

SOMAIYA

VIDYAVIHAR UNIVERSITY

Somaia School of Humanities and Social Science

QUESTION PAPERS

BRANCH: Bachelor of Science (Economics)	SEM: II
	MAR/APR-2023

Sr. No.	Subject	Available
1.	Financial Analysis	
2.	131U31K201 – Business Accounting	
3.	131U01C202 – Macro Economics II	
4.	131U31C204 – Mathematical Economics II	
5.	131U01C401 – Microeconomics	
6.	131U01G401 – Environmental Sciences	
7.	131U01C403 – Statistics for Economics II	
8.		
9.		
10.		



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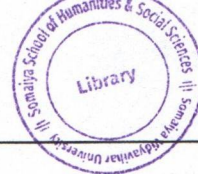
SOMAIYA
VIDYAVIHAR UNIVERSITY



Semester (January 2023 to April 2023)		
Examination: End Semester Examination March/April 2023 (UG/PG Program)		
Programme code: Programme: BSC Economics	Class: FY	Semester: 2
Name of the Constituent College: S,K Somaiya College	Name of the Department Economics	
Course Code:	Name of the Course: Financial Analysis	
Duration : 2 Hrs.	Maximum Marks : 60	
Instructions: 1)Draw neat diagrams 2)Assume suitable data if necessary 3) Use of Calculator is allowed.		

Question No.		Max. Marks																																
Q.1 A	Answer any one set of the following question: (A,B or C,D) Calculate the different liquidity ratios from the following particulars	7																																
	<table><tr><td>Liabilities</td><td>Rs.</td><td>Assets</td><td>Rs.</td></tr><tr><td>Share capital</td><td>2,00,000</td><td>Land and buildings</td><td>1,40,000</td></tr><tr><td>Profit and loss account</td><td>30,000</td><td>Plant and Machinery</td><td>3,50,000</td></tr><tr><td>General reserves</td><td>40,000</td><td>Stock</td><td>2,00,000</td></tr><tr><td>12% Debentures</td><td>4,20,000</td><td>Sundry Debtors</td><td>1,00,000</td></tr><tr><td>Sundry Creditors</td><td>1,00,000</td><td>Bills Receivable</td><td>10,000</td></tr><tr><td>Bills Payable</td><td>50,000</td><td>Cash at bank</td><td>40,000</td></tr><tr><td></td><td>8,40,000</td><td></td><td>8,40,000</td></tr></table>		Liabilities	Rs.	Assets	Rs.	Share capital	2,00,000	Land and buildings	1,40,000	Profit and loss account	30,000	Plant and Machinery	3,50,000	General reserves	40,000	Stock	2,00,000	12% Debentures	4,20,000	Sundry Debtors	1,00,000	Sundry Creditors	1,00,000	Bills Receivable	10,000	Bills Payable	50,000	Cash at bank	40,000		8,40,000		8,40,000
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B	Calculate Current Ratio, Quick Ratio and Super Quick Ratio: and state whether these ratios are ideal or not.	8																																
	Calculate Inventory Turnover Ratio and Debtors Turnover Ratio: Sales (100% Credit) : 65,00,000 Opening stock : 11,50,000 Closing Stock : 13,00,000 Opening Balance of Debtors : 9,00,000 Closing balance of Debtors : 7,00,000																																	
	OR	7																																

