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

SRINIX COLLEGE OF ENGINEERING

1ST INTERNAL EXAMINATION-2017-18

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

Full Mark-**30** Time-1**.30Hrs**

ANSWER ALL QUESTIONS (PART-A) **[2X5]**

1. The delta for a crop having base period 120 days is 70 cm. What is duty _____?
2. Which of the following methods applying water may be used on rolling land?

   (a) boarder flooding (b) check flooding (c) furrow flooding (d) free flooding
3. Optimum depth of kor watering for rice is?

   (a) 135mm (b) 165mm (c) 190mm(d) 215mm
4. The value of Sodium Absorption Ratio for high sodium water lies between

   (a) 0 to 10 (b) 10 to 18 (c) 18 to 26 (d) 26 to 34
5. The relation between duty D in hectares/cumec, depth of water delta in meters and base period B in days is given by ____?

ANSWER ALL QUESTIONS (PART-B) **[2X5]**

1. Define CIR?
2. Write down the factors affecting consumptive use?
3. What is the relation between duty, delta and base period?
4. Define permanent wilting point?
5. Explain GCA?

ANSWER ANY ONE QUESTION (PART-C) **[10X1]**

1. After how many day &will you supply water to soil in order to ensure sufficient irrigation of the given crop, if

(a)Field capacity of the soil=28 %

(b) Permanent wilting point=13%

(c)Dry density of soil=1.3gm/cc

(d)Effective depth of root zone =70cm

(e)Daily consumptive use of water for given crop=12mm

2. The culturable commanded area for a distributary is 15,000 hectares.The intensity of irrigation for Rabi(wheat) is 40% and for kharif (rice) is 15 %.The total water requirement of the two crops are 37.5cm and 120cm and their periods of growth are 160 days and 140 days respectively.

(a)Determine the outlet discharge for average demand consideration?

(b)Also determine the peak demand and discharge assuming that kor water depth for two crops are 13.5 cm and 19cm and their kor periods are 4 weeks and 2 weeks respectively

3. 800 meter cube of water is applied to a farmer's rice field of .6 hectares. When the moisture content in the soil fails to 40 % of the available water between the field capacity (36%) of soil and permanent wilting point (15%) of the soil crop combination, determine the field application efficiency. The root zone depth of rice is 60 cm .Assume porosity=.4