

**6425****BOARD DIPLOMA EXAMINATION, (C-16)****MARCH / APRIL — 2021****DCE — FOURTH SEMESTER EXAMINATION****IRRIGATION ENGINEERING***Time* : Three Hours][*Maximum Marks* : 80**PART-A**

3×10=30

- Instructions :**
- (i) Answer **all** questions.
  - (ii) Each question carries **three** marks.
  - (iii) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Define the following terms :
  - (a) Duty
  - (b) Delta
  - (c) Base period
2. Explain the importance of river gauging.
3. Differentiate between a storage head work and a diversion headwork.
4. Distinguish between low dam and high dam.
5. State the need for cross drainage works.
6. State any three advantages of canal linings.
7. Define the following :
  - (a) Land reclamation
  - (b) Water logging
8. Describe the check basin method of irrigation.
9. Explain briefly about warabandi system.
10. Explain about check Dams.

- Instructions :** (i) \* Answer any **five** questions.  
(ii) Each question carries **ten** marks.  
(iii) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. (a) Define Irrigation.  
(b) Find the duty of crop which requires 80 mm depth of water for a base period of 120 days.
12. With the help of a neat sketch, explain about Simon's rain gauge.
13. (a) Explain about percolation gradient.  
(b) State the factors for selecting suitable site for diversion head works.
14. Explain the causes of failures of gravity dams and their remedies.
15. Explain drainage arrangements in earth dams with a neat sketch.
16. Explain the different methods of canal alignment with sketches and state the situations in which each is suitable.
17. (a) Explain the term soil erosion and state its ill effects.  
(b) State the different stages of flow of rivers.
18. Define watershed management and state the objectives of it.

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