

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**BA DEGREE EXAMINATION DECEMBER 2024
(Second Semester)**

Branch: **ECONOMICS**

MICRO ECONOMICS-II

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	The difference between Economic Cost and Accounting Cost is equal to _ (a) Implicit cost (b) Explicit cost (c) Marginal cost (d) none of the above	K2	CO1
	2	Opportunity cost refers to- (a) money expenses incurred on purchasing or hiring factor, services (b) the next best alternative (c) involving cash payment (d) all the above	K2	CO1
2	3	Which one is the characteristic of perfect competition? a. It has a large number of buyers and sellers selling homogeneous products at a uniform price. b. There is no free entry and exit for all the firms. c. It has a large number of buyers and sellers where the government decides the price of the product. d. It has a large number of buyers and sellers selling heterogeneous products at a uniform price.	K1	CO2
	4	A Monopolist usually produces a. Less than optimum output b. More than optimum output c. Optimum output d. Minimum output	K2	CO2
3	5	In the long run a monopolist usually earns a. Excess profit b. Normal profit c. Sub normal profit d. Negative profit	K2	CO3
	6	An Oligopolist is a. Certain about his decision b. Uncertain about his decision c. Totally depends on other d. Not depends on others	K2	CO3
4	7	The value of marginal product is calculated by multiplying the ____ by the ____. a) marginal product; price of the product b) quantity of labor; wage rate c) wage; price of the product d) total product; wage rate	K1	CO4
	8	Malthus's theory was that population a. increased proportionally to economic growth. b. increased geometrically, outstripping food supply, which grew arithmetically c. increased stagnantly with food supply and economic development. d. increased disproportionately, surpassing agricultural production.	K2	CO4

Cont...

5	9	Who has contributed the modern theory of interest rate determination? (a) Paul A. Samuelson (b) Gunnar Myrdal (c) Knut Wicksell (d) J.R. Hicks	K2	CO5
	10	According to Keynes interest is a payment for (a) Consumer's preference (b) Producer's preference (c) Liquidity preference (d) State Bank's preference	K2	CO5

SECTION - B (35 Marks)**Answer ALL questions****ALL questions carry EQUAL Marks****(5 × 7 = 35)**

Module No.	Question No.	Question	K Level	CO
1	11.a.	What are the Objectives of the Firm?	K2	CO1
		(OR)		
	11.b.	State the concept of Perfect Competition and Imperfect Competition		
2	12.a.	Explain the features of Monopoly.	K3	CO2
		(OR)		
	12.b.	Describe the concept of price discrimination.		
	13.a.	Identify the features of Duopoly.	K3	CO3
		(OR)		
	13.b.	Outline the difference between the Cournot model and the Chamberlain model		
4	14.a.	What are the Characteristics of Labour?	K2	CO4
		(OR)		
	14.b.	Explain the concept of Quasi-Rent.		
5	15.a.	Evaluate the Loanable Funds Theory of Interest.	K3	CO5
		(OR)		
	15.b.	Interpret the Schumpeter's theory of Innovation		

SECTION -C (30 Marks)**Answer ANY THREE questions****ALL questions carry EQUAL Marks****(3 × 10 = 30)**

Module No.	Question No.	Question	K Level	CO
1	16	Discuss the different concept of cost and revenue.	K3	CO1
2	17	How is the price and output determined under monopoly in short-run?	K1	CO2
3	18	Find the price and output determined under monopolistic competition in long run?	K2	CO3
4	19	Describe the marginal productivity theory of distribution.	K3	CO4
5	20	Explain the liquidity preference theory of interest.	K3	CO5

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BA DEGREE EXAMINATION DECEMBER 2024
(Second Semester)

Branch: **ECONOMICS**

MATHEMATICAL METHODS-II

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Find $\lim_{x \rightarrow 4} f(x)$: $f(x) = ax^2 + bx + c$ a) $+\infty$ b) $16a + 4b + c$ c) $-\infty$ d) Does not exist!	K1	CO1
	2	What will be the values of x for which the value of $\cos x$ is minimum? a) $(2m+1)\pi$ b) $(2m)\pi$ c) $(2m+1)\pi/2$ d) $(2m-1)\pi$	K2	CO1
2	3	What does the second derivative represent in calculus? a) Rate of change b) Concavity c) Slope d) Area under the curve	K1	CO2
	4	A linear function in three-dimensional space is a ____ a) Midpoint b) Plane c) Laminar d) Zero	K2	CO2
3	5	Implicit functions are those functions _____ a) Which can be solved for a single variable b) Which cannot be solved for a single variable c) Which can be eliminated to give zero d) Which are rational in nature.	K1	CO3
	6	In Euler theorem $x \frac{\partial z}{\partial x} + y \frac{\partial z}{\partial y} = nz$, here 'n' indicates? a) order of z b) degree of z c) neither order nor degree d) constant of z	K2	CO3
4	7	Integrate $3x^2(\cos x^3 + 8)$. a) $\sin x^3 - 8x^3 + C$ b) $\sin x^3 + 8x^3 + C$ c) $-\sin x^3 + 8x^3 + C$ d) $\sin x^3 - x^3 + C$	K1	CO4
	8	What will be the nature of the equation $(\sin \theta)/\theta$ for $0 < \theta < \pi/2$ if θ increases continuously? a) Decreases b) Increases c) Cannot be determined for $0 < \theta < \pi/2$ d) A constant function	K2	CO4
5	9	The linear inequalities or equations or restrictions on the variables of a linear programming problem are called: a) A constraint b) Decision variable c) Objective function d) Fixed variable	K1	CO5
	10	If the value of the game is zero, then the game is known as: a) Fair strategy b) Pure strategy c) Pure game d) Mixed strategy	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer **ALL** questions
ALL questions carry **EQUAL** Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Illustrate the rules of differential calculus.	K3	CO1
	(OR)			
	11.b.	Verify that the function $y = e^{-3x}$ is a solution of the differential equation $d^2y/dx^2 + dy/dx - 6y = 0$		
2	12.a.	Find $\partial f/\partial x$, $\partial f/\partial y$, $\partial f/\partial z$ for the given function, $f(x, y, z) = x \cos z + x^2 y^3 e^z$	K2	CO2
	(OR)			
	12.b.	Determine the partial derivative of the function: $f(x, y) = 3x + 4y$.		
3	13.a.	Find dy/dx by implicit differentiation: $3x + 2y = \cos y$.	K4	CO3
	(OR)			
	13.b.	Find if the function $f(x, y) = x^3 + 2x^2y - 3xy^2 + y^3$ is a homogeneous function.		
4	14.a.	Calculate $\int \cos^2 x \, dx$	K5	CO4
	(OR)			
	14.b.	Evaluate $f(x)$, given that $f'(x) = 6x^8 - 20x^4 + x^2 + 9$		
5	15.a.	Construct the problems of linear programming.	K4	CO5
	(OR)			
	15.b.	Analase the applications of the game theory.		

