Under the patronage of His Excellency the Minister of Education

Mr. Mohamed Abdel Latif

and the directives of

Dr. Hala Abdel Salam

Head of the Central Department of General Education

Evaluations and Assignments

Information and Communication Technology for the Second Preparatory Grade

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Second Preparatory Grade – Weekly Evaluation and Homework – Week (6)

Weekly Evaluation

First Test

Put (√) in front of the correct statement or (x) in front of the incorrect statement

1. Artificial intelligence technologies help humans process and analyze vast amounts of big data and extract value from it. ( )
2. The stages of big data processing begin with data cleaning to ensure it is free of errors before collecting and storing it. ( )

Answer the following questions:-

1. Where can big data be stored after it is collected?
2. How does big data help enhance cybersecurity and protect systems?

Second Test

Put (√) in front of the correct statement or (x) in front of the incorrect statement

1. The collected big data can be stored in large databases that may be on servers or cloud systems. . ( )
2. Big data is used to monitor network traffic and analyze patterns to detect security threats and protect systems. ( )

Answer the following questions:-

1. What is the role of artificial intelligence technologies in dealing with big data?
2. Why is the big data cleaning stage considered an essential stage before collecting and storing it?

Third Test

Put (√) in front of the correct statement or (x) in front of the incorrect statement

1. After analyzing big data, the process of extracting information that can be used to make strategic decisions takes place. ( )
2. The lower the quality, volume, and diversity of the available data, the less the ability of machine learning and deep learning models to learn and provide accurate predictions and decisions. ( )

Answer the following questions:-

1. **What is the importance of extracting information after analyzing big data?**
2. **How do the quality and volume of data affect the accuracy of artificial intelligence model predictions?**

Class Evaluation

Design a simple illustrative diagram showing the stages of big data processing.

Homework

Choose the appropriate answer to complete each of the following statements:

1- **What is the first stage of big data processing?**

a - Data storage. b- Data cleaning.

c- Big data collection. d - Data analysis.

2- **Which of the following uses of big data relies on understanding customer behavior and improving recommendations using advanced analytics?**

a- Artificial intelligence. b- Machine learning and deep learning.

c- Network monitoring and cybersecurity. d- E-commerce

Answer the following questions:-

1. **What is the first stage of big data processing?**
2. **Mention the field that big data relies on to understand customer behavior and improve recommendations using advanced analytics?**