

 $c_{09-c-403}$ 

## 3424

# BOARD DIPLOMA EXAMINATION, (C-09) MARCH/APRIL—2018 DCE—FOURTH SEMESTER EXAMINATION

## IRRIGATION ENGINEERING

Time: 3 hours ] [ Total Marks: 80

### PART—A

 $3 \times 10 = 30$ 

- **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 irrigation.
  - **2.** State the characteristics of good catchment.
  - **3.** State the functions of scouring sluice.
  - **4.** List any three functions of diversion head works.
  - 5. Mention any three failures of gravity dam.
  - **6.** List the types of joints in gravity dam.
  - 7. List any three failures of earthen dam.
  - 8. Draw the typical cross-section of canal in partial cutting and partial embankment.

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- 9. State any three objectives of watershed management.
- **10.** Explain about rainwater harvesting.

#### PART—B

 $10 \times 5 = 50$ 

- **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 advantages and disadvantages of irrigation.
- 12. Explain with neat sketch the float-type automatic recording rain gauge.
- **13.** Explain with neat sketch the component parts of a weir.
- 14. Explain drainage gallery with neat sketch.
- **15.** Explain the construction of rolled fill earth dam.
- 16. Explain with neat sketch the ogee spillway.
- 17. (a) State the advantages and disadvantages of canal lining. 6
  - (b) Draw the cross-section of canal in embankment. 4
- **18.** Explain about different soil moisture conservation methods.

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