

**SERIES: A**

**QP CODE: 24900085**

**SERIES: A**



**Reg No:.....**

**Name:.....**

**MAHATMA GANDHI UNIVERSITY, KOTTAYAM**

**FIRST SEMESTER MGU-UGP (HONOURS) REGULAR  
EXAMINATION NOVEMBER 2024**

**First Semester**

**Multi-Disciplinary Course - MG1MDCECT102 - DATA ANALYTICS**

**(2024 ADMISSION ONWARDS)**

Duration: 1 Hours

Maximum Marks: 35

**Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Interest (I),  
Appreciation (Ap), and Skill (S)**

*Students should attempt atleast one question from each course outcome to enhance their overall  
outcome attainability.*

[Learning Domain][CO No(s)]

**Part A**

Multiple Choice Questions

Answer any **35** questions

Each question carries **one** mark

- 1 Why are surveys often used in data analytics to collect information from large populations? [U] [2]
- a) They reduce the need for analysis      b) They can efficiently collect responses from a large number of participants
- c) They are a slow data collection method      d) They only provide qualitative data
- 2 Which of the following is a qualitative data collection method? [K] [2]
- a) Survey      b) Interview
- c) Questionnaire      d) Data mining
- 3 What is the primary purpose of a line chart? [U] [2]
- a) To show parts of a whole      b) To display trends over time

## SERIES: A

- c) To compare categorical data      d) To represent frequency distributions
- 4 Which of the following best describes the x-axis in a typical line chart? [U] [2]  
a) It usually represents categorical data.      b) It typically represents time or ordered data.  
c) It is always quantitative.      d) It is not used in line charts.
- 5 What is a challenge commonly faced when analyzing text data? [U] [1]  
a) High variability in text format      b) Difficulty in visual representation  
c) Lack of numerical values      d) All of the above
- 6 Which of the following is an example of audio data in multimedia? [U] [1]  
a) A song saved as an MP3 file      b) An image of a landscape  
c) A PDF document      d) A spreadsheet of sales numbers
- 7 Which of the following platforms is commonly used for storing and sharing large multimedia files? [U] [1]  
a) WordPress      b) YouTube  
c) Google Docs      d) Excel
- 8 In which of the following scenarios is text data most likely to be useful? [A] [1]  
a) Measuring the height and weight of a population      b) Calculating the total sales revenue of a company  
c) Understanding customer reviews on a product or service      d) Predicting future sales based on historical data
- 9 What is the primary purpose of data analytics? [U] [1]  
a) Storing data      b) Predicting future trends  
c) Visualizing data only      d) Collecting data
- 10 In a study about workplace culture, researchers decide to use interviews, open-ended surveys, and group discussions. Which of these methods primarily collects qualitative data? [A] [1]  
a) Structured surveys with numerical ratings      b) Open-ended surveys and interviews  
c) Time-tracking apps      d) Structured questionnaires with fixed options

## **SERIES: A**

- 11 Which type of analytics helps in identifying the reasons behind past outcomes? [U] [1]  
a) Predictive analytics b) Descriptive analytics  
c) Diagnostic analytics d) Prescriptive analytics
- 12 Which of the following tools is commonly used for data visualization in data analytics? [K] [1]  
a) Python b) Excel  
c) Tableau d) Microsoft Word
- 13 Name the type of research that commonly uses secondary data. [K] [1]  
a) Experimental research b) Observational research  
c) Desk research d) Field research
- 14 Identify the form secondary data often takes. [K] [1]  
a) Raw, unprocessed data b) Summarized and analyzed reports  
c) Data collected through personal interviews d) Observational notes
- 15 Select the correct approach to using secondary data in data analytics. [U] [1]  
a) Ignoring the original purpose of the data b) Using it as the sole source of data without any verification  
c) Evaluating the data's relevance and accuracy for the current study d) Treating secondary data as always more reliable than primary data
- 16 Which of the following is an example of unstructured data? [K] [1]  
a) Sales report in a spreadsheet b) Social media posts  
c) Stock price data in a database d) Customer phone numbers
- 17 Which programming language is widely used for data analysis and visualization? [K] [1]  
a) Java b) C++  
c) Python d) Ruby
- 18 Select the software tool commonly used to process raw data. [K] [1]  
a) Microsoft Word b) Excel  
c) Photoshop d) PowerPoint
- 19 Select the correct description of how structured data is organized. [U] [1]

