



C14-C-504

4621

BOARD DIPLOMA EXAMINATION, (C-14)

OCT/NOV—2017

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. Differentiate between direct and storage irrigations.
2. Mention any three points to be kept in mind while selecting a rain gauge station.
3. Define percolation gradient.
4. List out any three situations suitable for the selection of site for earth dam.
5. State the necessity for cross drainage works.
6. Write a brief note about silt traps in canals.
7. Write any three advantages of furrow system of irrigation.
8. Write any three advantages of sprinkler irrigation.
9. State any three methods of artificial recharge of groundwater.
10. Explain the artificial recharge of groundwater using percolation tanks.

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**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.** Explain the factors affecting duty of water.
- 12.** Draw a neat sketch of Symons rain gauge and explain how it functions.
- 13.** Explain briefly about the component parts of a diversion headwork with a neat sketch.
- 14.** Explain head regulator with a neat sketch.
- 15.** Draw a neat sketch of drainage gallery and explain its functions.
- 16.** Describe the working of a siphon spillway with a neat sketch.
- 17.** Write the advantages and disadvantages of canal lining.
- 18.** Explain various methods of prevention of soil erosion.

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