ST. ANDREWS SCOTS SR. SEC. SCHOOL

9th Avenue, I.P. Extension, Patparganj, Delhi – 110092
Session: 2025 - 26

Class: VIII Subject: Computer Topic: Ch 8 (Parts of Robots)

TECH SET GO (Page no. 103)

Define the following terms :-

1. Machine Learning : Machine Learning is a method that allows computers to learn from examples and past information. Instead of being told exactly what to do, the computer learns on its own and becomes better with practice.

2. Algorithm: A set of step-by-step instructions used to solve a problem.

3. Deep Learning: Deep learning is a type of machine learning where computers use many layers of processing, like a brain, to understand images, speech, and patterns very accurately.

4. Pattern Recognition: Pattern Recognition means identifying similarities or repeated designs in data. It helps computers recognize faces, shapes, letters, or anything that follows a pattern.

TECH READY (Pg No - 109)

A. Tick the correct option:-

1. (i)

2. (iii)

3. (iii)

4. (ii)

5. (i)

B. Fill the blanks:-

1. programmable

2. arm

3. Hydraulic

4. CPU

5. Electricity

C. State whether these statements are true or false:-

1. True

2. True

3. False

4. True

D. Answer the following questions:-

1) **End effector is fixed at the end of the manipulator.**
   Manipulators are usually fixed and End effectors are the parts that are free to move and perform tasks. They are expected to

perform the tasks similar to those of human fingers and palm of a human hand.

2) **The robot's Manipulator is just like a human arm and has several joints and links. They are electronically controlled devices consisting of multiple sections. A manipulator uses strong links connected by joints with one fixed end and one free end to perform a given job, such as moving a box from one location to another.**

3)

Sl.No	Humans	Robots
1.	Humans are organic entities.	Robots are mechanical devices
2.	Humans can die; they do not come back to life.	Robots do not die; they can be repaired or replaced.

4) **Locomotion Device: Human beings use muscles to give movements to their arms, palms and fingers. For a robot, the power comes from motors. Three fuels are used in locomotion, depending on the energy source. There are three widespread types of Locomotive devices, Electric, Hydraulic and Pneumatic.**

5) **Without the data supplied by the sense organs, the human brain cannot perform intelligently in any given situation. Similarly, controllers would be unable to perform if the robot's sensors do not constantly feed the controller about their position, force, temperature, etc. The sensors are the powerhouse of a robot's feedback system and act as eyes and ears.**

Competency -based/Application based questions (Pg.No- 111):-

1. Hydraulic locomotive device

2. (ii) Mobile robot