

TE - CIVIL - Sem VI - R-19 - C-Scheme

Duration: 3 hours

Total marks: 80

Q.1 is COMPULSORY

Attempt any THREE out of remaining questions
Assume suitable data wherever required.



Q.1 Attempt any FOUR of the following

(20)

- What is the necessity of Irrigation in India and what are the disadvantages of over-irrigation?
- Distinguish between Kennedy's and Lacey's theory.
- Explain recuperation test in wells.
- How to derive direct runoff hydrograph from flood hydrograph?
- Distinguish between Elementary & practical profile of gravity dam.
- What is head regulator? State functions of a distributary head regulator and a cross regulator.

Q.2. A.i. Explain with the help of a diagram Symon's rain gauge.

(05)

A.ii. Define Precipitation. Explain different types of Precipitation

(05)

B. The ordinates of 3-h unit hydrograph for a drainage basin are given below. Obtain 9- hr UH by S-curve method

(10)

Time (hours)	0	3	6	9	12	15	18	21	24	27	30
Ordinates of 3-h UH	0	6.5	12	25.5	45	86	79	42	9.5	4	0

Q.3. A.i Explain types of earth dam.

(05)

A.ii. What is the broad classification of principal crops in India?

(05)

B. Define Duty, delta & base period for a crop. Derive the relation between them.

Also determine the reservoir capacity of the canal system if the culturable command area is 40000 hectares, canal losses are 25% and reservoir losses are 15%.

The details of crops are as follows:

(10)

Crop	Base period(days)	Duty at field (hec/cumec)	Intensity of irrigation (%)
Wheat	120	1800	20
Sugarcane	360	1700	20
Cotton	180	1400	10
Rice	120	800	15
Vegetable	120	700	15

Sp code
82792

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Prog code:

1T00636

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1700636 - T.E.(Civil Engineering)(SEM-VI)(Choice Base Credit Grading System) (R- 19) (C Scheme) / 89263 - Geotechnical Engineering -II

Correction in Q.P.Code: 10083290

In Q.4.A.

Mistake: The slope angle of the cut is 320.

Correction: The slope angle of the cut is 32 degrees.

In Q.4.A.

Mistake: Assume a factor of safety of 1.8.

Correction: *delete this line*

In Q.4.B.

Mistake: From 7 to 12 m

Correction: From 6 to 12 m



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