MASTER OF SCIENCE (COMPUTER SCIENCE) (CBCS-2018 COURSE)
M.Sc. (Computer Science) Sem-III : WINTER :- 2021
SUBJECT: ARTIFICIAL INTELLIGENCE

Day : Tuesday
Date 18-01-2022 **W-20054-2021**
Time : 02:00 PM-05:00 PM
Max. Marks: 60

N.B:

1) All Questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Draw diagrams **WHEREVER** necessary.

Q.1 Describe various types of agents with their appropriate structure. **(15)**

OR

Explain forward chaining and backward chaining with example.

Q.2 **A)** Answer any **ONE** of the following: **(08)**

i) Explain the PEAS description of task environment.

ii) What is meant by semantics of belief network and inference in belief network?

B) Answer any **ONE** of the following: **(07)**

i) Explain the working of expert system in detail.

ii) Describe hierarchical decomposition with suitable example.

Q.3 Answer any **THREE** of the following: **(15)**

a) Define – search node, state space.

b) Explain Depth First Search method with suitable example.

c) Differentiate between agent program and agent function.

d) Explain 'minimax' algorithm in game playing.

e) Describe the propositional logic with syntax and semantics.

Q.4 Write short notes on any **THREE** of the following: **(15)**

a) Robotics

b) Neural Network

c) Generic algorithm

d) 8- queen's problem

e) Heuristic function

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