



Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

SCHOOL OF MECHANICAL ENGINEERING
CONTINUOUS ASSESSMENT TEST - I
FALL SEMESTER 2024-25

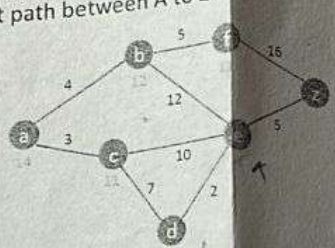
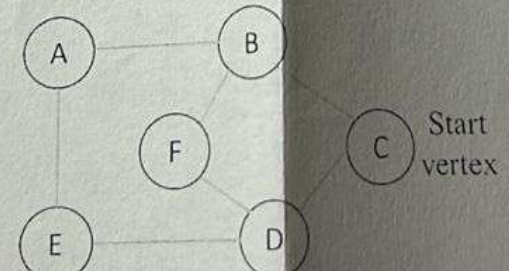
SLOT: E1+TE1

Programme Name & Branch
Course Code
Course Name
Faculty Name(s)
Class Number(s)
Exam Duration

: B. Tech & Mechanical
: BMEE407L
: Artificial Intelligence
: Dr. Gunji Bala Murali
: VL2024250103922
: 90 minutes

Maximum Marks: 50

General instruction(s): Answer all the questions

Q. No	Question	Marks
1.	What is the Inheritable knowledge approach for data storage? Consider the following data Raju and Rahul play cricket and volleyball every day in school, arrange data in the Inheritable Knowledge Approach.	10
2.	What is an agent? Explain how the agent will act on the environment by considering self-driving car.	10
3.	What is the A* algorithm? Solve the given graph (figure-1) using the A* algorithm to find the shortest path between A to Z. 	10
4.	Given the following graph (figure-2). Apply the Depth First Search Algorithm to traverse it. 	10
5.	Solve the following graph (figure-3) using the Breadth First Search Algorithm and Iterative Deepening Search Algorithm find out which algorithm will have a shorter path length and write the path length with proper steps.	10



VIT

Vellore Institute of Technology
(Approved by the University under section 3 of UGC Act, 1956)

SLOT: E1+TE1

SCHOOL OF MECHANICAL ENGINEERING
CONTINUOUS ASSESSMENT TEST - I
FALL SEMESTER 2024-25

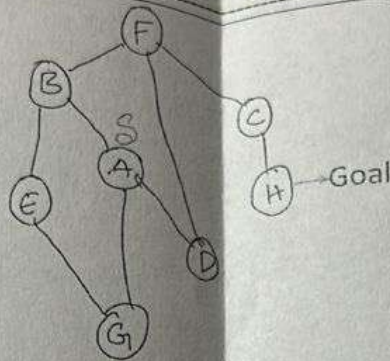


Figure: 3 Graph for BFS and IDS