JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2023

M. Tech-I Semester (CSE/IS/DS)

COURSE CODE (CREDITS): 22M1WCI132 (3)　　　　　MAX. MARKS: 15

COURSE NAME: Artificial Intelligence Techniques

COURSE INSTRUCTORS: Dr. Nancy Singla　　　　　MAX. TIME: 1 Hour

Note: (a) All questions are compulsory.
(b)Marks are indicated against each question in square brackets.
(c) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

Q1. (a) What is acting humanly the Turing Test approach? Why the test has been criticized?　　[3+2] [CO1]

(b) What are the capabilities, computer should possess to pass Turing test?

Q2. (a) Explain the criteria to measure the performance of search strategies.　　[2+3] [CO1]

(b) Compare Depth First Search (DFS), Depth Limited and Iterative-Deepening DFS techniques on the basis of measuring criteria mentioned in (a).

Q3. Using the A* algorithm, find the optimal path from S to G for the search space shown below. Consider the heuristic values as h(S) =110, h(A) = 30, h(B) =20. Also, justify if the given heuristic is admissible or not?　　[5] [CO1]