

# SAMPLE PAPER

## SUBJECT: ARTIFICIAL INTELLIGENCE (417)

### CLASS X<sup>TH</sup>

### PERIODIC TEST -2

Max. Time Allowed: 60 Minutes

Max. Marks: 20

Instruction: Do as per the instructions given in the respective sections.

#### SECTION 'A'

All questions are compulsory in Section 'A' from Q.1 to Q.8

(1 x 8 = 8 marks)

1. Why does a good sleep plays an important role?  
a) Motivates you                      ~~b) Rejuvenates body~~  
c) Spend quality time with family                      d) All of these
2. High expectations from self can leave one with chronic anxiety and stress, thus leading to \_\_\_\_\_ stress.  
a) Physical                      b) Emotional                      ~~c) Mental~~                      d) Financial
3. The chief guest of an annual function spoke expressively. He displayed great \_\_\_\_\_ intelligence.  
a) Existential                      b) Spatial                      ~~c) Linguistic~~                      d) Interpersonal
4. When a machine possesses the ability to mimic the following human traits, it is said to have artificial intelligence. Identify the positive traits that an AI machine should possess.  
i) Make decisions  
ii) Bias  
iii) Predict  
iv) Learn and improve on its own.  
a) i) and iii) only                      ~~b) i), iii) and iv) only~~  
c) ii) and iv) only                      d) i), ii) and iv) only
5. Choose the correct option  
a) Unsupervised learning -> labelled dataset, Regression  
~~b) Supervised learning -> labelled data set, Regression~~  
c) Unsupervised learning ->unlabelled dataset, Classification  
d) Supervised learning -> unlabelled data set, Regression

6. \_\_\_\_\_ helps us to summarise all the key points into one single outline so that in future, whenever there is need to look back at the basis of the problem, we can take a look at it and understand the key elements of it.
- a) **4W Problem canvas** ~~b) Problem Statement Template~~  
c) **Data Acquisition** d) **Algorithm**
7. Data about the houses such as square footage, number of rooms, features, whether a house has a garden or not, and the prices of these houses, i.e., the corresponding labels are fed into an AI machine. By leveraging data coming from thousands of houses, their features and prices, we can now train the model to predict a new house's price. This is an example of
- a) **Reinforcement learning** ~~b) Supervised learning~~  
c) **Unsupervised learning** d) **None of the above**
8. Training Data refers to the type of data you have to collect in Data Acquisition stage of AI Project Cycle.

### SECTION 'B'

**Answer any 06 questions out of the given 07 questions from Q.9 to Q.15 (2 x 6 = 12 marks)**

9. What do you mean by Sustainable Development? Also, write any two SDGs.
10. What are the possible ethical issues of AI, explain any two issues.
11. Discuss about the 4Ws Problem Canvas in details.
12. Write the difference between the followings:
1. **Digital Assistants vs. Chat bots**
  2. **Script bot vs. Smart bot**
13. Explain the First stage of AI Project Cycle. Also, draw Problem Statement Template.
14. Define the following terms with suitable examples:
1. Machine learning
  2. Deep Learning
15. Define the following AI models with suitable example:
1. Classification Model
  2. Reduce Dimensionality Model

**\*\*\* ALL THE BEST \*\*\***