



HITEC UNIVERSITY
Department of Computer Science
BS Cyber Security Program (Batch 2024)

Subject: CS-312 Artificial Intelligence

Instructor: Mr. Mubashir Iqbal

Marks: 40

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GENERAL INSTRUCTIONS FOR Quiz

- *Use Proper Paper: Write on white, lined paper with margin lines on the left.*
- *Headings & Formatting: Use a black marker for main headings. Use a blue marker for subheadings.*
- *Write the primary content with a blue or black pen (no other colors).*
- *Draw every possible shape, diagram, graph, and plot.*
- Keep your handwriting clean and readable. Underline important terms neatly. Avoid cutting or overwriting.

Course Outcome	Student Outcome	Learning Domain
CO-01	SO-01	Cognitive 3

Question 01: Define Artificial Intelligence (AI) in your own words. Explain how it is different from **Machine Learning (ML)** and **Deep Learning (DL)** with two examples of each.

Question 02: List any three real-world applications of AI in different industries. For each, mention what problem it solves and what kind of intelligence (human-like ability) it demonstrates.

Question 03: Differentiate between Breadth-First Search (BFS) and Depth-First Search (DFS) based on:

- a) Memory usage
- b) Completeness
- c) Type of problems best suited for each
- d) Give one practical scenario for both algorithms.

Question 04: Suppose you are designing an AI system for **stock market prediction**. Classify its environment as:

- a) Fully or Partially Observable?
- b) Deterministic or Stochastic?
- c) Static or Dynamic?
- d) Discrete or Continuous?

Then, explain why each classification fits.