**Indian School Al Wadi Al Kabir**

**Mid Term Examination**

**ARTIFICIAL INTELLIGENCE (CODE:417)**

Class: X Time: 2 Hour

Date: 14/09/2023 Max. Marks: 50

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| General instructions:  **SECTION A**: I. All questions are compulsory.  **SECTION B**:  II. Answer any 7 out of the given 8 questions each carries 2 marks.  III.Answer any 3 questions out of given 5 questionseach carries 4 marks. |

**SECTION A: OBJECTIVE TYPE QUESTIONS**

1. **ANSWER ALL THE FOLLOWING: (24 x 1M =24 MARKS)**

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| 1 | \_\_\_\_\_\_\_\_\_\_is a step-by-step process to solve problems using proven scientific methods and drawing inferences about them. |
| 2 | Name all the stages of an AI Project cycle. |
| 3 | Smart washing machine an example of an Artificially Intelligent devices. True/False? |
| 4 | \_\_\_\_\_\_\_\_\_\_is the field of study that combines domain expertise, programming skills, and knowledge of mathematics and statistics to extract meaningful insights from data. |
| 5 | The dataset provided to the model ML algorithm after training the algorithm is called? \_\_\_\_\_\_\_\_\_ |
| 6 | The ability to perceive the visual world and the relationship of one object to another is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |
| 7 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_help us to find the relationship between the elements of the problem which we have scoped. |
| 8 | Mention two types of machines which have evolved with time. |
| 9 | What do you mean by Data Features? |
| 10 | A \_\_\_\_\_\_\_\_\_is a computer program designed to simulate conversation with human users. |
| 11 | Which type of graphical representation suits best for continuous type of data like monthly exam scores of a student? |
| 12 | Chickens feed extravagantly while the moon drinks tea.  The above statement is the example of? |
| 13 | Mention any 2 applications of Natural Language Processing. |
| 14 | \_\_\_\_\_\_\_\_\_\_\_\_\_is a term used for any word or number or special character occurring in a sentence. |
| 15 | Artificial Intelligence covers a broad range of domains and applications and is expected to impact every field in the future. True/False? |
| 16 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_takes in the data of Natural Languages in the form of written words and spoken words which humans use in their daily lives and operates on this. |
| 17 | His face turns red after consuming the medicine  The above statement is the example of? |
| 18 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_is a system of moral principles and techniques intended to inform the development and responsible use of artificial intelligence technology. |
| 19 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is an example of pocket assistants |
| 20 | A \_\_\_\_\_\_\_\_\_\_\_\_\_is a set or collection of data. |
| 21 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_are one of the most basic and initial applications of NLP online. |
| 22 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is one of the ethical concerns in AI. |
| 23 | As you move towards deploying your model in the real-world, you test it in as many ways as possible. The stage of testing the models is known as \_\_\_\_\_\_\_\_\_\_\_\_. |
| 24 | What are stop words? |

**SECTION B: SUBJECTIVE TYPE QUESTIONS**

**II.ANSWER ANY 7 OUT OF THE GIVEN 8 QUESTIONS (7 X 2M = 14 MARKS)**

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| 1 | Write the difference between Stemming and Lemmatization |
| 2 | Mention four examples of machines that are smart but not AI. |
| 3 | What is a problem statement template and what is its significance? |
| 4 | Define Deep Learning. |
| 5 | Write any 2 differences between Structured data and Unstructured data. |
| 6 | What is Computer Vision? Give an example of it. |
| 7 | What do you mean by corpus? |
| 8 | Define:   * 1. Syntax b. Semantics |

**III.ANSWER ANY 3 QUESTIONS OUT OF GIVEN 5 QUESTIONS (3X 4M = 12 MARKS)**

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| 1 | Normalize the given text and comment on the vocabulary before and after the normalization: Raj and Vijay are best friends. They play together with other friends. |
| 2 | Explain how AI works in the following areas  a. Voice Assistants b. E-commerce websites |
| 3 | Differentiate between a script-bot and a smart-bot. (Any 4 differences) |
| 4 | A firefighter has to get to a burning building as quickly as he can. There are three paths that he can take. He can take his fire engine over a large hill (5 miles) at 8 miles per hour. He can take his fire engine through a windy road (7 miles) at 9 miles per hour. Or he can drive his fire engine along a dirt road which is 8 miles at 12 miles per hour. Which way should he choose? (speed=distance/time) |
| 5 | How intelligent robots are helping us in accomplishing dangerous jobs? |

**………………ALL THE BEST…………………**