

Name:

Enrolment No:



**UPES**

**End Semester Examination, May 2025**

**Course: Business Research Methods**

**Program: MBA-All**

**Course Code: DSRM7002**

**Instructions:**

**Semester: II**

**Time: 03 hrs.**

**Max. Marks: 100**

**SECTION A**  
**10Qx2M=20Marks**

| S. No. | Statement of question   | Marks | CO  |
|--------|---|-------|-----|
| Q 1    | Which type of research implies to the mathematical, logical and analytical techniques and solutions of business problems of cost minimization or of profit maximization?<br>a) Motivation research<br>b) Market research<br>c) Business research<br>d) Operations research  | 2     | CO1 |
| Q 2    | If items in a scale that are supposed to measure the same construct produce similar results, it indicates high:<br>a) Convergent Validity<br>b) Internal Consistency<br>c) Content Validity<br>d) Test/Retest Reliability   | 2     | CO1 |
| Q 3    | Which of the following is NOT a purpose of a bibliography in a research report?<br>a) To give credit to sources used in the research.<br>b) To provide additional reading material for readers interested in the topic.<br>c) To show the breadth and depth of research conducted on the topic.<br>d) To provide a summary of the main findings of the research | 2     | CO1 |
| Q 4    | Which of the following is not a type of non-probability sampling?<br>a)Quota sampling<br>b)Snowball sampling<br>c)Systematic sampling<br>d)Judgmental sampling  | 2     | CO1 |
| Q 5    | In the context of Business research method, which of the following best describes the primary objective of exploratory research?<br>a) To identify causal relationships and determine the effects of one variable on another  | 2     | CO1 |

|  |  |       |     |
|--|--|-------|-----|
|  | b) To describe and analyze the characteristics of a phenomenon or population<br>c) To gain insights into an unfamiliar problem or phenomenon, generating hypotheses for future studies<br>d) To validate established theories and test existing hypotheses in real-world settings  |       |     |
| Q 6  | If a researcher observes customer behavior in a store and then develops a general theory about shopping habits, this is an example of:<br>a) deductive reasoning<br>b) inductive reasoning<br>c) abductive reasoning<br>d) experimental reasoning  | 2     | CO1 |
| Q 7  | The main purpose of a pilot study in research design is to:<br>a) Complete the main research<br>b) Finalize the hypothesis<br>c) Pre-test the questionnaire or method<br>d) Reject alternative theories  | 2     | CO1 |
| Q 8  | A researcher wishes to assess the impact of new leadership training programs on employee productivity. Which research design is MOST appropriate?<br>a) Descriptive research design<br>b) Experimental research design<br>c) Correlational research design<br>d) Case study design   | 2     | CO1 |
| Q 9  | A researcher uses stratified random sampling to ensure representation across income levels. Which of the following is a critical condition for this method to be effective?<br>a) Each stratum must contain equal number of units<br>b) The strata should be homogeneous within and heterogeneous between<br>c) All strata must have proportional sampling rates<br>d) The population must be normally distributed | 2     | CO1 |
| Q 10                                       | A scale presents bipolar adjectives (e.g., "Expensive – Inexpensive") and asks respondents to rate a brand by placing a mark between the ends. This is a:<br>a) Likert Scale<br>b) Semantic Differential Scale<br>c) Stapel Scale<br>d) Constant Sum Scale   | 2     | CO1 |
| <b>SECTION B</b><br><b>4Qx5M= 20 Marks</b> |  |       |     |
| Q  | Statement of question  | Marks | CO  |
| Q 11                                       | How is fundamental research different from applied research in terms of purpose and outcomes?  | 5     | CO2 |
| Q 12                                       | Explain the concept of stratified sampling. What are the steps involved, and when is this method preferred over simple random sampling?  | 5     | CO2 |
| Q 13                                       | In Business Research Methodology, the statement "There is no such thing as a failed experiment, only experiments with unexpected outcomes"   | 5     | CO2 |

