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(Pages : 2)

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Reg. No. : .....

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Second Semester M.Com. Degree Examination, July 2019

Paper III : CO 223 QUANTITATIVE TECHNIQUES AND FINANCIAL ECONOMETRICS

(2018 Admn)

Time : 3 Hours

Max. Marks : 75

PART – A

Answer **all** questions. Each question carries **2** marks.

1. What do you mean by combinatorics?
2. Define white noise.
3. Explain inverse probability.
4. Give the situation where Poisson distribution is assumed.
5. What isVIF?
6. What do you mean by stationary series?
7. Give steps to create histogram in SPSS.
8. What is Ramsey Reset Test?
9. Give a short note on BLUE.
10. Explain adjusted R-squared.

(10 × 2 = 20 Marks)

P.T.O

PART – B

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

11. Explain the significance of correlation analysis.

12. Describe various events used in probability theory.

13. Explain the steps in regression analysis.

14. Briefly describe 7 classical assumptions of OLS regression method.

15. Explain different types of unit root tests.

16. From a pack of cards, three cards are drawn at random. Find the probability that each card is from different suit.

17. Use the data below, showing a summary of highway gas mileage for several observations, to decide if the average highway gas mileage is the same for midsize cars, SUV's, and pickup trucks. Test the appropriate hypotheses at the $\alpha = 0.01$ level.

	n	Mean	Std. Dev.
Midsize	31	25.8	2.56
SUV's	31	22.68	3.67
Pickups	14	21.29	2.76

18. For a certain type of computers, the length of time between charges of the battery is normally distributed with a mean of 50 hours and a standard deviation of 15 hours. John owns one of these computers and wants to know the probability that the length of time will be between 50 and 70 hours.

(5 × 5 = 25 Marks)

PART – C

Answer **any two** of the following questions. Each question carries **15** marks.

19. Write a note on :

(a) Autocorrelation

(b) Multicollinearity

(c) Heteroskedasticity

20. The deals cracked by an agent per day is a random Poisson variable with mean 2. Given that each day is independent of other day, find the probability of getting 2 deals cracked on first day and 1 deal to be cracked the next day.

21. Calculate one-way ANOVA

Group 1	Group 2	Group 3
3	4	9
1	3	7
3	5	8
2	5	11
4	4	9
3		

2. The following scores were worked out from a test in Mathematics and English in an annual examination.

Scores in	Mathematics(x)	English(y)
Mean	39.5	47.5
Standard deviation	10.8	16.8
		r=+0.42

Find both the regression equations. Using these regression estimate find the value of Y for X = 50 and the value of X for Y = 30.

(2 × 15 = 30 Marks)