SECTION - C (30 Marks)

Answer **ANY THREE** questions
ALL questions carry **EQUAL** Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Find the local maxima and minima of the function $f(x) = 3x^4 + 4x^3 - 12x^2 + 12$.	K4	CO1
2	17	Classify the different partial derivatives rules.	K4	CO2
3	18	Solve the differential equation $y^2 dx + (xy + x^2)dy = 0$	K5	CO3
4	19	Calculate the producer's surplus at $x = 5$ for the supply function $p = 7 + x$.	K3	CO4
5	20	Solve the following linear programming problem graphically: Minimize $Z = 200x + 500y$ subject to the constraints: $x + 2y \geq 10$ $3x + 4y \leq 24$ $x \geq 0, y \geq 0$	K5	CO5

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BA DEGREE EXAMINATION DECEMBER 2024
(Third Semester)

Branch - **ECONOMICS**
MACRO ECONOMICS

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks (10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Out of the following, which aggregate represents 'National Income'? a) NNPMP b) GNPFC c) NNPFC d) GNPMP	K1	CO1
	2	Who is the father of macroeconomics? a). Milton Friedman b). Adam Smith. c). J. M. Keynes. d). David Ricardo.	K1	CO1
2	3	In classical theory, which of the following is found in the economy? a) Unemployment b) Disguised Unemployment c) Less than full employment d) Full employment	K3	CO2
	4	Keynesian theory of employment is based on the concept of----- a). Aggregate Demand b). Aggregate Supply c). Both Aggregate Demand and Supply d). Supply	K3	CO2
3	5	The average propensity to consume is measured by a) C/Y b) C=Y c) Y/C d) C+Y	K4	CO3
	6	In the simple Keynesian model consumption is a function of, a) Rate of interest. b) Level of income. C) Price level. d) Investment	K4	CO3
4	7	According to Keynes the most important determinant of investment is a) MEC b) Effective demand c) Aggregate demand d) Rate of interest	K3	CO4
	8	The accelerator assumes a) The marginal propensity to consume is constant b) The economy is at full employment c) There is a constant relationship between net investment and the rate of change of output d) The multiplier is constant	K3	CO4
5	9	LM curve represents the equilibrium ofsector. a) Money b) Goods c) Government d) All of the above	K2	CO5
	10	The lowest point in the business cycle is referred to as the: a) Expansion. b) Boom. c) Trough. d) Peak.	K2	CO5

Cont...

SECTION - B (35 Marks)Answer **ALL** questions**ALL** questions carry **EQUAL** Marks

(5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Show the various methods of measuring national income	K1	CO1
		(OR)		
	11.b.	List the various difficulties in computation of national income.		
2	12.a.	Develops Say's law of market	K3	CO2
		(OR)		
	12.b.	Identify the determinants of the equilibrium level of effective demand.		
3	13.a.	Analyse Keynes's psychological law of consumption	K4	CO3
		(OR)		
	13.b.	Examine the permanent income hypothesis		
4	14.a.	Organise the types of investment?	K3	CO4
		(OR)		
	14.b.	Build the concept of marginal efficiency of capital.		
5	15.a.	Explain the causes of trade cycle	K2	CO5
		(OR)		
	15.b.	Illustrate an IS and LM curve. Give their properties		

SECTION -C (30 Marks)Answer **ANY THREE** questions**ALL** questions carry **EQUAL** Marks

(3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Find the nature and scope of macro economics	K1	CO1
2	17	Develop the Keynesian theory of employment and output	K3	CO2
3	18	Inspect the various factors influencing consumption function	K4	CO3
4	19	Make use of the principle of acceleration.	K3	CO4
5	20	Interpret the view that "the trade cycle is purely monetary phenomenon.	K2	CO5

Z-Z-Z

END

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BA DEGREE EXAMINATION DECEMBER 2024
(Third Semester)

Branch **ECONOMICS**
COMPUTER APPLICATIONS FOR ECONOMICS

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer **ALL** questions

ALL questions carry EQUAL marks (10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	The brain of Computer is a) Central Processing Unit b) Memory c) Arithmetic and Logic Unit d) Control Unit	K2	CO1
	2	Primary purpose of an operating system is to a) Provide a graphical user interface b) Connect to the internet c) Manage computer hardware and software resources d) To display information	K2	CO1
2	3	Microsoft word is a a) Programming b) Compiler b) System d) Application	K1	CO2
	4	In the Insert Hyperlink dialog box, you can link to a) A webpage b) Another document or file c) A specific place in the same document d) All of the above	K6	CO2
3	5	The shortcut key to insert a new worksheet in Excel is a) Ctrl + N b) Shift + F11 c) Ctrl + W d) Alt + F4	K6	CO3
	6	To perform regression analysis in Excel, you would typically use a) Data Analysis Toolpak b) Formulas c) Charts d) Conditional Formatting	K6	CO3
4	7	Change the background color of a powerpoint slide, you would go to a) Design tab b) Home tab c) Format tab d) Review tab	K3	CO4
	8	The AutoContent Wizard is used to a) Create new slides from templates b) Automatically generate a presentation outline based on provided content c) Add animations to slides d) Format text and images	K3	CO4

Cont...

