

[38]

SEAT No. _____

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SARDAR PATEL UNIVERSITY

SYBCA Examination October / November - 2018

US03EBCA02 : Artificial Intelligent

Date: 02/11/2018, Friday

Time: 02:00 to 04:00 PM

Total Marks : 70

Q.1 Multiple choice questions:

[10]

1. Game playing is a _____
 - a. Mundane task
 - b. Formal task
 - c. Expert task
 - d. None of these

2. _____ is an interactive program was built, that carries on a dialogue in English on any topic and acted as a psychotherapist asking questions to patients.
 - a. DENDRAL
 - b. BACKGAMMON
 - c. MYCIN
 - d. ELIZA

3. Inferring facts from existing data is also known as _____
 - a. Reasoning
 - b. Retrieving
 - c. Learning
 - d. Acquisition

4. In _____, each rule contains two confidence estimates.
 - a. MYCIN
 - b. DENDRAL
 - c. R1
 - d. PROSPECTOR

5. _____ use symbolic representations for knowledge.
 - a. Expert system
 - b. Expert shell
 - c. Inference engine
 - d. Knowledge base

6. Predicate logic is also known as _____
 - a. Predicate calculus
 - b. First-order predicate logic
 - c. First-order predicate calculus
 - d. All of the above

7. _____ has two simultaneous searches.
 - a. Breadth-first search
 - b. Depth-first search
 - c. Bidirectional search
 - d. Interactive deepening depth-first search

8. An assembly line is example of _____ type of robot.
 - a. Manipulator
 - b. Mobile
 - c. Hybrid
 - d. All of these

9. _____ involves interpreting sights, sounds, smells, and touch.
 - a. Logic
 - b. Vision
 - c. Perception
 - d. Planning

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

- Q.2 Write short answer of any ten [20]
1. List any two definitions of AI.
 2. State the Physical symbol system definition.
 3. Write a note on Neuroscience field related to AI.
 4. Explain the network representation scheme.
 5. Explain MYCIN's representation and using of domain knowledge.
 6. What is an Inference engine?
 7. State any 2 problems with FOFC.
 8. What is Breadth-first search.
 9. What is bidirectional search.
 10. State any 2 reasons why game playing was appealing for AI researchers.
 11. State any two problems with Robots.
 12. What is Fuzzy sets.

Q.3(A) What is AI? Explain in Brief. [4]

Q.3(B) Write a note on AI and Economics & psychology fields related to AI. [6]

OR

Q.3(A) Write a note on AI Problem. [4]

Q.3(B) Write a note on AI and computer engineering & control theory and cybernetics fields related to AI. [6]

Q.4(A) What is Expert system? Explain. [5]

Q.4(B) Write a note on knowledge representation. [5]

OR

Q.4(A) Write a note on representing and using domain knowledge. [5]

Q.4(B) What is an Expert shell? Write a note on Expert shell. [5]

Q.5 Write a note on predicate logic. [10]

OR

Q.5 Explain different kind of search strategies. [10]

Q.6(A) Write a note on Robotics. [5]

Q.6(B) Write a note on Natural language processing. [5]

OR

Q.6(A) Write a note on Fuzzy logic. [5]

Q.6(B) Write a note on crisp sets. [5]

— X —
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