- **TASK OF DAY-1 :-**

1. Explain the difference between AI, ML, and DL in your own words.

Aspect	Artificial Intelligence (AI)	Machine Learning (ML)	Deep Learning (DL)
Definition	Simulation of human intelligence in machines	Machines learning from data without explicit programming	ML technique using multi-layered neural networks
Scope	Broadest scope – includes ML and DL	Subset of AI	Subset of ML
Focus	Decision making, reasoning, problem-solving	Learning from data and improving accuracy	Automatic feature extraction and handling large data
Data Dependency	Can work with structured rules and logic	Requires structured or labeled data	Requires large volumes of data for best performance
Learning Approach	Rule-based, knowledge-based, data-driven	Supervised, unsupervised, and reinforcement learning	Uses artificial neural networks (ANNs) with multiple layers
Complexity	Involves building intelligent systems	Relatively less complex than DL	Most complex due to deep architectures
Accuracy	Varies depending on approach used	Higher than basic AI	Highest accuracy, especially for complex problems
Computation Power	Moderate	Moderate	High – requires GPUs/TPUs and powerful hardware
Use Cases	Chatbots, robotics, expert systems, autonomous vehicles	Email filtering, product recommendation, fraud detection	Image recognition, speech recognition, language translation

Aspect	Artificial Intelligence (AI)	Machine Learning (ML)	Deep Learning (DL)
Output Style	Often rule-based decisions	Predictive models	Precise, layered pattern recognition
Human Involvement	High (for defining rules and logic)	Medium (for feature selection and data preprocessing)	Low (automates feature extraction)

2. List any 3 real-life applications of AI.

→ Personalized Online Shopping.

→ Enhanced Images.

→ Agriculture.