## SERIES: A

- a) Data is randomly placed in documents      b) Data is only visualized, not stored
- c) Data is organized in rows and columns      d) Data is free-form without any fields
- 20 Select the type of data that can be easily stored as structured data. [U] [1]  
a) Social media conversations      b) Audio recordings  
c) Customer transaction records      d) Video clips
- 21 Select the correct characteristic of discrete data. [K] [1]  
a) It can take any value within a range      b) It is measured in intervals  
c) It takes whole, countable numbers      d) It has infinite decimal places
- 22 Identify a field where discrete data is frequently used. [U] [1]  
a) Physics experiments      b) Demographic studies (e.g., number of people)  
c) Fluid dynamics      d) Weather forecasting
- 23 Select the best method for collecting continuous data. [U] [1]  
a) By measuring with a device like a ruler or thermometer      b) By counting distinct items in a set  
c) By asking yes/no questions      d) By grouping data into categories
- 24 Name the disadvantage of primary data collection. [K] [1]  
a) It is limited in scope      b) It is difficult to access  
c) It is time-consuming and expensive      d) It is unreliable and inaccurate
- 25 Identify a common visualization tool used in big data analytics. [K] [1]  
a) Microsoft Excel      b) Tableau  
c) Notepad      d) Adobe Acrobat
- 26 Name a challenge associated with big data in data analytics. [U] [1]  
a) Simplicity in data collection      b) Lack of available data  
c) Data privacy and security concerns      d) Easy visualization

## **SERIES: A**

- 27 How is navigation data typically used in descriptive analytics? [U] [1]  
a) To predict customer needs based on location data      b) To develop long-term strategic plans  
c) To forecast future movements of vehicles      d) To understand historical patterns in traffic or route choices
- 28 Choose the key component of predictive analysis. [K] [1]  
a) Machine learning models and algorithms      b) Email marketing campaigns  
c) Data summarization      d) Data entry
- 29 Quantitative data can be categorized into which of the following types? [K] [1]  
a) Nominal and Ordinal      b) Subjective and Objective  
c) Qualitative and Categorical      d) Discrete and Continuous
- 30 What can organizations achieve by analyzing operational data? [U] [1]  
a) Increased inefficiencies      b) Reduced productivity  
c) Optimized processes and cost savings      d) Ignored operational challenges
- 31 If two rows in your dataset have the same values for all columns except for one, how can you handle this redundancy? [A] [2]  
a) Drop both rows      b) Combine the rows into one and decide how to handle the differing value based on the context (e.g., average the value, use the latest entry)  
c) Keep both rows to avoid losing data      d) Remove all rows containing missing values
- 32 You are tasked with understanding the motivations of employees in your company. Which data collection method would be most appropriate to apply for gathering in-depth personal insights? [A] [2]  
a) Focus group      b) Survey  
c) Interview      d) Data mining
- 33 What is the best practice for labeling the lines in a line chart? [U] [2]  
a) Use generic names      b) Use abbreviations  
c) Label each line clearly with a      d) Do not label them at all

## SERIES: A

legend

- 34 What is the difference between "Save" and "Save As"? [A] [2]
- a) "Save" creates a backup copy. b) "Save As" allows you to rename the file or change its format.
- c) "Save" always prompts for a location d) There is no difference; they are the same
- 35 Which of the following formats can you NOT import into Excel? [U] [2]
- a) .xml b) .xlsx
- c) .txt d) .jpg
- 36 Why is it important to standardize features in high-dimensional datasets? [U] [2]
- a) It simplifies data visualization b) It ensures that each feature has equal importance in distance-based algorithms
- c) It makes it easier to impute missing values d) It removes duplicates from the dataset
- 37 In which case might data standardization not be necessary? [U] [2]
- a) When using algorithms like decision trees or random forests b) When using distance-based algorithms
- c) When the data has a wide range of values d) When performing clustering
- 38 Which function returns the minimum value from a set of values? [U] [2]
- a) MAX b) MIN
- c) AVERAGE d) SUM
- 39 What is the purpose of the VALUE function? [U] [2]
- a) Converts text to number b) Formats numbers
- c) Checks for text d) Rounds numbers
- 40 What does "Power Query" allow you to do with imported data? [U] [2]
- a) Edit the data b) Clean the data
- c) Transform the data d) All of the above

(35 × 1 = 35)

