

PRN NO

QP. CODE

TIA201

Dr. J. J. Magdum Trust's

Dr. J. J. Magdum College of Engineering, Jaysingpur

(An Autonomous Institute)

Test I Sem – I A.Y. – 2025-26

Class Program	SY B.Tech – Information Technology
Course Code	01ITL201
Course Title	Statistics and Fuzzy Logic

Day & Date	03/ 09/2025
Time	11.15 am to 12.00 pm
Max. Marks	20

Q.No	All Questions are compulsory	Marks	CO	BL	PI
Q 1.	Solve the Following MCQ				
a	Value of Coefficient of Correlation ' r ' lies between i) 0 and 1 ii) -1 and 0 iii) -1 and 1 iv) None of these	01	CO1	3	1.1.1 2.3.1 2.3.2 2.4.1
b	If b_{yx} and b_{xy} are both positive then Value of Coefficient of Correlation ' r ' lies between i) 0 and 1 ii) -1 and 0 iii) -1 and -0.5 iv) None of these	01	CO1	3	
c	If b_{yx} and b_{xy} are both negative then Value of Coefficient of Correlation ' r ' lies between i) 0 and 1 ii) -1 and 0 iii) 1 and 0.5 iv) None of these	01	CO1	3	
d	One of the normal equation of first degree curve is i) $\sum y = na + b \sum x$ ii) $\sum y = \sum na + b \sum x$ iii) $\sum y = \sum na + bx$ iv) None of these	01	CO2	3	
e	One of the normal equation of second degree curve is i) $\sum xy = na + b \sum x + c \sum x^2$ ii) $\sum y = \sum na + b \sum x + c \sum x^2$ iii) $\sum y = \sum na + bx + c \sum x^2$ iv) None of these	01	CO2	3	

Q 2.	a	Find the two lines of regression and the coefficient of correlation for the following data. Also estimate y for x= 80. <table><tr><td>x</td><td>62</td><td>64</td><td>65</td><td>69</td><td>70</td><td>71</td><td>72</td><td>74</td></tr><tr><td>y</td><td>126</td><td>125</td><td>139</td><td>145</td><td>165</td><td>152</td><td>180</td><td>208</td></tr></table>	x	62	64	65	69	70	71	72	74	y	126	125	139	145	165	152	180	208	05	CO1	3	1.1.1 2.3.1 2.3.2 2.4.1
	x	62	64	65	69	70	71	72	74															
	y	126	125	139	145	165	152	180	208															
OR																								
b	Out of the two lines , find means $\bar{x}$ and $\bar{y}$ and coefficient of correlation r. From these two lines , which equation is equation of line of regression of x on y. $4x-5y+33=0$, $20x-9y-107=0$.	05	CO1	3																				
Q 3.	a	Fit a straight line to the following data <table><tr><td>x</td><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td></tr><tr><td>y</td><td>1</td><td>1.8</td><td>3.3</td><td>4.5</td><td>6.3</td></tr></table>	x	0	1	2	3	4	y	1	1.8	3.3	4.5	6.3	05	CO2	3	1.1.1 2.3.1 2.3.2 2.4.1						
	x	0	1	2	3	4																		
	y	1	1.8	3.3	4.5	6.3																		
OR																								
b	From the following results obtain the two regression equations and estimate the yield of crop when the rainfall is 29 cms and rainfall when the yield is 600 kgs <table><tr><td></td><td>y (yield in kgs)</td><td>x (Rainfall in kgs)</td></tr><tr><td>Mean</td><td>508.4</td><td>26.7</td></tr><tr><td>Std. Dev.</td><td>36.8</td><td>4.6</td></tr><tr><td colspan="3">r= 0.5</td></tr></table>		y (yield in kgs)	x (Rainfall in kgs)	Mean	508.4	26.7	Std. Dev.	36.8	4.6	r= 0.5			05	CO1	3								
	y (yield in kgs)	x (Rainfall in kgs)																						
Mean	508.4	26.7																						
Std. Dev.	36.8	4.6																						
r= 0.5																								
Q 4.	a	For the following data fit a second degree parabolic curve <table><tr><td>x</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr><tr><td>y</td><td>12</td><td>9</td><td>6</td><td>2</td><td>11</td><td>5</td></tr></table>	x	1	2	3	4	5	6	y	12	9	6	2	11	5	05	CO2	3	1.1.1 2.3.1 2.3.2 2.4.1				
	x	1	2	3	4	5	6																	
	y	12	9	6	2	11	5																	
OR																								
b	A computer while calculating the correlation coefficient between x and y gave the following results , $n=30$, $\Sigma x = 120$, $\Sigma y = 90$, $\Sigma x^2 = 600$, $\Sigma y^2 = 250$, $\Sigma xy = 356$ It was found that while feeding the values of x and y in the computer , two pairs of (x,y) recorded as (8,10) and (12,7) instead of (8,12) and (10,8). Find correct lines of regression.	05	CO1	3																				

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ITA202

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Test I Sem – I A.Y. – 2024-25

Class Program	SY B.Tech - IT	Day & Date	03/09/2025
Course Code	01ITPCL202	Time	1Hr ,
Course Title	Computer Network	Max. Marks	20