C	<table><tr><td>Liabilities</td><td>Amt</td><td>Assets</td><td>Amt</td></tr><tr><td>Equity share capital</td><td>25,500</td><td>Fixed Assets</td><td>28,000</td></tr><tr><td>Capital Reserves</td><td>11,000</td><td>Good will</td><td>12,150</td></tr><tr><td>8% Loan on mortgage</td><td>17,300</td><td>Debtors</td><td>12,450</td></tr><tr><td>Creditors</td><td>9000</td><td>Cash in hand</td><td>6200</td></tr><tr><td>Bank overdrafts</td><td>6700</td><td>Investments</td><td>2350</td></tr></table>	Liabilities	Amt	Assets	Amt	Equity share capital	25,500	Fixed Assets	28,000	Capital Reserves	11,000	Good will	12,150	8% Loan on mortgage	17,300	Debtors	12,450	Creditors	9000	Cash in hand	6200	Bank overdrafts	6700	Investments	2350	8
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D	<p>Calculate : Solvency Ratio, Fixed asset Ratio, Proprietary Ratio.</p> <p>Do the trend analysis and also draw the trend line:</p> <table><tr><td>Year</td><td>Sales (in Cr.)</td></tr><tr><td>2017</td><td>1,50,000</td></tr><tr><td>2018</td><td>1,53,450</td></tr><tr><td>2019</td><td>1,48,300</td></tr><tr><td>2020</td><td>1,40,000</td></tr><tr><td>2021</td><td>1,52,349</td></tr><tr><td>2022</td><td>1,72,780</td></tr></table>	Year	Sales (in Cr.)	2017	1,50,000	2018	1,53,450	2019	1,48,300	2020	1,40,000	2021	1,52,349	2022	1,72,780											
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2022	1,72,780																									
Q.2 A	<p>Answer any one set of the following question: (A,B or C,D)</p> <p>Categorize Business model as a Asset Heavy, Hybrid and Asset light platform for following companies and explain the outcomes in detail</p> <ol style="list-style-type: none">StarbucksDominosKFC	7																								
B	<p>What is Digital Marketing and types of Digital Marketing?</p> <p>OR</p>	8																								
C	<p>Identify the difference between Fixed Assets and Current Assets.</p>	7																								
D	<p>Define three types of Liabilities.</p>	8																								
Q.3 A	<p>Answer any one set of the following question: (A,B or C,D)</p> <p>Define process of accounting in detail.</p>	7																								
B	<p>Elaborate Traditions or Conventions of Accounting.</p> <p>OR</p>	8																								
C	<p>On April 01, 2016 Anees started business with Rs. 100,000 and other transactions for the month are on APRIL 2. Purchase Furniture for Cash Rs. 7,000</p> <p>April 8. Purchase Goods for Cash Rs. 2,000 and for Credit Rs. 1,000 from Khalid Retail Store</p> <p>April 14. Sold Goods to Khan Brothers Rs. 12,000 and Cash Sales Rs. 5,000</p> <p>April 18. Owner withdrew of worth Rs. 2,000 for personal use</p>	7																								



	April 22. Paid Khalid Retail Store Rs. 500 April 26. Received Rs. 10,000 from Khan Brothers April 30. Paid Salaries Expense Rs. 2,000 Do the Journal Entry:	
D	What do you understand by the Reserves and what is the importance and types of reserves?	8
Q.4	Conceptual Question 15 marks (Each Carry 3 marks)	
A	Maslow Hierachy of needs theory.	3
B	Segmentation, targeting and positioning.	3
C	SWOT Analysis of Zomato.	3
D	Use of different Ratio Analysis for any organization or a company?	3
E	Different profit terminologies.	3



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Semester (January 2023 to April 2023)			
Examination: End Semester Examination March/April 2023 (UG/PG Programmes)			
Programme code:31 Programme: BSC Economics		Class: FY	Semester: II
Name of the Constituent College: SK Somaiya Vidyavihar		Name of the Department : Economics	
Course Code: 131U31K201	Name of the Course: Business Accounting		
Duration : 2 Hrs.	Maximum Marks : 60		
Instructions: 1)Draw neat diagrams 2)Assume suitable data if necessary 3)			

