F-3128	Sub. Code
	7PMG1C1

M.Phil. DEGREE EXAMINATION, NOVEMBER 2019

First Semester

Management

BUSINESS RESEARCH METHODS

(CBCS – 2017 onwards)

Time : 3 Hours   Maximum : 75 Marks

Part A $(6 \times 3 = 18)$

Answer **all** questions.

1. Define research. Why is it necessary?

2. Mention the purpose of review of literature.

3. Explain the term "non-behavioral observation".

4. Write a short note on "ordinal level of measurement".

5. What is snowball sampling?

6. State the functions of a research report.

Part B $(4 \times 6 = 24)$

Answer any **four** questions,

7. What are the characters of a good hypothesis?

8. Distinguish between pure research and applied research.

9. Discuss the characteristics of good measurement.

10. Explain the factors, which determine the sample size.

11. Briefly discuss the various kind of questions with on example.

12. What is interpretation of data? Discuss its significance.

Part C (3 × 11 = 33)

Answer **all qu**estions, choosing either (a) or (b).

13. (a) Describe the various steps involved in research process

Or

(b) Examine the factors to be considered while selecting a research problem.

14. (a) Elaborate the different types of research designs.

Or

(b) Discuss the various scaling techniques used in social research.

15. (a) "Editing, coding, classification and tabulation are the significant steps in data processing "- Examine this statement critically.

Or

(b) Explain the major steps involved in writing a research report.

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F–3129	Sub. Code
	7PMG1C2

M.Phil. DEGREE EXAMINATION, NOVEMBER 2019

First Semester

Management

TECHNIQUES OF RESEARCH

(CBCS – 2017 onwards)

Time : 3 Hours   Maximum : 75 Marks

Part A $(6 \times 3 = 18)$

Answer **all** questions.

1.   Explain the term classification.

2.   State the different types of table.

3.   What do you understand by the term average in statistics?

4.   What are regression co-efficients?

5.   Mention the important uses of chi-square test.

6.   Write a short note on "Sign test for period data".

Part B $(4 \times 6 = 24)$

Answer any **four** questions.

7.   What are the guiding principles of classification?

8.   Compute median from the following data :

Mid values :	115	125	135	145	155	165	175	185	195
Frequency :	6	25	48	72	116	60	38	22	3

9. From 10 observations on price (x) and supply (y) of a commodity, the following figures were obtained :

$\sum x = 130$, $\sum y = 220$; $\sum x^2 = 2288$; $\sum y^2 = 5506$ and $\sum xy = 3467$.

Compute a line of regression of y on x and estimate the supply when the price is 16.

10. A die is thrown 150 times with the following results :

No. turned up :	1	2	3	4	5	6
Frequency :	19	23	28	17	32	31

Test the hypothesis that the die is unbiased. (Given for degrees of freedom = 5, $\chi^2_{0.05} = 11.07$)

11. In a beauty contest there are two judges who have to rate contestants. The rating have a score from 1 to 5. The scores given by the judges are as follows :

Contestant :	1	2	3	4	5	6	7	8	9	10	11	12
Judge I :	2	1	4	4	3	3	4	2	4	1	3	3
Judge II :	3	2	2	3	4	2	2	1	3	1	3	3

Whether both the judges have rated contestants in a same manner or they differ if the significance level is 0.05?

12. What are the advantages and dis-advantages of non-parametric tests?

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Part C $(3 \times 11 = 33)$

Answer **all** questions.

13. (a) What is tabulation? Discuss the points to be kept in mind while preparing a good statistical table.

Or

(b) Calculate Bowley's co-efficient of skewness for the data given below :

Monthly income (Rs. '000) :	35	45	50	55	60	65	70
No. of workers :	17	19	19	22	20	19	15

14. (a) Calculate the correlation co-efficient from the following data :

X :	9	8	7	6	5	4	3	2	1
Y :	15	16	14	13	11	12	10	8	9

Or

(b) The following table gives the yields on 15 sample fields under three varieties of seeds (vize., A, B and C)

Yields		
A	B	C
5	3	10
6	5	13
8	2	7
1	10	13
5	0	17

Test at 5% level of significance using one-way ANOVA.

(Given for $v_1 = 2$, $v_2 = 12$, $F_{0.05} = 3.88$)

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15. (a) A sample of 400 students of under-graduate and 400 students of post-graduate classes was taken to know their opinion about autonomous colleges. 290 of the under-graduate and 310 of the post-graduate students favoured the autonomous status. Present these facts in the form of a table and test, at 5% level, that the opinion regarding autonomous status of colleges is independent of the level of classes of students. (Table value of chi-square test at 5% level is 3.84 for 1.d.f.)

Or

(b) The nicotine contents of two brands of cigarettes, measured in milligrams, was found to be as follows :

Brand A :	2.1	4.0	6.3	5.4	4.8	3.7	6.1	3.3		
Brand B :	4.1	0.6	3.1	2.5	4.0	6.2	1.6	2.2	1.9	5.4

Using Mann-Whitney U test, test the hypothesis, at the 0.05 level of significance that the average nicotine contents of the two brands are equal against the alternative that they are unequal.

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