

# ATOMIC ENERGY CENTRAL SCHOOL, MYSURU

Session: 2025 -26

Class :IX

Subject : Computer Science

## WORKSHEET NO:1

Name of the Topic : AI and AIPC

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### Section A:

1. **What is the main goal of Artificial Intelligence?**
  - A. To play games
  - B. To create web pages
  - C. To make machines intelligent
  - D. To replace humans
2. **Who is known as the father of AI?**
  - A. Alan Turing
  - B. John McCarthy
  - C. Marvin Minsky
  - D. Geoffrey Hinton
3. **Which of the following is an application of AI?**
  - A. Email
  - B. Smart assistants
  - C. Spreadsheets
  - D. Calculators
4. **What is Machine Learning?**
  - A. Programming computers manually
  - B. Creating websites
  - C. Teaching machines to learn from data
  - D. Fixing hardware issues
5. **What does NLP stand for in AI?**
  - A. Natural Language Processing
  - B. Neural Learning Program
  - C. Numeric Logic Processor
  - D. None of the above
6. **What is Deep Learning a subset of?**
  - A. Web Development
  - B. Machine Learning
  - C. Robotics
  - D. Natural Language Processing
7. **Unscramble the letters and find the correct answer.**

Machine Learning + \_\_\_\_\_ = Artificial Intelligence

  - (i) TRNUALA GNLAGAUE CPSISEROGN
  - (ii) UTECPOMR ISOVNI
  - (iii) EPED RIGLENAN
  - (iv) URAENL KNWTEOR

8. **Which of the following is not a component of AI?**  
A. Learning  
B. Reasoning  
C. Reacting  
D. Self-correction
9. **What is a chatbot an example of?**  
A. Image recognition  
B. NLP  
C. Robotics  
D. Computer vision
10. **Deep Learning is a specialized form of which AI domain?**  
A. Expert Systems  
B. Machine Learning  
C. Robotics  
D. Speech Recognition
11. *'ASK DISHA'* is an inquiry-based chatbot of IRCTC that instantly replies to live queries from users related to questions like cancellation of e-ticket, check refund status, check availability, Tatkal timing, etc. This chatbot uses\_\_\_\_\_.
- |                   |                               |
|-------------------|-------------------------------|
| (i) Deep Learning | (iii) Problem Statement       |
| (ii) NLP          | (iv) Dimensionality Reduction |
12. *You're using a photo app that automatically recognizes faces and suggests tags for people. It even detects smiles and filters images accordingly.*  
**Which domain of AI powers this feature?**
- A. NLP  
B. Robotics  
C. Computer Vision  
D. Fuzzy Logic
13. **Which of the following is used to mimic the human brain structure in Deep Learning?**  
A. Genetic Algorithms  
B. Fuzzy Logic  
C. Neural Networks  
D. Clustering
14. **What is the primary goal of Computer Vision?**  
A. To translate languages  
B. To teach robots to walk  
C. To allow machines to understand and interpret visual data  
D. To process voice commands
15. **Which domain of AI helps machines move and interact with the physical world?**  
A. NLP  
B. Deep Learning  
C. Robotics  
D. Expert Systems
16. **Which of the following is a smart device that does not necessarily use AI?**  
A. AI-based Chatbot

- B. Smart Light that turns on at 7 PM  
C. Face recognition system  
D. Voice assistant that adapts to your preferences
- 17 **Which of the following is a smart device that does not necessarily use AI?**  
A. AI-based Chatbot  
B. Smart Light that turns on at 7 PM  
C. Face recognition system  
D. Voice assistant that adapts to your preferences
- 18 **A washing machine that senses load size and adjusts water automatically is:**  
A. AI-powered  
B. Smart, but not necessarily AI  
C. Deep Learning-based  
D. Computer Vision enabled
- 19 **What makes a device truly "AI-powered"?**  
A. It uses internet connectivity  
B. It uses logic gates  
C. It learns from user data and improves  
D. It has a screen and speakers
- 20 *A refrigerator adjusts its cooling based on the types of items inside and your eating habits over time.*  
**What AI domain is most involved here?**  
A. Computer Vision  
B. Expert Systems  
C. Machine Learning  
D. NLP
- 21 *A student scores low in math but writes beautiful poems and expresses thoughts clearly in essays.*  
**Which type of intelligence is likely strong in this student?**  
A. Logical-Mathematical  
B. Bodily-Kinesthetic  
C. Linguistic  
D. Interpersonal
- 22 *An AI tutor analyzes your quiz results, identifies weak topics, and adjusts future lessons accordingly.*  
**Which AI concept is this demonstrating?**  
A. Robotics  
B. Deep Learning  
C. Personalized Learning via Machine Learning  
D. Fuzzy Logic
- 23 *A person enjoys working with others, resolves conflicts well, and thrives in group projects.*  
**Which intelligence type does this person exhibit most?**  
A. Intrapersonal  
B. Logical-Mathematical  
C. Interpersonal  
D. Naturalistic
- 24 *Your smartwatch detects that your heart rate rises every time you get a work email and recommends mindfulness exercises.*  
**What type of intelligence does this feature mimic?**

