



B.K. BIRLA CENTRE FOR EDUCATION

SARALA BIRLA GROUP OF SCHOOLS
A CBSE DAY-CUM-BOYS' RESIDENTIAL SCHOOL



PRE MID TERM : 2025-26 ARTIFICIAL INTELLIGENCE

Class: VII

Date: 06-08-2025

Admission No.

Time : 1 hr.

Max Marks: 25

Roll No. :.....

ANSWER KEY

I. Multiple Choice Questions :

(8 X 1 = 8)

- (1) What is the main concerns about the ethics of AI?
 - (a) That AI systems are becoming too powerful and may pose a threat to humanity
 - (b) That AI systems may be biased and unfair
 - (c) That AI systems may lead to job losses and economic inequality
 - (d) **All of the above**
- (2) The first reported pedestrian death account by an autonomous vehicle happened in which year?
 - (a) **2016**
 - (b) 2017
 - (c) 2018
 - (d) 2019
- (3) technology allows you to try on dresses without actually putting them on.
 - (a) Rapid Technology
 - (b) Dress Technology
 - (c) Fashion Technology
 - (d) **Fashion Mirror Technology**
- (4) is a humanoid robot that talks, moves and teaches children everything from literacy to computer programming.
 - (a) Penny
 - (b) **Nao**
 - (c) Sophia
 - (d) Cram101
- (5) Dominos is working on a robotic unit, called which will deliver foods and drinks via the best optimized path.
 - (a) DominosRobo
 - (b) **DRU**
 - (c) DRobo
 - (d) DRoboUnit
- (6) What does the A in the robot name ARTIE stand for ?
 - (a) Affectionate
 - (b) Affliction
 - (c) Advanced
 - (d) **Affective**
- (7) With what segment of human endeavour is the term "Video Assistant Refereeing" related ?
 - (a) Education
 - (b) Law enforcement
 - (c) Agriculture
 - (d) **Sports**
- (8) What was the expansion of Tay, the AI chat bot by Microsoft, that was shut down only 16 hours after its launch ?
 - (a) Talking about you
 - (b) Tell all about you
 - (c) **Thinking about you**
 - (d) Talk about you

II. Fill in the blanks :

(4 X 1 = 4)

- (1) Female pedestrian
- (2) Surgical Robot
- (3) Ethics
- (4) Deep fake

III. Short Answer Type Questions : (Answer any four)

(4 X 2 = 8)

(1) A hospital shares the details of the patients with an insurance company. Do you think it is ethical? Why/Why Not?

Ans. : The ethicality of a hospital sharing patient details with an insurance company depends on various factors, including consent, the purpose of the data sharing, and the measures taken to protect patient privacy.

Ethical: If the information is shared for legitimate purposes, such as processing insurance claims, ensuring appropriate billing, or improving healthcare services, it can be considered ethical.

Unethical: If the data is shared for purposes not directly related to patient care or insurance claims, such as marketing or third-party profit, it is unethical.

(2) Define Ethics and its importance.

Ans. :

Ethics in AI refers to the moral principles and guidelines that govern the development, deployment, and use of artificial intelligence (AI) technologies.

As AI systems become more integrated into various aspects of society, ensuring their ethical use is critical to avoid harm and maximize benefits.

Key Ethical Considerations in AI:

- i. Fairness and Non-Discrimination
- ii. Privacy and Data Protection:

(3) Discuss the use of artificial intelligence in the field of : (a) Transport (b) Education

Ans. :

(a) Education :

- The future of AI in education is expected to transform teaching and learning, making education more personalized, efficient, and accessible.
- **Here are some key areas where AI is anticipated to have a significant impact in Education.**
- **Adaptive Learning Systems:** AI-driven platforms will tailor educational content to each student's learning style, pace, and preferences, providing a customized learning experience.
- **Intelligent Tutoring Systems:** AI tutors will offer personalized assistance, helping students understand complex concepts and instant feedback.
- **ARTIE(Affective Robot Tutor Integrated Environment)**-Its role is identify the emotional state of a student.
- **Nao**-is a humanoid robot that talks, moves and teaches children everything from literacy to computer programming.
- **Cram101**-here a text book can be turned into **a smart study guide** that is easy to learn in a short amount of time.

(b) Transport :

- AI powers **self-driving vehicles** by enabling them to detect surroundings and make real-time driving decisions.
- Helps in **traffic management** through smart signals and congestion prediction.
- Optimizes **route planning** and improves **fuel efficiency** in logistics and transportation services.
- Enhances **safety** by alerting drivers to potential hazards and supporting driver-assist features.
- Provides **real-time travel updates**, navigation assistance, and smart ticketing for passengers.
- Used in **fleet management** to monitor vehicle health, driver behavior, and maintenance schedules.

(4) How is Dominos using AI in retail through its DRU?

Ans. :

Dominos is working on a Robotic unit called DRU (Dominos Robot Unit)- which will deliver foods and drinks via the best optimised path. Though such units are not commercially available yet, you shouldn't be surprised to see a robot delivering your pizza, right at your door.

(5) Why did the AI chat bot by Microsoft close down after some hours of operation ?

Ans. : The AI chatbot by Microsoft, named Tay, was shut down after only a few hours of operation due to it quickly learning and repeating inappropriate and offensive content.

Tay was designed to engage in conversation with users on Twitter and learn from those interactions. Some users exploited Tay's machine learning algorithms by sending it offensive and harmful messages.

This is why, Microsoft decided to close down AI chat bot after some hours.

IV. Long Answer Type Questions :

(2 X 2.5 = 5)

(1) Your younger sibling has spent a lot of time in preparing a 3D model of India gate which is 3 ft tall and kept it on ground for safety concerns. Your mother started the autonomous robot to clean the floor and it tries to clean the area near the model but it fails and breaks.

- Who can be held liable for damages caused by autonomous system?
- List two AI Ethics.

Ans. :

In this case, mother, who started the robot, might be held liable if she did not follow proper usage instructions or failed to take necessary precautions to avoid such accidents.

For example, if the robot's manual specifies that it should not be used around fragile objects and this warning was ignored, the operator may be at fault.

List two AI Ethics.

- i. Fairness and Non-Discrimination:
- ii. AI systems should be fair and unbiased.

(2) Describe the robot Nao, a humanoid robot.

Ans. : Nao is a humanoid robot that talks, moves and teaches children from ages seven and up everything from literacy to computer programming. Nao engages children and provides a fun coding lab for students. It allows students to instruct the robot to perform certain things, such as hand gestures, emotional movements and even choreographed dances.

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