

**Multiple Choice Question**

**1. Which of the following is the primary benefit of integrating Mathematics and Statistics with Computer Science in Data Science?**

- a) Improved data visualization
- b) Better forecasting
- c) Increased accuracy
- d) Better decision making

**Correct Answer:** d) Better decision making

**2. Which of the following best describes the relationship between Data Science and Artificial Intelligence?**

- a) Data Science is a subset of Artificial Intelligence
- b) Artificial Intelligence is a tool used in Data Science
- c) Data Science and Artificial Intelligence are unrelated
- d) Data Science enables Artificial Intelligence

**Correct Answer:** a) Data Science is a subset of Artificial Intelligence

**3. The Turing Test, proposed by Alan Turing in 1950, measures a machine's ability to exhibit intelligent behavior. Which of the following is the fundamental assumption underlies this test?**

- a) Humans are better
- b) Machines are equal
- c) Intelligence levels vary
- d) Machines copy humans

**Correct Answer:** d) Machines copy humans

**4. Which of the following should be considered critically while developing AI-powered chatbots and virtual assistants?**

- a) User experience
- b) Data security
- c) Contextual awareness
- d) Emotional intelligence

**Correct Answer:** b) Data security

**5. What ethical consideration arises from the integration of Artificial Intelligence (AI) into daily life devices?**

- a) Job displacement due to automation
- b) Increased energy consumption
- c) Improved customer service
- d) Enhanced data security

**Correct Answer:** a) Job displacement due to automation

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**6. Which of the following fields of Artificial Intelligence (AI) enables smartphones to recognize faces and unlock devices?**

- a) NLP
- b) Computer vision
- c) Deep learning
- d) Neural networks

**Correct Answer:** b) Computer vision

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**7. A company wants to develop a system that categorizes customer feedback into positive, negative, or neutral. Which learning model would be most suitable?**

- a) Supervised learning
- b) Unsupervised learning
- c) Reinforcement learning
- d) Deep learning

**Correct Answer:** a) Supervised learning

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**8. In a Reinforcement Learning model, what is the primary function of rewards and penalties provided as feedback to the agent?**

- a) Labelling data
- b) Evaluating performance
- c) Improving action choices
- d) Classifying outcomes

**Correct Answer:** c) Improving action choices

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**9. Which stage of the data science life cycle ensures the model's accuracy, reliability, and compliance with privacy rules?**

- a) Model Deployment
- b) Model Evaluation
- c) Data Analysis
- d) Maintenance and Monitoring

**Correct Answer:** b) Model Evaluation

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**10. Which of the following is the key characteristic of the “Data Cleaning” stage in the data science life cycle?**

- a) Data collection
- b) Error removal and data organization
- c) Pattern identification
- d) Model deployment

**Correct Answer:** b) Error removal and data organization

**The End**

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