

c16-c-402

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BOARD DIPLOMA EXAMINATION, (C-16) OCT/NOV-2018

DCE—FOURTH SEMESTER EXAMINATION

IRRIGATION ENGINEERING

Time: 3 hours]

[Total Marks : 80

3×10=30

PART—A

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. Distinguish between flow irrigation and lift irrigation.
- **2.** Explain the following terms
 - (a) Precipitation
 - (b) Run-off
- **3.** Define the following terms
 - (a) Perculation gradient
 - (b) Uplift pressure
- 4. Distinguish between low dam and high dam.
- **5.** Draw a typical cross-section of canal in banking.
- 6. State any three classifications of canals.
- 7. List any three types of impermeable groyne.

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- 8. Define the following :
 - (a) Field capacity
 - (b) Saturation capacity
- 9. State any three duties of water user association.
- 10. State soil-moisture conservation methods.

PART—B 10×5=50

- Instructions : (1) Answer any five questions.
 - (2) Each question carries **ten** marks.
 - (3) The answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.
- **11.** Explain the following :
 - (a) Flow irrigation
 - (b) Lift irrigation
 - (c) Sprinkle irrigation
- 12. Explain different methods of estimating run-off.
- 13. (a) Explain the component parts of a weir with a neat sketch.(b) Explain the functions of flood bank.
- **14.** State the causes of failure of earth dams and suggest preventive measures.
- **15.** (a) Draw the practical profile of a gravity dam.
 - (b) List the situations suitable for earthen dams.
- **16.** (a) explain a canal head regulator with a neat sketch.
 - (b) State any four functions of cross head regulator.
- **17.** (a) Define a cut-off and mention its functions.
 - (b) Explain different types of river training work.
- 18. Explain the characteristics of watershed.

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