			OF VALUATION			
Revision:	2021	(2001)	ing Indicators)	erika (j. 1991). Propinski propinski se	i de la casa de la cas La casa de la casa de l	
	lame:Discrete Mathen	natics		A series de la completa del completa del completa de la completa del completa del completa de la completa della completa de la completa della		
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Qst No				QID.Z.	103230363	
	Scoring Indicator	in in Assay)		Split up Score	Sub Total	Total
		:				
1	PART A					9
1	2 ⁿ			1	1	
2	p			1	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
3	n!			1	1	
4	mn			1	1 1 1 5 1	
5	Domain			1	1	
6	Isolated vertex			1	1	
7	(p,q) graph	······································		1	1	
8	Abelian			1	1	
9	Cyclic					
11	PART B					24
1	A={2,4,7,8} B={ AUB = {2,4,5,6,78} ANB = {4,7}	4,5,6,7}		1.5 1.5	3	
2	р	q	P ^q			
	T	T	T	3	3	
	Т	F	F			
	F	Т	F			lades f
¥	F	F	i) Facility			
3	{ },{1},{2},{3},{1,2},{13	},{2,3,},{1,2,3 }		3	3	
4	INDEPENDER There are 12 letters of times and D appears	of which N appears 2 times and the re	st are all	3	3	
	different.Therefore tl =12!/3!4!2!=1663200	ie required numb	er of arrangements		Salar Arabis	
5	f(x 1) = 3x+7 $f(x 1) = f(x 2)$ $3x 1+7 = 3x 2+7$ $x 1 = x 2$			3	3	
6	Number of vertices=1 Sum of degree of vert From theorem ,sum of	ices =6x10=60	rtices =2 E	3	3	
	2 E =60 E =60/2=30					
	Tree: A tree is a conne graph having no cycle Spanning tree: A subgi spanning tree of G if I	s.Its edges are cal raph H of a connec I is a tree containi	led branches cted graph G is a ng every vertex of G	1.5 1.5	3	
8	In pre-order traversal	first,root node vis	ited then left sub-			

	tree andafter th order traversal					3	3	
9	Semi group:The satisfies the foll	system (A,*) is said t			1.5	3	
	1.The operation 2.The operation	n * is an asso	ciative or	peration		1.5		
]monoid: A mor associative bina							
10		Qo.	ь <u>}</u>					
		Λ						
			No.	1 1				
	ત્હેન્		/*					
		$\langle \ / \ /$						ebbilio. Bobs
		`						
	PART C							42
	LOS L	l Ĉ.						
	1.35	[*	, F - 1					
	<u> </u>	<u> </u>						
	A ne							
							The second second second	444 8 8 8 8 8 8
			1 (A) (1) 1 (A) (A) (A) (A) (A)					
	n(A) =28					7	7	
V. 15	n(B)=32 n(AUB)=50					7	7	
V. 15	n(B)=32 n(A∪B)=50 n(A∩B)=? n(A∪B) =n(A)+n					7	7	
14.15	n(B)=32 n(A∪B)=50 n(A∩B)=? n(A∪B) =n(A)+n n(A∩B) =n(A)+n(7	7	
14.15	n(B)=32 n(A∪B)=50 n(A∩B)=? n(A∪B) =n(A)+n(1 =28+32-50=10 P q	B)-n (AUB)	p√q	_(p ∨ q)	-(p^q)->p	7	7	
IV .	n(B)=32 n(A∪B)=50 n(A∩B)=? n(A∪B)=n(A)+n n(A∩B)=n(A)+n(l=28+32-50=10 P q T T	B)-n (AUB)	T	F	Т			
IV .	n(B)=32 n(A∪B)=50 n(A∩B)=? n(A∪B)=n(A)+n(1)=28+32-50=10 P q T T T T F	B)-n (AUB)	T	F	T			
IV	n(B)=32 n(A∪B)=50 n(A∩B)=? n(A∪B) =n(A)+n(1)=28+32-50=10 P q T T T F F T	B)-n (AUB) -p F F T	T T T	F F	Т			
V	n(B)=32 n(A\OB)=50 n(A\OB)=? n(A\OB)=n(A)+n(A)+n(A)+n(A)+n(A)+n(A)+n(A)+n(A)+	B)-n (AUB) p F T T	T T T F	F F	T T			
IV	n(B)=32 n(A∪B)=50 n(A∩B)=? n(A∪B) =n(A)+n(1)=28+32-50=10 P q T T T F F T	B)-n (AUB) -p F F T	T T T	F F	T			

