

(b) What is Water Logging ? Describe causes and preventive measures of water logging. 8,7

9. Describe the following :

- (a) Land drainage
 - (b) Launching apron
 - (c) Land reclamation
- 15

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(4)

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Roll No. :

Total No. of Questions : 9] [Total No. of Pages : 4

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B.Tech. (Civil) 6th Semester (Supplementary)
Examination, July-2021
(G Scheme)

IRRIGATION ENGINEERING

Paper-PCC-CE-302-G

Time : Three Hours]

[Maximum Marks : 75

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note :- Attempt five questions in all, selecting one question from each Section. Question No. 1 is compulsory. Assume missing data, if any, suitably.

1. Describe the following :

- (a) Duty and delta
- (b) Soil water relationship
- (c) Silt control devices

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(1)

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- (d) Level crossing
- (e) Functions of a spillway
- (f) Launching apron

15

Section-A

- 2. (a) Why is Irrigation necessary ? Discuss the impact of irrigation on human environment.
- (b) Define crop period and crop ratio. Explain the concept of ideal cropping pattern particularly w.r.t. North India. 7,8
- 3. (a) What is Irrigation ? Difference between Furrow method and Sprinkler method of irrigation.
- (b) What is Drip Irrigation ? Describe briefly the component parts of drip irrigation system. 7,8

Section-B

- 4. (a) What do you mean by Canal Fall ? Describe in detail the necessity and location of canal fall.

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- (b) Describe principal of design of Sarda Type Fall. What are its Salient Features ? 7,8
- 5. (a) What is an Aqueduct ? What are the different types of Aqueduct ? Describe them with neat sketches.
- (b) What are Silt Control Devices ? Briefly describe silt excluder and silt ejector. 8,7

Section-C

- 6. (a) What is Canal Outlet ? Describe the different design parameters of Canal Outlet.
- (b) Briefly describe the pipe outlet and open flume outlet. 7,8
- 7. (a) What do you mean by Spillway Capacity ? Describe the different types of spillways along with their suitability.
- (b) Discuss the various methods used for energy dissipation below spillways. 8,7

Section-D

- 8. (a) What are the objectives of river training works ? Describe the classification of river training.

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