K23U 0116

Reg. No. : .....

Name : .....

VI Semester B.A. Degree (CBCSS – Supplementary) Examination, April 2023
(2017 to 2018 Admissions)
CORE COURSE IN ECONOMICS/DEVELOPMENT ECONOMICS
6B15 ECO : Basic Econometric Analysis

Time : 3 Hours Max. Marks : 40

PART – A

Answer **all** questions. **Each** question carries **1** mark.

1. Define econometrics.
2. What is stochastic relationship ?
3. Define multiple linear regression.
4. Define heteroscedasticity. **(4×1=4)**

PART – B

Answer **any seven** questions. **Each** question carries **2** marks.

5. Distinguish between econometrics and mathematical economics.
6. What are the limitations of econometrics ?
7. What are the desirable properties of an econometric model ?
8. Explain the meaning of the term linear.
9. Distinguish between population regression function and sample regression function.

P.T.O.

10. What do you mean by normality assumption ?
11. Distinguish between R^2 and adjusted R^2.
12. Briefly explain the restricted least squares.
13. Briefly explain the method of weighted least squares.
14. What are the informal methods of detecting heteroscedasticity ? **(7×2=14)**

PART – C

Answer **any four** questions. **Each** question carries **3** marks.

15. Explain the scope of econometrics.
16. What are the divisions of econometrics ?
17. Describe the statistical testing of regression coefficient.
18. What are the assumptions underlying classical linear regression model ?
19. Explain the testing of equality of two regression coefficients.
20. Describe the causes and consequences of multicollinearity. **(4×3=12)**

PART – D

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

21. Describe the methodology of econometric research.
22. State and prove Gauss-Markov theorem.
23. Describe the OLS estimation in multiple regression analysis.
24. Explain the detection and remedial measures of autocorrelation. **(2×5=10)**

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K23U 0365

Reg. No. : .....

Name : .....

VI Semester B.A. Degree (CBCSS – OBE – Regular/Supplementary/ Improvement) Examination, April 2023
(2019 & 2020 Admissions)
CORE COURSE IN ECONOMICS/DEVELOPMENT ECONOMICS
6B15 ECO/DEV ECO : Basic Econometric Analysis

Time : 3 Hours Max. Marks : 40

PART – A

Answer **all** questions. **Each** question carries **one** mark.

1. Define Econometrics.
2. What do you mean by Error Term ?
3. Give a note on Hypothesis.
4. What is Regression ?
5. Explain Degrees of Freedom.
6. Define level of significance. **(1×6=6)**

PART – B

Answer **any 6** questions. **Each** question carries **two** marks.

7. Explain the uses of Econometrics.
8. What do you mean by Auto Correlation ?
9. Briefly explain the concept of PRF.
10. Distinguish between Time Series and Cross Section Data.
11. Explain the term “Liner in parameters”.

P.T.O.

12. Explain the graphical method for the detection of Heteroscedasticity.

13. Point out its main limitation of Durbin Watson test.

14. What do you mean by Non-linear regression models ? **(2×6=12)**

PART – C

Answer **any 4** questions. **Each** question carries **three** marks.

15. Explain the reasons of Multicollinearity.

16. Briefly explain Goldfeld Quandt test associated with Heteroscedasticity.

17. Explain the significance of coefficient of determination.

18. How we can solve the problem of autocorrelation ?

19. Explain the division of Econometrics.

20. Define Data. Point out the different types of data. **(3×4=12)**

PART – D

Answer **any 2** questions. **Each** question carries **five** marks.

21. Write an essay on the methodology of Econometrics.

22. Explain Cobb-Douglas Production function.

23. Give an account on the main assumptions underlying the method of OLS.

24. Explain BLUE property. **(5×2=10)**

K23U 0115

Reg. No. : .....

Name : .....

