

Subjective Assessment: Artificial Intelligence

Instructions:

Answer the following questions in detail. Support your answers with relevant examples and concepts from the provided AI Overview material. Each answer should demonstrate conceptual understanding and critical thinking.

Question 1

Define Artificial Intelligence (AI). Explain how AI differs from Machine Learning and Deep Learning. Illustrate the relationship among these three concepts with examples.

Answers:

Artificial intelligence is a generic field which include different fields e.g. Machine Learning and deep learning.

An application which can make decision by its own

Machine learning is specific field in AI, in which we can give intelligence to Machine and can train models in it.

Question 2

Analyze the role of Computer Vision, Speech Processing, and Natural Language Processing in modern AI applications. Provide practical examples for each technology.

Answers:

Computer Vision in AI application is basically use for processing on images and videos, can detect objects.

e.g. smart bins use for detecting waste type glass, plastic or organic

Speech Processing is also used in modern applications by processing on voice e.g. using in voice translation and also use in smart houses for giving voice command to turn on ac as in IOT based devices.

Natural Language Processing are also used in modern AI applications for giving a valuable response in text form and can understand complex problems.

e.g GPT

Question 3

Explain the concept of Strong AI and Weak AI. Why is Strong AI still considered a future goal rather than a present reality?

Answers:

Weak AI is generally present in mobiles e.g Siri and we cannot use it for complex problems other example can include smart home, you can give voice command to turn on AC.

Strong AI is basically an AI who can do and understand complex problems e.g Chat GPT.