Question No.		Max. Marks	Co Attainment																		
Q.1 A	Explain 'Straight Line Method of Depreciation' with example.	[07]	CO 3																		
B	State the sequential steps involved in an accounting cycle?	[08]	CO 1																		
OR																					
C	Write a short note on use of computers in accounting.	[07]	CO 4																		
D	Enter the following transaction of M/s. Kirti in Purchase book, Sales book, Purchase Return book, Sales Return Book and Journal Proper	[08]	CO 3																		
<table><tr><th>Date</th><th>Details</th></tr><tr><td>2018 Mar.01</td><td>Sold goods to Sudhakar Stores ₹ 39,000 @ 10% T.D.</td></tr><tr><td>3</td><td>Purchased goods from Avadhoot Traders ₹ 47,350 & paid carriage ₹ 250</td></tr><tr><td>6</td><td>Sudhakar Stores returned goods of ₹ 3,220 (Net)</td></tr><tr><td>13</td><td>Purchased goods from Rakesh ₹ 37,000</td></tr><tr><td>16</td><td>Sold goods ₹ 33,400 to Ragini @ 10% T.D.</td></tr><tr><td>20</td><td>Returned goods to Rakesh ₹ 3,850 as they were defective</td></tr><tr><td>23</td><td>Ragini return goods ₹ 1900 (Gross) as they were damaged.</td></tr><tr><td>26</td><td>Purchased Office Furniture on credit from Sharma Furniture Mart ₹ 55,000</td></tr></table>				Date	Details	2018 Mar.01	Sold goods to Sudhakar Stores ₹ 39,000 @ 10% T.D.	3	Purchased goods from Avadhoot Traders ₹ 47,350 & paid carriage ₹ 250	6	Sudhakar Stores returned goods of ₹ 3,220 (Net)	13	Purchased goods from Rakesh ₹ 37,000	16	Sold goods ₹ 33,400 to Ragini @ 10% T.D.	20	Returned goods to Rakesh ₹ 3,850 as they were defective	23	Ragini return goods ₹ 1900 (Gross) as they were damaged.	26	Purchased Office Furniture on credit from Sharma Furniture Mart ₹ 55,000
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Q.2 A	"Cash Book is Journal as well as Ledger" Explain?	[07]	CO 3																		
B	On 31st March 2019 the Cash Book of Mr. Amit showed a bank balance of ₹ 25000, but Pass Book showed a different balance. On comparing the Cash Book with the Pass Book the following	[08]	CO 3																		

	<p>discrepancies were noted:</p> <ol style="list-style-type: none"> Cheque of ₹ 18,000 deposited into bank but was not yet collected by bank. Bank paid our electricity bill ₹ 10,000 which was not recorded in the Cash Book. Cheque issued to our supplier ₹ 12,000 was not presented for payment up to 31st March 2019. Mr. Rahul our debtor directly deposited ₹ 16,000 into our bank account on 28th March 2019, which was not entered in Cash Book. Bank charges ₹ 600 was debited in Pass Book. Interest on investment ₹ 4,000 was collected by bank was not recorded in Cash Book. 																																
C	<p>Prepare a Bank Reconciliation Statement as on 31st March 2019.</p> <p style="text-align: center;">OR</p> <p>Pass Journal entries with narration for the following transactions in the books of Mr. Anand.</p> <p>Apr-19</p> <table> <tr> <td>1</td> <td>Mr Anand started business with cash</td> <td>60,000</td> </tr> <tr> <td>2</td> <td>Purchased goods for cash</td> <td>30,000</td> </tr> <tr> <td>3</td> <td>Sold goods for cash</td> <td>20,000</td> </tr> <tr> <td>4</td> <td>Purchased furniture from Mr Govind on credit</td> <td>30,000</td> </tr> <tr> <td>5</td> <td>Sold goods to Mr Amar on credit</td> <td>1,50,000</td> </tr> <tr> <td>6</td> <td>Paid wages by cash</td> <td>15,000</td> </tr> <tr> <td>7</td> <td>Deposited cash into bank</td> <td>10,000</td> </tr> <tr> <td>8</td> <td>Goods taken by Mr Anand for his private use</td> <td>2,000</td> </tr> <tr> <td>9</td> <td>Goods distributed as free sample</td> <td>5,000</td> </tr> <tr> <td>10</td> <td>Received commission</td> <td>4,000</td> </tr> </table>	1	Mr Anand started business with cash	60,000	2	Purchased goods for cash	30,000	3	Sold goods for cash	20,000	4	Purchased furniture from Mr Govind on credit	30,000	5	Sold goods to Mr Amar on credit	1,50,000	6	Paid wages by cash	15,000	7	Deposited cash into bank	10,000	8	Goods taken by Mr Anand for his private use	2,000	9	Goods distributed as free sample	5,000	10	Received commission	4,000	[15]	CO 3
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Q.3 A	State the causes of Depreciation?	[07]	CO 3																														
B	List the advantages of maintaining subsidiary books by trading/manufacturing concern?	[08]	CO 3																														
	OR																																
C	Shreyas requested you, to prepare Trading Account, Profit & Loss Account for the year ended on 31st, March 2018. and Balance Sheet as on that date.	[15]	CO 4																														



