

1136**Code : 15CE52T***Register
Number*

--	--	--	--	--	--	--	--	--	--

V Semester Diploma Examination, Nov./Dec. 2018**WATER RESOURCES ENGINEERING****Time : 3 Hours]****[Max. Marks : 100**

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

PART – A

1. List any five objectives of Water Resource Development. 5
2. Define the following : 5
 - (a) Gross command area
 - (b) Cultivable command area
 - (c) Intensity of Irrigation
 - (d) Delta
 - (e) Base period
3. If water required is about 7.5 cm of water after every 35 days and the base period for wheat is 140 days. Find out the delta for the wheat. 5
4. What are the advantages and disadvantages of sprinkler irrigation ? 5
5. List the types of reservoir. Explain any one. 5
6. What is Earthen dam ? List the classification of Earthen dam. 5
7. Explain the different ways of classification of Canals. 5
8. Mention the difference between aqueduct and super passage. 5
9. Define the following : 5
 - (a) Aquifer
 - (b) Aquiclude
 - (c) Aquitard
 - (d) Ground water yield
 - (e) Transmissibility

PART – B

10. Explain with a neat sketch of Hydrologic cycle and importance of Hydrology. 10
 11. Mention the methods of improving the duty of water. 10
 12. Mention the difference between Earthen dam and gravity dam. 10
 13. The gross command area for an irrigation canal is 20,000 hectares out of which 75% is cultivable command area. The intensity of Irrigation is 40% for Rabi and 10% for Rice. If base period is 4 week for Rabi and 2.5 weeks for rice, determine the outlet discharge. Outlet factors for Rabi and Rice may be assumed as 1800 hectares/cumec and 775 hectares /cumec. Also calculate the delta for each case. 10
 14. Explain the various modes of failure of Gravity dams. 10
 15. What are the function of spillway ? Explain with neat sketch a Ogee spillway. 10
 16. Draw the typical layout of canal system and explain it. 10
 17. Explain methods to be adopted for maintenance of canals. 10
 18. Draw the typical layout of diversion head works and mention its components. 10
 19. What is water shed management ? Explain importance of watershed management. 10
-