5	9	The protocol used for transmitting data over the Internet is called a) HTTP b) FTP c) SMTP d) All of the above	K3	CO5
	10	BCC is used in emails to a) Send a copy to multiple recipients without revealing their addresses b) Send a private message c) Mark an email as urgent d) Attach a file	K3	CO5

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Explain the technology used in different generation of computer	K2	CO1
		(OR)		
	11.b.	Outline the primary functions of an operating system, and why are they crucial for the operation of a computer?		
2	12.a.	Elaborate working with ribbon, tabs, groups and buttons on word document.	K6	CO2
		(OR)		
	12.b.	Predict the steps you follow to hyperlink the word document.		
3	13.a.	Develop the procedure to insert row and columns, entering data and editing text in excel file.	K6	CO3
		(OR)		
	13.b.	Invent the various drawing charts options in excel.		
4	14.a.	Choose the animation effects in powerpoint presentation.	K3	CO4
		(OR)		
	14.b.	Construct the chart and graphs in powerpoint presentation		
5	15.a.	Identity the role of internet and its uses in the modern era.	K3	CO5
		(OR)		
	15.b.	Develop a google form with an example.		

SECTION -C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Explain the classification of computer and their applications.	K2	CO1
2	17	Invent the features of word processor. How you create, edit, save and print a documents?	K6	CO2
3	18	Build a excel sheet for economic data. How would you analyse and interpret the results from MS excel?	K6	CO3
4	19	Develop a new power point presentation using auto content wizard, changing template, adding images, videos and duplicating the slides.	K3	CO4
5	20	Identity the advantages and disadvantages of social networking services.	K3	CO5

Z-Z-Z

END

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BA DEGREE EXAMINATION DECEMBER 2024
(Third Semester)

Branch - ECONOMICS

STATISTICAL METHODS - I

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	What type of data is collected through interviews? (a) Secondary data (b) Primary data (c) Quantitative data (d) Categorical data	K5	CO1
	2	In which type of sampling is the population divided into homogeneous subgroups and then a sample is taken from each subgroup? (a) Cluster sampling (b) Stratified sampling (c) Systematic sampling (d) Simple random sampling	K5	CO1
2	3	Geographical classification arranges data based on: (a) Numerical attributes (b) Categories like age or gender (c) Spatial locations such as regions or countries (d) Time periods	K3	CO2
	4	Which diagram would be most effective for comparing categories of discrete data? (a) Histogram (b) Line graph (c) Scatter plot (d) Bar chart	K3	CO2
3	5	Which average divides the data set into two equal halves? (a) Mean (b) Median (c) Mode (d) Range	K4	CO3
	6	The _____ is calculated by taking the average of the squared differences between each data point and the mean. (a) Variance (b) Mean (c) Median (d) Standard Deviation	K4	CO3
4	7	If a distribution has a long tail on the right side, it is said to be _____ skewed. (a) Negatively (b) Positively (c) Symmetrically (d) Normally	K3	CO4
	8	Which measure of skewness would indicate a substantial deviation from normality? (a) A skewness value close to 0 (b) A skewness value between -0.5 and +0.5 (c) A skewness value greater than +1 or less than -1 (d) A skewness value of exactly 1	K3	CO4
5	9	In linear regression, the dependent variable is also known as the: (a) Predictor (b) Covariate (c) Independent variable (d) Response	K5	CO5
	10	If the values of two variables move in the same direction, _____ (a) The correlation is said to be non-linear (b) The correlation is said to be linear (c) The correlation is said to be negative (d) The correlation is said to be positive	K5	CO5

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Explain the Scope and Limitations of Statistics.	K5	CO1
		(OR)		

Cont...

	11.b.	Determine the Sources of Secondary data.							K5	CO1			
2	12.a.	Identify the objectives of classification.							K3	CO2			
	(OR)												
	12.b.	Organise the Parts of a table.											
3	13.a.	The salaries of a group of employees are given in the following table:									K4	CO3	
		Salaries (in Rs.000)		45	50	55	60	65	70	75			80
		No.of persons		3	5	8	7	9	7	4			7
	Calculate the standard deviation of the salaries.												
	(OR)												
	13.b.	List the merits and demerits of Lorenz Curve.											
4	14.a.	Interpret the following symmetrical distributions							K3	CO4			
		(i) Symmetrical distribution (ii) Asymmetrical distribution (iii) Positive distribution and (iv) Negative distribution											
	(OR)												
	14.b.	From the following distribution calculate Bowley's Quartile Coefficient of Skewness											
Height in Cm.		70	71	72	73	74	75	76	77				
No of students		4	3	6	2	5	3	2	4				
5	15.a.	Explain the methods of measuring correlation.							K5	CO5			
	(OR)												
	15.b.	Calculate Karl Pearson's Coefficient of correlation from the following data:											
		Roll No of students		1	2	3	4	5					
		Marks in Accountancy		48	35	17	23	47					
Marks in Statistics		45	20	40	25	45							