**END OF THE QUESTION PAPER**

\*\*\*

**SERIES: B**

**QP CODE: 24900085**

**SERIES: B**



**Reg No:.....**

**Name:.....**

**MAHATMA GANDHI UNIVERSITY, KOTTAYAM**  
**FIRST SEMESTER MGU-UGP (HONOURS) REGULAR**  
**EXAMINATION NOVEMBER 2024**

**First Semester**

**Multi-Disciplinary Course - MG1MDCECT102 - DATA ANALYTICS**

**(2024 ADMISSION ONWARDS)**

Duration: 1 Hours

Maximum Marks: 35

**Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Interest (I),  
Appreciation (Ap), and Skill (S)**

*Students should attempt atleast one question from each course outcome to enhance their overall  
outcome attainability.*

[Learning Domain][CO No(s)]

**Part A**

Multiple Choice Questions

Answer any **35** questions

Each question carries **one** mark

- 1 Which of the following tools is commonly used for data visualization in data analytics? [K] [1]  
a) Excel b) Python  
c) Microsoft Word d) Tableau
- 2 What does "Power Query" allow you to do with imported data? [U] [2]  
a) All of the above b) Transform the data  
c) Clean the data d) Edit the data
- 3 Which of the following best describes the x-axis in a typical line chart? [U] [2]  
a) It is always quantitative. b) It usually represents categorical data.  
c) It typically represents time or ordered data. d) It is not used in line charts.

## **SERIES: B**

- 4 Identify a common visualization tool used in big data analytics. [K] [1]  
a) Microsoft Excel b) Tableau  
c) Notepad d) Adobe Acrobat
- 5 If two rows in your dataset have the same values for all columns except for one, how can you handle this redundancy? [A] [2]  
a) Keep both rows to avoid losing data b) Combine the rows into one and decide how to handle the differing value based on the context (e.g., average the value, use the latest entry)  
c) Remove all rows containing missing values d) Drop both rows
- 6 Select the type of data that can be easily stored as structured data. [U] [1]  
a) Social media conversations b) Customer transaction records  
c) Video clips d) Audio recordings
- 7 What can organizations achieve by analyzing operational data? [U] [1]  
a) Optimized processes and cost savings b) Ignored operational challenges  
c) Increased inefficiencies d) Reduced productivity
- 8 Which programming language is widely used for data analysis and visualization? [K] [1]  
a) Ruby b) Java  
c) C++ d) Python
- 9 Which function returns the minimum value from a set of values? [U] [2]  
a) MIN b) AVERAGE  
c) MAX d) SUM
- 10 In a study about workplace culture, researchers decide to use interviews, open-ended surveys, and group discussions. Which of these methods primarily collects qualitative data? [A] [1]  
a) Structured questionnaires with fixed options b) Structured surveys with numerical ratings  
c) Open-ended surveys and interviews d) Time-tracking apps
- 11 Name the disadvantage of primary data collection. [K] [1]



## **SERIES: B**

- a) It is difficult to access                      b) It is time-consuming and expensive
- c) It is limited in scope                      d) It is unreliable and inaccurate
- 12      Select the correct characteristic of discrete data.                      [K]    [1]
- a) It is measured in intervals                      b) It takes whole, countable numbers
- c) It has infinite decimal places                      d) It can take any value within a range
- 13      What is the purpose of the VALUE function?                      [U]    [2]
- a) Converts text to number                      b) Formats numbers
- c) Rounds numbers                      d) Checks for text
- 14      What is the best practice for labeling the lines in a line chart?                      [U]    [2]
- a) Use abbreviations                      b) Use generic names
- c) Do not label them at all                      d) Label each line clearly with a legend
- 15      Which of the following is a qualitative data collection method?                      [K]    [2]
- a) Survey                      b) Questionnaire
- c) Interview                      d) Data mining
- 16      How is navigation data typically used in descriptive analytics?                      [U]    [1]
- a) To predict customer needs based on location data                      b) To understand historical patterns in traffic or route choices
- c) To forecast future movements of vehicles                      d) To develop long-term strategic plans
- 17      What is the difference between "Save" and "Save As"?                      [A]    [2]
- a) "Save" creates a backup copy.                      b) "Save As" allows you to rename the file or change its format.
- c) There is no difference; they are the same                      d) "Save" always prompts for a location
- 18      What is the primary purpose of a line chart?                      [U]    [2]
- a) To compare categorical data                      b) To show parts of a whole
- c) To represent frequency distributions                      d) To display trends over time