VI Semester B.A. Degree (C.B.C.S.S. – Supplementary) Examination, April 2023
(2017 to 2018 Admissions)
CORE COURSE IN ECONOMICS/DEVELOPMENT ECONOMICS
6B14ECO : Public Economics

Time : 3 Hours Max. Marks : 40

PART – A

(Very Short Answer Questions)

Answer **all** questions. **Each** question carries **1** mark.

1. What do you mean by a merit good ?
2. What is externality ?
3. What is meant by progressive tax ?
4. What do you mean by a budget ? **(4×1=4)**

PART – B

(Short Answer Questions)

Answer **any seven** questions. **Each** question carries **2** marks.

5. Explain the free-rider problem.
6. What do you mean by public debt ?
7. Distinguish between direct and indirect taxes.
8. What is meant by incidence of taxation ?
9. Distinguish between tax base and tax rate.
10. What are the four canons of expenditure suggested by Prof. Shirras ?
11. What is meant by deficit financing ?
12. Briefly explain the zero-based budgeting.
13. Give the meaning of fiscal federalism.
14. Give a brief account of the functions of Finance Commission. **(7×2=14)**

P.T.O.

PART – C

(Short Essay Questions)

Answer **any four** questions. **Each** question carries **3** marks.

15. Explain the fiscal functions.
16. Explain the theory of public choice.
17. Describe the cost of service theory of taxation.
18. Explain various methods of repayment of public debt.
19. Explain the Wiseman-Peacock hypothesis.
20. Describe the merits of performance budgeting. **(4×3=12)**

PART – D

(Essay Questions)

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

21. Explain the classification of taxes based on impact and incidence, tax rate and tax base and nature of commodity.
22. Critically examine the theory of maximum social advantage.
23. Describe the preparation and presentation of budget in India.
24. Evaluate the performance of Kerala State Finance Commission. **(2×5=10)**

K24U 0263

Reg. No. : .....

Name : .....

Sixth Semester B.A. Degree (C.B.C.S.S. – Supplementary/One Time Mercy Chance) Examination, April 2024
(2014 to 2018 Admissions)
CORE COURSE IN ECONOMICS
6B13 ECO : Central Themes in Indian Economy

Time : 3 Hours Max. Marks : 40

PART – A
(Very Short Answer Question)

Answer **all** questions. **Each** question carries **1** mark.

1. Define Decentralised Planning.
2. Explain Disguised unemployment.
3. Define Green Revolution.
4. Define Liberalisation. **(4×1=4)**

PART – B
(Short Answer Types Questions)

Answer **any 7** questions. **Each** question carries **2** marks.

5. Explain the term 'Washington Consensus'.
6. Discuss the important highlights of the 12th Five Year Plan.
7. Explain Kerala Model of Development.
8. Difference between Unemployment and Under employment.
9. Explain the recent initiatives to improve agricultural sector in India.
10. What do you mean by food security ?
11. What is financial inclusion ?
12. What are the objectives of land reforms in Kerala ?
13. Distinguish between BOP and BOT.
14. Explain Mixed Economy. **(7×2=14)**

P.T.O.

PART – C
(Short Essay Types of Questions)

Answer **any 4** questions. **Each** question carries **3** marks.

15. What are the features of agriculture sector in Indian economy ?
16. Explain the role of service sector in the economic development of Indian economy.
17. Briefly explain the achievements and failures of planning in India.
18. Explain the structural changes in Kerala Economy.
19. Explain the reasons for the recent fiscal crisis in Kerala.
20. Explain the important objectives of Industrial policies in India. **(4×3=12)**

PART – D
(Essay Type Question)

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

21. Explain the important features of the New Industrial Policy of 1991. Critically evaluate New Industrial Policy of India.
22. Critically examine the various five year plans of India.
23. Explain the important features of New Economic Policy. Describe the impact of New Economic Policy on foreign trade.
24. Explain the inward and outward migration. Elucidate the causes, problems and policies of migration in Kerala. Elucidate the impact of gulf migration on Kerala Economy. **(2×5=10)**

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K24U 0104

Reg. No. : .....

Name : .....

