

--	--	--	--	--	--	--	--

G. VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS), KOVILPATTI – 628 502.



UG DEGREE END SEMESTER EXAMINATIONS - APRIL 2025.

(For those admitted in June 2023 and later)

PROGRAMME AND BRANCH: B.Sc., STATISTICS

SEM	CATEGORY	COMPONENT	COURSE CODE	COURSE TITLE
IV	PART-III	ELECTIVE GENERIC-4	U23ST4A4	ECONOMIC AND OFFICIAL STATISTICS

Date & Session: 03.05.2025/AN

Time: 3 hours

Maximum: 75 Marks

Course Outcome	Bloom's K-level	Q. No.	SECTION – A (10 X 1 = 10 Marks) Answer <u>ALL</u> Questions.
CO1	K1	1.	Which of the following is the primary role of the National Sample Survey Organisation (NSSO) in India's statistical system? a) Conducting Census every 10 years b) Collecting data on national health and family welfare programs c) Collecting and analyzing data for national planning and governance d) Developing national educational policies and programs
CO1	K2	2.	Which of the following is NOT a responsibility of the NSSO in India's statistical system? a) Providing data on agricultural practices b) Conducting large-scale sample surveys across various sectors c) Publishing detailed census reports every 10 years d) Publishing reports on labor force participation, income, and expenditure
CO2	K1	3.	Which of the following is NOT a major area of data collection under economic statistics for socio-economic surveys? a) Agricultural statistics b) Industrial statistics c) Crime statistics d) Tourism statistics
CO2	K2	4.	Which organization is primarily responsible for collecting and publishing national crime statistics in India? a) National Sample Survey Organisation (NSSO) b) National Crime Records Bureau (NCRB) c) Ministry of Statistics and Programme Implementation (MoSPI) d) Reserve Bank of India (RBI)
CO3	K1	5.	Index number is a _____. a) measure of relative changes b) a special type of an average c) a percentage relative d) all the above
CO3	K2	6.	Index number are expressed _____. a) in percentage b) in ratios c) in terms of absolute value d) all the above
CO4	K1	7.	A time series consists of _____. a) two components b) three components c) four components d) Five components
CO4	K2	8.	Simple Average method is used to calculate _____. a) trend values b) Cyclic Variations c) Seasonal indices d) None of the above
CO5	K1	9.	Which method uses simultaneous equations for estimating demand? a) Leontief's Method b) Pigou's Method c) Engel's Law d) Pareto's Law
CO5	K2	10.	Engel's Law relates to: a) Income distribution b) Income elasticity of demand c) Price elasticity of demand d) Supply elasticity

Course Outcome	Bloom's K-level	Q. No.	SECTION – B (5 X 5 = 25 Marks) Answer <u>ALL</u> Questions choosing either (a) or (b)																					
CO1	K3	11a.	Describe the structure of the Indian statistical system (OR)																					
CO1	K3	11b.	Explain Significance of NSSO Data for Governance																					
CO2	K3	12a.	Discuss about the Agricultural Statistics of India. (OR)																					
CO2	K3	12b.	Describe Information collection for socio-Economic survey																					
CO3	K4	13a.	From the following data, construct an index for 1998 taking 1997 as base by the average of price relative using (a) Arithmetic mean and (b) Geometric mean <table border="1"><thead><tr><th>Commodity</th><th>Price in 1997</th><th>Price in 1998</th></tr></thead><tbody><tr><td>A</td><td>50</td><td>70</td></tr><tr><td>B</td><td>40</td><td>60</td></tr><tr><td>C</td><td>80</td><td>100</td></tr><tr><td>D</td><td>20</td><td>30</td></tr></tbody></table> (OR)		Commodity	Price in 1997	Price in 1998	A	50	70	B	40	60	C	80	100	D	20	30					
Commodity	Price in 1997	Price in 1998																						
A	50	70																						
B	40	60																						
C	80	100																						
D	20	30																						
CO3	K4	13b.	Explain consumer price index number and wholesale. What are its uses?																					
CO4	K4	14a.	Calculate three yearly moving average method for the following data: <table border="1"><thead><tr><th>Year:</th><th>1995</th><th>1996</th><th>1997</th><th>1998</th><th>1999</th><th>2000</th><th>2001</th><th>2002</th><th>2003</th></tr></thead><tbody><tr><td>Sales: (Rs. In laksh)</td><td>18</td><td>24</td><td>26</td><td>28</td><td>33</td><td>36</td><td>40</td><td>44</td><td>48</td></tr></tbody></table> (OR)		Year:	1995	1996	1997	1998	1999	2000	2001	2002	2003	Sales: (Rs. In laksh)	18	24	26	28	33	36	40	44	48
Year:	1995	1996	1997	1998	1999	2000	2001	2002	2003															
Sales: (Rs. In laksh)	18	24	26	28	33	36	40	44	48															
CO4	K4	14b.	What is meant by time series? Explain the uses of time series analysis																					
CO5	K5	15a.	Elaborate the concept of price elasticity of demand and supply with formulas and significance. (OR)																					
CO5	K5	15b.	Explain Leontief's and Pigou's methods for estimating demand functions.																					

