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**BOARD DIPLOMA EXAMINATION, (C-14)
OCTOBER/NOVEMBER-2018
DCE-FIFTH 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 any three different methods of expressing duty.
2. Six rain gauge stations 1,2,3,4,5 and 6 are influence by catchment area 60,55,80,58,47 and 65 sq.km respectively. find the rainfall at the six station are 250,300,230,350,315 and 420mm respectively. Find the rainfall over the entire area by theissen's polygon method.
3. What Head work? What it's necessary on river.
4. Distinguish between Low dam and High dam.
5. Draw the cross of section of a cannel in partial embankment and partial cutting and label components.
6. List any six types of canal linings.
7. List ay three advantages of Drip irrigation.
8. Define WARABADI system of irrigation.
9. Define water shed. State the need for water shed development in India.
10. List any three Rain water harvesting structures.

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) Define irrigation. State the necessity of irrigation.
(b) Derive the relationship between Duty, Delta and Base period.
12. Explain the working of float type automatic rain gauge with neat sketch.
13. (a) Define percolation.
(b) Draw the neat sketch of Diversion head work and label the parts.
14. Describe the component part of Weir with neat sketch.
15. Explain the causes of failure of Gravity dams.
16. What is an earthen dam? Explain three types of earthen dams with neat sketches.
17. What is “Balancing depth of cutting” Derive an equation for balancing depth by assuming the cross section and dimension of channel and that the embankments
18. (a) State any five ill effects of water logging.
(b) Explain term meandering of river with sketch.

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