

**III B.Tech II Semester Supplementary Examinations, April/May 2005**  
**IRRIGATION ENGINEERING**  
**(Civil Engineering)**

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

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1. (a) Explain various methods of application of water to crops.  
(b) Explain sprinkler irrigation system.
2. (a) How do you estimate the depth and frequency of irrigation.  
(b) What are the methods of improving duty.
3. (a) What are the methods of measuring rainfall.  
(b) Explain any one recording gauge for measuring rainfall.
4. (a) What is a unit hydrah? Explain its advantages.  
(b) Explain the methods of determining flood discharge.
5. (a) What are the factors affecting run off.  
(b) How do you compute run off.
6. (a) Derive an expression for discharge from a well, fully penetrating confined aquifer.  
(b) Define coefficient of Transmissibility.
7. (a) Compare Kennedys and Lacey's theorem.  
(b) What is a Regime channel? Explain.
8. (a) What are the causes and remedies of failure weirs and barrages on permeable foundations.  
(b) What is the function of division head work?

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