

**ADITYA UNIVERSITY**

B.Tech – I Semester End Examinations Regular – Dec 2024

**AGRICULTURAL INFORMATICS  
(Agricultural Engineering)****Time: 3 hours****Max. Marks: 50****Answer ONE question from each unit****All Questions Carry Equal Marks****All parts of the questions must be answered at one place only****UNIT-I**

- 1 a What are the basic components of a computer? Explain their functions. L1 CO1 [5M]  
b Describe the concept of memory and its units. How do they relate to computer performance? L2 CO1 [5M]

**(OR)**

- 2 a What is an operating system? Discuss its types and applications in agriculture. L2 CO1 [5M]  
b How do you create a scientific document using MS-WORD and MS Power-point? Provide a brief example. L3 CO1 [5M]

**UNIT-II**

- 3 a What is a database? Explain its concepts and types. How are they applied in agriculture? L1 CO2 [5M]  
b Describe the uses of DBMS in agriculture. Provide examples of agricultural databases. L2 CO2 [5M]

**(OR)**

- 4 a How do you design a database for agricultural applications using entity-relationship diagrams? Provide a brief example. L4 CO2 [5M]  
b What are the different types of database queries? Explain their applications in agricultural databases. L2 CO2 [5M]

**UNIT-III**

- 5 a What is the World Wide Web (WWW)? Explain its concepts and components. L1 CO3 [5M]  
b Describe the general concepts of computer programming languages. Introduce Visual Basic, Java, Fortran, C/C++, and their applications. L2 CO3 [5M]

**(OR)**

- 6 a How do you use HTML5 for creating interactive web pages for agricultural applications? Provide a brief example. L3 CO3 [5M]  
b Discuss web browsers and URL in the functioning of WWW L2 CO3 [5M]

**UNIT-IV**

- 7 a What are the concepts and applications of e-agriculture? Discuss the use of ICT in agriculture. L1 CO4 [5M]  
b Describe the computer models for understanding plant processes. How are they applied in agriculture? L2 CO4 [5M]

**(OR)**

- 8 a How do you use ICT tools for agricultural extension services? Provide a brief example. L3 CO4 [5M]

**(P.T.O)**

- b What are the different types of agricultural decision support systems? L2 CO4 [5M]  
Explain their applications and benefits in agriculture.

**UNIT-V**

- 9 a What is geospatial technology? Explain its importance in generating L1 CO5 [5M]  
valuable Agri-Information.  
b Describe the concept of remote sensing and its applications in L2 CO5 [5M]  
agricultural monitoring.

**(OR)**

- 10 a What are the different types of agricultural spatial analysis techniques? L3 CO5 [5M]  
Explain their applications and benefits in agriculture.  
b How do you use geospatial technology for crop monitoring and yield L2 CO5 [5M]  
prediction? Provide a brief example.

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