Trial Balance as on 31st March, 2018					
Debit Balances	Amount (₹)	Credit Balances	Amount (₹)		
Opening Stock	14,400	Creditors	19,300		
Debtors	30,000	Returns outward	750		
Returns Inward	1,650	Sales	20,000		
Rent, Rates & Insurance	2,250	Discount	365		
Productive Wages	2,525	Capital	75,000		
Discount	390	Outstanding Interest	650		
Interest	475	Loan	7,500		
Loss by fire	1,650				
Salaries	1,850				
Purchases	24,350				
Drawings	2,500				
Carriage Outward	1,275				
Loose Tools	17,500				
Plant & Machinery	14,000				
Cash in hand	1,250				
Cash at Bank	7,500				
	1,23,565		1,23,565		
Adjustments :					
1) Stock as on 31st March 2018, amounted to ₹48,500					
2) Charge depreciation on Loose Tools @ 10% and on Plant & Machinery @ 15%					
3) Prepaid Insurance amounted to ₹ 500 and outstanding Rent 400.					
4) Charge Interest on Capital @ 5% and on Drawings 7%					
5) Outstanding Salary ₹ 650					
Q.4	Answer the following conceptual questions			[15]	CO 1
1.	Contra entry				
2.	Debtor and Creditor				
3.	Income and Expense				
4.	Balance sheet				
5.	Prepaid expenses and outstanding expenses				



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Semester (November 2022 to March 2023)					
Examination: End Semester Examination March/April 2023 (UG Programmes)					
Programme code:30 Programme: BSc Economics			Class: FY	Semester: II	
Name of the Constituent College: S K Somaiya College			Name of the Department: Economics		
Course Code: 131U01C202		Name of the Course: Macro Economics II			
Duration : 2 Hrs.		Maximum Marks : 60			
Instructions: 1)Draw neat diagrams 2)Assume suitable data if necessary					
Questi on No.				Max. Mark s	CO
Q.1	Answer the following.				
A	Discuss measurement of development with the help of per capita income method and its advantage and disadvantages.			07	CO 1
B	Write in detail Harrod's growth model.			08	CO1
	OR				
C	Explain in detail Endogenous growth model.			07	CO1
D	Derive Simultaneous equilibrium in goods market and Money market.			08	CO2
Q.2	Answer the following.				
A	What are the instruments of monetary policy ?			07	CO2
B	Discuss effects of inflation in detail.			08	CO2
	OR				
C	Write an overview of monetary policy in India.			07	CO2
D	Discuss in detail Ability to pay , subjective approach of taxation system.			08	CO3
Q.3	Answer the following.				
A	Describe role of taxation in promoting private saving and investment			07	CO3
B	Explain various government budget constraints .			08	CO3
	OR				
C	Price stability is important to run any economy smoothly, Explain with its quantitative definition.			07	CO4
D	Describe regional imbalance and its impact on economy with the help of history and background.			08	CO4
Q.4	Answer the following.(any three)			15	
A	Progressive tax				CO3
B	Budget deficit				CO3
C	Standard of living				CO4
D	Actual growth				CO1
E	Reverse repo rate				CO2



