Reg. No ..... Name **24P361**

M. COM DEGREE END SEMESTER EXAMINATION - OCTOBER 2024

SEMESTER 3 : COMMERCE

COURSE : **21P3COMT15 : ECONOMETRICS FOR FINANCE**

(For Regular 2023 Admission and Supplementary 2022/ 2021 Admissions)

Duration : Three Hours Max. Weights: 30

PART A

Answer any 8 questions **Weight: 1**

1.	What is random walk ?	(U, CO 3)
2.	Distinguish deterministic and stochastic relationship	(U, CO 1)
3.	Define statistical test	(U, CO 1)
4.	What is imperfect multicollinearity?	(U, CO 1)
5.	What are the different types of econometrics?	(U, CO 1)
6.	Define null hypothesis and alternate hypothesis	(U, CO 1)
7.	What is BLUE estimator?	(U, CO 1)
8.	What is econometrics?	(U, CO 1)
9.	Define probability density function of a discrete random variable	(U, CO 1)
10.	Define point estimate and interval estimate.	(U, CO 1)

(1 x 8 = 8)

PART B

Answer any 6 questions **Weights: 2**

11.	Explain multicollinearity using suitable example	(An, CO 4)
12.	What are the uses of econometrics?	(An, CO 1)
13.	Explain briefly the steps in a statistical test procedure	(An, CO 2)
14.	Expenditure of students follows a normal distribution with mean of Rs. 8000 per month and standard deviation of Rs. 2500 per month. Find the following: (a) Probability that the monthly expenditure of a randomly selected student is less than Rs. 6000 (b) Percentage of students whose expenditure is more than Rs. 1000 per month	(A, CO 2)
15.	Calculate the value of R^2 from the following information available in a data sheet: n = 10, $\sum X_i = 596$, $\sum Y_i = 88$, $\sum X_i Y_i = 5325$, $\sum X_i^2 = 35916$, $\sum Y_i^2 = 5900$.	(A)
16.	What is autoregressive model?	(An, CO 3)
17.	What are the steps in framing an econometric model?	(An, CO 1)
18.	What is F-test and how is it performed in ANOVA ?	(An, CO 2)

(2 x 6 = 12)

PART C

Answer any 2 questions **Weights: 5**

19.	A data sheet gives the following information: n = 10, $\sum X_i = 596$, $\sum Y_i = 88$, $\sum X_i Y_i = 5325$, $\sum X_i^2 = 35916$, $\sum Y_i^2 = 5900$. Assuming a classical linear regression model, Obtain the OLS estimates of the parameters of the model and give the ANOVA Table. Give your comments abot the test results.	(A)

20. For a normal distribution, 40% of the observations are less than 4000 and 30% is above 7000. Find the mean and standard deviation of the normal distribution (A, CO 2)

21. Obtain the OLS estimates of the parameters of the model $Yi = b_0 + b_1 X_i + U_i$ and show that they are unbiased. (A)

22. (a) Explain the concept of R^2 and adjusted R^2.
(b) Explain the technique of dummy variable modelling (E, CO 6)

(5 x 2 = 10)

OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.
CO 1			2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 17	13
CO 2			13, 14, 18, 20	11
CO 3			1, 16	3
CO 4			11	2
CO 6			22	5

Cognitive Level (CL): Cr - CREATE; E - EVALUATE; An - ANALYZE; A - APPLY; U - UNDERSTAND; R - REMEMBER;