Reg. No. :
Name :

VI Semester B.A. Degree (CBCSS – OBE – Regular) Examination, April 2022 (2019 Admission)

CORE COURSE IN ECONOMICS/DEVELOPMENT ECONOMICS 6B12 ECO/DEV. ECO: Basic Tools For Economic Analysis – II

Time: 3 Hours

Max. Marks: 40

PART - A

Answer all questions. Each carries one mark:

- 1. Define limit.
- 2. What is slope?
- 3. What is correlation?
- 4. Define regression.
- 5. What is meant by trend?
- 6. What is marginal cost?

(1×6=6)

PART - B

Answer any six questions. Each carries two marks:

- 7. What do you mean by production function?
- 8. Find the rank of the matrix A from its echelon matrix and comment on the question of on singularity

$$A = \begin{vmatrix} 1 & 5 & 1 \\ 0 & 3 & 9 \\ -1 & 0 & 0 \end{vmatrix}$$

P.T.O.

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- 9. What is scatter diagram?
- 10. What is saving function?
- 11. Define moving average.
- 12. What do you mean by index number?
- 13. What is inverse of a matrix?
- 14. What do you mean by time series data?

 $(2 \times 6 = 12)$

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22. Using Cramers rule, solve

$$11p_1 - p_2 - p_3 = 31$$

$$-p_1 + 6p_2 - 2p_3 = 26$$

$$-p_1 - 2p_2 + 7p_3 = 24.$$

23. Calculate Karl Pearson's correlation coefficient for the following data:

v	22	20	18	14	10	7	6	4	1
^	10	40	10	17	10	21	24	26	27
Y	10	12	16	17	19	21	27		

24. Explain various types of Index numbers. Differentiate between Laspyer's and Paasche's index number. (5x2 =10)

PART - C

-2-

Answer any four questions. Each carries three marks :

- 15. What is elasticity of demand? Explain various types of elasticity.
- 16. Describe the relation between correlation and regression coefficients.
- 17. Explain simple linear regression model.
- 18. Explain the idea of time reversal and factor reversal tests.
- 19. Given the total cost function $TC = 3Q^2 + 7Q + 12$, Find MC and AC.
- 20. From the following data fit a regression line of X on Y:

				-		-
X	12	10	8	6	4	2
- /			0	-	1	1
Y	1 10	8	6	0	4	1

(4×3=12

PART - D

Answer any two questions. Each carries five marks :

21. What is Cobb-Douglas production function? Explain the properties of Cobb-Douglas production function.