

B.E (Full Time) DEGREE END SEMESTER EXAMINATIONS, NOV/DEC 2011  
CIVIL ENGINEERING BRANCH  
SECOND SEMESTER  
PH 9163 PHYSICS FOR AGRICULTURE AND IRRIGATION ENGINEERING

Time: 3 hours

Max Marks: 100

PART A (10x2=20)

Answer all questions

1. Define three general categories and dose ranges of food irradiation?
2. What are the applications of food irradiation?
3. What are the various applications of different biophysical methods on plant production?
4. Write short notes on soil compaction?
5. Define slaking and explain in detail significance of slaking?
6. Write short notes on Bremsstrahlung radiation?
7. Define void ratio and Porosity?
8. Write short notes on spectral signatures?
9. Write short notes on active and passive sensors?
10. What are the three different types of leaf arrangements in plants?

PART B (5x16=80)

Answer all questions

11. Explain in detail the various new methods used in agriculture and also the various effects of biophysical method in agriculture?
12. Explain in detail disinfestations and inhibition of sprouting?

OR

Explain in detail why radiation protection is to be carried out while irradiating the food and also Explain Compton effect and Pair production?

(P.T.O)

13. Describe various phases of soil in detail?

OR

Explain volume and mass relationship of soil constituents?

14. Explain in detail about Pattern recognition?

OR

Explain image processing and classification of remotely sensed data?

15. Explain in detail chlorophyll and its accessory pigments with neat diagram?

OR

Explain in detail Light reactions and Dark reactions?