Sixth Semester B.A. Degree (C.B.C.S.S.-OBE – Regular/Supplementary/ Improvement) Examination, April 2024
(2019 to 2021 Admissions)
CORE COURSE IN ECONOMICS/DEVELOPMENT ECONOMICS
6B13ECO/DEV ECO : Macro Economic Analysis – II

Time : 3 Hours Max. Marks : 40

PART – A

Very short answer type questions. Answer **all** questions. **(6×1=6)**

1. Define seigniorage.
2. What is Juglar cycle ?
3. Define stagflation.
4. Define supply of money.
5. Define unemployment.
6. Define crowding out effect.

PART – B

Short answer type questions. Answer **any six** questions. **(6×2=12)**

7. Explain the major difficulties of barter system.
8. Distinguish between inflationary gap and deflationary gap ?
9. Differentiate between inside money and outside money.
10. Explain the Keynesian dichotomy.
11. Explain Fisher Effect.

P.T.O.

12. Define Money Multiplier.

13. Explicate the money market equilibrium in the classical theory.

14. Explain the term Adaptive Expectation.

PART – C

Short essay type questions. Answer **any four** questions. **(4×3=12)**

15. Why does the LM curve slope upward ?

16. Explain the quantity theory of money.

17. Explain the different phases of business cycle.

18. What are the limitations of the basic IS-LM model ?

19. Describe the various types of inflation.

20. Critically examine the Liquidity Preference theory of Keynes.

PART – D

Essay type questions. Answer **any two** questions. **(2×5=10)**

21. Define monetary policy. Explain the various tools of monetary policy.

22. Explain the general equilibrium in macroeconomics with the help of IS-LM analysis.

23. Briefly explain the various theories of business cycle.

24. Elucidate the short run and long run Philips curve.

K23U 0113

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VI Semester B.A. Degree (CBCSS – Supplementary) Examination, April 2023
(2017 to 2018 Admissions)
CORE COURSE IN ECONOMICS/DEVELOPMENT ECONOMICS
6B13 ECO : Central Themes in Indian Economy

Time : 3 Hours Max. Marks : 40

PART – A

(Very Short Answer Questions)

Answer **all** questions. (**Each** question carries **1** mark)

1. Explain NITI Aayog.
2. Define poverty.
3. Define Globalisation.
4. Explain Industrial sickness.

PART – B

(Short Answer Type Questions)

Answer **any 7** questions. (**Each** question carries **2** marks)

5. Explain the evolution of economic planning in India.
6. Explain the role of Kudumbasree in Women empowerment.
7. Explain Kerala Model of Development.
8. Explain the importance of Small Scale Industries in Indian economy.
9. Explain the role of service sector in the economic development of India.
10. Explain Public Distribution System.

11. What is inclusive growth ?

12. Examine the role of land reforms in Kerala's development.

13. Distinguish between FDI and FII.

14. Briefly explain the New Economic Policy.

PART – C

(Short Essay Type of Questions)

Answer **any 4** questions. (**Each** question carries **3** marks)

15. Explain the major reasons for agricultural stagnation in Kerala.

16. What are the types of Unemployment in India ?

17. What are the major objectives of five year plans in India ?

18. Explain the recent initiatives to improve agricultural sector in India.

19. Compare and contrast the Kerala economy with Indian economy.

20. Evaluate the merits and demerits of Green Revolution.

PART – D

(Essay Type Questions)

Answer **any two** questions. (**Each** question carries **5** marks)

21. What are the important objectives of Industrial Policy in India ? Critically evaluate various Industrial Policies of India.

22. Define planning. Explain the achievements and failures of planning in India.

23. Explain foreign trade. Critically evaluate the structure, trend and composition of India's foreign trade.

24. Elucidate the recent problems faced by the Kerala economy.

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K23U 0363

Reg. No. : .....

Name : .....

