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**JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA**

**PGDM (SM)**

**Third TRIMESTER (Batch 2024-2026)**

**END-TERM EXAMINATIONS, April 2025**

**Set-1**

|  |  |  |  |
| --- | --- | --- | --- |
| Course Name | Business Research Methods | Course Code |  |
| Max. Time | **2 hours** | Max. Marks | **40 Marks** |

**INSTRUCTIONS:**

1. Attempt all questions, marks are indicated after each question

2. Attempt questions as per sequence & mention the correct question and subpart number

**Note: Attempt all questions**

**Q. No. 1**

Individuals today have access to a wide range of online learning platforms offering self-paced courses, yet many struggle with course completion. One emerging strategy to improve retention is the use of AI-powered personalized learning paths, which adapt content based on a student's performance and learning style. While technology seems promising, its actual impact on learning outcomes and student satisfaction remains under scrutiny...

1. Which research design(s) and method would be most appropriate for the researcher. Justify with an argument (**2 marks)**
2. State any three hypotheses towards this research  **2 Marks)**
3. Identify the respondent for the research. Justify with an argument (**2 Marks)**

**Q. No. 2**

Justify and explain each of the following sampling methods **(2\*4 = 8 marks)**

1. A university researcher wants to assess the average screen time of high school students in an urban city. The researcher obtains a list of all students enrolled across the city and selects 200 students to participate in the survey, ensuring each student has an equal chance of being chosen.
2. A researcher is studying college students’ attitudes toward remote learning. Since opinions may vary by academic year, the researcher divides the student population into four different groups (freshman, sophomore, junior, senior) and randomly selects an equal number of students from each group.
3. A national education board wants to assess math proficiency in rural schools. Instead of selecting students individually across the country, the board randomly selects entire schools (clusters) and tests all students within the selected schools.

D. A consumer behavior researcher wants to understand preferences for plant-based food among urban consumers. They decide to survey 100 people: 50 males and 50 females, ensuring a balance across gender. The researcher interviews people in malls and stops once the number of respondents for each gender are filled.

**Q. No. 3**

**Case: Online Grocery Shopping Preferences**

This case explores consumers' behavior and preferences related to purchasing groceries online. Following is the research question suitable for a small questionnaire that utilizes various scales:

Research question: How do consumers’ frequency of online grocery shopping, product quality perception, and convenience expectations influence their preference for online grocery platforms?

Create a questionnaire based on the research question. Mention and justify the measurement scale used? **(8 Marks)**

**Q. No. 4:** A researcher is studying the effect of different doses of medicine on the individual’s illness. They hypothesize that the dose of a medicine will have a significant impact on the individual’s illness. The data and findings have been provided to you. Analyze the findings. **(8 Marks)**

|  |  |
| --- | --- |
| Dosage | Illness |
| No dose | 101 |
| No dose | 101 |
| No dose | 101 |
| No dose | 104 |
| No dose | 104 |
| 10mg | 69 |
| 10mg | 70 |
| 10mg | 73 |
| 10mg | 75 |
| 10mg | 81 |
| 20 mg | 64 |
| 20 mg | 66 |
| 20 mg | 69 |
| 20 mg | 73 |
| 20 mg | 77 |

**Q. No. 5** –

A growing retail brand operating in multiple cities across India wants to understand the potential relationship between its sales performance and two key business metrics:

1. Number of Salespersons (Boys) – representing the *direct selling strength*.
2. Number of Retail Outlets – indicating the *physical presence or reach* of the brand.

The company has collected the following data from various regions for a recent quarter:

|  | |
| --- | --- |
| Sales (units) | | Boys | Outlets |
| 81 | | 15 | 35 |
| 23 | | 10 | 10 |
| 18 | | 7 | 14 |
| 8 | | 2 | 9 |
| 16 | | 4 | 11 |
| 4 | | 1 | 6 |
| 29 | | 4 | 15 |
| 22 | | 7 | 16 |
| 15 | | 5 | 18 |
| 6 | | 3 | 8 |

1. Frame the suitable hypotheses and justify the test used **(4 Marks)**
2. Interpret the regression coefficients and assess the significance of each predictor in predicting Sales **(4 Marks)**
3. Predict Sales when Boys =10 and Outlets =15 **(2 Marks)**