SECTION -C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO																		
1	16	Explain the methods of collecting primary data.	K5	CO1																		
2	17	Identify the types of Diagrams.	K3	CO2																		
3	18	Find mean for the following data <table><tr><td>X</td><td>0-10</td><td>10-20</td><td>20-30</td><td>30-40</td><td>40-50</td><td>50-60</td></tr><tr><td>F</td><td>5</td><td>10</td><td>25</td><td>30</td><td>20</td><td>10</td></tr></table>	X	0-10	10-20	20-30	30-40	40-50	50-60	F	5	10	25	30	20	10	K4	CO3				
X	0-10	10-20	20-30	30-40	40-50	50-60																
F	5	10	25	30	20	10																
4	19	Calculate coefficient of skewness based on Quartiles and median from the following data: <table><tr><td>Variable</td><td>0-10</td><td>10-20</td><td>20-30</td><td>30-40</td><td>40-50</td><td>50-60</td><td>60-70</td><td>70-80</td></tr><tr><td>Frequency</td><td>12</td><td>16</td><td>26</td><td>38</td><td>22</td><td>15</td><td>7</td><td>4</td></tr></table>	Variable	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	Frequency	12	16	26	38	22	15	7	4	K3	CO4
Variable	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80														
Frequency	12	16	26	38	22	15	7	4														
5	20	Find the two regression equations for the given data : <table><tr><td>X</td><td>6</td><td>2</td><td>10</td><td>4</td><td>8</td></tr><tr><td>Y</td><td>9</td><td>11</td><td>5</td><td>8</td><td>7</td></tr></table>	X	6	2	10	4	8	Y	9	11	5	8	7	K5	CO5						
X	6	2	10	4	8																	
Y	9	11	5	8	7																	

Z-Z-Z

END

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BA DEGREE EXAMINATION DECEMBER 2024
(Fourth Semester)

Branch – ECONOMICS

MONETARY ECONOMICS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 The Indian rupee is known as
 - (i) Standard token money
 - (ii) Token Coin
 - (iii) Standard coin
 - (iv) Metallic coin
- 2 Who introduced the concept of money illusion?
 - (i) Fried man
 - (ii) Irving Fisher
 - (iii) Pigou
 - (iv) Keynes
- 3 Philips curve shows that
 - (i) Unemployment rates are associated with high rates of inflation
 - (ii) High employment rates are associated with low rates of inflation
 - (iii) High unemployment rates are associated with large increases in money wage rates
 - (iv) High inflation rates are associated with small increases in money wage rates
- 4 Call money market refers to
 - (i) Very short term loans
 - (ii) short term loans
 - (iii) medium term loans
 - (iv) long terms
- 5 If the Reserve Bank of India sells securities in the open market in India, its result will be
 - (i) a reduction in bank deposits
 - (ii) an immediate increase in bank rate
 - (iii) a decrease in market rates of interest
 - (iv) an increase in market rates of interest.

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a What are the functions of money?
OR
b Write a note on crypto currency.
- 7 a Describe Marshall's Cash balance approach.
OR
b Point out the determinants of money supply.
- 8 a Bring out the causes for inflation in India.
OR
b Explain demand pull inflation with diagram.

Cont...

- 9 a Explore the features of Indian capital market.
OR
b Account for non-banking financial intermediaries'.
- 10 a what are the functions of central bank.
OR
b State about Open market operations.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Critically examine causes for downfall of gold standard.
OR
b Enumerate the principles of note issue.
- 12 a Analyse Fishers quantity theory of money.
OR
b Discuss liquidity preference theory of money.
- 13 a Explain Philips curve.
OR
b How to control inflation?
- 14 a Enumerate the functions of commercial banks.
OR
b Elucidate functions and operations of credit creation.
- 15 a Discuss the role of monetary policy in Indian economy.
OR
b Give a brief not on functions and policies of reserve bank.

Z-Z-Z END

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BA DEGREE EXAMINATION DECEMBER 2024
(Fourth Semester)

Branch – ECONOMICS

INTERNATIONAL ECONOMICS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

1. Production possibility curve always
 - (i) from down to up
 - (ii) from up to down
 - (iii) concave - shaped
 - (iv) Both (ii) or (iii)
2. The word "Free trade" related
 - (i) International trade
 - (ii) Internal trade
 - (iii) local trade
 - (iv) regional trade
3. Buying and Selling rate is related to the _____ concept in International Trade.
 - (i) Product
 - (ii) Services
 - (iii) Industry
 - (iv) Foreign Exchange
4. ADB was established in the year
 - (i) 1966
 - (ii) 1967
 - (iii) 1968
 - (iv) 1969
5. Foreign exchange reserve maintained in the form of
 - (i) US Dollar
 - (ii) Gold
 - (iii) Special drawings rights
 - (iv) Both (ii) or (iii)

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

6. a) Briefly explain the Ricardo's comparative cost theory.
Or
b) Write the importance of international trade.
7. a) State the concept of gross barter terms of trade.
OR
b) Point out the determinants factors of terms of trade.
8. a) What are the types of exchange rates?
OR
b) Write the concept of purchasing theory of exchange.
9. a) Outline the achievements of GATT in recent years.
OR
b) Write the short notes on ADB and NDB.

Cont...

10. a) Sketch the types of foreign direct investment.

OR

b) What are the roles of MNCs?.

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks

(5 x 6 = 30)

11. a) Draw the production possibility curve with characteristics.

OR

b) Explain the HO theory of international trade.

12. a) Interpret the concept of terms of trade between agriculture and industry.

OR

b) Examine the importance and types of quotas and tariffs.

13. a) Discuss the methods of correcting the disequilibrium in BoP.

OR

b) Draw the debt and credit side of the balance of payments.

14. a) Outline the targets and achievements of WTO.

OR

b) Discuss the factors for TRIPS and TRIMS.