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Semester (January 2023 to April 2023)		
Examination: In Semester Examination (UG Programme)		
Programme code: Programme: B.SC (Economics)	Class: FYB.SC	Semester: II
Name of the Constituent College: S K SOMAIYA	Name of the Department : ECONOMICS	
Course Code:131U31C204	Name of the Course: Mathematical economics II	
Duration : 1 Hr.	Maximum Marks : 60 MARKS	
Instructions: 1)Draw neat diagrams 2)Assume suitable data if necessary		

Question No.		Max. Marks	CO
Q 1	Answer the Following		
a	Use of the Jacobian to test for functional dependence is demonstrated $Y_1=4X_1-X_2$ $Y_2=16X_1^2+8X_1X_2+X_2^2$	7M	Co1
B	Find hessian matrix $Z(x,y)=-5X_1^2+10X_1+X_1X_3-2X_2^2+4X_2+2X_2X_3-4X_3^2$	8M	Co1
C	Explain homogenous and homothetic function	7M	Co2
D	State and prove euler theorem	8M	Co2
Q 2	Answer the following		
A	Given the demand function $P=45-0.5Q$ find consumer surplus when $P_0=32.5$ and $Q_0=25$	7M	Co2
B	The hessian for the second order condition for optimization $Y=3X_1^2-5X_1-X_1X_2+6X_2^2-4X_2+2X_2X_3+4X_3^2+2X_3-3X_1X_3$	8M	Co3
	OR		
C	Maximize profit $\pi=64x-2x^2+96y-4y^3-13$ Subject to constraint $x+y \leq 20$	8M	Co2
D	Minimize cost $C=5x^2-80x+y^2-32y$ Subject to constraint $x+y \geq 30$	7M	Co2
Q 3	Answer the following		
A	Explain first order difference equation	7M	Co4
B	Consider the difference equation $Y_t=-7Y_{t-1}+16$ and $Y_0=5$, $a=-7$, $b=16$	8M	Co4
	OR		
C	First order linear differential equation $dy/dx+5y=0$	7M	Co4
D	Find complementary solution and particular solution $Y''(t)-5Y'(t)+4Y(t)=2$	8M	Co4
Q 4	Answer the following	15 M	
A	Cobweb model		Co4
B	Consumer surplus		Co2
C	Exact differential equation		Co1
d	Consumer surplus		Co3
e	Hessian matrix		Co1



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Semester (January 2023 to April 2023)			
Examination: End Semester Examination March/April 2023 (UG/PG Programmes)			
Programme: BSC Economics		Class: FY	Semester: II
Name of the Constituent College: SKSC		Name of the Department : Economics	
Course Code: 131U01C401	Name of the Course: Micro economics		
Duration : 2 Hrs.	Maximum Marks : 60		
Instructions: 1)Draw neat diagrams 2)Assume suitable data if necessary			

