

Reg. No.

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MBAH 454

Second Semester M.B.A. Degree Examination, October/November 2022
(Regular and Repeater)
BUSINESS ADMINISTRATION
Business Research Methods

Time : 3 Hours

Max. Marks : 70

SECTION – A

Answer **any two** questions. **Each** question carries **10** marks. Answer to the question should **not** exceed **5** pages. **(2×10=20)**

1. Describe the steps involved in formulating research problem.
2. Elucidate the suitability of different sources of data in business research.
3. Discuss the commonly used non-probability sampling methods and its suitability in business research.

SECTION – B

Answer **any three** questions. **Each** question carries **12** marks. Answer to the question should **not** exceed **6** pages. **(3×12=36)**

4. Explain the types of qualitative research methods with examples.
5. Describe the format of a business research report.
6. For some computers, the time period between charges of the battery is normally distributed with a mean of 50 hours and a standard deviation of 15 hours. Mr. X has one of these computers and needs to know the probability that :
 - a) The time period will be between 50 and 70 hours.
 - b) The time period will be less than 40 hours.
 - c) What time period marks the shortest 70% of all charging ?
7. You have obtained the data of number of years of education from one random sample of 38 police officers from City A and the number of years of education from a second random sample of 30 police officers from City B. The average years of education for the sample from City A are 15 years with a standard deviation of 2 years. The average years of education for the sample from City B are 14 years with a standard deviation of 2.5 years. Is there a statistically significant difference between the education levels of police officers in City A and City B ? Test it at 5 percent level of significance.

P.T.O.



8. A major food manufacturer is concerned that the sales for its skinny French fries have been decreasing. As a part of a feasibility study, the company conducts research into the types of fries sold across the country to determine if the type of fries sold is independent of the area of the country. The results of the study are shown in table. Conduct appropriate test at 5 percent level of significance.

| Type of Fries | Northeast | South | Central | West |
|---------------|-----------|-------|---------|------|
| Skinny fries | 70 | 50 | 20 | 25 |
| Curly fries | 100 | 60 | 15 | 30 |
| Steak fries | 20 | 40 | 10 | 10 |

The math teacher wants to determine the effectiveness of her statistics lesson and gives a pre-test and a post-test to 9 students in her class. Test whether the lesson had an effect on student achievement at 5 percent level of significance.

SECTION – C

Answer to the question should **not** exceed 6 pages. (1×14=14)

9. Information about the current state of a complex industrial process is displayed on a control panel which is monitored by a technician. In order to find the best display for the instruments on the control panel, three different arrangements were tested by stimulating an emergency and observing the reaction times of five different technicians. The results, in seconds, are given below :

| Arrangement | Technician | | | | |
|-------------|------------|-----|-----|-----|-----|
| | P | Q | R | S | T |
| A | 2.4 | 3.3 | 1.9 | 3.6 | 2.7 |
| B | 3.7 | 3.2 | 2.7 | 3.9 | 4.4 |
| C | 4.2 | 4.6 | 3.9 | 3.8 | 4.5 |

Test for difference between technicians and between arrangements at 5 percent level of significance.