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**JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA**

**PGDM (Sec-MB)**

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

|  |  |  |  |
| --- | --- | --- | --- |
| Course Name | **Business Research Methods** | Course Code | **20503** |
| Max. Time | **2 hours** | Max. Marks | **40 MM** |

**INSTRUCTIONS:**

1. All questions are compulsory.

**Q. No. 1** BYJUs is evaluating whether to get into hobby classes for 4-8 year old kids, if there is a need for hobby classes and to what extent. They also want to understand if the preferences towards hobby classes have any linkage with the children’s age, gender, interests, location, parents’ income and parents' education. To address this concern, BYJUs wants to conduct a PAN India consumer research.

1. Which research design(s) and method would be most appropriate for BYJUs. Justify with an argument **(2 Marks)**
2. State any two 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)**

a. The list of employees in a company is arranged by their Employee ID. The first employee is selected randomly and then every 8th member is selected thereafter, in the sample (2)

b. A study was to be conducted amongst the covid-vaccinated Indians. The list of vaccinated people was obtained from the Aarogya Setu app and respondents were selected from that list, without any criteria, ensuring each and every person has an equal chance of being selected (2)

c. A Consultancy had hired people working in various industries. Now they wanted to conduct a research on these new recruits. All new recruits were divided into six groups based on the industry they were coming from – software, banking, telecom, insurance, consultancy, entertainment. Then, random samples were taken from each of these six groups based on their representation in the total population of new recruits. (2)

d. A study involved the opinion of senior section students in a school. It was decided to instead choose a sample of class monitors than all the students; based on the rationale that monitors will be able to express the students' mindset better(2)

**Q. No. 3** Identify the problem in the following questions. Then make the necessary corrections

 and rewrite the correct questions clearly: **(2\*5 = 10 marks)**

1. Please list the names of all the snack food products (biscuits, cookies, chips, etc.) brands and sizes that you usually buy from Big Bazaar
2. How many grams of sugar do you consume in a day?
3. How happy are you with the taste, delivery and packaging of your food order from Zomato?
4. Do you think that the economic growth this year has been sufficient/adequate in the country?
5. Are you happy when you get a promotion and your Team Leader praises you?

**Q. No. 4**

A B-school wants to test whether the aptitude for Statistics is different among the two sections of PGDM course. The B-school conducts a quiz on Statistics among a sample of 10 students from each of the two sections: Section MA – 1, Section MB – 2

The results of the marks out of 10, in the two sections, are presented below.

**(8 marks)**

|  |  |
| --- | --- |
| **Marks** | **Section** |
| 8 | 1 |
| 9 | 1 |
| 8 | 1 |
| 3 | 1 |
| 1 | 1 |
| 6 | 1 |
| 7 | 1 |
| 5 | 1 |
| 6 | 1 |
| 4 | 1 |
| 9 | 2 |
| 6 | 2 |
| 1 | 2 |
| 8 | 2 |
| 5 | 2 |
| 4 | 2 |
| 7 | 2 |
| 3 | 2 |
| 8 | 2 |
| 9 | 2 |

1. State the null and alternate hypothesis in this study? (2)

2. Identify the test you will choose to check for this hypothesis and why? (2)

3. Run the test on SPPS and interpret the findings of the results at 5% level of significance (4)

**Q. No. 5**

Shoppers Stop would like to build a regression model consisting of five or six independent variables to predict its sales in these various cities. Data has been collected from 15 major Indian cities - on the following variables - Sales (in Cr.), Customers (in hundreds), No. of promotional offers offered by Shoppers Stop in past six months, No. of salesman in the stores, Average Customer satisfaction in the city on a 5-point scale (1=highly dissatisfied, 5=highly satisfied), No. of physical stores in the city. The data has been presented below: **(8 Marks)**

**Data:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Sales** | **Customers** | **Promotional offers given in past 6 months** | **Average Customer Satisfaction Ratings** | **No. of physical stores in the city** | **No. of Salesman in the stores** |  |
|  | 500000 | 25 | 1 | 5 | 2 | 6 |  |
|  | 6000000 | 150 | 12 | 4 | 5 | 30 |  |
|  | 2000000 | 45 | 5 | 7 | 2 | 15 |  |
|  | 1100000 | 30 | 2 | 3 | 2 | 10 |  |
|  | 4500000 | 75 | 12 | 5 | 4 | 20 |  |
|  | 600000 | 10 | 3 | 7 | 3 | 8 |  |
|  | 1500000 | 29 | 5 | 4 | 5 | 18 |  |
|  | 2200000 | 43 | 7 | 6 | 6 | 16 |  |
|  | 2900000 | 70 | 4 | 6 | 5 | 15 |  |
|  | 300000 | 40 | 1 | 5 | 2 | 6 |  |
|  | 1600000 | 40 | 4 | 4 | 2 | 11 |  |
|  | 800000 | 25 | 2 | 4 | 3 | 9 |  |
|  | 1800000 | 32 | 7 | 5 | 4 | 14 |  |
|  | 2300000 | 73 | 10 | 4 | 3 | 10 |  |
|  | 8100000 | 150 | 15 | 7 | 7 | 35 |  |

Identify the independent and dependent variables. Build a regression model, run the model on SPSS and interpret the results.

* 1. Recommend whether or not this model is a good fit (4)
	2. Advise the company on which variables to focus on (4)