- A. Logical Intelligence
  - B. Intrapersonal Intelligence
  - C. Bodily-Kinesthetic Intelligence
  - D. Existential Intelligence
- 25 *An app tracks your footsteps and motivates you with music and challenges based on your progress. Which domains of intelligence are being tapped here?*
- A. Musical + Bodily-Kinesthetic
  - B. Logical-Mathematical + Spatial
  - C. Intrapersonal + Naturalistic
  - D. Interpersonal + Existential
- 26 *A customer support chatbot learns from previous chats to improve its answers over time. Which technology is primarily enabling this learning behavior?*
- A. Deep Learning
  - B. Computer Vision
  - C. Static Scripting
  - D. Pre-recorded responses
- 27 A smart light bulb that follows a fixed schedule is an example of an AI device.(True/False)
- 28 Intrapersonal intelligence is about understanding other people's emotions and needs. (True/False)
- 29 Robotics is a subset of AI that deals only with software and not physical machines. (True/False)
- 30 Someone good at puzzles, math problems, and logical games likely has high bodily-kinesthetic intelligence. (True/False)
- 31 **A robot vacuum maps your home and avoids obstacles. Which AI domain does this relate to?**
- A. Computer Vision
  - B. Robotics
  - C. Expert System
  - D. NLP
- 32 **An app helps you identify emotional patterns and gives you mental health insights. Which intelligence is at play?**
- A. Interpersonal Intelligence
  - B. Logical-Mathematical Intelligence
  - C. Intrapersonal Intelligence
  - D. Spatial Intelligence
- 33 Deep learning models improve accuracy as they are trained on more data (True/False)
- 34 A smart device that follows a schedule but cannot learn is still considered an AI system. (True/False)
- 35 NLP is only used in written language processing, not spoken language. (True/False)
- 36 Smart devices always require an internet connection to function. (True/False)
- 37 A person with high spatial intelligence may do well in design, architecture, or engineering. (True/False)
- 38 A thermostat that learns your preferred temperature over time is an example of Machine Learning. (True/False)

- 39 All AI systems must use neural networks (True/False)
- 40 Naturalistic intelligence involves skills in nature observation, classification, and understanding the environment. (True/False)

### Section B:

- 41 How do you understand whether a machine/application is AI based or not? Explain with the help of an example.
- 42 List 9 types of intelligence
- 43 With a neat diagram explain subsets of AI
- 44 Classify the following as either "Smart (Non-AI)" or "AI-powered":
- A programmable coffee maker
  - A smart TV with voice control
  - ChatGPT
  - A digital thermometer
  - Google Assistant
- 45 Imagine a home automation system that turns on lights at 7 PM daily. Another system adjusts lighting based on your behavior and mood. Which one uses AI and why?

### Section C:

- 46 Explain 9 types of intelligence
- 47 Vinay attended a seminar on Artificial Intelligence and has now been asked to write a report on his learnings from the seminar. Being a non-technical person, he understood that the AI enabled machine uses data of different formats in many of the daily based applications but failed to sync it with the right terminologies and express the details. Help Samarth define Artificial Intelligence, list the three domains of AI and the data that is used in these domains.
- 48 Explain domains of AI with appropriate example
- 49 Raj wants to make an AI working model, help him in listing out all the stages of AIPC with the help of a hierarchy chart
- 50 Why can we say that all *"All smart devices are not AI, but all AI devices are smart."*? Use logic and examples to support your answer.