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

Subject: *CS-312 Artificial Intelligence*　　　　　　**Instructor:** Mr. Mubashir Iqbal

Marks: 40　　　　　　　　　　　　　　　　　　　**Date:** 20 Nov 2025

GENERAL INSTRUCTIONS FOR Quiz-02

- 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. 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
CO-02	SO-01

Question 01: Explain these uninformed searching algorithms, Breath First Search, Depth First Search, Uniform Cost Search, IDDFS, and Bidirectional Search. Draw exampled tree/graph and explain the sequence of nodes to be visited. Provide at least one real-world situation where each algorithm fails or performs poorly, and justify why. [20 Marks]

Question 02: Explain Best First Search and find the optimal path from **S → L** on given graph. [10 Marks]

Question 03: Define A* Search briefly and find the optimal path from **S → L** on given graph. [10 Marks]