

E 4666



Reg. No.....

Name.....

B.Com. DEGREE (C.B.C.S.S.) EXAMINATION, JULY 2023

Second Semester

Core Course IV—QUANTITATIVE TECHNIQUES FOR BUSINESS RESEARCH

(Common for Model I, Model II and UGC Sponsored B.Com. Degree Programmes)

[2013–2016 Admissions]

Time : Three Hours

Maximum : 80 Marks

Part A (Very Short Answer Type Questions)

Answer all questions.

Each question carries 1 mark.

1. What is expost facto research ?
2. What is meant by null hypothesis ?
3. Define cluster sampling.
4. Define research methodology.
5. What do you mean by conditional probability ?
6. Define the concept of sample space.
7. Define the term correlation.
8. What are the limitations of regression ?
9. Explain the term standard error.
10. What is type I error ?

(10 × 1 = 10)

Part B (Short Answer Type Questions)

Answer any eight questions.

Each question carries 2 marks.

11. Explain the significance of research in modern times.
12. What is historical method of research ?

Turn over





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13. What is multistage sampling ?
14. List the advantages of secondary data.
15. Define the term random experiment.
16. Three dice are thrown, what is the probability of at least one of the numbers turning up being greater than 4 ?
17. Write a notes on regression lines.
18. Explain linear correlation.
19. What is meant by interpretation ?
20. What is a technical report ?
21. What do you mean by 'critical region' ?
22. Distinguish between 'Glossary' and Bibliography.

(8 × 2 = 16)

Part C (Short Essay Type Questions)

Answer any six questions.

Each question carries 4 marks.

23. What are the sources from which a research problem originates ?
24. Explain different forms of hypothesis.
25. Define the term correlation what are the properties of correlation co-efficient.
26. Explain the meaning of mutually exclusive, dependent and independent events.
27. Explain the various contents of a report.
28. If $r = 0.8$ and $N = 81$, find out the probable error of the co-efficient of correlation.
29. In the study of regression equations, following values were obtained, Regression co-efficient of y on $x = 0.25$, $r = 0.42$, S.D. of $y = 4$, find S.D. of x .
30. Five men in a company of 20 are graduates. If 3 men are picked out of 20 at random,, what is the probability that they are all graduates ? What is the probability of at least one graduate ?
31. What is chi-square test ? Explain its significance in statistical analysis.

(6 × 4 = 24)

Part D (Long Essay Type Questions)

Answer any two questions.

Each question carries 15 marks.

32. What is observation method ? What are the merits and demerits of this method.
33. State and explain important statistical tools that are applied in statistical analysis.





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34. Obtain the rank correlation co-efficient for the following data :

x	:	68	64	75	50	64	80	75	40	55	64
y	:	62	58	68	45	81	60	68	48	50	70

35. From the following data of the age of husband and the age of wife, from the two regression equations and calculate the husband's age when the wife's age is 18 :

Husband's age	:	36	23	27	28	28	29	30	31	33	35
Wife's age	:	29	18	20	22	27	21	29	27	29	28

Also find the age of wife when husband's age is 40.

(2 × 15 = 30)

