



c09-c-403

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**BOARD DIPLOMA EXAMINATION, (C-09)
OCT/NOV—2016
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. Define the terms duty, delta and base period.
2. State any three methods of irrigation.
- * 3. State any three conditions for selection of suitable site for diversion headworks.
4. State any three functions of head regulator.
5. State any three types of spillways.
6. State three causes of failure of gravity dams.
7. Draw a neat sketch of a homogeneous earth dam and name the component parts.

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8. Draw a neat sketch of canal in cutting.
9. State three uses of rain water harvesting.
10. What is a check dam? State any two functions of it.

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. What is run-off? Explain briefly the factors affecting run-off.
12. (a) State five objectives of river gauging.
(b) State five factors for selecting suitable site for a gauging station.
13. Describe with a neat sketch the component parts of a weir.
14. Briefly explain the causes of failure of earth dams and state the preventive measures.
15. Explain the method of constructing rolled filled earth dams.
16. (a) State the need for a drainage gallery.
(b) Sketch the contraction and construction joints in gravity dams.
17. (a) State three types of cross drainage works.
(b) Explain briefly any two cross drainage works with neat sketches.
18. Define watershed management and state the objectives of it.

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