15. a) Explain the out flow of FDI in Indian Economic Development.

OR

b) Analysis the technology of transfer in international trade.

Z-Z-Z

END

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BA DEGREE EXAMINATION DECEMBER 2024
(Fourth Semester)
Branch : ECONOMICS
STATISTICAL METHODS-II

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

1. Laspeyre's index formula uses the weights of the
(i) base year (ii) current year
(iii) average of the weights of a number of years (iv) none of the above
2. A time series is a set of data recorded
(i) periodically (ii) at equal time intervals
(iii) at successive points of time (iv) all the above
3. A coin is tossed 6 times. Find the number of points in the sample space
(i) 12 (ii) 16 (iii) 32 (iv) 64
4. Type I error is
(i) Accept H_0 when it is true (ii) Accept H_0 when it is false
(iii) Reject H_0 when it is true (iv) Reject H_0 when it is false
5. ANOVA technique originated in the field of
(i) Industry (ii) Agriculture (iii) Medicine (iv) Genetics

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a. Describe the uses of index numbers.
OR
b. From the chain base Index Numbers given below, prepare fixed base index numbers.

X	2007	2008	2009	2010	2011
Y	80	110	120	105	95

- 7 a. Explain the Utility of Time Series.
OR
b. Predict the trend value by the method of semi-averages from the following data:

Year	1991	1992	1993	1994	1995	1996
Sales Rs. in (1000)	60	75	81	110	106	117

- 8 a. Define the concept of probability.
OR
b. A bag contains 6 white, 4 red, and 10 black balls. 2 balls are drawn at random find the probability.
- 9 a. State the procedures followed in testing of a hypothesis.
OR
b. A random sample of 10 children had mean weight of 14.3 kg and a variance of 2.1. Test that the mean weight of the children population is 15 kg. ($t_{0.05}=2.26$)
- 10 a. State the conditions applying Chi-square test.
OR
b. Expound the uses of analysis of variance in social science research.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a. From the following data construct a price index numbers of four commodities by using the laspeyre's meyhod, Paasche's method and Fisher's ideal method

Commodity	Base year		Current Year	
	Price per unit	Expenditure (Rs.)	Price per unit	Expenditure (Rs.)
A	2	40	5	75
B	4	16	8	40
C	1	10	2	24
D	5	25	10	60

OR

Cont...

- 11 b. Prove that fisher's Ideal Index satisfies the Time Reversal test

Commodity	2006		2007	
	Price	Quantity	Price	Quantity
A	2	8	4	6
B	5	10	6	5
C	4	14	5	10
D	2	19	2	13

- 12 a. Calculate trend value by the method of four-yearly moving averages from the Following date.

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Production (in Kgs)	12	25	39	54	70	37	105	100	82	65

OR

- b. Given below are the figures of production of a cement factory:

Year	2014	2015	2016	2017	2018	2019	2020
Production (in Tonnes)	80	90	92	83	94	99	92

- i) Fit a straight line trend to these figures by the method of Least squares.
ii) Predict the production of cement for the year 2022.

- 13 a. Explain the theorem of probability.

OR

- b. A bag contains 30 balls numbered from 1 to 30. One ball is drawn at random. Find the probability that the number of the ball drawn will be a multiple of (a) 5 or 7, and (b) 3 or 7.

- 14 a. Demonstrate the properties of normal distribution.

OR

- b. Eleven Salesmen executive trainees are assigned selling jobs right after their recruitment. After a fortnight they are withdrawn from their field duties and given a month's training for executive sales. Sales executed by them in thousands of rupees before and after training. In the same period are listed below

Sales (Rs. '000) before training	23	20	19	21	18	20	18	17	23	16	19
Sales (Rs. '000) after training	24	19	21	18	20	22	20	20	23	20	27

Do these data indicate that the training has contributed to their performance?

- 15 a. Based on information on 1000 randomly selected fields about the tenancy status of the cultivation of these fields and use of fertilizers, collected in an agro-economic survey the following classification was noted:

	Owned	Rented	Total
Using fertilizer	416	184	600
Not using fertilizer	64	336	400
Total	480	520	1000

Would you conclude that owner cultivators more inclined towards the use of fertilizer? (5 per cent of chi-square for one degree of freedom = 3.84)

OR

- b. To study the performance of three detergents and three different water temperatures, the following 'whiteness' readings were obtained with specially designed equipment:

Water temperature	Detergent A	Detergent B	Detergent C
Cold water	57	55	67
Warm water	49	52	68
Hot water	54	46	58

Perform a two-way analysis of variance and give your conclusion.

Z-Z-Z

END

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BA DEGREE EXAMINATION DECEMBER 2024
(Fifth Semester)

Branch - **ECONOMICS**

AGRICULTURAL ECONOMICS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks

(5 x 1 = 5)

- 1 The contribution of agriculture in India's GDP and its related field is
(i) 40% (ii) 81%
(iii) 33% (iv) 15%
- 2 What is a system of growth of same crop on same land year after year is known as?
(i) Multilevel cropping (ii) Mono-cropping
(iii) Parallel cropping (iv) Relay cropping
- 3 Which one of the following is not a physical factor affecting the types of farming?
(i) Climate (ii) Topography
(iii) soil (iv) Labour supply
- 4 Farm Management is generally considered to be _____ in its scope
(i) Macroeconomic (ii) Microeconomic
(iii) Both (iv) None of these
- 5 Food corporation of India was established in the year
(i) 1965 (ii) 1945
(iii) 1955 (iv) 1975

SECTION - B (15 Marks)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks

(5 x 3 = 15)