Question No.		Max. Marks	CO Attainment														
Q1	Answer the following																
A	Examine the short and long run equilibrium of a firm under monopolistic competition.	07	CO1														
B	What are the features of oligopoly?	08	CO1														
	OR																
C	Elaborate on methods of price discrimination	07	CO1														
D	Write a note on kinked demand curve.	08	CO1														
Q.2	Answer the following																
A	What is the role of factor prices in pricing decision of the firm?	07	CO2														
B	Calculate the MPP, VMP and MRP from following table, The market price of bread is Rs.15 .	08	CO2														
	<table><tr><td><i>Unit of Workers</i></td><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr><tr><td><i>TP</i></td><td>0</td><td>10</td><td>20</td><td>25</td><td>28</td><td>29</td></tr></table>	<i>Unit of Workers</i>	0	1	2	3	4	5	<i>TP</i>	0	10	20	25	28	29		
<i>Unit of Workers</i>	0	1	2	3	4	5											
<i>TP</i>	0	10	20	25	28	29											
	OR																
C	Explain three theories of interest in short.	07	CO2														
D	Examine the following concepts A)Derived demand B)Interdependent demand C) Accounting & Economic profit	08	CO2														
Q.3	Answer the following																
A	Explain allocative efficiency with graph	07	CO3														
B	Write a detailed analysis about positive and negative externalities.	08	CO3														
	OR																
C	Elaborate on productive efficiency with the graph.	07	CO3														
D	Give a note on free riders problem.	08	CO3														
Q.4	Answer the following	15															
A	Pareto optimality		CO3														
B	Prisoners Dilemma		CO1														
C	Market search		CO4														
D	Adverse selection		CO4														
E	Lemon market		CO4														



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Semester (January 2023 to April 2023)		
Examination: End Semester Examination March/April 2023 (UG/PG Programmes)		
Programme: Bsc Economics	Class: FYBsc	Semester: II
Name of the Constituent College: SKSC	Name of the Department : Economics	
Course Code: 131U01G401	Name of the Course: Environmental science	
Duration : 2 Hrs.	Maximum Marks : 60	
Instructions: 1)Draw neat diagrams 2)Assume suitable data if necessary		

Question No.		Max. Marks	Co Attainment
Q1	Answer the following		
A	Write a brief overview about energy resource.	07	CO1
B	What is the role of individual in conservation of resources?	08	CO1
	OR		
C	Discuss the impact of hydro energy projects on the tribal people with relevant case studies.	07	CO1
D	Write a note on food as a resource.	08	CO1
Q.2	Answer the following		
A	Give the characteristics and functions of desert eco system.	07	CO2
B	Explain the causes and impact of over exploitation of forest ecosystem.	08	CO2
	OR		
C	Explain aquatic ecosystem in detail.	07	CO2
D	Discuss energy flow in an eco-system.	08	CO2
Q.3	Answer the following		
A	Explain in situ and ex situ conservation.	07	CO3
B	Give a detailed account about classification and significance of bio diversity.	08	CO3
	OR		
C	Elaborate on bio diversity threats.	07	CO3
D	Elaborate on "India as a mega biodiversity region".	08	CO3
Q.4	Answer the following		
A	Ecological succession		CO2
B	Soil profiling		CO4
C	Water pollution		CO4
D	Bhopal Gas tragedy		CO1
E	Disaster management		CO4



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52/1

Semester (January 2023 to April 2023)		
Examination: End Semester Examination March/April 2023 (UG Programmes)		
Programme code:		
Programme: BSc. Economics	Class: FY	Semester: II
Name of the Constituent College: S K Somaiya College	Name of the Department: Economics	
Course Code: 131U01C403	Name of the Course: Statistics for Economics-II	
Duration : 2 Hrs.	Maximum Marks : 60	
Instructions: 1)Draw neat diagrams/graphs on graph paper 2)Assume suitable data if necessary 3) Use of calculators are allowed.		

Question No.		Max. Marks	Co Attainment
Q1.	Attempt the following	15	
(a)	If x is a random variable having the probability function. $P(X = x) = \frac{x}{8} ; x = 0, 1$ $= \frac{k}{4} ; x = 2$ $= \frac{kx}{16} ; x = 3$ Find k, E(x) and V(x).	(07)	CO1
(b)	Find the conditional distribution of x and conditional distribution y if, $f(x, y) = \frac{2}{3}(x + 2y) ; 0 < x, y < 1$ OR	(08)	CO1
(c)	Among 70 fishes caught from a certain lake, 14 were inedible for the chemical pollution of their environment. Construct a 99% confidence interval for the probability that a fish caught from this lake will be inedible for given reason.	(07)	CO2
(d)	In a study of Television viewing habits, order to obtain an interval estimate of the average number of the average number of hours per week that teenagers spend watching television programmes, a random sample of 100 teenaged children is taken. Sample investigation revealed a mean of 9.2 hours, with standard deviation of 3.2 hours. Obtain the desired interval estimate with confidence coefficient 0.99 (z-value = 2.58)	(08)	CO2
Q2.	Attempt the following	(15)	
(a)	A time study engineer developed new system. Due to new system mean cycle time of certain production will reduce. The results of a time study of 20 cycles are given below:	(07)	CO3

