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 (5)

Weekly Evaluation

First Test

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

1. Big data is defined as a large and complex set of data that cannot be efficiently processed using traditional technology such as (Excel) software. ( )
2. Semi-structured data is a mix of structured and unstructured data, such as emails. ( )

Answer the following questions:

1. Explain what is meant by "Big Data," and clarify the reasons why traditional software tools (such as Excel) are unable to process it efficiently.
2. Explain the concept of "Semi-Structured Data," showing how it combines the characteristics of structured and unstructured data, with examples.

Second Test

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

1. Digital content (videos – images – audio content) that is uploaded or viewed does not generate big data . ( )
2. Internet-connected devices are considered a source of big data. ( )

Answer the following questions:

1. Discuss the role of digital content (videos, images, and audio content) in generating Big Data, explaining the type of data produced and how it contributes to increasing its volume.
2. Explain how internet-connected devices (such as Internet of Things IoT devices) are a primary source of Big Data, giving examples of such devices.

Third Test

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

1. **The "Variety" characteristic refers to the vast amount of data that is collected and stored.** ( )
2. **Financial data resulting from electronic payment operations and banking transactions are considered unreliable data.** ( )

Answer the following questions:

1. **Define the Variety characteristic in Big Data, and mention the types of data it includes.**
2. **Discuss the reliability and accuracy of financial data resulting from electronic payments and banking transactions, explaining their importance in supporting decision-making.**

Class Evaluation

Design a simple illustrative diagram explaining the five (5Vs) characteristics of big data.

Homework

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

1-..... is one of the types of big data.

a- Engineering data. b- Formal data.
c- Structured data. d- Pivot data.

2- Which of the five (5Vs) characteristics of big data refers to the reliability and quality of data, as data may sometimes contain errors or inaccurate information?

a- Volume b- Velocity c- Value d- Veracity

Answer the following questions:

1. **Explain the concept of "Structured Data" as one of the types of Big Data, giving examples of its applications and how it is stored.**
2. **Discuss the "Veracity" characteristic as one of the five characteristics of Big Data (5Vs), explaining the reasons for errors or inaccurate data and how data quality affects decisions.**