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C09-C-403

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BOARD DIPLOMA EXAMINATION, (C-09)
OCTOBER/NOVEMBER-2018
DCE - FOURTH SEMESTER EXAMINATION

IRRIGATION ENGINEERING

Time : 3 Hours]

[Total Marks: 80

PART-A

3X10=30

- Instructions* :
1. Answer **All** questions.
 2. Each question carries **three** marks.
 3. Answer should be brief and straight to the point and shall not exceed five simple sentences.

1. State the situations where direct and storage irrigation are suitable.
2. What are the advantages of Drip Irrigation?
3. List the component parts of a weir.
- * 4. Distinguish between a weir and a barrage.
5. What is a spillway? What are its functions in a dam?
6. List the causes of failure of earth dams.
7. State any three situations where earthen dams are suitable.
8. Define (a) Syphon aqueduct (b) Super passage.
9. Define watershed management and list any two objectives of it.
10. What is soil moisture conservation method?

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PART-B

10X5=50

Instructions :

1. Answer any **Five** questions.
2. Each question carries **ten** marks.
3. Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer

11. (a) Derive the relationship between duty, delta and base period.
(b) Explain the factors affecting duty of water.
12. What is run-off? Explain the factors affecting run-off from a catchment.
13. Draw the layout of a diversion headwork and state the functions of head regulator, scouring sluices and guide banks.
14. What is elementary profile of gravity dam? Draw the practical profile of a low dam.
15. Explain the points to be considered for the selection of site for a reservoir.
16. Draw a neat sketch of drainage gallery and explain its functions.
17. Explain with sketch typical cross sections of canals in cutting, embankment and partial cutting.
18. Explain about the following terms
(a) Rain water harvesting
(b) Catchment harvesting
(c) Artificial recharge of water.
