

TED (15) 4012
(Revision-2015)

N20-09704

Reg.No.....
Signature.....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER-2020

IRRIGATION ENGINEERING

[Maximum marks: 75]

(Time: 2.15 Hours)

PART – A

I (Answer any *three* questions in one or two sentences. Each question carries 2 marks)

1. Define Irrigation
2. Name main crop seasons in India
3. Write the function of a Weir
4. What is free board?
5. Give the function of Navigation Canals (3 x 2 = 6)

PART – B

II (Answer any *four* of the following questions. Each question carries 6 marks)

1. Give any six advantages of Irrigation
2. Write the relation between Duty, Delta & Base Period
3. Distinguish between Weir & Barrage
4. List the factors to be considered while selecting a site for head works
5. Sketch and explain different types of Earth dams
6. What are the functions of Gibb's Module? explain with figure
7. Discuss in brief various methods of surface irrigation (4 x 6= 24)

PART – C

(Answer *any of the three units* from the following. Each full question carries 15 marks)

UNIT –I

- III.(a) What are the factors affecting duty of water (7)
(b) Draw and explain working of Automatic Recording Rain Guage (8)

OR

- IV. (a) List out seven factors affecting runoff (7)
(b) Sketch and explain the working of current meter (8)

UNIT-II

- V. (a) List and explain different classification of head works (7)
(b) Write short notes on the following
(i) Pick up weirs (ii) Percolation Gradient (iii) Fish ladder (iv) Head Regulator (8)

OR

- VI. (a) Explain briefly each of the component part of a diversion head works (7)
(b) Explain different purpose of head works (8)

UNIT-III

- VII.(a) Distinguish between low dam & high dam (7)
(b) What are the points to be considered while selecting a site for storage head works (8)

OR

- VIII. (a) What are the situations suitable for Earth Dams (7)
(b) What are the precautions to be taken for different types of failure in Earth dams (8)

UNIT-IV

- IX. (a) How canals are classified based on its carrying capacity (7)
(b) What are the different types of cross drainage works (8)

OR

- X. (a) What is a canal lining, what are its advantages (7)
(b) What is an aquifer? How does it differ with an aquiclude (8)