Course Outcome	Bloom's K-level	Q. No.	SECTION – C (5 X 8 = 40 Marks) Answer <u>ALL</u> Questions choosing either (a) or (b)				
CO1	K3	16a.	Explain the role of NSSO in National Data Collection (OR)				
CO1	K3	16b.	Describe NSSO Reports and Publications				
CO2	K4	17a.	Explain the statistical methods applied to analyze large volumes of data. (OR)				
CO2	K4	17b.	Discuss about the Industrial Statistics and crime statistics of India				
CO3	K4	18a.	Calculate the price index number by (a). Laspeyres method (b). Paasche's method (c). Bowley's method (d). Fisher's Ideal formula				
			Commodity	2012		2013	
				Price (Rs.)	Quantity (in kg)	Price (Rs.)	Quantity (in kg)
			A	20	8	40	6
			B	50	10	60	5
			C	40	15	50	10
			D	20	20	20	50
			(OR)				

CO3	K4	18b.	Compute the fishers index numbers and check Time Reversal test and Factor Reversal test for the following: <table><tr><td></td><td colspan="2">Base year</td><td colspan="3">Current year</td></tr><tr><td></td><td>Price</td><td>Quantity</td><td>Price</td><td colspan="2">Quantity</td></tr><tr><td>A</td><td>10</td><td>12</td><td>12</td><td colspan="2">15</td></tr><tr><td>B</td><td>7</td><td>15</td><td>5</td><td colspan="2">20</td></tr><tr><td>C</td><td>5</td><td>5</td><td>9</td><td colspan="2">8</td></tr></table>								Base year		Current year				Price	Quantity	Price	Quantity		A	10	12	12	15		B	7	15	5	20		C	5	5	9	8	
	Base year		Current year																																				
	Price	Quantity	Price	Quantity																																			
A	10	12	12	15																																			
B	7	15	5	20																																			
C	5	5	9	8																																			
CO4	K5	19a.	Fit a straight-line trend for the following data by Least Square method. Also, find production for the 2018. <table><tr><td>Year</td><td>2009</td><td>2010</td><td>2011</td><td>2012</td><td>2013</td></tr><tr><td>Production of Steel (m. Tonnes)</td><td>12</td><td>20</td><td>28</td><td>32</td><td>50</td></tr></table>							Year	2009	2010	2011	2012	2013	Production of Steel (m. Tonnes)	12	20	28	32	50																		
Year	2009	2010	2011	2012	2013																																		
Production of Steel (m. Tonnes)	12	20	28	32	50																																		
CO4	K5	19b.	(OR) Explain the basic components of time series data																																				
CO5	K5	20a.	Distinguish between partial and cross elasticities of demand with examples.																																				
CO5	K5	20b.	(OR) Explain Pareto's Law of income distribution and its economic implications																																				