|                              |  |             |             |              |                |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
|------------------------------|--|-------------|-------------|--------------|----------------|-------------|----------------|--|--|--|--|--|--|------|-------|--------|-------|----------|------|----------------|------|------|------|---------|------|--------|-------|--------|-------|----------|------|------|------|------|------|------|------|--------------------|------|------|-------|----------|------|-----------------|-------|-------|--------|--------------|------|----------|-------|-------|------|-------|------|----------|------|-------|-------|------|------|-------|-------|-------|-------|----------|------|---------|-------|--------|-------|----------|------|---------|-------|--------|-------|----------|------|-----|--------|---------|--------|-----------|-------|-------|------|------|------|------|------|----|-----|
|                              | highlights the value of all research results. Explain how experiments, even with unexpected outcomes, contribute to refining hypotheses and advancing business research. Provide examples to support your explanation.   |             |             |              |                |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
| Q 14                         | Select a real-life case of ethical failure in business research. Analyze what went wrong, why it was unethical, and what consequences followed for the company and stakeholders.   | 5           | CO2         |              |                |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
| SECTION-C<br>3Qx10M=30 Marks |  |             |             |              |                |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
| Q                            | Statement of question  | Marks       | CO          |              |                |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
| Q 15                         | <table><tr><td></td><td>Age</td><td>Height (cm)</td><td>Weight (kg)</td><td>Income (Rs)</td><td>Hours of Sleep</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Mean</td><td>33.67</td><td>170.11</td><td>74.44</td><td>47444.44</td><td>6.89</td></tr><tr><td>Standard Error</td><td>3.05</td><td>2.33</td><td>3.52</td><td>4216.74</td><td>0.40</td></tr><tr><td>Median</td><td>31.00</td><td>170.00</td><td>75.00</td><td>45000.00</td><td>7.00</td></tr><tr><td>Mode</td><td>#N/A</td><td>#N/A</td><td>#N/A</td><td>#N/A</td><td>7.00</td></tr><tr><td>Standard Deviation</td><td>9.15</td><td>6.99</td><td>10.55</td><td>12650.21</td><td>1.19</td></tr><tr><td>Sample Variance</td><td>83.75</td><td>48.86</td><td>111.28</td><td>160027777.78</td><td>1.42</td></tr><tr><td>Kurtosis</td><td>-0.31</td><td>-1.25</td><td>0.26</td><td>-0.31</td><td>0.12</td></tr><tr><td>Skewness</td><td>0.75</td><td>-0.05</td><td>-0.43</td><td>0.48</td><td>0.27</td></tr><tr><td>Range</td><td>28.00</td><td>20.00</td><td>35.00</td><td>40000.00</td><td>4.00</td></tr><tr><td>Minimum</td><td>22.00</td><td>160.00</td><td>55.00</td><td>30000.00</td><td>5.00</td></tr><tr><td>Maximum</td><td>50.00</td><td>180.00</td><td>90.00</td><td>70000.00</td><td>9.00</td></tr><tr><td>Sum</td><td>303.00</td><td>1531.00</td><td>670.00</td><td>427000.00</td><td>62.00</td></tr><tr><td>Count</td><td>9.00</td><td>9.00</td><td>9.00</td><td>9.00</td><td>9.00</td></tr></table> <p>a) Analyze the distribution of height and weight to determine symmetry. (4 marks)</p> <p>b) Interpret the standard deviation of sleep hours to evaluate consistency in sleep patterns. (3 marks)</p> <p>c) Assess the normality of age distribution using skewness and kurtosis measures. (3 marks)</p> |             | Age         | Height (cm)  | Weight (kg)    | Income (Rs) | Hours of Sleep |  |  |  |  |  |  | Mean | 33.67 | 170.11 | 74.44 | 47444.44 | 6.89 | Standard Error | 3.05 | 2.33 | 3.52 | 4216.74 | 0.40 | Median | 31.00 | 170.00 | 75.00 | 45000.00 | 7.00 | Mode | #N/A | #N/A | #N/A | #N/A | 7.00 | Standard Deviation | 9.15 | 6.99 | 10.55 | 12650.21 | 1.19 | Sample Variance | 83.75 | 48.86 | 111.28 | 160027777.78 | 1.42 | Kurtosis | -0.31 | -1.25 | 0.26 | -0.31 | 0.12 | Skewness | 0.75 | -0.05 | -0.43 | 0.48 | 0.27 | Range | 28.00 | 20.00 | 35.00 | 40000.00 | 4.00 | Minimum | 22.00 | 160.00 | 55.00 | 30000.00 | 5.00 | Maximum | 50.00 | 180.00 | 90.00 | 70000.00 | 9.00 | Sum | 303.00 | 1531.00 | 670.00 | 427000.00 | 62.00 | Count | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 10 | CO3 |
|                              | Age  | Height (cm) | Weight (kg) | Income (Rs)  | Hours of Sleep |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
|                              |  |             |             |              |                |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
| Mean                         | 33.67  | 170.11      | 74.44       | 47444.44     | 6.89           |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
| Standard Error               | 3.05   | 2.33        | 3.52        | 4216.74      | 0.40           |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
| Median                       | 31.00  | 170.00      | 75.00       | 45000.00     | 7.00           |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
| Mode                         | #N/A   | #N/A        | #N/A        | #N/A         | 7.00           |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
| Standard Deviation           | 9.15   | 6.99        | 10.55       | 12650.21     | 1.19           |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
| Sample Variance              | 83.75  | 48.86       | 111.28      | 160027777.78 | 1.42           |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
| Kurtosis                     | -0.31  | -1.25       | 0.26        | -0.31        | 0.12           |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
| Skewness                     | 0.75   | -0.05       | -0.43       | 0.48         | 0.27           |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
| Range                        | 28.00  | 20.00       | 35.00       | 40000.00     | 4.00           |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
| Minimum                      | 22.00  | 160.00      | 55.00       | 30000.00     | 5.00           |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
| Maximum                      | 50.00  | 180.00      | 90.00       | 70000.00     | 9.00           |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
| Sum                          | 303.00   | 1531.00     | 670.00      | 427000.00    | 62.00          |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
| Count                        | 9.00   | 9.00        | 9.00        | 9.00         | 9.00           |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |
| Q 16                         | You are conducting market research for a new product launch in urban India. Apply the key steps of the sampling process to design an effective sampling strategy for this study.   | 10          | CO3         |              |                |             |                |  |  |  |  |  |  |      |       |        |       |          |      |                |      |      |      |         |      |        |       |        |       |          |      |      |      |      |      |      |      |                    |      |      |       |          |      |                 |       |       |        |              |      |          |       |       |      |       |      |          |      |       |       |      |      |       |       |       |       |          |      |         |       |        |       |          |      |         |       |        |       |          |      |     |        |         |        |           |       |       |      |      |      |      |      |    |     |

