

*K. Sambath*



**Avinashilingam Institute for Home Science and Higher Education for Women**  
(Deemed to be University Estd, u/s 3 of UGC Act 1956, Category 'A' by MoE)  
Re-accredited with 'A++' Grade by NAAC, CGPA 3.65/4, Category 1 by UGC,  
Coimbatore-641 043, Tamil Nadu, India

**Continuous Internal Assessment Test I – February 2025**  
**SEMESTER-VI**

**Class: III B.Sc.**

**Major: Computer Science**

**Time: 2 hours**

**Max. Marks: 60**

**21BCSC28 Artificial Intelligence**

**Course Outcomes:**

- CO1: Develop computer applications based on perception & Learning
- CO2: Simulate intelligence for reasoning and Learning
- CO3: In depth Understanding to tackle any AI problem.
- CO4: Representing knowledge appropriately
- CO5: Distinguishing ambiguity in grammars

**Part-A**

**6 ×1=6**

**Choose the correct answer**

1. In the Turing Test, what is the evaluator's primary objective. CO1 K1  
a) Determine      b) Assess      c) Distinguish      d) Evaluate
2. Which search strategy explores all nodes at the current level before moving to the next level CO1 K2  
a) Depth-first      b) Breadth-first      c) Uniform-cost      d) A\*
3. Which of the following search algorithms always expands the least-cost node first. CO2 K1  
a) Depth-First Search      b) Breadth-First Search  
c) Greedy Best-First Search      d) A\* Search
4. Which heuristic function property is essential for ensuring that A search finds the optimal solution? CO2 K3  
a) Heuristic must always overestimate the true cost  
b) Heuristic must always underestimate the true cost  
c) Heuristic must be consistent  
d) Heuristic must be admissible
5. Which of the following is NOT a type of constraint often used in CSPs? CO2 K2  
a) Unary constraints      b) Binary constraints  
c) Ternary constraints      d) Infinite constraints
6. Which approach to AI focuses on internal human mechanisms? CO1 K1  
a) Rationality      b) Logic  
c) Cognitive      d) Machine

**Part-B**  
**Answer All Questions**  
**Each answer should not exceed 400 words or two pages**

3×6=18

7. a. Explain the key differences between thinking humanly and thinking rationally in the context of AI. CO1 K3  
(or)  
b. Describe the components of an intelligent agent. CO1 K2
8. a. Distinguish between Depth first search and Breadth first search CO2 K4  
(or)  
b. Explain about A\* algorithm CO2 K5
9. a. Explain about Minmax algorithm CO3 K2  
(or)  
b. What is the knowledge Representation Technique? Explain? CO3 K1

**Part-C**  
**Answer All Questions**  
**Each answer should not exceed 800 words or four pages**

3×12=36

10. a. Explain about Problem Solving Techniques? CO1 K2  
(or)  
b. What is the main problem in local search algorithms? Explain? CO1 K3
11. a. What is the Hill climbing algorithm? CO2 K2  
(or)  
b. What are optimal decision games in artificial intelligence? CO2 K2
12. a. What is first order logic and give an example? CO3 K1  
(or)  
b. What is Syntax and symantics in artificial intelligence? CO3K1

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**Staff in-Charge:** Dr.P.Subashini, Mrs.S.Abinaya

A 57  
S 65