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TB246220O

Reg. No :.....

Name :.....

BACHELOR'S DEGREE (C.B.C.S) EXAMINATION, MARCH 2024

2021 ADMISSIONS REGULAR

SEMESTER VI - CORE COURSE (ECONOMICS)

EC6B11B18 - Quantitative Economics

Time : 3 Hours **Maximum Marks : 80**

Part A

I. Answer any Ten questions. Each question carries 2 marks **(10x2=20)**

1. Define Normal distribution.
2. What do you mean by equally likely events?
3. Define binomial distribution.
4. What is type I error?
5. What is the difference between estimator and estimates ?
6. What are the properties of correlation coefficient?
7. Explain Probable Error.
8. Distinguish between Positive correlation and Negative correlation.
9. Explain the ratio to moving average method.
10. Explain the additive and multiplicative model for the relationship between components in time series.
11. Give the methods for construction of index numbers.
12. What are index numbers?

Part B

II. Answer any Six questions. Each question carries 5 marks **(6x5=30)**

13. Three unbiased coins are tossed. What is the probability of obtaining (1) all head (2) two heads (3) one head (4) at least one head (5) at least two heads?
14. A basket contains 20 bad oranges and 80 good oranges. Three oranges are drawn at random from this basket. Find the probability that of three (1) exactly 2 (2) at least two are good oranges.
15. What is statistical hypothesis?
16. What is the difference between Statistics and parameter?
17. The data given below pertain to the price and demand for a particular commodity over a period of five years. Compute the correlation coefficient between price and demand.

X	7	8	9	6	5
Y	8	6	7	9	10

18. Explain the various methods of measuring Secular Trend.
19. Explain the factors responsible for seasonal variations. Point out the methods of measuring seasonal variations.
20. What are the uses and limitations of Index numbers?

21. From the following data Construct an index for 2012 taking 2011 as base:

Commodity	Price in 2011	Price in 2012
A	50	70
B	40	60
C	80	90
D	110	120
E	20	20

Part C

III. Answer any Two questions. Each question carries 15 marks **(2x15=30)**

22. Fit a normal distribution to the following data.

Marks	No of Students
10-20	4
20-30	22
30-40	48
40-50	66
50-60	40
60-70	16
70-80	4

23. For a sample of 100 laboures from Kerala , the average daily wage is Rs.10.50 with SD Rs.1.50. For a sample of 150 labourers from Tamil Nadu, corresponding figures are Rs.8.00 and Rs.1.00 respectively. Can you conclude that the average wages of workers in Kerala are more than that of workers in Tamil Nadu?

24. Why are there two regression line? Explain the properties of regrssion coefficients. Discuss the importance of studying regression .

25. An enquiry into the budgets of middle class families in cochin city gave the following information

Expenses on	food	Rent	Clothing	Fuel	Miscellaneous
Weightage	35%	15%	20%	10%	20%
Price(2000)	150	30	75	25	40
Price(2002)	145	30	65	23	45

What changes in the cost of living of 2002 as compared with 2000 are seen?