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**JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA**

**PGDM**

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

**END-TERM EXAMINATIONS, April 2025**

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| --- | --- | --- | --- |
| Course Name | Business Research Methods | Course Code | 20503 |
| 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**

A researcher wants to investigate if the average Body Mass Index (BMI) differs significantly among players from three professional sports leagues: the English Premier League (EPL), the National Hockey League (NHL), and the National Basketball Association (NBA). To do this, they randomly selected 12 players from each league and recorded their BMI. Using the appropriate test, determine if there is a statistically significant difference in the mean BMI among the three leagues. The data is presented as follows. **(6 marks)**

|  |  |  |
| --- | --- | --- |
| **EPL** | **NHL** | **NBA** |
| 23.1 | 27.1 | 25.5 |
| 22.8 | 26.5 | 26 |
| 24.3 | 28.3 | 25.8 |
| 25 | 27.8 | 25.3 |
| 23.5 | 27 | 26.4 |
| 24.1 | 26.9 | 25.9 |
| 22.9 | 28.1 | 26.2 |
| 23.7 | 27.3 | 25.7 |
| 24 | 27.5 | 25.6 |
| 23.8 | 26.8 | 26.1 |
| 24.2 | 27.2 | 25.4 |
| 23.6 | 28 | 26.3 |

**Q. No.2:**

A restaurant chain wants to improve its online food ordering experience. To do this, they survey customers about: Their computer skills Beginner (1), Advanced (2)

Their preferred method of ordering food from mobile app (1), Phone Call (2), Walk-in Pickup

Use an appropriate test to determine how does an individual’s computer skills influences their Preferred Method of ordering food following steps of hypothesis testing **(6 marks)**

|  |  |
| --- | --- |
| Rating of computer Skills | Preferred Method of ordering food |
| 1 | 1 |
| 1 | 1 |
| 2 | 1 |
| 2 | 3 |
| 2 | 1 |
| 2 | 3 |
| 2 | 3 |
| 2 | 1 |
| 1 | 1 |
| 1 | 2 |
| 2 | 1 |
| 1 | 2 |
| 1 | 1 |
| 1 | 1 |
| 2 | 1 |
| 2 | 1 |
| 1 | 3 |
| 2 | 1 |
| 2 | 3 |
| 1 | 2 |
| 2 | 1 |
| 1 | 1 |
| 2 | 2 |
| 2 | 1 |
| 1 | 1 |
| 1 | 2 |
| 2 | 2 |
| 2 | 2 |
| 2 | 1 |
| 2 | 1 |
| 2 | 3 |
| 2 | 3 |
| 1 | 1 |
| 2 | 1 |
| 1 | 3 |
| 1 | 1 |
| 2 | 1 |
| 1 | 1 |
| 2 | 2 |
| 2 | 3 |
| 2 | 1 |
| 2 | 1 |
| 2 | 2 |
| 2 | 2 |
| 1 | 2 |
| 2 | 2 |
| 1 | 2 |
| 1 | 1 |
| 1 | 2 |
| 2 | 1 |
| 1 | 2 |

**Q. No. 3**

With the rise in online food delivery services, businesses are keen to understand what shapes consumer attitudes toward using apps for ordering meals. A researcher wants to investigate how three psychological and behavioral factors — perceived convenience, technology-related anxiety, and the desire for human interaction — influence a customer’s overall attitude toward online food ordering. To explore this, a survey is conducted among 30 participants, each asked to rate their agreement with several statements on a 5-point Likert scale

|  |  |  |  |
| --- | --- | --- | --- |
| **Convenience** | **Tech Anxiety** | **Need for human int.** | **Behavioural Intention** |
| 3.7 | 3.33 | 3.25 | 3.5 |
| 4.1 | 2 | 2.75 | 4 |
| 5 | 5 | 5 | 5 |
| 3.66 | 4 | 3.5 | 4 |
| 3.9 | 4 | 3.75 | 3.75 |
| 3.9 | 4 | 4 | 4.5 |
| 4.6 | 2 | 3.75 | 4.75 |
| 4.2 | 4.33 | 4 | 4 |
| 3 | 3 | 3 | 3 |
| 4.4 | 3.33 | 3.25 | 4.25 |
| 4 | 3 | 2.25 | 3.25 |
| 3.8 | 4.33 | 3.75 | 3.5 |
| 3.5 | 2.67 | 2 | 4 |
| 4.3 | 3.33 | 2.5 | 4 |
| 5 | 2.33 | 3.5 | 4.5 |
| 3.4 | 2.67 | 3 | 3 |
| 4 | 4 | 4 | 4 |
| 4.1 | 3.67 | 4.75 | 4.75 |
| 5 | 3.67 | 2.25 | 5 |
| 4 | 4 | 4 | 4 |
| 4.4 | 3.67 | 2 | 4.5 |
| 3.6 | 2.33 | 3.75 | 2.5 |
| 4.4 | 2.33 | 2.5 | 3.5 |
| 4.7 | 4.33 | 3.5 | 4.5 |
| 4.3 | 3 | 2.5 | 5 |
| 3.7 | 3.67 | 2.5 | 3.75 |
| 4.3 | 2.67 | 2.25 | 4 |
| 5 | 3.67 | 1 | 5 |
| 4.6 | 3 | 2.75 | 5 |
| 3.8 | 2.67 | 2.75 | 4.25 |

1. Conduct an appropriate test to determine whether Convenience, Technological Anxiety and Need for Human Interaction influence customer behavioural intention towards online food ordering, following steps of hypothesis testing**. (7 marks)**
2. If the company improves convenience from 3.66 to 4.25 and reduces technical anxiety from 4 to 2 (keeping other factors constant), what is the expected value of behavioural intention**? (3 marks)**

**Q. No. 4**

A mid-sized regional bank has recently noticed a decline in the number of young adults (ages 18–30) opening savings or investment accounts. Internal reports show that while this age group engages frequently with the bank’s mobile app, they rarely take steps to commit to long-term financial products like fixed deposits, mutual funds, or retirement savings plans.The marketing team is unsure whether this hesitation stems from a lack of financial knowledge, a distrust of traditional banking systems, or a preference for newer fintech platforms. The leadership is concerned and wants to understand why young adults are disengaging with traditional financial products—and what the bank can do to reverse this trend.

1. Identify and explain the research design for the dilemma mentioned above. **(4 marks)**
2. Construct the hypothesis relevant to the framework. **(2 marks)**

**Q. No. 5**

1. Identify and explain the sampling technique **(6 marks)**
2. A researcher studying financial habits of crypto investors starts by interviewing a few known investors, who then refers others in their network.
3. To study customer satisfaction across retail stores, a company randomly selects 5 branches out of 50 and surveys all customers at those locations.
4. To analyze commuter behavior, a city planner selects every 5th person who enters the main metro station during peak hours.
5. Construct and explain the scale for the following **(6 marks)**
6. Type of smartphone used
7. To measure students' attitudes toward online learning.
8. A study measures how many hours per day respondents spend on Instagram.