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SEAT No. :

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B.E./Insem. - 583

B.E. (Computer Engineering) (Semester - I)
MART SYSTEM DESIGN AND APPLICATIONS
(2012 Pattern)

Hour]

[Max. Marks : 30

*ions to the candidates:
Attempt questions Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6.
Neat diagrams must be drawn wherever necessary.
Assume suitable data, if necessary.
Justify your answer with an example wherever necessary.*

Define artificial intelligence and justify how AI adds intelligence in computing with example. [4]

Explain the architecture of a general learning agent. [3]

State the types of agents and explain any ONE in detail. [3]

OR

What is an environment for an agent? Explain various types of environments for agents. [4]

Develop a PEAS description of task environment for an example. [3]

How AI helps in solving a problem? Explain with an example. [3]

Define search problem. Solve 8-puzzle as a state-space search problem. [4]

Differentiate between uninformed and informed search methods. [3]

Explain depth first search algorithm and evaluate following parameters:

Completeness, space complexity, time complexity, path cost. [3]

OR

P.T.O.

Q4) a) Explain A* search algorithm by minimizing total estimated solution cost. [4]

b) What is Heuristic function? How it helps to improve the cost of a solution? [3]

c) Define and explain constraint satisfaction problem. [3]

Q5) a) Describe the PEAS for Wumpus world problem. [4]

b) What is knowledge? How it can be represented? [3]

c) What is Ontology? How it is used to represent the information? [3]

OR

Q6) a) Explain 'Internet Shopping World' to represent knowledge, reasoning and planning. [4]

b) Explain how FOL give inference with an example. [3]

c) Explain the three components of representing the actions in classical planning problem with example. [3]