- 6 a Bring out the various sources of irrigation.
OR
b State the extent of industrial interaction with agriculture sector.
- 7 a Explain the concept of economics of optimum combinations of resources.
OR
b Describe the term varying rate of substitution.
- 8 a Summarize the meaning and importance of production function
OR
b Show the concave and convex production possibility curves.
- 9 a Narrate the relation between farm size and productivity.
OR
b Produce the significance of Co-operative farming.
- 10 a Outline the need for agricultural credit.
OR
b Choose the functions of regulated markets.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Highlight the role of Agriculture in the national economy
OR
b Summaries the demand and supply of agricultural labourers.
- 12 a Elucidate the important measures to increase agricultural productivity.
OR
b Analyse the theory of Circuit of Capital in agriculture.
- 13 a Examine the Laws of Returns in agriculture.
OR
b Outline the theory of maximization of profits in agriculture.
- 14 a Trace the problems of size distribution and fragmentation of land.
OR
b Justify the Cobweb theorem.
- 15 a Point out the recommendations of M.S.Swaminathan committee report.
OR
b Identify the measures to improve the system of agricultural marketing.

Z-Z-Z

END

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BA DEGREE EXAMINATION DECEMBER 2024
(Fifth Semester)

Branch - ECONOMICS

FISCAL ECONOMICS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 Who among the following economists is not associated with the principle of Maximum Social Advantage?
(i) Hugh Dalton (ii) A.C. Pigou
(iii) Richard Musgrave (iv) John Maynard Keynes
- 2 The principle that states "Every person should pay tax according to his ability to pay" refers to which canon of taxation?
(i) Canon of equality (ii) Canon of certainty
(iii) Canon of convenience (iv) Canon of economy
- 3 The theory that states public expenditure increases due to expanding state activities is known as:
(i) Wagner's Law (ii) Wiseman-Peacock Hypothesis
(iii) Musgrave's Theory (iv) Keynesian Theory
- 4 In India, the Union Budget is typically presented on
(i) 1st April (ii) 1st February
(iii) 15th August (iv) 31st March
- 5 In India, the Finance Commission is appointed every
(i) 3 years (ii) 4 years
(iii) 5 years (iv) 6 years

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Explain the importance of fiscal economics in modern economic systems.
OR
b Outline the concepts of Marginal Social Sacrifice (MSS) and Marginal Social Benefit (MSB) in the context of public finance.
- 7 a State the differences between tax and non-tax revenue with suitable examples.
OR
b Analyse the concept of tax incidence and tax burden.
- 8 a Show the role and functions of the Public Accounts Committee in India.
OR
b Produce the various classifications of public expenditure with suitable examples.
- 9 a Develop the main objectives of fiscal policy.
OR
b Narrate the major fiscal policy issues faced by India in recent years.

Cont...

- 10 a Bring out the key principles of federal finance.
OR
b Describe the constitutional provisions related to fiscal federalism in India.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 6 = 30)

- 11 a Compare and contrast public finance and private finance.
OR
b Analyse the principle of maximum social advantage.
- 12 a Elucidate the theories of Taxation.
OR
b Point out the major reforms in both direct and indirect taxes.
- 13 a Examine the structure and growth of public expenditure in India.
OR
b Summarise the impact of economic reforms on public expenditure in India.
- 14 a Highlight the impact of economic reforms on budgeting in India.
OR
b Identify the methods of repaying public debt.
- 15 a Outline the causes of imbalances in the allocation of financial resources.
OR
b Summarise the Powers, Resources and administration of Local governments.

Z-Z-Z

END

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BA DEGREE EXAMINATION DECEMBER 2024
(Fifth Semester)
Branch - ECONOMICS
ECONOMETRICS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

1. Economics is pioneered by _____
(i) Goldberger (ii) Samuelson
(iii) Ragnar Frisch (iv) Jan Tinbergen
2. $E(U_i U_j) = 0$, then _____
(i) Autocorrelation (ii) Multicollinearity
(iii) Non – Autocorrelation (iv) Heteroscedasticity
3. One of the consequences of perfect multicollinearity is the standard error of the estimates are _____
(i) Small (ii) Large
(iii) Zero (iv) Infinitely large
4. If a qualitative variable has m categories dummies to introduce must be _____
(i) M + 1 (ii) M + 2
(iii) M – 1 (iv) M – 2
5. If the dependent (endogenous) variables are expressed as a function of the exogenous variables alone, then the model is called _____
(i) Structural model (ii) Reduced form model
(iii) Recursive model (iv) Endogenous model

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

6. (a) Explain the Sample Regression Function with suitable example.
OR
(b) Show the main divisions of econometrics.
7. (a) Bring out the assumptions of U_i .
OR
(b) Prove that $R^2 = r^2$.
8. (a) State the consequences of autocorrelation.
OR
(b) Describe the difference between heteroscedasticity and homoscedasticity.
9. (a) Produce the uses of dummy variables.
OR
(b) Summarize the uses of double log model in economic analysis.
10. (a) Outline the reasons for the inclusion of lag variable in the model.
OR
(b) Narrate the consequences of simultaneous equation bias.

Cont...

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 6 = 30)

11. (a) Examine the nature and scope of econometrics.
OR
(b) Justify the important goals of econometrics.
12. (a) Outline the principle and assumptions of method of least squares.
OR
(b) Derive the formula of $\widehat{\beta}_0$, $\widehat{\beta}_1$ and $\widehat{\beta}_2$ with OLS method for the model $Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + u_i$.
13. (a) Identify remedial measures to overcome the heteroscedasticity.
OR
(b) Elucidate the causes for autocorrelation.
14. (a) Summarize the semi log model with suitable example.
OR
(b) Highlight the regression on one quantitative variable and one qualitative variable with two categories.
15. (a) Print out the Koyck approach to distributed lag models.
OR
(b) Trace the rules for identification with suitable example.

