**4621**

# BOARD DIPLOMA EXAMINATION, (C–14)
## MARCH/APRIL—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.** Define *(a)* delta, *(b)* base period and *(c)* crop period.          3

**2.** List the uses of rainfall records.                              3

**3.** Distinguish between barriage and weir.               1½+1½=3

**4.** List any six situations where earthen dams are suitable.   ½×6=3

**5.** Classify the canals based on their alignment.          ½×6=3

**6.** What is meant by 'balancing depth of cutting'?               3

**7.** List any three advantages and three disadvantages of sprinkler irrigation.                                             ½×6=3

**8.** Explain the method of check basin irrigation.               3

**9.** List any three characteristics of watershed.               3

**10.** Define rainwater harvesting. Why is it necessary?     1½+1½=3

***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.** State the advantages and disadvantages of irrigation. 10

**12.** Sketch and explain the working of Symon's rain gauge. 10

**13.** Explain briefly the functions of different component parts of a weir with a neat sketch. 10

**14.** Write short notes on the following giving its functions : 5+5=10

*(a)* Head regulator

*(b)* Silt-excluding devices

**15.** Explain any five causes of failures of gravity dams. 2×5=10

**16.** List the common types of spillways and explain about any two of them. 4+3+3=10

**17.** Compare between Kennedy's and Lacey's silt theories. 10

**18.** Describe any five types of Groynes with sketches. 2×5=10

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