

Q-1

Name :- Lukhi Luksh Naresh Bhai

Subject Name :- Fundamental of AI

class :- MSc AI/DS Csem: 1)

Q-1

What is Intelligence? Types of Intelligence
& human vs Machine Intelligence.

->

Intelligence :-

it is the ability to learn, understand
reason, solve problem, adapt to, manipulate
one's environment, or think abstractly.

*

Types of Intelligence :-

i) Linguistic Intelligence :-

Ability to use
language effectively.

ii) logical-mathematical Intelligence :-

Skill in
reasoning, recognizing patterns, and logically
analyzing problems.

iii) Spatial Intelligence :-

ability to visualization

Name :- Lukhi Lakh

Sub :- Fundamental of AI

Class :- MSc AI/DS (Sem-I)

Date

Page 2

and manipulate object.

iv) Musical Intelligence :-

Sensitivity to sound patterns, rhythms and tones.

v) Bodily - kinesthetic Intelligence :-

Using the body effectively.

vi) Interpersonal Intelligence :-

Understanding and interacting with others.

vii) Intrapersonal Intelligence :-

Self-awareness and understanding of one's own emotion.

viii) Naturalistic Intelligence :-

Ability to recognize and categorize plants, animals and other natural phenomena.

Name :- Luvhi Laksh

Sub :- Fundamental of AI

Class :- Msc AI/DS (Sem 2)

Date

Page 3

Human Intelligence	Machine Intelligence
1. Involves emotions, creativity and intuition.	1. Works based on data, algorithms and logic
2. Can think abstractly and adapt flexibility.	2. Limited to programmed tasks and learned pattern
3. Learns from experience & common sense.	3. Learns from data sets and lacks common sense.
4. Subjective and can make ethical decision.	4. Objective and lacks human values unless programmed.

Name:- Lukhi Laksh

Sub:- Fundamentall of AI

Class:- msc AI/DS (Sem I)

Date

Page

4

Q-2

Composition of Intelligence

i) Reasoning :-

The mental ability to logically analyze, to evaluate and deduce conclusion from facts or premises.

ii) Learning :-

The process through which an entity acquires new knowledge, behaviors or skills through experience, teaching or study.

iii) Problem solving :-

The cognitive process of finding solutions to difficult or complex issues through logical analysis, creativity and innovation.

iv) Perception :-

The process of acquiring, interpreting, selecting and form them to understand the environment.

v) Processing language :-

We must need to do processing in language.