## **SERIES: B**

- 19 Select the correct description of how structured data is organized. [U] [1]  
a) Data is only visualized, not stored      b) Data is randomly placed in documents  
c) Data is free-form without any fields      d) Data is organized in rows and columns
- 20 Name a challenge associated with big data in data analytics. [U] [1]  
a) Data privacy and security concerns      b) Simplicity in data collection  
c) Lack of available data      d) Easy visualization
- 21 Identify a field where discrete data is frequently used. [U] [1]  
a) Fluid dynamics      b) Physics experiments  
c) Demographic studies (e.g., number of people)      d) Weather forecasting
- 22 Quantitative data can be categorized into which of the following types? [K] [1]  
a) Qualitative and Categorical      b) Nominal and Ordinal  
c) Discrete and Continuous      d) Subjective and Objective
- 23 Which of the following is an example of unstructured data? [K] [1]  
a) Stock price data in a database      b) Customer phone numbers  
c) Sales report in a spreadsheet      d) Social media posts
- 24 You are tasked with understanding the motivations of employees in your company. Which data collection method would be most appropriate to apply for gathering in-depth personal insights? [A] [2]  
a) Survey      b) Interview  
c) Focus group      d) Data mining
- 25 Name the type of research that commonly uses secondary data. [K] [1]  
a) Experimental research      b) Desk research  
c) Observational research      d) Field research
- 26 Choose the key component of predictive analysis. [K] [1]  
a) Machine learning models and algorithms      b) Data summarization  
c) Data entry      d) Email marketing campaigns
- 27 Select the best method for collecting continuous data. [U] [1]

## SERIES: B

- a) By grouping data into categories      b) By counting distinct items in a set  
c) By asking yes/no questions          d) By measuring with a device like a ruler or thermometer
- 28      Select the correct approach to using secondary data in data analytics.      [U]    [1]
- a) Treating secondary data as always more reliable than primary data      b) Using it as the sole source of data without any verification  
c) Ignoring the original purpose of the data      d) Evaluating the data's relevance and accuracy for the current study
- 29      Why are surveys often used in data analytics to collect information from large populations?      [U]    [2]
- a) They only provide qualitative data      b) They are a slow data collection method  
c) They reduce the need for analysis      d) They can efficiently collect responses from a large number of participants
- 30      In which of the following scenarios is text data most likely to be useful?      [A]    [1]
- a) Measuring the height and weight of a population      b) Calculating the total sales revenue of a company  
c) Predicting future sales based on historical data      d) Understanding customer reviews on a product or service
- 31      What is the primary purpose of data analytics?      [U]    [1]
- a) Visualizing data only      b) Collecting data  
c) Predicting future trends      d) Storing data
- 32      Identify the form secondary data often takes.      [K]    [1]
- a) Raw, unprocessed data      b) Observational notes  
c) Summarized and analyzed reports      d) Data collected through personal interviews
- 33      Why is it important to standardize features in high-dimensional datasets?      [U]    [2]
- a) It makes it easier to impute missing values      b) It ensures that each feature has equal importance in distance-based algorithms  
c) It removes duplicates from the dataset      d) It simplifies data visualization

## **SERIES: B**

- 34 Which type of analytics helps in identifying the reasons behind past outcomes? [U] [1]  
a) Diagnostic analytics                      b) Descriptive analytics  
c) Predictive analytics                      d) Prescriptive analytics
- 35 In which case might data standardization not be necessary? [U] [2]  
a) When performing clustering              b) When using distance-based algorithms  
c) When using algorithms like decision trees or random forests      d) When the data has a wide range of values
- 36 Which of the following is an example of audio data in multimedia? [U] [1]  
a) A song saved as an MP3 file              b) An image of a landscape  
c) A spreadsheet of sales numbers          d) A PDF document
- 37 What is a challenge commonly faced when analyzing text data? [U] [1]  
a) High variability in text format          b) Difficulty in visual representation  
c) All of the above                              d) Lack of numerical values
- 38 Select the software tool commonly used to process raw data. [K] [1]  
a) Microsoft Word                              b) PowerPoint  
c) Excel    d) Photoshop
- 39 Which of the following formats can you NOT import into Excel? [U] [2]  
a) .xml    b) .jpg  
c) .xlsx    d) .txt
- 40 Which of the following platforms is commonly used for storing and sharing large multimedia files? [U] [1]  
a) Excel    b) YouTube  
c) WordPress                                      d) Google Docs

(35 × 1 = 35)

**END OF THE QUESTION PAPER**

**\*\*\***