



INDIAN SCHOOL MUSCAT

SECOND PERIODIC TEST

ARTIFICIAL INTELLIGENCE

CLASS: X

Sub.Code: 417

Time Allotted: 50mts.

23.05.2023

Max .Marks: 20

GENERAL INSTRUCTIONS:**All questions are compulsory.**

1. Match Column A with Column B:

1

Column AColumn B

1. AI access

(a) google giving recommendations of an apparel brand

2. Data Privacy

(b) self driving car causing the death of a person

(c) two classes of people in society

(d) virtual assistants having female voice

2. Which of the following statements is incorrect?

1

a) There are some ethical issues connected with some of the AI solutions.

b) Every company is mining data from as many sources as possible.

c) In Artificial Intelligence era, we do not use intelligence collected from data to build solutions.

d) Data is the new Gold.

3. **Assertion: AI machines cannot be biased on its own**

1

Reasoning : Biases are not negative all the time.

(i) Both A and R are correct and R is the correct explanation of A.

(ii) Both A and R are correct but R is NOT the correct explanation of A.

(iii) A is correct but R is incorrect.

(iv) A is incorrect but R is correct.

4. A company's facial recognition systems trained primarily on images of white men. These models have considerably lower levels of accuracy with women and people of different ethnicities. What do you think the company found as the reason of this incident?

1

(i) Gender bias (ii) Biased data fed into the machine

(iii) Data Privacy (iv) Data Availability

5. Name any two disadvantages associated with AI technology. 1
6. Write one solution to protect the data in a smartphone 1
7. Why do the apps collect data? 1
8. When a user installs an app in the smartphone, it asks for access to gallery, contacts, etc. After accepting this, it gives the user agreement which most users accept without realizing the implications. What is the concern here? 1

(a) Data Privacy (b) Unemployment (c) AI bias (d) No concern
9. A thief has just found a pair of ancient treasure caves. One of the caves is filled with unbelievable treasure and the other has a fire breathing monster that will eat anyone who opens that cave. One cave has a black door decorated with diamonds and the other cave has a brown door decorated with sapphires. Each of the doors has an engraved description on top. The descriptions say:
 - a. Black Door: Monster is here.
 - b. Brown Door: Only One Door speaks the truth.

Which door should the thief open? Explain why.
10. Explain how the smartphone get to know about the discussions and thoughts that we have. How do we prevent it? 2
11. There is a visual representation question in an online test where students have to observe and write two statements about it in their notebooks. The question includes an image of a park where children are playing. Some elderly people are sitting in the park. The park looks very well maintained due to greenery. The students submitted their answer sheets and the teacher found variations in the submissions of six students. 2

Student 1:

Statement 1: The park is surrounded by only trees.

Statement 2: There are 5 girls and 4 boys.

Student 2:

Statement 1: The park is surrounded by flowers and trees.

Statement 2: An old man and women are sitting on a tree.

Student 3:

Statement 1: There are 4 girls and 3 boys in the park.

Statement 2: Two boys are sliding and one is playing on the see-saw.

Student 4:

Statement 1: There are only 2 girls playing in the park.

Statement 2: An old man and women are sitting on a bench.

Student 5:

Statement 1: The park is surrounded by trees and flowers.

Statement 2: Two girls are sitting on a bench.

Student 6:

Statement 1: Two girls are skipping and two are playing on the see-saw.

Statement 2: Two old women are playing on the see-saw.

However, the teacher found that one student had written both statements wrong while another had written both statements right. The remaining students had written one true and one false description of the image. Can you answer the following while keeping this in mind?

- (i) How many girls are there in the park?
- (ii) How many boys are there in the park?
- (iii) How many children are playing on the see-saw?
- (iv) Are there any flowers or trees in the park?
- (v) Where are the old man and women sitting?
- (vi) How many elderly people are there in the park?

- (a) (i) 5; (ii) 4; (iii) 1; (iv) No; (v) Tree; (vi) 1
- (b) (i) 4; (ii) 3; (iii) 3; (iv) Yes; (v) Bench; (vi) 2
- (c) (i) 6; (ii) 4; (iii) 2; (iv) No; (v) Tree; (vi) 2
- (d) (i) 3; (ii) 3; (iii) 2; (iv) Yes; (v) Bench; (vi) 2

- 12. If you do an image search for vacations on a popular search engine, the first few searches mostly return the picture of beaches. What is the concern here? Explain. 2
- 13. Explain how AI technology can create unemployment. 2
- 14. Explain the ethical concerns related to self driving car with an example. 2



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GENERAL INSTRUCTIONS:

All questions are compulsory.

1. Match Column A with Column B:

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Column A

1. AI access
2. AI ethics

Column B

- (a) Google giving recommendations of an apparel brand
- (b) Self driving car causing the death of a person
- (c) Two classes of people in society
- (d) Virtual assistants having female voice

2. Why do the apps collect data?

1

3. Write one disadvantage of introducing AI technology early to young kids.

1

4. Write one solution to protect the data in a smartphone.

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5. When a user installs an app in the smartphone, it asks for access to gallery, contacts, etc. After accepting this, it gives the user agreement which most users accept without realizing the implications. What is the concern here?

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- (a) Data Privacy
- (c) AI bias

- (b) Unemployment
- (d) No concern

6. Facing racism from machines is also called

1

- a) AI ethics
- b) AI bias
- c) AI Access
- d) AI Data privacy

7. Which of the following statements is incorrect?

1

- a) Every company is mining data from as many sources as possible.
- b) Data is the new Gold.
- c) There are some ethical issues connected with some of the AI solutions.
- d) In Artificial Intelligence era, we do not use intelligence collected from data to build solutions.

8. **Assertion:** AI machines cannot be biased on its own

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Reasoning : Biases are not negative all the time.

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- (iii) A is correct but R is incorrect.
- (iv) A is incorrect but R is correct.

9. Explain any two disadvantages of AI technology.

2

10. Explain how the smartphone get to know about the discussions and thoughts that we have. How do we prevent it?

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11. What do you understand by AI ethics? Explain with an example.

2

12. If you do an image search for vacations on a popular search engine, the first few searches mostly return the picture of beaches. What is the concern here? Explain.

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13. A thief has just found a pair of ancient treasure caves. One of the caves is filled with unbelievable treasure and the other has a fire breathing monster that will eat anyone who opens that cave. One cave has a black door decorated with diamonds and the other cave has a brown door decorated with sapphires. Each of the doors has an engraved description on top. The descriptions say:

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Which door should the thief open? Explain why.

14. There is a visual representation question in an online test where students have to observe and write two statements about it in their notebooks. The question includes an image of a park where children are playing. Some elderly people are sitting in the park. The park looks very well maintained due to greenery. The students submitted their answer sheets and the teacher found variations in the submissions of six students.

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(a) Data Privacy (b) Unemployment (c) AI bias (d) No concern
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(i) Gender bias (ii) Biased data fed into the machine
(iii) Data Privacy (iv) Data Availability
5. There are certain associated risks that need to be mitigated appropriately and effectively in AI development and usage. Name any two. 1
6. Define AI ethics. 1

7. Match Column A with Column B:

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Column A

Column B

- | | |
|-----------------|---|
| 1. AI bias | (a) Google giving recommendations of an apparel brand |
| 2. Data privacy | (b) Self driving car causing the death of a person |
| | (c) Two classes of people in society |
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14. Explain the ethical concerns related to self driving car with an example.

