REGISTRATION NUMBER | | | | | | | | | | |

SRINIX COLLEGE OF ENGINEERING

2nd INTERNAL EXAMINATION-2018-19

Sub-IE Semester-**6TH** Branch-**CE**

Full Mark-50 Time-**2.00Hrs**

ANSWER ALL QUESTIONS (PART-A) **[2X10=20]**

1. What is Bligh creep theory?
2. What is consumptive use of water?
3. What is watershed canal?
4. What are the forces acting on gravity dam?
5. Distinguish between duty and outlet discharge factor?
6. What is the purpose of providing a cross drainage structure?
7. What are the criteria for safe design of earth dam?
8. How can a waterlogged land be made useful for cultivation?
9. What are the objectives of command area development?
10. What are the disadvantages of water logging?

ANSWER ANY THREE QUESTIONS (PART-B) **[6X3=18]**

1. The GCA for an irrigation canal is 5500 hectares and 70% of this area is cultural irrigable. The intensity of irrigation for rabi crops is 45% and that for kharif crops is 30%. Compute the required discharge if the duty at the head of the channel be 1800 hectares/cumec and 800 hectares/cumec for rabi and kharif crops respectively.
2. Give classification of weirs. What are the various types of weirs? Draw their neat sketches.
3. What is super passage? Draw a neat sketch of it and explain in brief the design procedure.
4. Differentiate Bligh's creep theory and Khoslas method for the analysis of seepage below hydraulic structure.

ANSWER ANY ONE QUESTION (PART-C) **[12X1=12]**

1. Design an irrigation channel to carry a discharge of 20 m^3/sec. take silt factors as 1.2. use Lacey's theory.
2. What is meant by water logging? What are its ill effects? Describe some anti logging measures with neat sketches.