VI Semester B.A. Degree (CBCSS – OBE – Regular/Supplementary/ Improvement) Examination, April 2023
(2019 and 2020 Admissions)
CORE COURSE IN ECONOMICS/DEVELOPMENT ECONOMICS
6B13 ECO/DEV ECO : Macro Economic Analysis II

Time : 3 Hours Max. Marks : 40

PART – A
(Very short answer questions)

Answer **all** questions.

1. Define LM curve.
2. What do you mean by stagflation ?
3. Give a note on mark up inflation.
4. What is monetary policy ?
5. What is juglar cycle ?
6. Define near money. **(6×1=6)**

PART – B
(Short answer type questions)

Answer **any 6** questions.

7. What do you mean by Neo Classical Synthesis ?
8. Briefly explain the concept of sacrifice ratio.
9. Distinguish between major, minor and very long period trade cycles.
10. Define inside money and point out its features.

P.T.O.

11. Explain the concept of Natural Rate of unemployment.

12. What are the factors influencing supply of money in an economy ?

13. Explain the major causes of business cycles.

14. What do you mean by Legal Tender Money ? **(6×2=12)**

PART – C
(Short essay type questions)

Answer **any 4** questions.

15. Diagrammatically explain long run Phillips curve.

16. Briefly explain Hick's theory of trade cycle.

17. Explain different phases of business cycle.

18. Give a short essay on the types of money.

19. Explain the features of depression in an economy.

20. Write a short essay on quantity theory of money. **(4×3=12)**

PART – D
(Essay type questions)

Answer **any 2** questions.

21. Explain the derivation of IS curve.

22. Write an essay on Samuelson's theory of trade cycles.

23. Explain Tobin's approach to demand for money.

24. Give an account on Hawtray's Theory of trade cycle. **(2×5=10)**

K24U 0262

Reg. No. : .....

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Sixth Semester B.A. Degree (C.B.C.S.S.-Supplementary/One Time Mercy Chance) Examination, April 2024
(2014 to 2018 Admissions)
CORE COURSE IN ECONOMICS/DEVELOPMENT ECONOMICS
6B12ECO : Basic Tools for Economic Analysis – II

Time : 3 Hours Max. Marks : 40

PART – A

Answer **all** questions. **Each** question carries **1** mark.

1. What do you mean by square matrix ?
2. What is meant by limit of a function ?
3. Define regression.
4. What do you mean by trend ? **(4×1=4)**

PART – B

Answer **any seven** questions. **Each** question carries **2** marks.

5. Given $A = \begin{bmatrix} 9 & 11 & 3 \end{bmatrix}$ and $B = \begin{bmatrix} 2 \\ 6 \\ 7 \end{bmatrix}$, find AB.

6. Given $A = \begin{bmatrix} 7 & 3 & 2 \\ 1 & 4 & 6 \\ 2 & 5 & 4 \end{bmatrix}$, $B = \begin{bmatrix} 2 & 0 & 5 \\ 3 & 4 & 1 \\ 7 & 9 & 6 \end{bmatrix}$ and $C = \begin{bmatrix} 4 & 5 & 1 \\ 2 & 3 & 4 \\ 7 & 3 & 2 \end{bmatrix}$

   Prove A + (B + C) = (A + B) + C.

7. Find $\lim_{x \to 2} \sqrt{6x^3 + 1}$.

P.T.O.

8. Find $\frac{dy}{dx}$ given $y = 5x^4 (3x - 7)$.
9. What do you mean by a continuous function ?
10. Distinguish between positive correlation and negative correlation.
11. Explain the relationship between correlation coefficient and regression coefficients.
12. What is simple linear regression ?
13. Explain the principle of least squares.
14. Define Fisher's index number. **(7×2=14)**

PART – C

Answer **any four** questions. **Each** question carries **3** marks.

