

COMPREHENSIVE TEST UNIVERSITY

Computer Science & AI

COMP101 - Question Types Test - Fall Semester

Comprehensive Question Types Test - Answer Key

1. Which of the following is a programming language?

Answer: A

Explanation: Python is a programming language, while the others are software applications.

2. Artificial Intelligence can only work with numerical data.

Answer: False

Explanation: AI can work with various data types including text, images, audio, and more.

3. Define machine learning in 2-3 sentences.

Answer: Machine learning is a subset of artificial intelligence that enables computers to learn and make decisions from data without being explicitly programmed. It uses algorithms to identify patterns and make predictions or classifications.

Explanation: This tests understanding of fundamental AI concepts.

4. Discuss the ethical implications of artificial intelligence in modern society. Include at least three specific examples and their potential solutions.

Answer: AI ethics involves considerations of bias in algorithms, privacy concerns with data collection, job displacement due to automation, and the need for transparency in AI decision-making. Solutions include diverse development teams, strict data protection laws, retraining programs, and explainable AI systems.

Explanation: This tests critical thinking about AI impact on society.

5. The process of teaching a machine learning model using labeled data is called _____ learning.

Answer: supervised

Explanation: Supervised learning uses labeled training data to teach the model.

6. Match the following AI concepts with their definitions.

Answer: All matches are correct as listed

Explanation: These are fundamental AI concepts that students should understand.

7. Arrange the following steps in the correct order for a typical machine learning workflow:

Answer: 1, 2, 3, 4, 5

Explanation: This is the standard workflow for machine learning projects.