

SARDAR PATEL UNIVERSITY

BCA Examination, 3rd Semester

Friday, Date: 22/11/2013

Session: Evening Time: 02:30 pm to 04:30 pm

Code: US03EBCA02

Subject: Introduction to Artificial Intelligence

Total Marks: 70

Q1) Multiple Choice Question

[10]

- 1) Medical diagnosis is a _____
 - a) Expert Task
 - b) Mundane Task
 - c) Formal Task
 - d) None of These
- 2) Perceptions is a _____
 - a) Formal Task
 - b) Mundane Task
 - c) Expert Task
 - d) None of These
- 3) The test in which the computer mimics a human and tries to fool other humans is called _____
 - a) The Alan Turning Test
 - b) Artificial Intelligence Test
 - c) The Turning Test
 - d) None of These
- 4) Inferring facts from existing data is also known as _____
 - a) Retrieving
 - b) Learning
 - c) Acquisition
 - d) Reasoning
- 5) Which of the following is a Knowledge acquisition system?
 - a) META-DENDRAL
 - b) DENDRAL
 - c) MYCIN
 - d) XCON
- 6) _____ use symbolic representations for knowledge.
 - a) Inference Engine
 - b) Expert System
 - c) Expert Shell
 - d) Knowledge Base
- 7) Which of the following will find the best goal state?
 - a) Bidirectional Search
 - b) Breadth-First Search
 - c) Best-First Search
 - d) Depth-First Search
- 8) _____ denotes relations or functional mapping from the elements of a domain to the values True or False.
 - a) Constants
 - b) Variables
 - c) Functions
 - d) Predicates
- 9) An assembly line is example of _____ type of robot.
 - a) Manipulator
 - b) Mobile
 - c) Hybrid
 - d) All of These
- 10) A _____ can be regarded as a label applied to a linguistic concept which has no precise boundary.
 - a) Fuzzy Logic
 - b) Fuzzy Set
 - c) Crisp Set
 - d) None of These

P.T.O

- Q2) Answer the following short question (Any 10) [20]**
- 1) List any two definitions of AI.
 - 2) List the Task domain of AI.
 - 3) What is DENDRAL?
 - 4) What is an Inference engine?
 - 5) Explain the network representation scheme.
 - 6) Explain the logical representation scheme.
 - 7) State the connectives of FOPL.
 - 8) What is Depth-limited search?
 - 9) State the difference between informed and uninformed searches.
 - 10) State any two problems with Robots.
 - 11) What is Fuzzy logic?
 - 12) What is Fuzzy sets?
- Q3) Write a note on History or AI. [10]**
- OR**
- Q3) Write a note on AI and related fields. [10]**
- Q4)**
- A) Write a note on the characteristic features of an expert system. [05]
 - B) Write a note on knowledge representation. [05]
- OR**
- Q4)**
- A) Write a note on Knowledge acquisition. [05]
 - B) What is an Expert shell and explain in detail. [05]
- Q5)**
- A) What is informed search strategy? Explain the Best first search algorithm. [05]
 - B) Write a note on Depth-First Search and bidirectional search. [05]
- OR**
- Q5)**
- A) What is breadth first search strategy? [05]
 - B) Write note on different syntax of predicate logic. [05]
- Q6)**
- A) Write a note in Natural Language Processing (NLP). [05]
 - B) Write a note on Crisp sets. [05]
- OR**
- Q6)**
- A) Write a note on Robotics. [05]
 - B) Write a note on Game playing. [05]

--: ALL THE BEST :-