

Code: 21P03601

SR21

SET-1

SRINIVASA INSTITUTE OF ENGINEERING AND TECHNOLOGY

UGC – Autonomous Institution

III B.Tech II Semester I MID Examinations, FEBRUARY – 2025

ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

MECH

Time : 20 Mins	Max. Marks:20			Date: 24-02.2025
Roll No:	Sign of the Student:			Marks Obtained:
Name:	Sign of invigilator:			Sign of Valuator:
CO	CO 1	CO 2		Marks Obtained:
UNIT	I	II		Total Marks

1. What is the primary focus of Artificial Intelligence (AI)? []

- a) Developing robots that can perform physical tasks
- b) Creating machines that can exhibit human-like intelligence
- c) Designing software programs for entertainment
- d) Analyzing large datasets for business purposes

2. Which of the following is NOT a characteristic of AI systems? []

- a) Recognizing speech
- b) Understanding language
- c) Performing manual labor
- d) Making decisions

3. How do AI systems typically make decisions or predictions? []

- a) By following pre-programmed rules
- b) By processing large amounts of data and identifying patterns
- c) By using intuition and emotions
- d) By relying on human input

4. What is machine learning? []

- a) A type of AI that focuses on creating robots
- b) A type of AI that allows machines to learn from data
- c) A type of AI that can only perform simple tasks
- d) A type of AI that is only used in research labs

5. Which of the following is an example of AI in everyday life? []

- a) A traditional car
- b) A coffee maker
- c) A voice assistant like Siri or Alexa
- d) A manual typewriter

6. What is the Turing Test designed to evaluate? []

- a) A machine's ability to perform complex calculations
- b) A machine's ability to exhibit human-like intelligence
- c) A machine's ability to learn from data
- d) A machine's ability to recognize objects

7. When did the field of AI officially begin? []

- a) 1940s b) 1950s c) 1960s d) 1970s

8. What was the main reason for the "AI Winter"? []

- a) Rapid progress in AI research
- b) Increased funding and support for AI
- c) Limited capabilities of early AI systems
- d) Ethical concerns about AI

9. What is Deep Learning? []

- a) A type of AI that uses rule-based systems
- b) A type of AI that uses machine learning with neural networks
- c) A type of AI that can only solve simple problems
- d) A type of AI that is still in its early stages

10. Which of the following is NOT a real-world application of AI? []

- a) Self-driving cars
- b) Voice assistants
- c) Time travel
- d) Medical diagnosis

11. What is a logical agent? []

- A) A system that learns from experience
- B) A system that makes decisions using logic
- C) A system that reacts to stimuli without reasoning
- D) A system that randomly selects actions

12. What is the main characteristic of a logical agent? []

- A) It stores vast amounts of raw data
- B) It uses predefined rules to react to the environment
- C) It makes decisions based on logical inference
- D) It does not require a knowledge base

13. Which type of logic is commonly used in logical agents? []

- A) Fuzzy Logic
- B) Propositional and First-Order Logic
- C) Genetic Algorithms
- D) Evolutionary Logic

14. What is a knowledge base (KB) in logical agents? []

- A) A physical database of facts
- B) A collection of algorithms
- C) A set of sentences in a formal language
- D) A learning model

15. How does a logical agent derive new information? []

- A) By memorizing past experiences
- B) By applying inference rules to known facts
- C) By trial and error
- D) By using only machine learning techniques

16. What is inference in logical reasoning? []

- A) A process of randomly selecting a fact
- B) A process of deriving new facts from known facts
- C) A method of storing facts in memory
- D) A technique of deleting irrelevant information

17. Which of the following is NOT a type of logic used in AI? []

- A) Propositional Logic
- B) First-Order Logic
- C) Relational Logic
- D) Arithmetic Logic

18. What is modus ponens?

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- A) A method for deleting knowledge from a KB
- B) An inference rule: If $P \rightarrow Q$ and P is true, then Q is true
- C) A process of learning new rules from experience
- D) A statistical method for making predictions

19. Which type of agent uses a knowledge base and inference mechanisms?

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- A) Reactive agent
- B) Logical agent
- C) Learning agent
- D) Reflex agent

20. What is a sentence in a knowledge base?

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- A) A command to the agent
- B) A formal representation of knowledge
- C) A user query
- D) A random statement