

1136**Code : 15CE52T***Register
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V Semester Diploma Examination, April/May-2018**WATER RESOURCES ENGINEERING****Time : 3 Hours]****[Max. Marks : 100**

- Instructions :** (i) Answer any **six** questions from Part – A. Each question carries **5** marks.
(ii) Answer any **seven** questions from Part – B. Each question carries **10** marks.

PART – A

1. List the necessity of Irrigation in India. **5**
2. Define : **5**
 - (i) Evaporation
 - (ii) Transpiration
 - (iii) Run off
 - (iv) Infiltration
 - (v) Interception
3. What is precipitation and list different forms of precipitation. **5**
4. Explain Border strip method of irrigation. **5**
5. Define : **5**
 - (i) Duty
 - (ii) Delta
 - (iii) Base period
 - (iv) Gross Command area
 - (v) Intensity of irrigation
6. Write a short note on Inspection gallery. **5**
7. What are spill ways ? List different types of spill ways. **5**

8. Draw a layout showing component of diversion head work. 5
9. Define : 5
- (i) Aquifer
 - (ii) Aquiclude
 - (iii) Porosity
 - (iv) Permeability
 - (v) Specific yield

PART - B

10. With a neat diagram explain the working of floating type of automatic rain gauge and state its advantage and disadvantage. 10
11. Explain the various factors affecting Run off. 10
12. Mention the various method of improving duty. 10
13. (i) What are the advantages and disadvantages of Sprinkler irrigation. 5 + 5 = 10
(ii) The cultivable command area of a water course is 1200 hectares. Intensity of sugarcane and wheat crops are 20% and 40% respectively. The duties for the crops @ the head of the water course are 730 hectares/cumsec and 1800 hectare/cumsec respectively. Find the discharge required @ the head of the water course.
14. Explain the various causes for structural failures of earthen dam. 10
15. With a neat diagram explain volute siphon spillway. 10
16. With a neat diagram explain the working of Aqueduct. 10
17. With neat sketch explain canal head regulator. 10
18. Write a short note on maintenance of canal. 10
19. Explain artificial recharge of ground water through (i) Wells, (ii) Recharge through pits. 10