Reg. No.......................... 　　　　　　　　Name.....................................

B.COM DEGREE END SEMESTER EXAMINATION MARCH 2017

SEMESTER – 2: COMMERCE (CORE COURSE)

COURSE: **U2CRCOM4: QUANTITATIVE TECHNIQUES FOR BUSINESS RESEARCH**

(Supplementary for 2014 admission)

Time: Three Hours 　　　　　　　　　　　　　　　　　Max. Marks: 75

SECTION A

Answer the following. Each carries 1 mark

1. If r = 0.6 and n=64, find the probable error.

2. Type .... error denotes accepting a false null hypothesis

3. .... is defined as the number of independent observations which is obtained by subtracting

　the number of constraints from the total number of observations.

4. Two events are .... if one of them prevents the occurrence of the other.

5. A------------- is an alphabetical listing of unfair terms with their meaning used in the thesis

6. If the variables move in the opposite direction, there exists .... correlation.

7. A ....is the list containing all the sampling units.

8. In .... correlation analysis, analysis involves more than two variables.

9. .... provides various steps that can be adopted by the researcher in studying his

　research problems.

10. A .... is a research document containing series of questions prepared by the researcher

　to ask the respondents. 　　　　　　　　　　　　　　　(1 x 10 = 10)

SECTION B

Answer **any eight** questions, Each question carries 2 marks

11. What do you mean by law of inertia of large numbers?

12. Distinguish between Type I Error and Type II Error.

13. What is inferential analysis?

14. What is the purpose of including bibliography in a research report?

15. What is line of best fit?

16. Explain multiple regression model.

17. What is critical region?

18. What do you mean by not mutually events?

19. What are the characteristics of Chi-Square test?

20. What is meant by empirical research?   (2 x 8 = 16)

SECTION C

Answer **any five** questions, Each question carries 5 marks

21. What are the properties of Karl Pearson's coefficient of correlation?

22. From the following results, estimate the yield of crops when the rainfall is 22cms and the rainfall when the yield is 600 kgs.

Particulars	Yield in Kgs(Y)	Rainfall in cms(X)
Mean	508.4	26.7
Standard Deviation	36.8	4.6

Coefficient of correlation between yield and rainfall is 0.52.

23. How will you interpret the value of a correlation coefficient?

24. What is sample design? What are the steps in developing a sample design?

25. Test whether the accidents occur uniformly over week days on the basis of the following information.

Days of the week: Sun   Mon   Tue   Wed   Thu   Fri   Sat

No. of accidents :   21   23   24   23   25   24   28

26. Explain different types of report.

27. Regression Coefficient of X on Y is 0.87 and that of Y on X is 0.93. Calculate correlation (r).

                                                      (5 x 5 =25)

SECTION D

Answer **any two** from the following, each question carries 12 marks

28. Calculate the coefficient of correlation for the following data of marks obtained by 10 students in

Hindi and English examinations.

Students	A	B	C	D	E	F	G	H	I	J

Marks in Maths	38	51	50	48	45	43	50	42	46	43
Marks in Physics	33	44	43	44	40	36	38	41	46	48

29. Box A contains 12 green cards and 16 black cards. Box B contains 18 green cards and 8 black cards.

   One card is taken from Box A and put in Box B. Then, a card is taken from Box B. What is the probability that:

   a) Selected cards from Box B is black

   b) Selected cards from Box A is green and from Box B is black

   c) Selected cards from Box A and from Box B are black

30. What do you mean by sampling technique? Explain different types of sampling techniques.

31. Explain conditions for applying Chi-square Test.

$$(12 \times 2 = 24)$$

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