CHAPTER 2: ARTIFICIAL INTELLIGENCE: TYPE AND TECHNIQUES

A. Choose the correct answer.

1. c 2. b 3. c 4. B

B. Fill in the blanks. 1. Narrow 2. Strong 3. Reactive 4. Socially
C. State whether True or False

1. False 2. True 3. False 4. True

D. Answer the following questions.

1. Weak AI performs the tasks in a limited field of application while strong AI works in varied fields and situations. Weak AI is suitable to perform dedicated tasks while strong AI is versatile. Weak AI exhibits predefined set of functions only while strong AI applies knowledge to solve newly identified problems.

2. i. Reactive machines work on the basis of a set of rules and logic built into them. ii. Limited memory-based machines can sense changes around them and respond in a suitable way but they cannot retain learning. iii. Machines based on theory of mind understand expressions and emotions and capable to interact socially. iv. A self-aware machine exhibits intelligence like humans.

3. Deep learning is the ability of a machine to learn by processing data on its own and predict patterns in the data without having any guiding instructions from the developer. They work on the concept of artificial neural network. 4. This type of machine learning is based on reward-punishment

theory. A machine learns to perform tasks or do forecast by analysing data in an step-by-step fashion in which every failure is treated as a punishment. Machine learns from the failure and eventually executes the step successfully which is called reward.