Textbook Exercise of L-9 Domsin of Artificial Intelligence

A. Tick the correct answer.

1) Many healthcare facilities have adopted AI Technology to reduce **work pressure**.

2) Artificial Intelligence Technology promotes integrated **learning.**

3) Artificial Intelligence Technology is made up of **three** domain.

4) **Semantris** is a word association game powered by AI.

5) **Alexa** is the application of NLP.

B. State true or false.

1) Clinical trial machine system has been developed by IBM Watson.   **True**

2) AI machines are driven by emotions and can be biased.   **False**

3) AI robots can work endlessly without taking a break   **True**

4) AI cannot be creative in its approach.   **True**

5) Face recognition app is an example of computer vision.   **True**

C. Fill in the blanks.

1) Amozen's **Alexa,** a voice assistant, is an example of Artificial Intelligence that many of us use frequently.

2) Facebook uses AI technology to recognize **faces.**

3) Ai- driven robots work endlessly without taking **break.**

4) Machines cannot experience human **emotions** and moral values..

D. Differentiate between the following:

AI in Education	AI in Manufacturing Industries
• To share the knowledge of data collection among students through various AI applications	• AI-driven robots are used to work non-stop without taking breaks which reduces operating expenditure and optimizes production.
• It is also promotes integrated learning as it is made up of different disciplines like mathematics, biology, psychology, computer science and sociology.	• Presently, industrial robots are increasingly being used as cobots (collaborative robots) which collaborate with humans to reduce their workload.

Computer Vision (CV)	Natural Language processing (NLP)
• This domain of AI enables machines to identify objects in images and videos in the same way as humans do.	• This domain of AI is concerned with giving computers the ability to understand text and spoken words in much the same way as human beings do.
• Ex. Driver-less car, face recognition app, etc.	• Ex. Chatbots, Alexa, Siri, Google Assistant etc.

E. Answer the following questions:

Q:1	**What is the Clinical Trial Matching?**
A:1	Clinical Trial Matching (CTM) system developed by IBM Watson uses AI technology to read patients' data from a larger system with right clinical study to help doctors in selecting the correct, individually customized treatment plan for every patient.
Q:2	**List two advantages of Artificial Intelligence?**
A:2	Two advantages of AI are: 1) **Minimizes Error:** AI significantly reduces errors and increases accuracy and precision. 2) **Non-stop Work:** AI-driven machines can work endlessly without breaks and perform multiple tasks at a time with accurate results.
Q:3	**List two disadvantages of Artificial Intelligence?**
A:3	Two disadvantages of AI are: 1) **Less Creative:** AI cannot work or think outside the box. 2) **Emotionless:** Machines cannot experience human emotions and moral values.
Q:4	**Name three domains of Artificial Intelligence**
A:4	Three domains of Artificial Intelligence are: 1) Data 2) Computer Vision (CV) 3) Natural Language Processing (NLP)

F. Application Based Question

PMP bank has launched its digital assistant (chatbot) to assist customers with loan related queries. This assistant take customers' written or spoken language as input and answers accordingly. Can you tell which domain of Artificial Intelligence has been used in creating this digital assistant?

NLP (Natural Language Processing)