Cycle time in minutes

12. 25	11. 97	12. 15	12. 08	12. 31	12. 28	11. 94	11. 89	12. 16	12. 04
12. 09	12. 15	12. 14	12. 47	11. 98	12. 04	12. 11	12. 25	12. 15	12. 34

(08)

CO3

If the present mean cycle time is 12.5 minutes. Should he adopt the new system at $\alpha=0.1$

(b)

Apples were given under two different conditions. Two random samples of sizes 11 and 9 showed standard deviation of 0.8 and 0.5 respectively. Test the hypothesis that population variance is equal at 10% level of significance. ($F_{tab} = 3.34$)

OR

(c)

Calculate seasonal indices for the quarterly data using
(i) Simple Average
(ii) Ratio of Moving Average Method.

(15)

CO4

Quarter	Deposits (in 000 Rupees)			
	2011	2012	2013	2014
I	190	212	220	230
II	160	170	184	192
III	148	166	172	182
IV	158	200	210	216

Q3.

Attempt the following

(15)

(a)

If $f(x, y) = 3x$; $0 < x, y < 1$
find the marginal distribution of x and y.

(07)

CO1

(b)

Five bolts drawn from the bolts produced by a certain machine have lengths 3.3, 3.28, 3.31, 3.33, 3.28 centimeters. Find an unbiased estimate of the variance of the length of the bolts produced by machine.

(08)

CO2

OR

(c)

The annual salaries of employees in a large company are approximately normally distributed with a mean of Rs. 50,000 and a standard deviation of Rs. 20,000.

(07)

CO3

- What percent of people earn less than Rs. 40,000?
- What percent of people earn between Rs. 45,000 and Rs. 65,000?
- What percent of people earn more than Rs. 70,000?

(d)

Find 3-yearly moving averages and draw on a graph paper along with the original time series.

(08)

CO4



	Year	Production (in thousand units)		
	1999	12		
	2000	15		
	2001	20		
	2002	18		
	2003	25		
	2004	32		
	2005	30		
	2006	40		
	2007	44		
Q4.	Attempt the following		(15)	
(a)	Properties of Standard Normal Distribution any six		(03)	CO3
(b)	Point and Interval Estimation.		(03)	CO2
(c)	Define the following: (i) Null Hypothesis (ii) Alternative Hypothesis (iii) Power of the test.		(03)	CO3
(d)	Estimation of time series trends any three		(03)	CO4
(e)	Moments and its types.		(03)	CO1

