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PRESIDENCY UNIVERSITY BENGALURU

**SET B**

SCHOOL OF MEDIA STUDIES

**END TERM EXAMINATION – MAY / JUNE 2024**

**Semester :** Semester IV - 2022

**Course Code :** BAJ3018

**Course Name :** Data Journalism

**Program :** BA Journalism and Mass Communication

**Date :** June 19, 2024

**Time :** 09.30am to 12.30pm

**Max Marks :** 100

**Weightage :** 50%

**Instructions:**

1. *Read all questions carefully and answer accordingly.*
2. *Question paper consists of 3 parts.*
3. *Scientific and non-programmable calculator are permitted.*
4. *Do not write any information on the question paper other than Roll Number.*

**PART A**

**ANSWER ANY 10 QUESTIONS 10Q X 2M =20M**

* 1. Distinguish between quantitative and qualitative data.
  2. What is constant Variable?
  3. What are the steps of data life cycle?
  4. What is IF-Else and IF-Error in Excel?
  5. Find out the mean from the following set of numbers: 23 25 26 89 78 45
  6. What is SUM IF and COUNT IF in Excel
  7. What is the formula of Mean ?
  8. What is VLOOKUP in Excel
  9. What is INDEX-MATCH in Excel
  10. What is HLOOKUP in Excel
  11. What is Replace in Excel

(CO1) [Knowledge] (CO2,CO1) [Knowledge] (CO1,CO2) [Knowledge] (CO1,CO2) [Knowledge] (CO2,CO1) [Knowledge]

(CO1,CO2) [Knowledge] (CO1,CO2) [Knowledge] (CO1,CO2) [Knowledge] (CO1,CO2) [Knowledge] (CO1,CO2) [Knowledge]

(CO1,CO2) [Knowledge]

* 1. What is independent variable

(CO1,CO2) [Knowledge]

**PART B**

**ANSWER ANY 8 QUESTIONS 8Q X 5M =40M**

* 1. A study involves recording the temperature in Celsius at various times during the day. Discuss the level of measurement for this data and justify your answer. How does this level impact the statistical analysis that can be performed?

(CO3,CO4) [Comprehension]

* 1. Describe the function of the AVERAGE formula in Excel. How does this formula differ from the SUM formula in terms of application and output? Illustrate your answer with an example from a financial dataset.

(CO4,CO3) [Comprehension]

* 1. A company launches three different advertising campaigns to see which increases sales the most. Sales figures are recorded for a month before the campaigns begin (as baseline data), and then during the month of the campaigns. All campaigns are run in similar markets and conditions. Identify the independent, dependent, control, and constant variables in this marketing study.

(CO4,CO3) [Comprehension]

* 1. Define the COUNT formula in Excel and its primary use. Explain the limitations of the COUNT formula when dealing with datasets that include both numeric and text data. How does the COUNTA formula help overcome these limitations?

(CO4,CO3) [Comprehension]

* 1. A study is conducted to find out how temperature affects the rate of a specific chemical reaction. The experiment uses the same concentration of reactants and the same volume of solution in each trial but varies the temperature. Identify the independent, dependent, control, and constant variables.

(CO4,CO3) [Comprehension]

* 1. A restaurant collects customer feedback on service quality using options such as 'Poor', 'Fair', 'Good', and 'Excellent'. Frame a question to analyze the level of measurement used for this data and explain why it fits that category.

(CO4,CO3) [Comprehension]

* 1. Researchers are testing the effectiveness of a new drug on reducing blood pressure. Patients are divided into two groups: one receives the drug and the other receives a placebo. Both groups live in similar conditions and have similar diets. Identify the independent, dependent, control, and constant variables in this experiment.

(CO3,CO4) [Comprehension]

* 1. In a physics class, students measure how the height from which a ball is dropped affects its bounce height. All balls are made of the same material and are the same size. The surface onto which the balls are dropped is also the same. Identify the independent, dependent, control, and constant variables in this experiment.

(CO3,CO4) [Comprehension]

* 1. Explain how the SUM formula is used in Excel. Provide a scenario where this formula might be applied in a business context and discuss the benefits of using SUM for data analysis.

(CO4,CO3) [Comprehension]

* 1. Participants in a demographic study are asked to identify their race from a list of options. Formulate a question to determine the level of measurement used here and discuss how this influences the type of conclusions that can be drawn from the data.

(CO4,CO3) [Comprehension]

**PART C**

**ANSWER ANY 2 QUESTIONS 2Q X 20M =40M**

* 1. Read the question carefully and answer the following:

Dataset Provision:

Consider the following daily sales figures recorded over a span of 25 days (in thousands of dollars): 18, 22, 20, 28, 26, 24, 25, 23, 27, 18, 26, 29, 30, 23, 24, 21, 20, 22, 24, 27, 23, 25, 26, 28, 27.

Calculation of Central Tendencies and Spread:

Mean: Calculate the mean (average) sales figure from the provided dataset. What does this figure represent regarding the store's performance over the observed period?

Median: Determine the median sales figure. Discuss how the median offers a different insight into the store's sales compared to the mean.

Mode: Identify the mode(s) of the sales figures. Explain the significance of the mode in understanding the most common sales figures.

Standard Deviation: Compute the standard deviation of the sales figures. Analyze how this measurement assists in understanding the variability or consistency in the store’s daily sales.

Writing a Data Journalism Report:

Based on the sales data provided, write a journalistic report analyzing the trends and implications of the store's sales over the 25 days. Your report should:

Introduce the Context: Briefly describe the significance of analyzing sales data for retail businesses, especially in understanding economic health and consumer behavior.

Present the Data: Use your calculations from the previous questions (mean, median, mode, and standard deviation) to provide a statistical overview of the sales trends.

Interpret the Findings: Discuss any patterns, anomalies, or notable trends in the data. Consider days with exceptionally high or low sales and what they might suggest about consumer preferences, marketing effectiveness, or other external factors.

Discuss Broader Implications: Explore the potential implications of these sales trends for the store's strategic planning, marketing approaches, and inventory management. Consider the impact of economic conditions, seasonal variations, and promotional activities on sales figures.

Conclude with a Summary: Summarize the key points made in your report and suggest areas for future study or observation, such as the impact of digital marketing campaigns on sales or the role of customer service in achieving sales targets.

(CO5) [Application]

* 1. Brené Brown once said, “Stories are just data with a soul”. For centuries, journalists have affirmed this statement by combining data and interviews to create content that informs and inspires change. It is no surprise, then, that data journalism -- which transforms numbers into impactful graphics and enlightening narratives -- has become a popular medium for journalists, and ethical considerations in data journalism are no different from those in any other area of journalism. Explain the challenges of a Data journalist when it comes to the ethical aspect of an article.

(CO5) [Application]

* 1. For over a decade now, media commentators have been celebrating the rise of data journalism.We have a tangible need for beautiful feature stories that craft compelling narratives about our world out of statistics. And, given the sheer quantity of data out there, it makes sense that journalists are experimenting with how to understand and represent these big data sets.Publications across the world are investing in these data-driven stories, which match the increasing demand for longform journalism. What is your take on the above statement. Explain any data journalistic report of your choice to illustrate your point.

(CO5) [Application]