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|--|---|-------|-----|
| Q 17   | <p>Imagine the Reserve Bank of India (RBI) is conducting a research study to assess the public's trust and satisfaction with the country's banking system, particularly focusing on digital banking services. They want to observe how customers use banking apps and interact with online banking services, and also gather insights into their attitudes, motivations, and expectations regarding the safety, convenience, and user experience of these services through surveys.</p> <p>Identify where the RBI can use observation and where they can use communication approach for data collection. Explain why each method is suitable for the given situation and how each contributes to gaining a deeper understanding of customer satisfaction with digital banking services.</p>   | 10    | CO3 |
| <p align="center"><b>SECTION-D</b><br/><b>2Qx15M= 30 Marks</b></p> |   |       |     |
| Q  | Statement of question   | Marks | CO  |
| Q 18   | <p>With the growing popularity of online education, many business schools have transitioned to digital platforms for their MBA programs. The school administration is keen to understand how online learning affects students' academic performance compared to traditional classroom-based learning. The research aims to analyze various factors such as student engagement, technology accessibility, learning preferences, and the overall impact on grades.</p> <p>The school intends to gather insights into whether online learning platforms enhance or hinder academic performance, and which aspects of online learning are most impactful.</p> <p>Research Questions:</p> <ol style="list-style-type: none"> <li>Does online learning improve MBA students' academic performance compared to traditional classroom-based learning?</li> <li>What factors influence students' engagement and performance in online learning environments?</li> <li>Do students feel that online learning is as effective as in-person learning?</li> <li>What are the challenges that students face when studying online, and how do they impact their academic success?</li> </ol> <p>a) What research design would you recommend for this study: descriptive, exploratory, or causal? Explain why this design would best meet the research objectives. (8 marks)</p> <p>b) Which data collection method will be appropriate in this case? Justify (7 marks)</p> | 15    | CO4 |
| Q 19   | <p>A supermarket chain wants to investigate the desirability of adding a new product to the shelf, if and only if minimum 100 units are sold per week in each store. To that end the supermarket chains collects a random sample of 10 stores and handed over the data to the research team. The research team presented the following output at 5% level of significance.</p>  | 15    | CO4 |

|       | N                | Mean  | Std. Deviation     | Std. Error Mean |                          |       |
|-------|------------------|-------|--------------------|-----------------|--------------------------|-------|
| Sales | 10               | 109.4 | 14.393             | 5.551           |                          |       |
|       | Test Value = 100 |       |                    |                 |                          |       |
|       | t                | df    | Sig. (2 tail test) | Mean Difference | 95% CI of the difference |       |
|       |                  |       |                    |                 | Lower                    | Upper |
| Sales | 2.065            | 9     | 0.069              | 9.4             | -0.9                     | 19.7  |

- Explain the key steps involved in hypothesis testing. Apply these steps to the supermarket case. (7 marks)
- From a business perspective, should the supermarket proceed with adding the product based on this analysis? Justify your answer with reference to both statistical and practical significance. (4 marks)
- What additional data or analysis would help the company make a more confident decision? Suggest one improvement or follow-up test. (4 marks)