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

SRINIX COLLEGE OF ENGINEERING

2ND INTERNAL EXAMINATION-2022

Sub-WRE Semester-**7TH** Branch-**CIVIL**

Full Mark-6**0** Time-2**.00Hrs**

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

1. Define rating curve.
2. Difference between uniform and non uniform flow?
3. Explain the meaning of critical, subcritical, Supercritical flow?
4. Write down the steps which are involved in arriving unit hydrograph from flood hydrograph?
5. Explain different zones of infiltration?
6. Write the concept of hydraulic jump.
7. List out the analytical methods to estimate evapotranspiration.
8. What is the science and practice of water flow measurement called?
9. What is ERH?
10. State the conditions for rectangular channel to be the most efficient and economical.

ANSWER ANY FOUR QUESTIONS (PART-B) **[5X4=20]**

1. Explain the procedure for checking a rain fall data for consistency.
2. In a hydraulic jump, the depth on the two sides is .4m and 1.4m.The head loss in the jump is nearly?
3. Describe the various models adopted to represent the variation of infiltration capacity with time.
4. Determine the dimensions of the canal carrying a discharge of 20 cumecs. The canal has bed slope 1in 2000. Manning's coefficient is 0.03.
5. Derive the mathematical expression for critical depth and critical velocity.

ANSWER ALL QUESTION (PART-C) **[10X2=20]**

1. The ϕ index for the catchment is estimated as 0.25 cm/h . The base flow can be assumed to be 15 m^3/s as beginning and increasing by 2 m^3/sec for every 12 hour till the end of direct runoff hydrograph?
2. Derive the conditions for the most economical and efficient circular channel.