



7

**B.E (Full Time) DEGREE AND SEMESTER EXAMINATIONS, APRIL/MAY 2013**

**AGRICULTURE AND IRRIGATION ENGINEERING BRANCH**

**SECOND SEMESTER**

**PH 8202 PHYSICS FOR AGRICULTURE AND IRRIGATION ENGINEERING**

Time: 3hr

Max Mark: 100

**Answer All Questions**

**Part – A (10x2=20 Mark)**

1. Write short notes on two different types of ionizing radiation?
2. What are the different applications of food irradiation?
3. What are the different radioactive sources used for food irradiation?
4. What are the different biophysical method applicable in agriculture?
5. Write short notes on infiltration in soil?
6. Define dry bulk density and porosity?
7. Define Signature and what are the four principal characteristics of signature to identify the object?
8. Write short notes on electromagnetic radiation?
9. Define photosynthesis?
10. Define chlorophyll?

**Part – B (5x16=80 Mark)**

11. Explain in detail about the affects of biophysical method in agriculture and also the possibilities of its application?
12. a) Describe in detail the three types of interactions of ionizing radiation?  
or  
b) Give a detailed account on Decontamination and Extension of Shelf life in food irradiation?

13. a) Describe in detail about Soil profile?

or

b) Explain three major heat transport in soil and write short notes on soil compaction and Consolidation?

14. a) Explain in detail Pattern recognition in remote sensing?

or

b) Give a detailed account on remote sensors and the application of remote sensing in agriculture

15. a) What are different stages of photosynthesis and discuss light reaction?

or

b) Discuss in detail Light independent reaction and carbon cycle?

\*\*\*\*\*