1-**What does Robotics combine with physical systems for interaction with the environment?**

- A) Natural Language Processing (NLP)
- B) AI (Artificial Intelligence)
- C) Image recognition
- D) Machine learning algorithms

Answer: B) AI (Artificial Intelligence)

2-**What does Natural Language Processing (NLP) enable machines to do?**

- A) Understand, interpret, and generate human language.
- B) Identify patterns in large datasets.
- C) Recognize images and videos.
- D) Perform calculations and solve equations.

Answer: A) Understand, interpret, and generate human language.

3-**What is Deep Learning a subset of?**

- A) Symbolic AI
- B) Machine Learning
- C) Reinforcement Learning
- D) Natural Language Processing

Answer: B) Machine Learning

4-**In what kind of scenarios does Symbolic AI tend to be less effective?**

- A) When working with structured, numerical data.
- B) When handling unstructured or complex real-world data.
- C) When interpreting straightforward logical problems.
- D) In environments where high interpretability is not important.

Answer: B) When handling unstructured or complex real-world data

5-**What is a major limitation of Symbolic AI?**

- A) It requires massive amounts of computational power.
- B) It is ineffective at handling unstructured or complex real-world data.
- C) It can only be used for image recognition.
- D) It struggles with tasks that require human-like creativity.

Answer: B) It is ineffective at handling unstructured or complex real-world data

6-**What does Symbolic AI rely on to encode knowledge?**

- A) Neural networks and deep learning algorithms.
- B) Predefined rules and explicit logic.
- C) Data-driven pattern recognition.
- D) Human-like reasoning and decision-making.

Answer: B) Predefined rules and explicit logic

7-**What is Computer Vision primarily concerned with?**

- A) Analyzing speech and audio data.
- B) Processing and analyzing visual data like images or videos.
- C) Learning from large data sets.
- D) Understanding human behavior.

Answer: B) Processing and analyzing visual data like images or videos.

8-**Which AI technique is based on neural networks with multiple layers for complex tasks?**

- A) Symbolic AI
- B) Deep Learning
- C) Machine Learning
- D) Robotics

Answer: B) Deep Learning

9-**Which AI methodology uses rule-based systems with explicit logic?**

- A) Symbolic AI
- B) Machine Learning
- C) Deep Learning
- D) Natural Language Processing

Answer: A) Symbolic AI

10-**What was one of the major contributions of neural networks to AI in recent years?**

- A) Enabling AI to perform general tasks across all domains.
- B) Revolutionizing image recognition and language processing.
- C) Allowing AI to replace human workers in various fields.

- D) Creating AI that can think and reason like humans.

Answer: B) Revolutionizing image recognition and language processing

11-**What technological advancements led to the Deep Learning Revolution?**

- A) Neural networks and access to large-scale data.
- B) The invention of quantum computing.
- C) Increased funding from governments worldwide.
- D) The development of general AI systems.

Answer: A) Neural networks and access to large-scale data.

12-**What factors contributed to the resurgence of AI in the 1990s?**

- A) Advances in computational power, data availability, and improved algorithms.
- B) A significant increase in government funding for AI research.
- C) The invention of the personal computer.
- D) The development of quantum computing.

Answer: A) Advances in computational power, data availability, and improved algorithms.

13-**What term is used to describe the period of reduced interest and funding in AI during the 1970s and 1980s?**

- A) AI Revolution.
- B) AI Renaissance.
- C) AI Winters.
- D) AI Boom.

Answer: C) AI Winters.

14-What event marked the official birth of AI as a field?

- A) The invention of the computer.
- B) The Dartmouth Conference in 1956.
- C) The release of the first AI robot.
- D) The publication of "Artificial Intelligence: A Modern Approach."

Answer: B) The Dartmouth Conference in 1956.

15-What were some of the early successes of AI programs after the Dartmouth Conference?

- A) Creating self-driving cars.

- B) Solving algebra problems, playing checkers, and proving logical theorems.
- C) Translating languages and recognizing images.
- D) Generating human-like speech.

Answer: B) Solving algebra problems, playing checkers, and proving logical theorems.

16-In what year did the Dartmouth Conference, marking the birth of AI, take place?

- A) 1945
- B) 1956
- C) 1963
- D) 1972

Answer: B) 1956.

17-Which of these is an example of General AI (Strong AI)?

- A) An AI system that can translate text from one language to another.
- B) A robot that can perform a wide range of tasks like a human.
- C) A spam filter that detects unwanted emails.
- D) Siri answering specific voice commands.

Answer: B) A robot that can perform a wide range of tasks like a human.

18-Which of the following best describes Narrow AI (Weak AI)?

- A) A system capable of performing any intellectual task that a human can do.
- B) A system that is specialized in a single task.
- C) A theoretical AI that surpasses human intelligence in all areas.
- D) An AI that learns from experience without explicit programming.

Answer: B) A system that is specialized in a single task.

19-What is the primary goal of Computer Vision in AI?

- A) To analyze and interpret visual data like images or videos.
- B) To teach machines to understand spoken language.
- C) To develop robots that can move physically.
- D) To enable machines to make decisions based on data.

Answer: A) To analyze and interpret visual data like images or videos

20-What does Machine Learning (ML) enable computers to do?

- A) Perform tasks with explicit programming.
- B) Learn from experience without explicit programming.
- C) Analyze visual data.
- D) Understand human language.

Answer: B) Learn from experience without explicit programming

1-What does Artificial Intelligence (AI) refer to?

- A) The development of computer systems capable of performing tasks requiring human intelligence.
- B) The development of software for gaming.
- C) The creation of advanced computer hardware.
- D) The programming of robots for physical labor.

Answer: A) The development of computer systems capable of performing tasks requiring human intelligence.