Z-Z-Z

END

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BA DEGREE EXAMINATION DECEMBER 2024
(Fifth Semester)

Branch – ECONOMICS

MAJOR ELECTIVE COURSE – I :
ECONOMICS OF DEVELOPMENT AND PLANNING

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 Which of the following is **not** a component of the Physical Quality of Life Index (PQLI)?
(i) Life expectancy (ii) Per capita income
(iii) Infant mortality rate (iv) Literacy rate.
- 2 According to the theory of balanced growth, underdeveloped economies can break out of the vicious cycle of poverty by
(i) Large-scale investments in multiple sectors
(ii) Focusing only on agriculture
(iii) Increasing imports
(iv) Reducing government spending.
- 3 The Limits to Growth model was developed by
(i) World Bank (ii) Club of Rome
(iii) International Monetary Fund (iv) World Economic Forum.
- 4 Input-Output Analysis is primarily used to
(i) Study the relationship between supply and demand in the labor market
(ii) Analyze monetary policies
(iii) Measure the impact of international trade on GDP
(iv) Measure the interdependence between different sectors of an economy.
- 5 NITI Aayog was established in the year
(i) 2010 (ii) 2015
(iii) 2017 (iv) 2020.

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Summarize the key indicators of economic development.
OR
b Bring out the objectives of sustainable development.
- 7 a Analyse the features of Schumpeter's theory of economic development.
OR
b State the Lewis theory of unlimited supply of labour.
- 8 a Narrate the Kaldor's model of distribution.
OR
b Prepare the Solow's model of long-run economic growth.

Cont...

- 9 a Highlight the factors determining capital-output ratio.
OR
b Describe the importance of technology transfer.
- 10 a Outline the objectives of economic planning.
OR
b Sketch the major initiatives taken by the government through NITI Aayog.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Differentiate between economic growth and economic development.
OR
b Summarise the persisting issues of poverty and unemployment in India.
- 12 a Enumerate the Rostow's stages of economic growth.
OR
b Examine the potential for combining elements of both balanced and unbalanced growth in formulating a comprehensive development policy.
- 13 a Elucidate the conditions and requirements of steady growth in an economy as described by Harrod and Domar.
OR
b Analyse Joan Robinson's model of capital accumulation with the help of diagram.
- 14 a Discover the Leontief solution in his development of input-output model.
OR
b Identify the major causes of low capital-output ratio in developing countries. Suggest strategies to improve capital-output ratio.
- 15 a Justify the Mahalanobi's Model of economic development in India.
OR
b Trace the growth models success and failure of Indian Planning.

Z-Z-Z

END

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BA DEGREE EXAMINATION DECEMBER 2024
(First Semester)

Branch - **ECONOMICS**

MICRO ECONOMICS - I

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Normative economics is based on a) Value judgements b) Facts c) Testing and implementation d) Hypothesis about economic behaviour	K1	CO1
	2	The ordinal utility is expressed in the form of a) rankings I,II, III. and so on b) Scale of preference c) Marginal rate of substitution d) All of these	K2	CO1
2	3	Time element was introduced by a) Marshall b) Ricardo c) Adam Smith d) Pigou	K1	CO2
	4	_____ performing the act of consumption is called consumer. a) The individual or family b) Society c) Government d) All of these	K2	CO2
3	5	The consumer is in equilibrium when he, a) Maximises his utility b) MRS = ratio of commodity prices c) Indifference curve be convex to the origin d) All of these	K1	CO3
	6	Indifference curves are a) Sloping downward b) Convex to the origin b) Two indifference curves cut each other c) Both a and b are correct	K2	CO3
4	7	Under the cross elasticity of demand between two substitute products, _____. a. If the price of one product increases, the demand for the other product will decrease b. If the price of one product decreases, the demand for the other product will decrease c. If the price of one product decreases, the demand for the other product will increase d. None of the above	K1	CO4
	8	The percentage change in quantity demanded to a unit change in price is called a) Elasticity of demand b) Elasticity of supply c) Inelasticity of demand d) Inelasticity of supply	K2	CO4

Cont....

5	9	The Cobb-Douglas production function assumes that the elasticity of substitution is a) Three b) Two c) one d) four	K1	CO5
	10	Law of diminishing returns to factors is relevant to a) long period b) short period c) Market period d) Very long period	K2	CO5

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Identify the inductive and deductive methods in economic analysis.	K1	CO1
	(OR)			
	11.b.	Write a short note on partial equilibrium analysis.		
2	12.a.	Find out the determinants of market demand.	K2	CO2
	(OR)			
	12.b.	Why the demand curves slope downwards?		
3	13.a.	Explain the properties of indifference curve.	K3	CO3
	(OR)			
	13.b.	Distinguish between cardinal utility and ordinal utility.		
4	14.a.	Summarise the factors determining elasticity of demand.	K3	CO4
	(OR)			
	14.b.	Describe the types of elasticity of supply.		
5	15.a.	Mention the uses of production function.	K2	CO5
	(OR)			
	15.b.	Illustrate the Producer's equilibrium in theory of production function.		

