

C 21475

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Name.....

Reg. No.....

FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION, APRIL 2022

B.Com.

BCM 4C 04—QUANTITATIVE TECHNIQUES FOR BUSINESS

(2019 Admission onwards)

Time : Two Hours and a Half

Maximum : 80 Marks

Section A*Answer at least ten questions.**Each question carries 3 marks.**All questions can be attended.**Overall Ceiling 30.*

1. Define Correlation.
2. What is a dot chart ?
3. What is co-efficient of determination ?
4. What is Regression Analysis ?
5. What is a random experiment ?
6. What is inverse probability ?
7. What is Null hypothesis ?
8. What is multiplication theorem of probability ?
9. Queuing theory deals with mathematical study of queues. It aims at minimizing both servicing and waiting.
10. What is a quantitative technique and what are its functions ?
11. What is probability distribution and what are the classifications ?
12. What is Hypothesis ?
13. In how many ways 3 people are seated on a bench if only two seats are available.
14. A basket contains 10 mangoes. In how many ways 4 mangoes from the basket can be selected.
15. A die is thrown. Find the probability of getting (1) a '4' (2) an even number.

(10 × 3 = 30 marks)

Turn over

Section B

Answer at least **five** questions.

Each question carries 6 marks.

All questions can be attended.

Overall Ceiling 30.

16. What are the functions of quantitative techniques ?
17. Describe the significance of correlation analysis.
18. List the assumptions of Binomial Distribution.
19. For a Binomial Distribution, mean is 6 and Standard Deviation is $\sqrt{2}$. Find the parameters.
20. A ball is drawn from a bag containing 4 white, 6 black and 5 yellow balls. Find the probability that a ball drawn is :— (1) White (2) Yellow (3) Black (4) Not yellow (5) Yellow or white.
21. What are the possible decisions is to accept or reject a null hypothesis ?
22. For a given set of bivariate data, the following results were obtained :
Mean $x = 53.2$, Mean $y = 27.9$, $b_{yx} = -1.5$ and $b_{xy} = -0.2$
Find the most probable value of y when $x = 60$. Also find 'r'.
23. What is a Scatter diagram ? What are its merits ?

(5 × 6 = 30 marks)

Section C

Answer any **two** questions.

Each question carries 10 marks.

24. Describe in detail various programming techniques.
25. What is quantitative technique ? What are the use and limitations of quantitative technique in business and industry ?
26. From the following data, compute Pearson's correlation co-efficient by direct method :

Price	:	10	12	14	15	19
Demand (Qty)	:	40	41	48	60	50

27. Find regression equations x and y and y on x from the following :

X	:	25	30	35	40	45	50	55
Y	:	18	24	30	36	42	48	54

(2 × 10 = 20 marks)