KERALA AGRICULTURAL UNIVERSITY

B.Tech. (Agri. Engg) 2025 Admission

I Semester Final Theory Examination- February 2026

BES 1102 Agricultural Informatics & Artificial Intelligence (2+1) Marks : 50

Time: 2 hours

I **Fill in the blanks** (10x1=10)

1. The second generation used _____ technology, whereas the third generation used _____ technology.
2. Memory that loses data when power is turned off is called _____ memory, whereas memory that retains data even after power is turned off is called _____ memory.
3. Which model is used to simulate crop growth and nutrient requirement? _____
4. Which technology is used for nutrient mapping? _____
5. Expand: (i) e-NAM..... ....

   (ii) IoT.....
6. Mention 2 examples of Smartphone Mobile Applications in agriculture.
7. The process of estimating crop water loss is called _____.
8. The Turing Test was proposed by _____.
9. Heuristic search uses _____ knowledge to guide the search.
10. The evaluation function of A* is written as f(n) = g(n) + _____.

II **Write short notes on ANY FIVE of the following** (5X2=10)

1. What is DBMS? Mention their functions. Give 2 examples of DBMS.
2. What are the functions of operating systems? Write down various types of Operating Systems with two examples for each.
3. Write notes on GIS.
4. Differentiate between Compiler and Interpreter.
5. What is a Sensor? Mention 3 sensors with their uses.
6. What do you mean by Artificial Intelligence'? List out 3 applications of AI in agriculture.
7. Write notes on e-Agriculture.

III **Answer ANY FIVE of the following** (5x4=20)

1. Describe the components of a computer system with a neat block diagram.

2. Discuss Expert systems in agriculture with examples and their applications.
3. Discuss geospatial technology. Write down the application of geospatial technology in agriculture.
4. Discuss crop simulation models.
5. What do you mean by Search algorithms? Explain the use of search algorithms in AI.
6. Compare Word and Excel software based on their functions.
7. Explain different categories of computers.

IV **Write an essay on ANY ONE of the following** (1x10=10)

1. Explain DSS and its types, components, and uses/applications in agriculture. Write down 4 examples.
2. What is automation? Discuss the areas where automation in agriculture is possible and how?