2-Which field of AI focuses on enabling machines to understand and generate human language?

- A) Computer Vision
- B) Robotics
- C) Natural Language Processing (NLP)
- D) Machine Learning

Answer: C) Natural Language Processing (NLP)

3-Which of the following is an example of Robotics in AI?

- A) An AI program translating languages.
- B) A robot arm used in a manufacturing plant to assemble products.
- C) A self-learning algorithm predicting future stock prices.
- D) A system recognizing faces in photos.

Answer: B) A robot arm used in a manufacturing plant to assemble products.

4-What is the goal of General AI (Strong AI)?

- A) To perform a single task with high efficiency.
- B) To surpass human intelligence in all areas.
- C) To perform any intellectual task that humans can do.

- D) To understand and generate human language.

Answer: C) To perform any intellectual task that humans can do.

5-Which of the following is a characteristic of Superintelligent AI?

- A) It is capable of performing specific tasks very well, like spam filtering.
- B) It can learn from experience but can only perform a limited set of tasks.
- C) It surpasses human intelligence in all areas and raises ethical concerns.
- D) It is currently being implemented in real-world applications.

Answer: C) It surpasses human intelligence in all areas and raises ethical concerns.

6-What is one potential concern associated with Superintelligent AI?

- A) It may not be able to perform any task.
- B) It might raise ethical questions about control and the future of humanity.
- C) It could only perform one task very well.
- D) It could be outdated within a few years.

Answer: B) It might raise ethical questions about control and the future of humanity.

7-Who were key contributors to the development of AI at the Dartmouth Conference?

- A) Alan Turing and Ada Lovelace.
- B) John McCarthy and Marvin Minsky.
- C) Bill Gates and Steve Jobs.
- D) Geoffrey Hinton and Yann LeCun.

Answer: B) John McCarthy and Marvin Minsky.

8-**What caused AI to suffer from unmet expectations in the 1970s and 1980s?**

- A) Overly simplistic AI programs.
- B) Lack of interest from key contributors.
- C) Limitations in computing power and the complexity of real-world problems.
- D) Rapid advancements in robotics.

Answer: C) Limitations in computing power and the complexity of real-world problems.

9-**What happened during the "AI winters"?**

- A) AI technology made rapid progress.
- B) There were major breakthroughs in machine learning.

- C) Funding for AI research was cut, and interest in the field decreased.
- D) AI started to be widely used in consumer products.

Answer: C) Funding for AI research was cut, and interest in the field decreased.

10-**Which of the following practical AI applications emerged in the 1990s?**

- A) Autonomous vehicles and facial recognition.
- B) Speech recognition and search engines.
- C) Superintelligent AI and general-purpose robots.
- D) Virtual reality and gaming.

Answer: B) Speech recognition and search engines.

11-**Which AI systems became part of everyday life as a result of deep learning advancements?**

- A) Google Assistant and ChatGPT.
- B) IBM's Watson and self-driving cars.
- C) AI-powered robots for manufacturing.
- D) Facial recognition software in cameras.

Answer: A) Google Assistant and ChatGPT.

12-**What role did large-scale data play in the Deep Learning Revolution?**

- A) It provided the necessary resources to train complex neural networks.
- B) It slowed down the development of AI due to storage limitations.
- C) It allowed AI systems to make decisions without human input.
- D) It reduced the need for advanced algorithms in AI research.

Answer: A) It provided the necessary resources to train complex neural networks.

13-**What does Machine Learning (ML) focus on?**

- A) Using predefined rules to make decisions.
- B) Data-driven approaches to identify patterns and make decisions.
- C) Interacting with human language through voice recognition.
- D) Analyzing and processing visual data.

Answer: B) Data-driven approaches to identify patterns and make decisions.

14-**What is the primary goal of Natural Language Processing (NLP)?**

- A) To recognize and interpret images.

- B) To process and analyze visual data.
- C) To enable machines to interact using human language.
- D) To control robots in real-world environments.

Answer: C) To enable machines to interact using human language.

15-**What does Robotics focus on in the field of AI?**

- A) Developing algorithms for speech recognition.
- B) Using neural networks to identify patterns.
- C) Creating intelligent machines that can operate in real-world environments.
- D) Making decisions based on data-driven approaches.

Answer: C) Creating intelligent machines that can operate in real-world environments.

16-**What is a key strength of Symbolic AI?**

- A) It can process large amounts of unstructured data.
- B) It offers high interpretability and transparency.
- C) It can learn from experience and adapt.
- D) It performs well in complex, real-world environments.

Answer: B) It offers high interpretability and transparency.

17-**Which of the following is a characteristic of Symbolic AI systems?**

- A) They are based on neural networks.
- B) They can interpret visual and speech data.
- C) They use logic and rules to make decisions.
- D) They learn from experience over time.

Answer: C) They use logic and rules to make decisions

18-**What do Machine Learning (ML) algorithms primarily do?**

- A) Perform logical reasoning with explicit rules.
- B) Learn patterns from data to make predictions or decisions.
- C) Analyze visual data for image recognition.
- D) Simulate human behavior and decision-making.

Answer: B) Learn patterns from data to make predictions or decisions.

19-**Which of the following is an example of a Deep Learning application?**

- A) Predicting the weather using traditional models.
- B) Identifying diseases from X-rays in medical diagnostics.
- C) Segmenting customers based on spending behavior.
- D) Translating text between languages.

Answer: B) Identifying diseases from X-rays in medical diagnostics.

20-**What does Computer Vision allow AI to do?**

- A) Understand and process audio data.
- B) Interpret visual data like images or videos.
- C) Analyze large datasets for patterns.
- D) Perform logical reasoning and problem-solving.

Answer: B) Interpret visual data like images or videos.

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