**POORNIMA UNIVERSITY, JAIPUR**

**END SEMESTER EXAMINATION, November 2022**

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|  | **3BT5157** | Roll No. | Total Printed Pages: 1 |
| **3BT5157** |  |
| B. Tech. III Year V-Semester (Main/Back) End Semester Examination, November 2022  **(CV)** | |
| **BCV05105 : Irrigation Engineering** | | | |

# Time: **3** Hours. Total Marks: **60**

Min. Passing Marks: **21**

Attempt **five** questions selecting one question from each Unit. There is internal choice from Unit I to Unit V. Marks of each question or its parts are indicated against each question / parts. Draw neat sketches wherever necessary to illustrate the answer. Assume missing data suitably (if any) and clearly indicate the same in the answer.

Use of following supporting material is permitted during examination for this subject.

# **. ------------------Nil-----------------------** **2. ------------------Nil-----------------------**

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|  |  | **UNIT-I (CO1)** | **Marks** | **Bloom Level** |
| **Q.1** | **(a)** | Define Irrigation, Its advantages and disadvantages. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Explain different types of Irrigation. | **(6)** | **Understanding** |
|  |  | **OR** |  |  |
| **Q.2** | **(a)** | Explain the different techniques of water distribution in the field. | **(6)** | **Remembering** |
|  |  |  |  |  |
|  | **(b)** | Explain Duty, delta and base period. Also write their relation with each other. | **(6)** | **Remembering** |
|  |  | **UNIT-II (CO2)** |  |  |
| **Q.3** | **(a)** | Write the design steps in Lacey theory. | **(6)** | **Remembering** |
|  |  |  |  |  |
|  | **(b)** | Write the design steps in Kennedy theory. | **(6)** | **Understanding** |
|  |  | **OR** |  |  |
| **Q.4** | **(a)** | Write the different types of loses in canal. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Write the difference between Kennedy theory and Lacey theory. | **(6)** | **Remembering** |
|  |  | **UNIT-III (CO3)** |  |  |
| **Q.5** | **(a)** | Write the difference between non-modular & semi-modular outlet. | **(6)** | **Remembering** |
|  |  |  |  |  |
|  | **(b)** | Write short notes on following :-  1) Meandering of River 2) Aggradation & Degradation of River | **(6)** | **Understanding** |
|  |  | **OR** |  |  |
| **Q.6** | **(a)** | What do you understand by river training work? | **(6)** | **Remembering** |
|  |  |  |  |  |
|  | **(b)** | Explain the method of improving canal irrigation management. | **(6)** | **Understanding** |
|  |  | **UNIT-IV (CO4)** |  |  |
| **Q.7** | **(a)** | Explain the various types of channel lining. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Write down the causes of water logging. | **(6)** | **Applying** |
|  |  | **OR** |  |  |
| **Q.8** | **(a)** | Explain the various types of tube well. | **(6)** | **Remembering** |
|  |  |  |  |  |
|  | **(b)** | How water logged area can be made useful for irrigation? | **(6)** | **Applying** |
|  |  | **UNIT V (CO5)** |  |  |
| **Q.9** | **(a)** | Explain Hydrological cycle. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Explain the different methods of measurement of rainfall. | **(6)** | **Remembering** |
|  |  | **OR** |  |  |
| **Q.10** | **(a)** | Explain the flood hydrograph. | **(6)** | **Remembering** |
|  |  |  |  |  |
|  | **(b)** | Explain the unit hydrograph. | **(6)** | **Remembering** |