Chapter-11

AI Domains and Robots

Section A: Fill in the Blanks

1. _____ is a field of AI that focuses on teaching computers to understand and generate human language.
2. _____ refers to massive and complex datasets that are too large to be processed by traditional tools.
3. _____ is a branch of AI that allows computers to interpret and understand visual information.
4. _____ is a type of robot that can execute tasks with little or no human intervention.
5. _____ is the process of breaking down text data into components like words and phrases in NLP.

Section B: True or False

1. NLP is used in virtual assistants like Siri and Alexa. **(True/False)**
2. Big Data only refers to the volume of data and not its variety or velocity. **(True/False)**
3. Computer Vision is used in self-driving cars to detect pedestrians. **(True/False)**
4. AI cannot be used in healthcare for disease diagnosis. **(True/False)**
5. Robots in AI can make autonomous decisions based on their environment. **(True/False)**

Section D: Multiple Choice Questions

1. Which of the following is NOT a component of NLP?
   a) Sentiment Analysis
   b) Language Translation

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c) Object Detection

d) Speech Recognition

2. What is the primary purpose of **Big Data** in AI?

a) To create virtual assistants

b) To train AI algorithms and identify patterns

c) To design robots

d) To analyze visual information

3. Which of the following is a real-world application of **Computer Vision**?

a) Language Translation

b) Facial Recognition

c) Sentiment Analysis

d) Data Analysis

4. Which of the following is a key advantage of AI?

a) Automation

b) Data Analysis

c) Personalization

d) All of the above

5. Which of the following is a type of robot in AI?

a) Android

b) Telechir

c) Industrial Robot

d) All of the above

6. What is the main function of **NLP algorithms**?

a) To analyze visual information

b) To process and understand human language

c) To automate repetitive tasks

d) To design robots

7. Which of the following is NOT a characteristic of an intelligent robot?

a) Ability to make autonomous decisions

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b) Ability to learn and adapt to new situations

c) Ability to perform repetitive tasks without learning

d) Ability to process environmental information

8. Which of the following is used in **Computer Vision** to improve visual recognition?

a) Deep Learning

b) Sentiment Analysis

c) Language Translation

d) Big Data

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