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UNIVERSITI TUN ABDUL RAZAK

FINAL EXAMINATION
MARCH 2024

COURSE TITLE	BUSINESS INTELLIGENCE
COURSE CODE	RBAN3133
DATE/DAY	23 JUNE 2024 / SUNDAY
TIME/DURATION	09:00 AM - 11:00 AM / 02 Hour(s) 00 Minute(s)

INSTRUCTIONS TO CANDIDATES :

1. Please read the instruction under each section carefully.
2. Candidates are reminded not to bring into examination hall/room any form of written materials or electronic gadget except for stationery that is permitted by the Invigilator.
3. Students who are caught breaching the Examination Rules and Regulation will be charged with an academic dishonesty and if found guilty of the offence, the maximum penalty is expulsion from the University.

(This Question Paper consists of 7 Printed Pages including front page)

DO NOT OPEN THE QUESTION PAPER UNTIL YOU ARE TOLD TO DO SO

This question paper consists of TWO (2) sections. Answer ALL questions in the answer booklet provided. **[100 MARKS]**

SECTION A **(40 Marks)**

There are TWENTY (20) questions in this section. Answer ALL questions.

1. What is OLAP?

    A. Online Analytical Platform
    B. Online Analytical Performance
    C. Offline Analytical Platform
    D. Online Analytical Performance

2. What is Augmented Analytic?

    A. The Use of VR to improve the decision-making process
    B. The Use of IoT to help organizations in coming up with a business plan
    C. A Neural network model that is trained to improve image recognition problem
    D. The use of AI and machine learning to enhance analysis across all phases of the data life cycle

3. Which one from below is NLP technology?

    A. YOLO
    B. GPT3
    C. XLNET
    D. BERT

4. Which one below is **NOT** the use of NLP technology?

    A. Translate one speech-language to another
    B. Identifying a picture of either a cat or dog
    C. Analyzing the sentiment of a text
    D. Interpret the meaning of Kanji text

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5. What is Graph Analytics?

   A. Analysis of data inside RDBMS (Relational Database management system)
   B. Also called network analysis, to study the relationship between entities inside the network
   C. Analysis of graphical chart also called Data visualization
   D. Also, the semi-structure graph analysis, is used to find a correlation between variable

6. Which one below is **NOT** a supervised learning algorithm?

   A. K-Mean Clustering
   B. Decision Tree
   C. KNN Neighbour
   D. Linear Regression

7. "This machine learns from experience and tries to capture the best possible knowledge to make accurate business decisions". This statement is referring to _____.

   A. Logistic Regression
   B. Reinforcement Learning
   C. Hierarchical Clustering Algorithm
   D. Unsupervised Learning

8. The algorithm does **NOT** have independent variables (or target output). The partially complete description is best described of _____.

   A. Supervised learning
   B. Unsupervised Learning
   C. Reinforcement learning
   D. None of the above

9. Which one of the below is an Unsupervised Learning Algorithm?

   A. Logistic regression
   B. Linear Regression
   C. CNN
   D. None of the above

10. This chart helps you to see the distribution of data.

   A. Line Chart
   B. Boxplot
   C. Correlation Heatmap
   D. Pie Chart

11. What is the importance of having good data collection practices?

   A. Help to understand our customers better
   B. Bad data lead to wrong business decision
   C. Help businesses predict and forecast their business trajectory
   D. All of the above

12. This analysis helps businesses determine the probability that an event will happen.

   A. Diagnostic Analysis
   B. Descriptive Analysis
   C. Predictive Analysis
   D. Survey Analysis

13. Which of the following analyses is the hardest to execute in a real-life scenario?

   A. Diagnostic Analysis
   B. Descriptive Analysis
   C. Predictive Analysis
   D. Prescriptive Analysis

14. A telco company XYZ wants to understand why its sales dropped more than 25% in the last 3 months. They first found out that more than 10% of lifelong customers have cancelled their subscriptions. How did company XYZ find out about this cancellation?

   A. Churn Rate Analysis
   B. Customer Ads Click Analysis
   C. Customer Survey Analysis
   D. None of the above

15. What is the difference between a linear regression model and a Decision Tree Model?

    A. Parametric vs non-parametric model
    B. Structured vs nonstructured model
    C. One is a neural network model and the other is not
    D. None of the above

16. Which of the following statements is true about Business Intelligence?

    A. BI converts raw data into meaningful information
    B. BI has a direct impact on an organization's strategic, tactical and operational business decisions.
    C. BI tools perform data analysis and create reports, summaries, dashboards, maps, graphs, and charts
    D. All of the above

17. Business intelligence (BI) is a broad category of application programs that includes

    A. Decision support
    B. Data Mining
    C. OLAP
    D. All of the above

18. One of the following terms for a radical rethinking of the nature of the business?

    A. Paradigm shift
    B. Revolutionary change
    C. Transformational changes
    D. All of these

19. _____is **NOT** an aggregate function.

    A. With
    B. Sum
    C. Avg
    D. Min

20. Which chart is better at presenting time series data?

    A. Pie Chart
    B. Line Chart
    C. Heatmap chart
    D. Waterfall chart

SECTION B **(60 Marks)**

There are THREE (3) questions in this section. Answer ALL questions.

1. Give **TWO (2)** examples of a parametric model and another **TWO (2)** examples of a nonparametric model.

(20 marks)

2. State the **THREE (3)** main advantages of using parametric and nonparametric models.

(20 marks)

3. Name and explain **FOUR (4)** main types of Analysis (20 marks)

*** END OF QUESTION PAPER ***