Q.No		All Questions are compulsory	Marks	CO	BL	PI
Q 1.		Solve the Following MCQ				
	a	Which topology requires a multipoint connection? a) Ring b) Bus c) Star d) Mesh	01	CO1	L1	1.5.1
	b	What is the term for the data communication system within a building or campus? a) MAN b) LAN c) PAN d) WAN	01	CO1	L1	1.6.1
	c	Which layer provides the services to user? a) physical layer b) presentation layer c) session layer d) application layer	01	CO1	L1	1.7.1
	d	The data link layer takes the packets from _____ and encapsulates them into frames for transmission. a) network layer b) physical layer c) transport layer d) application layer	01	CO1	L2	1.7.1
	e	Which sublayer of the data link layer performs data link functions that depend upon the type of medium?	01	CO1	L2	1.7.1

		a) logical link control sublayer b) media access control sublayer c) network interface control sublayer d) error control sublayer				
Q 2.	a	What are transmission impairments? Discuss types with real-life examples.	05	CO2	L2	1.3.1/1.3.2
	OR					
	b	Illustrate and explain the OSI model. How does it differ from the TCP/IP model?		CO1	L3	1.7.1
Q 3.	a	Evaluate the advantages and disadvantages of parallel versus serial transmission in modern communication systems.	05	CO2	L4	2.5.2/2.5.3
	OR					
	b	Analyse and compare the performance of guided and unguided transmission media for different network scenarios.		CO2	L4	2.6.5/2.6.6
Q 4.	a	Explain the structure of an Ethernet frame. What are its main fields?	05	CO2	L3	2.5.1
	OR					
	b	Identify the main hardware components used in networking and describe their functions		CO1	L3	2.3.1/2.3.2

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TIA203

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Dr. J. J. Magdum College of Engineering, Jaysingpur
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Test I Sem – I A.Y. – 2024-25

Class Program	SY B.Tech - IT
Course Code	PCC- 01ITPCL203
Course Title	Discrete Mathematical Structure

Day & Date	3/ 9 /2025
Time	45 Min
Max. Marks	20

Q.No		All Questions are compulsory	Marks	CO	BL	PI
Q 1.		Solve the Following MCQ				
	a	If P then Q is called statement a. Conjunction b. Disjunction c. Conditional d. Bi conditional	01	CO1	L1	1.2.1
	b	$(P \rightarrow Q) \rightarrow (\neg Q)$ is . a. not a well formed formula b. tautology c. contradiction d. well formed formula	01	CO1	L1	1.2.1
	c	The duality law of $(P \wedge Q) \vee T$ is . a. $(P \wedge Q) \wedge T$ b. $(P \vee Q) \wedge T$ c. $(P \vee Q) \vee F$ d. $(P \vee Q) \wedge F$	01	CO1	L1	1.2.1
	d	14. Min-terms of two statements are formed by introducing the connective . a. Conjunction b. disjunction c. Conditional d. negation	01	CO1	L1	1.2.1
	e	$P \rightarrow Q, Q \rightarrow R$ then. a. $P \rightarrow R$ b. $R \rightarrow P$ c. Q d. R	01	CO1	L1	2.5.1
Q 2.	a	Write note on Duality principle	05	CO1	L2	1.2.1
		OR				

	b	Different connectives with truth table.		CO1	L3	1.2.1
Q 3.	a	Write note on operations on sets	05	CO1	L2	1.5.1
		OR				
	b	1. Show that for any two sets A and B A. $(A \cap B) = A - B$ B. $B = A \cap \neg B$		CO1	L3	1.2.1
Q 4.	a	Show the following equivalence using and without using truth table $((P \vee \neg P) \rightarrow Q) \rightarrow ((P \vee \neg P) \rightarrow R) \iff (Q \rightarrow R)$	05	CO1	L4	2.6.1
		OR				
	b	Draw venn Diagram showing A. $(A \cup B)$ B. $(A \cap B)$ C. $A - B$ D. $B \cap \neg A$ E. $(A \cap B) \cup (A \cap C)$		CO1	L3	2.7.1

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TIA20E01

Dr. J. J. Magdum Trust's
Dr. J. J. Magdum College of Engineering, Jaysingpur
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Test I / II Sem – II A.Y. – 2024-25

Class Program	SY B.Tech - IT
Course Code	01ITOEL1205
Course Title	Business Law

Day & Date	04/09 /2025
Time	11:30am - 12:15pm
Max. Marks	20

Q.No		All Questions are compulsory	Marks	CO	BL	PI
Q 1.		Solve the Following MCQ				
	a	A contract is an agreement which is: A) Enforceable by law B) Not enforceable C) Void from the beginning D) Illegal in nature	01	CO1	L2	1.1.1
	b	All contracts are agreements, but: A) All agreements are also contracts B) Agreements are not legally binding C) Not all agreements are contracts D) Contracts need no agreement	01	CO1	L2	1.1.1
	c	Which of the following agreements is opposed to public policy? A) Marriage contract B) Bribe to a public servant C) Sale of goods D) Employment contract	01	CO1	L2	1.1.2
	d	Fraud involves: A) A true statement B) Honest opinion C) Intentional misrepresentation D) Mistake of fact	01	CO2	L3	2.1.3

	e	Which of the following is *not* an essential element of a valid contract under the Indian Contract Act, 1872? A) Free consent B) Lawful consideration C) Competent parties D) Presence of a written documents		CO1	L2	1.1.2
Q 2.	a	Explain the essentials of a valid contract.	05	CO1	L2	1.1.2
	OR					
	b	Differentiate agreement and contract?				
Q 3.	a	Explain Classification of contract	05	CO1	L2	1.2.1
	OR					
	b	Define free consent and explain the concept of coercion.				
Q 4.	a	Explain Consideration and Legality of object and Legal Rule for valid consideration.	05	CO2	L3	2.2.1
	OR					
	b	Distinction Between Coercion and Undue Influence				