t Table

cum. prob	$t_{.50}$	$t_{.75}$	$t_{.80}$	$t_{.85}$	$t_{.90}$	$t_{.95}$	$t_{.975}$	$t_{.99}$	$t_{.995}$	$t_{.999}$	$t_{.9995}$
one-tail	0.50	0.25	0.20	0.15	0.10	0.05	0.025	0.01	0.005	0.001	0.0005
two-tails	1.00	0.50	0.40	0.30	0.20	0.10	0.05	0.02	0.01	0.002	0.001
df											
1	0.000	1.000	1.376	1.963	3.078	6.314	12.71	31.82	63.66	318.31	636.62
2	0.000	0.816	1.061	1.386	1.886	2.920	4.303	6.965	9.925	22.327	31.599
3	0.000	0.765	0.978	1.250	1.638	2.353	3.182	4.541	5.841	10.215	12.924
4	0.000	0.741	0.941	1.190	1.533	2.132	2.776	3.747	4.604	7.173	8.610
5	0.000	0.727	0.920	1.156	1.476	2.015	2.571	3.365	4.032	5.893	6.869
6	0.000	0.718	0.906	1.134	1.440	1.943	2.447	3.143	3.707	5.208	5.959
7	0.000	0.711	0.896	1.119	1.415	1.895	2.365	2.998	3.499	4.785	5.408
8	0.000	0.706	0.889	1.108	1.397	1.860	2.306	2.896	3.355	4.501	5.041
9	0.000	0.703	0.883	1.100	1.383	1.833	2.262	2.821	3.250	4.297	4.781
10	0.000	0.700	0.879	1.093	1.372	1.812	2.228	2.764	3.169	4.144	4.587
11	0.000	0.697	0.876	1.088	1.363	1.796	2.201	2.718	3.106	4.025	4.437
12	0.000	0.695	0.873	1.083	1.356	1.782	2.179	2.681	3.055	3.930	4.318
13	0.000	0.694	0.870	1.079	1.350	1.771	2.160	2.650	3.012	3.852	4.221
14	0.000	0.692	0.868	1.076	1.345	1.761	2.145	2.624	2.977	3.787	4.140
15	0.000	0.691	0.866	1.074	1.341	1.753	2.131	2.602	2.947	3.733	4.073
16	0.000	0.690	0.865	1.071	1.337	1.746	2.120	2.583	2.921	3.686	4.015
17	0.000	0.689	0.863	1.069	1.333	1.740	2.110	2.567	2.898	3.646	3.965
18	0.000	0.688	0.862	1.067	1.330	1.734	2.101	2.552	2.878	3.610	3.922
19	0.000	0.688	0.861	1.066	1.328	1.729	2.093	2.539	2.861	3.579	3.883
20	0.000	0.687	0.860	1.064	1.325	1.725	2.086	2.528	2.845	3.552	3.850
21	0.000	0.686	0.859	1.063	1.323	1.721	2.080	2.518	2.831	3.527	3.819
22	0.000	0.686	0.858	1.061	1.321	1.717	2.074	2.508	2.819	3.505	3.792
23	0.000	0.685	0.858	1.060	1.319	1.714	2.069	2.500	2.807	3.485	3.768
24	0.000	0.685	0.857	1.059	1.318	1.711	2.064	2.492	2.797	3.467	3.745
25	0.000	0.684	0.856	1.058	1.316	1.708	2.060	2.485	2.787	3.450	3.725
26	0.000	0.684	0.856	1.058	1.315	1.706	2.056	2.479	2.779	3.435	3.707
27	0.000	0.684	0.855	1.057	1.314	1.703	2.052	2.473	2.771	3.421	3.690
28	0.000	0.683	0.855	1.056	1.313	1.701	2.048	2.467	2.763	3.408	3.674
29	0.000	0.683	0.854	1.055	1.311	1.699	2.045	2.462	2.756	3.396	3.659
30	0.000	0.683	0.854	1.055	1.310	1.697	2.042	2.457	2.750	3.385	3.646
40	0.000	0.681	0.851	1.050	1.303	1.684	2.021	2.423	2.704	3.307	3.551
60	0.000	0.679	0.848	1.045	1.296	1.671	2.000	2.390	2.660	3.232	3.460
80	0.000	0.678	0.846	1.043	1.292	1.664	1.990	2.374	2.639	3.195	3.416
100	0.000	0.677	0.845	1.042	1.290	1.660	1.984	2.364	2.626	3.174	3.390
1000	0.000	0.675	0.842	1.037	1.282	1.646	1.962	2.330	2.581	3.098	3.300
Z	0.000	0.674	0.842	1.036	1.282	1.645	1.960	2.326	2.576	3.090	3.291
	0%	50%	60%	70%	80%	90%	95%	98%	99%	99.8%	99.9%
	Confidence Level										