15. Find the inverse of the matrix $A = \begin{bmatrix} 7 & 9 \\ 6 & 12 \end{bmatrix}$.
16. Explain the properties of determinants.
17. Find the marginal productivities of x and y given the production function : $Q = 20 + 8x + 3x^2 - 0.25x^3 + 5y + 2y^2 - 0.5y^3$.
18. Find the correlation coefficient given :

X	5	7	8	4	9	3	2	5	4	3
Y	2	4	5	5	6	5	4	4	3	2

19. Find Marshal-Edgeworth index number :

Commodity	**Base Year Price**	**Base Year Quantity**	**Current Year Price**	**Current Year Quantity**
A	3	25	4.25	35
B	2.5	4	3	6
C	10.25	11	10	15
D	25	3	27.75	4
E	30	5	32.25	6
F	4.3	12	5.1	14

20. Prove that Fisher's index number satisfies both time reversal test and factor reversal test. **(4×3=12)**

PART – D

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

21. Use matrix inversion method to solve for the unknowns in the following :
$4x_1 + 3x_2 = 28$
$2x_1 + 5x_2 + 42$

22. Prove the following properties of Cobb-Douglas production function by using derivative : (1) it satisfies Euler's theorem ; (2) Isoquant is downward sloping ; (3) elasticity of substitution is equal to one ; (4) Marginal products of factors are constant proportions of average products.

23. Explain different methods of estimating trend.

24. Determine the regression (linear) of y on x for the data given below :

x	10	8	5	4	2	1
y	4	6	5	6	8	9

(2×5=10)

K24U 0103

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Sixth Semester B.A. Degree (C.B.C.S.S.-OBE – Regular/Supplementary/ Improvement) Examination, April 2024
(2019 to 2021 Admissions)
CORE COURSE IN ECONOMICS/DEVELOPMENT ECONOMICS
6B12ECO/DEV ECO : Basic Tools for Economic Analysis – II

Time : 3 Hours Max. Marks : 40

PART – A

Answer **all** questions. **Each** question carries **1** mark.

1. What do you mean by non-singular matrix ?
2. State the meaning of derivative.
3. Define limit of a function.
4. What is meant by regressor ?
5. Define trend.
6. What do you mean by price index ? **(6×1=6)**

PART – B

Answer **any six** questions. **Each** question carries **2** marks.

7. Given $A = \begin{bmatrix} 5 & 4 & 8 \\ 3 & 2 & 6 \\ 9 & 7 & 1 \end{bmatrix}$. Find 5 A.

8. Given $A = \begin{bmatrix} 2 & 3 \\ 6 & 8 \end{bmatrix}$ $B = \begin{bmatrix} 1 & 4 \\ 5 & 7 \end{bmatrix}$ $C = \begin{bmatrix} 9 & 7 \\ 6 & 2 \end{bmatrix}$

   prove that (A + B) + C = A + (B + C).

9. Find $\frac{\partial z}{\partial x}$ and $\frac{\partial z}{\partial y}$ given $z = 7x^3 + 13x^2y + 19xy$.

P.T.O.

10. Given the total cost function $C = 35 + 5Q - 2Q^2 + 2Q^3$, find the marginal cost and evaluate it at Q = 3.

11. Explain the rank correlation coefficient.

12. What is simple linear regression ?

13. Distinguish between seasonal variations and cyclical variations.

14. What is meant by time reversal test ? **(6×2=12)**

PART – C

Answer **any four** questions. **Each** question carries **3** marks.

15. Find the determinant of the matrix $A = \begin{bmatrix} 3 & 6 & 5 \\ 2 & 1 & 8 \\ 7 & 9 & 1 \end{bmatrix}$.

16. Given the total cost function $C = Q^3 - 5Q^2 + 60Q$, find the critical value at which AC is minimized.

17. Find the marginal productivity of labour and capital given the production function $Q = 0.5\,K^2 + 2KL + L^2$ and evaluate the marginal productivities at K = 2 and L = 4.

