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GIET UNIVERSITY, GUNUPUR – 765022
M. Sc. (Ag.) (First Semester) Examinations, November – 2022
AGRON 504, Principles and Practices of Water Management

Time: 2 hrs

Maximum : 35 Marks

PART – A

Q. 1. Define (or) Explain the following in one or two sentences. (1 x 5 = 5 Marks)

- a. Critical growth stages of Rice & wheat for irrigation
- b. Water use efficiency
- c. Benefits of drainage
- d. Effective rainfall
- e. Particle density

PART – B

Q2. Answer ANY FOUR questions: (short Answer Questions) (2.5 x 4 = 10 Marks)

- a. Furrow method or irrigation
- b. IW/CPE ratio
- c. Boron hazard of irrigation water
- d. Poiseuille's law
- e. Residual sodium carbonate
- f. Darcy's law

PART – C

Attempt ANY FOUR questions. All question carries equal marks (5 x 4 = 20 Marks)

3. Explain in detail regarding different surface methods of irrigation along with its advantages and disadvantages.
4. Describe Water use efficiency and mention in detail about factors affecting water use efficiency.
5. Explain about irrigation scheduling. Write about the irrigation scheduling based on soil and plant indices approach.
6. Explain about drip irrigation with advantages, dis-advantages and a schematic diagram.
7. What are the different methods of soil moisture estimation through direct and indirect methods?
8. Classify the irrigation water based on sodium hazards. Mention the management strategies for raising good crop by poor quality water.