Name :- LUKHI LAKSH

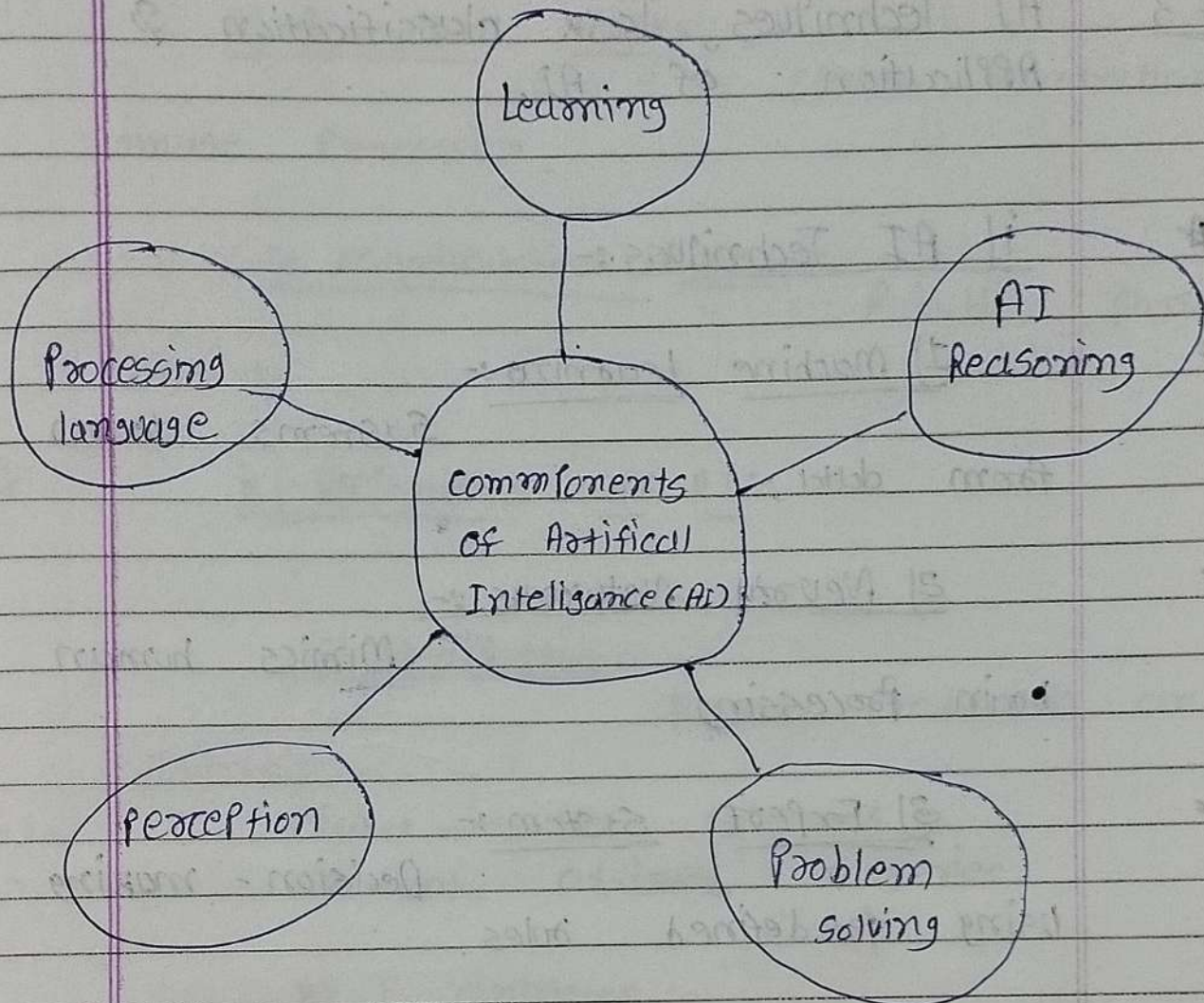
Sub :- Fundamental of AI

Date

Page

5

Ques :- msc AI/DS Csem 1)



Name: Luvhi Laksh

Sob :- Fundamental of AI

Class :- MSc AI / DS (Sem 1)

Date

Page 6

Q-3

AI Techniques, Task classification & Application of AI.

★

i) AI Techniques :-

•

1) Machine Learning :-

Systems learn from data.

•

2) Neural Networks :-

Mimics human brain processing

•

3) Expert System :-

Decision-making using predefined rules.

•

4) Natural language processing (NLP) :-

Understand the human language.

★

ii) Task classification of AI :-

1) Cognitive of Task :-

Reasoning, learning, language translation.

Name :- Lukhi Lakhani

Sub :- Fundamental of AI

Class :- MSc AI/DS (Sem 2)

Date

Page

7

i) Perceptual Tasks :-

Speech recognition,
image processing.

ii) Manipulative Tasks :-

Robotics, physical control.

iii) Applications of AI :-

1) Healthcare :-

Disease prediction and diagnosis.

- > Robot-assisted surgeries
- > Medical-assisted surgeries

2) E-commerce :-

Product recommendation.

- > Personalized marketing
- > AI-powered chatbots for customer.

3) Virtual Assistant :-

Siri, Alexa,
Google assistant.

- > AI-based customer service chatbots.

Name: Luvhi Laksh

Sub: Fundamental of AI

Course: MSC AI/DS (Sem I)

Date

Page

8

*

4) Finance :-

AI help to find fraud Detection,

-) This increases efficiency and minimized human errors.

Name :- Luvhi Laxsh

Sub :- Fundamental Of AI

Class :- MSC AI / PS (sem II)

Date

Page 9

Q-4 AI Agent & Environments :-

* AI Agent :-

An AI Agent perceives its environment through sensors and acts upon it through actuators to achieve specific goals.

* Types of AI Agent :-

i) Simple Agent :-

Acts only on current perceptions.

ii) Model-based Agent :-

Uses internal state / history.

iii) Goal based Agent :-

Acts to achieve a specific goal.

iv) Learning Agent :-

Improves performance over time by learning.

Name:- Lukhi Laksh

Sub:- Fundamentals of AI

Date

Page

10

Class:- MSC AI/DS (Sem I)

*

Turing Test Environment:-

A method to test if a machine can exhibit human like intelligence. If an evaluator cannot distinguish between human and machine responses, the AI passes the Turing test.

Name:- Luvhi Luvsh

Sub:- Fundamental AI

Class:- MSC AI/DS (sem 2)

Date

Page

11

Q-5

AI Issues - Privacy, human Dignity and Safety.

★

Threat to Privacy:-

AI collects vast amounts of personal data.

- > Risk of data breaches and misuse.
- > Lack of transparency in how data is used.

★

Threat to Human Dignity:-

over-reliance on AI reduces human role.

- > Automation can lead to job displacement.
- > Ethical concerns in human-like AI behaviour.

★

Threat to Safety:-

Faulty AI systems may causes accidents.

- > AI used in weapons can be dangerous.

Name:- LUKHI LUKSHI

Sub:- fundamental of AI

Class:- msc AI/DS (sem I)

Date

Page 12

→ Bias in AI algorithms can cause unfair decisions.

★

Mitigation measures:-

Strong AI regulations & Policies

→ Transparent AI Development

→ Ethical AI Design with human oversight.