SECTION - C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Outline the central problems of an Indian economy.	K2	CO1
2	17	Diagrammatically derive the individual demand curve and market demand curve.	K3	CO2
3	18	Analyse the law of diminishing marginal utility.	K3	CO3
4	19	Explain the types of measuring price elasticity of demand.	K3	CO4
5	20	Interpret the law of variable proportions and its applicability in agrarian economy.	K2	CO5

Z-Z-Z END

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BA DEGREE EXAMINATION DECEMBER 2024
(First Semester)

Branch - **ECONOMICS**

MATHEMATICAL METHODS - I

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Which of the following equation is linear equation? a) $2x + 3$ b) $2x^2 + 3$ c) $2x^3 + 3$ d) $2x^4 + 3$	K1	CO1
	2	In mathematical economics, an equilibrium condition is typically represented by. a) A system of inequalities b) The equality of supply and demand functions c) A utility maximization problem d) A production function	K1	CO1
2	3	Find the distance between origin and the point (1,1) a) 2 b) $\sqrt{2}$ c) $\sqrt{3}$ d) 3	K3	CO2
	4	Find the radius of the circle $x^2 + y^2 = \frac{1}{2}$ a) -2 b) $\frac{1}{2}$ c) 2 d) $\frac{1}{\sqrt{2}}$	K3	CO2
3	5	If the matrix contains only one column is called. a) Row matrix b) Identity matrix c) Diagonal matrix d) Column matrix	K2	CO3
	6	. Let $A = \begin{pmatrix} 2 & 2 \\ 3 & 4 \end{pmatrix}$ then rank the matrix A^T is a) 0 b) 1 c) 2 d) 3	K2	CO3
4	7	Inverse of the identity matrix should be. a) Zero matrix b) Row matrix c) Non-zero matrix d) Column matrix	K1	CO4
	8	If the determinant of a matrix is zero, the matrix is said to be. a) Invertible b) Singular c) Symmetric d) Diagonal	K1	CO4
5	9	Who developed the Input-Output Model in economics? a) John Maynard Keynes b) Adam Smith c) Wassily Leontief d) David Ricardo	K2	CO5
	10	In the Input-Output Model, what is "output" ? a) Goods produced by a sector b) Money spent by the government c) Wages paid to workers d) Taxes collected	K2	CO5

SECTION - B (35 Marks)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks

(5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	What is the significance of the slope of a demand curve?	K2	CO1
		(OR)		
	11.b.	Show the main uses of partial equilibrium analysis.		

Cont...

2	12.a.	Find the distance between the points (1,2) and (−2,1) and coordinates of the mid-point between them.	K3	CO2
	(OR)			
	12.b.	Discover the equation of the circle whose centre is (2,3) and which pass through (1,4).	K4	CO3

3	13.a.	Given that $A = \begin{bmatrix} 1 & -1 \\ 2 & 3 \end{bmatrix}$ verify that $A^2 - 4A + 5I = 0$	K4	CO3														
	(OR)																	
	13.b.	Find rank of the matrix $A = \begin{bmatrix} 1 & 1 & -1 \\ 2 & -3 & 4 \\ 3 & -2 & 3 \end{bmatrix}$																
4	14.a.	Find the minors and cofactors of all the elements of $\begin{vmatrix} 5 & 6 & 7 \\ 0 & 1 & -3 \\ -2 & 4 & 9 \end{vmatrix}$	K4	CO4														
	(OR)																	
	14.b.	Solve the equations $3x + 2y = 8$ and $5x - 3y = 7$ by Cramer's rule.																
5	15.a.	Describe the futures of a closed input output model.	K3	CO5														
	(OR)																	
	15.b.	In an economy there are two industries P_1 and P_2 and the crawling table gives the supply and demand position in crores of rupees. <table><tr><th rowspan="2">Production sector</th><th colspan="2">Consumption sector</th><th rowspan="2">Final demand</th><th rowspan="2">Gross output</th></tr><tr><th>P_1</th><th>P_2</th></tr><tr><td>P_1</td><td>10</td><td>25</td><td>15</td><td>50</td></tr><tr><td>P_2</td><td>20</td><td>30</td><td>10</td><td>60</td></tr></table> Does a solution exist for this system?			Production sector	Consumption sector		Final demand	Gross output	P_1	P_2	P_1	10	25	15	50	P_2	20
Production sector	Consumption sector		Final demand	Gross output														
	P_1	P_2																
P_1	10	25	15	50														
P_2	20	30	10	60														

SECTION -C (30 Marks)

Answer ANY THREE Questions
ALL questions carry EQUAL Marks

(3 x 10 = 30)

Module No.	Question No.	Question	K Level	CO																	
1	16	Explain the importance of the Mathematical Economics.	K2	CO1																	
2	17	Show that $(x+1)(x-2) + y^2 - 1 = 0$ is the equation of circle with the fixed points (-1,1) and (2,-1) at the ends of a diameter.	K4	CO2																	
3	18	If $A = \begin{bmatrix} 3 & 5 \\ 1 & 9 \end{bmatrix}$ and $B = \begin{bmatrix} 0 & 4 \\ 6 & 3 \end{bmatrix}$, show that $(BA)^{-1} = A^{-1}B^{-1}$	K4	CO3																	
4	19	Solve the equations $x + y + 2z = 4$; $2x - y + 3z = 9$; $3x - y - z = 2$	K4	CO4																	
5	20	Consider an economy of two sectors S_1, S_2 whose input output table is given by <table border="1"> <thead> <tr> <th rowspan="2">Production in sectors</th><th colspan="2">Input Industry</th><th rowspan="2">Final Demand</th><th rowspan="2">Total</th></tr> <tr> <th>S_1</th><th>S_2</th></tr> </thead> <tbody> <tr> <td>S_1</td><td>50</td><td>75</td><td>75</td><td>200</td></tr> <tr> <td>S_2</td><td>100</td><td>50</td><td>50</td><td>200</td></tr> </tbody> </table> Find Leontief matrix, verify the Hawkin's Simon conditions and find the solution.	Production in sectors	Input Industry		Final Demand	Total	S_1	S_2	S_1	50	75	75	200	S_2	100	50	50	200	K4	CO5
Production in sectors	Input Industry			Final Demand	Total																
	S_1	S_2																			
S_1	50	75	75	200																	
S_2	100	50	50	200																	

Z-Z-Z

END