Department of Computer Sc. & Information Technology, GGV Bilaspur C.G.

1st INTERNAL

B.Sc. CS 6th sem, Session – 2021-22

Subject:- Artificial Intelligence

Time: [1 hour]   **[Maximum Marks : 30]**

Note:- Solve **question 1** is compulsory **and** *rest of the Questions are long type questions solve any* ***three(3)***

Q 1. Following the answer in MCQ   6 x 2=12

i). The area of AI that investigates methods of facilitating communication between people and computers is

    a) Natural language processing   b) Intelligent agent

    c) Robotics   d) Artificial Neural Network

ii). What is the time complexity of BFS algorithm in AI

    a) $O(V + E)$ b) $O(n^d)$ c) $O(b^m)$ d) $O(b^d)$

iii). Which of the following is not usually used programming language for AI ?

    a) Python   b) Prolog   c) Lisp   d) Perl

iv) What is Artificial intelligence?

    a) Putting your intelligence into Computer

    b) Programming with your own intelligence

    c) Making a Machine intelligent

    d) Playing a Game

v) Which search technique may find many solutions. If many solutions exist ,minimal solution can be found.

    a) Breadh First search   b) Depth first search   c) Best first search   d) A*

vi) Which statement is valid for the Heuristic function?

    a) The heuristic function calculates the cost of an optimal path between the pair of states

    b) The heuristic function is used to solve mathematical problems.

    c) Both a & b

    d) The heuristic function does not have any return type.

Long type of Questions   3 x 6 = 18

Q2. Importance of is AI? Explain what the applications of AI are.

Q3. What is role of intelligent agent? Describe types also.

Q4. Difference between Uninformed search and informed search technique

Q5. Explain Minimax algorithm with suitable example.

Q6. Explain A* algorithm with suitable example