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 (7)

Weekly Evaluation

First Test

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

1. **Big data increases the accuracy and effectiveness of AI models by training them on a wide range of scenarios and reducing the problem of overfitting. ( )**
2. **Natural Language Processing (NLP) models like GPT do not require massive text datasets to learn, understand, and generate human language. ( )**

Answer the following questions:-

1- **How do big data contribute to helping artificial intelligence carry out predictive analyses of the future?**

2- **What is the benefit of integrating artificial intelligence technologies with big data?**

تنبيه ما الكمبيوتر التعليمي

Second Test

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

1. **Computer vision applications, such as facial recognition, rely on massive datasets of images and videos to train their models . ( )**
2. **Real-time big data streams allow AI models to continuously learn and adapt to new data. ( )**

Answer the following questions:-

1. **What is the importance of real-time big data flow for AI models?**
2. **How are large sets of images and videos used in training computer vision technologies?**

Third Test

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

1. **Big data helps enable AI to analyze historical data to identify patterns and trends to make accurate predictions about future events (such as predictive analytics). ( )**
2. **AI is just a set of theoretical algorithms incapable of learning or providing real value, even with the availability of big data. ( )**

Answer the following questions:-

1. **How do big data contribute to improving the accuracy of AI models and reducing the problem of overfitting?**
2. **What is the importance of large textual datasets for natural language processing (NLP) models such as GPT?**

Class Evaluation

Search online how big data helps in discovering hidden insights and patterns.

Homework

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

1- **Which of the following is an example of an advanced AI application that relies on massive sets of images and videos to train its models?**

a- Natural Language Processing (NLP) b- Computer Vision

c- Big Data Aggregation d- Task Automation

2- **Big data helps machine learning algorithms automate tasks in fields such as……**

a- Customer Service b- Logistics

c- Financial Services d- All of the above

Answer the following questions:-

1- **How do big data help in automating tasks in different fields?**
2- **Why do computer vision applications need huge amounts of visual data (images and videos)?**