** (a) State the classification of headworks.
(b) State the suitability of different types of headwork under different conditions.
(c) Describe about flood banks.
- 15.** (a) Distinguish between low and high dams.
(b) Draw a neat sketch of a drainage gallery and state the purposes for which drainage galleries are constructed in a dam.
- 16.** With sketches of typical cross-sections, explain the three types of earth dam.
- 17.** Describe the following with sketches :
(a) Aqueduct
(b) Super passage
- 18.** (a) Explain various methods of prevention of soil erosion.
(b) State the objectives of river training works.

*