



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

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. Distinguish between flow irrigation and lift irrigation.
2. Explain the following terms
 - (a) Precipitation
 - (b) Run-off
3. Define the following terms
 - (a) Percolation 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.

- * 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.
