

**JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA**

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

**THIRD TRIMESTER (Batch 21-23)**

**END-TERM EXAMINATIONS, APRIL 2022**

**Set-3**

Course Name	Business Research Methods	Course Code	OM 301
Max. Time	<b>2 hours</b>	Max. Marks	<b>40 Marks</b>

**INSTRUCTIONS:**

1. Attempt all questions, marks are indicated after each question
2. Attempt question as per sequence & marks correct question number
3. Overall Permissible Plagiarism is 10%,
4. Marks will be deducted if the Plagiarism is above the permissible limit. The Penalty Clause is: 11-20% - Minus 5 Marks, above 20% - Reappear.

1- Fad diets are plans sold as the best and fastest approach to losing weight. The majority of them restrict a few nutrients from being included in the meal plan. They have been criticized for health risks and low sustainability. A random sample of responders is chosen to test the effectiveness of a fad diet on weight loss and health parameters (like cholesterol etc.). These respondents are randomly assigned to one of two groups, each with an equal number of members: Group A, which receives this diet, and Group B, which does not. Group A is allowed to consume the regularly scheduled fad diet, without physical activity. For three months, in a controlled experiment, the members of both groups are weighed on a weekly basis and assessed for health risks.

(i) Discuss the objectives of the experiment. (3)

(ii) Identify dependent variable(s) and independent variable(s) (2)

2-Explain the scale that you would use and justify your choice of scale. (2\*5)

- a. Month of your birthday
- b. Exam grades (A, B, C, D)
- c. Satisfaction from customer service on a scale of 1-5
- d. Number of airport terminals in an airport
- e. The order that runners cross the finish line.

3-Using the SPSS dataset, answer the following:

(8)

- a. Experts of an accreditation committee were interested in determining if the salary of graduates of a Management Institute was significantly different than the national U.S. annual average income of \$30,000. To test this assumption, an arbitrator draws a random sample of 28 working graduates and asks each to report his or her annual income. Assuming the normal distribution of annual income, at a 5% level of significance, can it be inferred that the experts of the accreditation body are correct. Frame the suitable hypotheses and conduct the appropriate test
  - b. Is the SAT scores obtained by the students related to the number of assignments attempted and the number of hours of study for the test? Analyze the following data and answer the following questions.
    - i. Frame the hypotheses. (2.5)
    - ii. Interpret R Square. (2)
    - iii. Construct the estimating equation. (2.5)
    - iv. Predict the SAT scores obtained by a student who has attempted 3 assignments and studied for 18 hours for the exam preparation. (2.5)
- 4 Critically examine and explain the sampling scheme as per the situation given below (2.5\*3)
- i. Conducting a study on the homeless in society, where there is no contact information.
  - ii. A reporter asks 100 people "who are willing to answer" on the street what they think of the current practice of Freebies allurements by political parties.
  - iii. A cigarette company wants to find out what age group prefers what brand of cigarettes in a particular city. The city was divided into different sectors. The surveyor has conveniently selected 100 respondents from each sector. From this information, the researcher gauges the smoking trend among the population of the city.