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Total No. of Questions : 18

B.Tech.(CE) (2012 to 2017) (Sem.–7)
# IRRIGATION ENGINEERING-II
Subject Code : BTCE-803
M.Code : 71861

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTION TO CANDIDATES :
1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

Answer briefly :

1) What is meant by canal escapes?

2) What is meant by a canal fall?

3) Define the terms uplift pressure and exit gradient.

4) How is an aqueduct site selected?

5) Differentiate between weir and barrage.

6) Under what circumstances will you recommend the use of aqueduct?

7) What are modules?

8) What is the function of fish ladder?

9) What is super passage? Why is it required in a canal?

10) What is meant by 'piping' on foundation of a weir?

SECTION-B

11) How does Lane's theory differ from Bligh's creep theory?

12) What is a silt excluder? Explain with the help of a neat sketch.

13) Define the flexibility and sensitivity of a module. Derive the relationship between them.

14) What are the drawbacks of Lacey's theory?

15) In Khosla's method of independent variables, how would you apply corrections for thickness and slope of floor?

SECTION-C

16) a) How do canal escape help in protecting the adjoining areas against flooding due to some breach in canal embankment?

    b) Define the flexibility and sensitivity of an outlet. Derive a relationship between them.

17) Explain in detail Sarda type fall and baffle or Inglis fall and their suitability for a particular project.

18) Explain how will you determine the following in design of a siphon aqueduct :

    a) Waterway of the drain and cross-sectional area of the barrel.

    b) Head loss through siphon barrel.

    c) Uplift pressure due to seepage flow.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.