K. J. SOMAIYA INSTITUTE OF MANAGEMENT STUDIES AND RESEARCH

MIM - III SEM. (2018-21BATCH)

Business Research Method

Date : 18/11/2019   **Time: 3 hours**   **Maximum Marks: 50**

Candidate should read carefully the instructions printed on the question paper and on cover of the answer book, which is provided for their use.

a) **Question no 1 and 8 are compulsory.**
b) From Question no 2 to 7 attempt any four questions
c) **Overall attempt 6 questions (including question no 1 and 8)**
d) Q no 1 is of 8 marks, 2 to 6 carry 8 marks each and Q no 8 is of 10 marks (Total = 8+32+10 = 50)
e) Students can use simple calculators. Scientific calculator or mobile phone calculators will not be allowed.
f) Statistical tables will **not** be provided during exam. Where ever required table-values have been given at the end of question paper or students can assume the value.

1. (**Compulsory**) Check whether following statements are true or false. If it is true write 'A' against question no, else write 'B' against questions no. Do not rewrite statement on the answer sheet. **You will lose marks if statement is rewritten. Any scribbling or rewriting is not allowed, you will lose marks.**

   i.   Creativity of any research work lies in skill and synthesis in comparison to story writing.

   ii.   With paradigm shift, many theories based on one theory may change.

   iii.   A good research should always be for self-enlightenment.

   iv.   Deductive reasoning strictly follows – observations, pattern, hypotheses and theory path.

   v.   Applied research needs exhaustive study of literature review.

   vi.   A well written profile of a company can be termed as case of company.

   vii.   Theory is framed only after validating alternative hypotheses.

   viii. Astrology is based on inductive reasoning.

   2.

         a. Explain the term 'experimental research'. (3)

         b. A survey was conducted on a population of 100 persons. Five questions were asked on Likert scale which were coded from 1 to 5. Table below shows calculations of Z on normal distribution with SD (Standard Deviation, and **Standard error is not required**). Interpret the results for all 5 questions at 95% confidence level. You need

not calculate anything. Generalise and write your conclusions. (5)

	Mean	SD	Z
I like Mumbai culture	3.91	1.38	0.66
I like Mumbai Roads	-4.57	0.95	-1.65
I like sea shores	4.57	0.70	2.24
I like to stand outside actors' houses	-4.81	0.59	-3.56
Mumbai has given me chance for freedom of speech	4.86	0.35	5.31

3.

a. A research scholar has to work as a judge and derive the truth and not as an advocate who is only eager to prove his case in favour of his plaintiff." Discuss. (3)

b. Though Primary data has many benefits over secondary data yet there are many problems in gathering Primary data. Explain the benefits of secondary data over Primary data. (5)

4.

a. Differentiate between parameter and statistics (3)

b. To test difference between consumption performance of two different types of vehicles, following results were obtained.

Vehicle Brand	Sample Size	Mean mileage	Standard Deviation
I	125	25	4
II	150	30	8

Test at 0.10 level of significance, Interpret the result. (5)

5.

a. Explain the terms descriptive validity and interpretive validity. (3)

b. Calculate sample size with 90% confidence level and 5% error. And also calculate error if sample size is 144 and confidence level is 95% (5)

6.

a. Explain briefly the relationship between Z and χ^2 (You can explain with formulas) (3)

b. ABC company managers say their product brand was liked by 30% last year, however when 200 persons were surveyed 70 persons liked the brand of the

company. Test at 5% significance level whether brand liking has increased? (5)

7. A two way ANOVA was conducted on three category of students having admission in MBBS, BSC, B.Bom, BA, BE, and BCA. Following results were obtained. Explain the terms in bold and interpret results. (8)

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Courses	339.611	5	67.922	**4.357**	0.023	3.325
Category of students	24.111	2	12.055	**0.773**	0.487	4.103
Error	155.888	10	15.588			
Total	519.611	17				

8. **(Compulsory)**

   a. Explain the criteria of a good research report. (5)

   b. Explain the meaning of each and every term in the following equation with relevant explanations of tests. Figure in bracket is t stat for b. (5)

$$Expenditure = 400 + 0.85*Income + e$$

$$(3.15)$$

$$N = 60, R^2 = 0.38, \ F = 9.93 \ Critical \ F = 4.01$$

Statistical table values:, $t_{0.5}$, 3 DF = 3.182, $t_{0.5, 5\ df}$ = 2.57, $F_{0.5, 3,8}$ = 4.0662, F 0.5, 2DF, 12DF = 3.88, Z = 1.96 for Prob 0.475, Z = 1.65 for Prob = 0.45, Z = 2.33 for prob = 0.49, Z = 2.58 for Prob = 0.495, $\chi^2_{0.5, 1df}$ = $\chi^2_{0.5, 1df}$ = 3.84146, χ^2 0.5, 2df = 5.991, $\chi^2_{0.5, 3df}$ = 7.8147, $\chi^2_{0.5, 4df}$ = 9.4877, If Z = 1, Prob = 0.3413, If Z = 2, Prob = 0.4772