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**JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA**

**PGDM / PGDM (M) / PGDM (SM)**

**SECOND TRIMESTER (Batch 2023-25)**

**END TERM EXAMINATIONS, JANUARY 2024**

**Set 1 – Sec SM**

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| Course Name | **Essentials of Business Analytics** | Course Code | **20801** |
| Max. Time | **2 hours** | Max. Marks | **40 MM** |

INSTRUCTIONS: **(Read them very carefully)**

1. This is an **open book** examination. You may refer to your text book.
2. There are two sections in the question paper. Both are compulsory to attempt.
3. Kindly upload a single Excel file(workbook) answering the following questions in separate worksheets and saved as (\*.xlsx)
4. Write your analysis in the same worksheet.
5. Name the worksheet with the question number(example: If the worksheet is for answering the question number 4, name it as Q\_4)
6. Save the excel with your name as Name\_RollNo\_EBA (example: Aayushi\_Kalra\_25\_EBA)
7. Kindly go through data\_dictionary for variable description.
8. Marks for each question are written in bracket at the end of each question.

**Part - A**

**Read the case below and answer the ques 1-3**

**Jute Junkies** manufactures and sells jute bags at its retail store located in Noida. A year ago, the company developed a website and began selling its bags over the internet. Website sales have exceeded the company’s expectations and management is now considering strategies to increase its sales even further. To learn more about online customers, a sample of 150 transactions was selected from the previous month’s sale. Data and its description is provided in the file JJ.xlsx.

1. Summarize and interpret the behavior of online customers by generating a crosstab for the amount spent by customers on different days. **(5 marks)**
2. Explore the relationship between the number of web pages viewed and amount spent numerically and graphically.**(5marks)**
3. The brand manager at the **Jute Junkies** was interested in understanding whether the browser makes any significant impact on the average amount spent. Test for α = 0.05. **(10 marks)**

**Part - B**

1. The Great Rise Baking Company hosts a quarterly bread-making demonstration workshop. Each workshop features five renowned bakers showcasing their craft and sharing baking tips. Five loyal customers who subscribe to the company's loyalty program receive two free tickets each. Other interested participants can register for $35 per person. All attendees receive a freshly baked bread roll upon arrival, a light lunch featuring various bread products, and a free branded tote bag.

The following costs are associated with hosting this workshop:

Venue Rental = $100

Registration Processing = $5 per person

Baker compensation = 5@$500 = $2500

Bread Roll = $1.5 per person

Lunch = $ 6 per person

Tote bag = $3 per person

1. Build a spreadsheet model that calculates a profit or loss based on the number of non member registrants. Compare the model if company has different production levels. **(15 marks)**
2. Make use of goal seek model to find the number of non-member registrants that will make the workshop break even. **(5 marks)**