Write brief (2–5 line) answers for the following:

Define Artificial Intelligence in your own words.

What is the difference between Narrow AI and General AI?

Mention two major milestones in the history of AI and explain their importance.

What is the Turing Test? Why is it important in AI?

Name 3 real-life applications of AI you use or know about.

1. Define Artificial intelligence in your own words.

* An Artificial Intelligence is the automation which take decisions base on given data.

It can decisions on previous or past interactions. It is a machine that are programmed to think and act like humans. Artificial intelligence (AI) is a set of technologies that enable computers to perform advanced functions, including the ability to see, understand and translate spoken and written language, analyze data, make recommendations, and more.

1. What is the difference between Narrow AI and General AI?

* Narrow AI – Narrow AI is also know as weak AI which is used to perform single tasks or limited range of tasks in high performance or extremely well.

i.It can perform specific tasks like image recognition, language translation, playing chess, or recommending movies.

ii.It cannot perform outside its training.

iii. Examples : ChatGPT (text generation within language constraints), Google Translate, Facial recognition systems, Self-driving car perception systems, Netflix recommendation algorithms.

General AI – General AI is capable to do every task which can be done by human like reasoning, learning, decision making and even emotional understanding across all fields or categories.

i.Can generalize knowledge and skills across different tasks and environments

ii. Possesses human-like cognitive abilities

iii. It can learn new things by itself, no need to programmed it every time to learn new things.

iv. Unfortunately it is only a theoretical concept currently. Means no AGI exists yet.

Examples : Understand compose music, write books, code software, conduct scientific research and can hold meaningful conversations with humans or superior level creativity.

1. Mention two major milestones in the history of AI and explain their importance.

1. Dartmouth Workshop (1956) :

This workshop, organized by John McCarthy, Marvin Minsky, Nathaniel Rochester, and Claude Shannon, is widely regarded as the event where the field of AI was officially established. It brought together leading researchers to discuss and explore the possibility of creating intelligent machines, officially introducing the term "artificial intelligence."

2. IBM's Deep Blue Defeats Garry Kasparov (1997): This milestone marked a groundbreaking moment in AI's development, as Deep Blue, a chess-playing computer, defeated the world chess champion, Garry Kasparov. This victory showcased AI's potential in strategic decision-making and demonstrated that machines could surpass human expertise in specific domains. Deep Blue's success reignited public interest in AI and paved the way for further research in machine learning and neural networks.

1. What is the Turing Test? Why is it important in AI?

* The Turing Test, originally called the "imitation game" by Alan Turing, is a method for determining whether a machine is capable of thinking like a human being. The test involves a human evaluator engaging in natural language conversations with both a human and a machine designed to mimic human responses. If the evaluator cannot reliably distinguish the machine from the human based on their responses, the machine is said to have "passed" the Turing Test.

Importance –

1. It was the **first measurable test** for machine intelligence.
2. Focused on whether a machine can **imitate human-like conversation** so well that a person can’t tell it’s a machine.
3. Helped shape early **AI research goals and philosophy**.
4. Became a **symbolic benchmark** for AI progress.
5. Though outdated for modern AI, it remains a **historical milestone** in understanding AI’s potential.
6. Name 3 real-life applications of AI you use or know about.

* 1. ChatGPT – It first AI which I have used firstly in my work. It is generative AI which can generate Text, Images, PDF’s or any files. It is widely used ai now a days. It is free for limited number of prompts and features, but if we want it in more advance manner we can pay for it. In premium package it works like a personal assistant. Overall, it is a great AI tool among which is I have used.

2. Meta AI – It is AI which is developed by the meta company which acquires the software like WhatsApp, Instagram and Facebook. It is deployed in every software of which I have mentioned. I generally use the WhatsApp Meta AI which is quite useful for theoretical questions and also little bit good in coding. It is poor in problem solving like mathematical subjects. It have also the image generation feature. It is text to image AI which is quite useful for images. But I will recommend more better AI specially for Image Generation. Overall it is very good AI and I have used it multiple times.

3. Gemini – Gemini is AI which is developed by Google, so it used all the data which Google have to for its decision and according to its data it generates answers. Firstly it was name as Bard AI then its name is changed to Gemini. The main advantage of Gemini AI is it have large data for analysis so the accuracy get enhanced due to this reason. It is also in good competition of all the textual or generative AI’s. It also have the premium packages which are quite helpful to us. Overall it is useful AI in research due to its large data.