18. Find Pearson's correlation coefficient given :

X	1	2	3	4	5	6	7	8	9	10
Y	2	4	8	7	10	5	14	16	2	20

19. Find Fisher's index number.

Commodity	**Base Year Price**	**Base Year Quantity**	**Current Year Price**	**Current Year Quantity**
A	15	15	22	12
B	20	5	27	4
C	4	10	7	5

20. Explain the moving average method of measuring trend. **(4×3=12)**

PART – D

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

21. Use Cramer's rule to solve for the unknowns in the following :

$2x_1 + 4x_2 - x_3 = 52$

$-x_1 + 5x_2 + 3x_3 = 72$

$3x_1 - 7x_2 + 2x_3 = 10$

22. Given the revenue function $R = 1400Q - 6Q^2$ and the total cost function $C = 1500 + 80Q$, find the critical value at which profit is maximized, and the maximized profit.

23. Find the least square regression line of Y on X :

X	65	63	67	64	68	62	70	66	68	67	69	71
Y	68	66	68	65	69	66	68	65	71	67	68	70

24. The following are the annual profits in thousands of rupees in a certain business :

Year	1951	1952	1953	1954	1955	1956	1957
Profits	63	72	75	65	80	85	95

Use the method of least squares to fit a straight-line trend. **(2×5=10)**

K23U 0362

Reg. No. : .....

Name : .....

VI Semester B.A. Degree (CBCSS – OBE-Regular/Supplementary/ Improvement) Examination, April 2023
(2019 and 2020 Admissions)
CORE COURSE IN ECONOMICS/DEVELOPMENT ECONOMICS
6B12ECO/DEV ECO : Basic Tools for Economic Analysis – II

Time : 3 Hours Max. Marks : 40

PART – A

Answer **all** questions. **Each** question carries **1** mark.

1. Define Index Numbers.
2. Define limit of a function.
3. What is order of a matrix ?
4. Describe elasticity of demand.
5. What is a scatter diagram ?
6. Give a short description on seasonal variations. **(1×6=6)**

PART – B

Answer **any six** questions. **Each** question carries **2** marks.

7. Compare correlation and regression.
8. Given production function, $Q = 36KL - 2K^2 - 3L^2$, find MP_L and MP_K.
9. Find the determinant of $\begin{bmatrix} 5 & 2 & 1 \\ 3 & 0 & 2 \\ 8 & 1 & 3 \end{bmatrix}$.

P.T.O.

10. Find $\lim_{x \to 3}\left[x^3(2x+5)\right]$.

11. Examine consumption function with an example.

12. Explain weighted index numbers.

13. Find the transpose of a matrix $A = \begin{bmatrix} 1 & 3 & 6 \\ 2 & 4 & 7 \\ 3 & 5 & 8 \end{bmatrix}$.

14. Explain positive and negative correlation. **(2×6=12)**

PART – C

Answer **any four** questions. **Each** question carries **3** marks.

15. Find the adjoint of the matrix $A = \begin{bmatrix} 0 & 1 & 2 \\ 1 & 2 & 3 \\ 3 & 1 & 1 \end{bmatrix}$.

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

X :	6	8	10
Y :	12	10	20

17. If $y = 3x^4 + 6x^2 + 2x + 1$, find $\frac{d^2y}{dx^2}$ at $x = 2$.

18. Suppose revenue function of a multi-product firm is $Z = 3x^2 + 2xy + 5y^2$. Calculate the marginal revenues of x and y at $x = 5$ and $y = 3$.

19. Explain the components of time series.

20. Describe the method of OLS. **(3×4=12)**

PART – D

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

21. Calculate Laspeyre's and Paasche's index numbers for the following data.

Commodity	Price		Quantity	
	2000	2010	2000	2010
A	12	14	18	16
B	15	16	20	15
C	14	15	24	20
D	12	12	29	23

22. Solve the following simultaneous equations using Crammer's rule.

$2x + 3y + 4z = 20$
$3x + 5y + 7z = 34$
$x + 2y + 4z = 17$

23. Find the maximum profit that a company can make if the profit function is given by $Z = 41 - 24x - 18x^2$.

24. Explain the various methods for the measurement of trend. **(5×2=10)**

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