V =11	F F T T F T	7				
V =11	上 하는 사람들은 사람들은 사람들이 되었다. 그는 그는 사람들이 가는 그 사람들이 되는 사람들이 하는 사람들이 가장 하는 사람들이 되었다. 사람들이 되었다. 사람들이 되었다. 사람들이 되었다.	7				
	【 - 조금 등 지원 : 100 전 100 대 :		1 7			
	a-a = 0 is a multiple of 3.					
	R is reflexive					
	Symmetric		PANTAN AN A			:
	aRb					
	a-b is amultiple of 3					
	b-a is a multiple of 3					
	bRa (St. 1994) A second of the passing property of the	l mades	l established	estable :		
	Therefore R is symmetric		l. Baaraj			
	Transitive					
	aRb and bRc			kalaj j		٠.
	a-b is a multiple of 3 and b-c is amultiple of 3	TNL ENDY: S				
	a-b+b-c = a-c is amuliple of 3					
Tage 4	aRc		Mark St			٠.,
1 4 4	R is transitive					
	Equivalence Relation					
	R is reflexive, symmetric and transitive. Therefore R is an equivalence relation					
VIII	The function f is one-to-one , for $f(x_1)=f(x_2)$					
VIII	$2x_1 = 2x_2$	7	7			
	$\mathbf{X}_1 = \mathbf{X}_2$	1				79
	Also given any real number y in R there exists y/2 in R such					:
	that $f(y/2)=2.(y,)$ Hence f is onto					
						: .
	altera, harakwa ta tara ingali sa matali taka karaban da matali sa ingali sa karaban karaban sa pangali. Mangalin 1994 sa karaban kalipa matali sa matali sa matali sa karaban kaliman sa sa sa karaban sa sa sa sa sa					
VIX	Let G=(V,E) be an undirected graph with n number of vertices	7				
	and e number of edges.Let v ₁ ,v ₂ ,v _k be the odd degree of		7			
	vertices and $v_1^1, v_2^1, \dots, v_m^1$ be the even degree of vertices .By					
	Hand shaking theorem we have $2 E =2e=\Sigma i=1$ to n d(v _i)				Service services	1 -
	consider the vertices with odd degreeand even degree separately. Σ degi=1 to k deg(vi)+ Σ j=1 to m deg(vj)=2e					1.
	$\Sigma \deg(v_i)$ +even number=2e . $\Sigma \deg(v_i)$ =2e-even number=even					
X	First let us consider a simple graph Kn with n vertices. In a	7	7			
	complete graph, every vertex is adjacent to every other					• .
Table 1995 Programme	vertices.so each vertex is adjacent to remained n-1					
	vertices. There are (n-1) edges incident on a vertex. That is the					
	degree of a vertex is n-1. Therefore the total sum of the					
	degree of a graph is n(n-1) .By Hand shaking theorem ,the	:				-
	sum of the degree of the vertices is twice the number of the		1 1 1 1 1 1 1			
	edges.sum of the degree of the vertices $=n(n-1)=2e$					
ĺ	e=n(n-1)/2 .Therefore maximum edges in a complete graph					
	is n(n-1)/2					٠
XI	Let G be a connected graph . If G is a tree we are done. If G is	^.	_			
	not a tree, it must contain a cycle. Remove an edge from the	7	7			
	cycle. The new graph is still connected. If it is acyclic, then it is					
	a tree and hence a spanning tree. Otherwise it must have					
	another cycle, Remove an edge from this					٠
	cycle.Continuethisprocedure until a subgraph H is acyclic.It is a tree.It also contains every vertex of G. so it is a spanning	l		ı		

	tree of G			
XII	Since degree of a vertex is the number of edges incident with that vertex .Also every edge is incident with exactly two	7	7	
	vertices each edges counted twice ,once at each end,Thus	NA in		
	the sum of the degree of the vertices is equal to twice the		i i i i i i i i i i i i i i i i i i i	was Arm
	number of edges		18.11	
XIII	A={1,-1,i,-i} .A is closed under multiplication.			MARKET STATES
	If a,b,c in A (a.b).c=a.(b.c) is associative 1 is			
	the identity element . any a in A a.i=1.a=a.every element in	4.3		North N. 1.1
	A has its inverse.a.b=1=b.a .so A is a group under multiplication .	n Makata	agasi kubag	erra A. J. Najarasera
XIV	Set positive integers under addition is closed.			
	If a,b,c inthe set (a+b)+c=a+(b+c). Associative property		han in	
	satisfied.0 is the identity element.a+0=0+a=a.every element			
	has its inverse.a+(-a)=(-a)+a=0.so set of integers under	n samaki	legip on a	
1 11	addition is a group			
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		•		

Decision taken by the JCTE Office on 01.01.2025 based on the complaints received from the students of various Polytechnic Colleges in connection with the Question papers of Diploma Examination November 2024 and recommendations of expert committee.

1.Subject Code :-3025

				and the second s
Charles and an experience of the control of	R (21)	3025	An ambiguity occured in Part A Questions, ie answer any one of the questions	15 marks each
meter mater		Machine Drawing	instead of any two	
militario organizara				

Decision:-

- * If the students have attended two questions, I(1) or I(2) and I(3) or I(4) from Part A, then value the two answers.
- * If the students have attended only one question from Part A,
- (a) The marks secured will be considered as out of 60
- (b) The Percentage of marks secured out of 60 shall be calculated and the same percentage of marks out of 15 shall also be added to the marks secured to arrive at the actual marks admissible out of 75.

2. Subject Code:-3341

R(21) 3341 Discrete Mathematics Part A -6,7,8,9 Part B-6,7,8,10 Part C- IX,X,XI,XII 1 Mark each 3 Marks each 7 Marks each	
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Decision:-

* Questions 6,7,8 & 9 of Part A , 6,7,8 & 10 of Part B and IX,X,XI and XII of Part C are cancelled.

Value the remaining questions.

* Part B -Consider the marks of 4 highest scored questions out of remaining 6 questions.

- * The marks secured will be considered as out of 45
- * The percentage of marks secured out of 45 shall be calculated and the same percentage of marks out of 30 shall also be added to the marks secured to arrive at the actual marks admissible out of 75.

3. Subject Code:-3043

R(21)	3043	Part B -3.9	3 Marks each
	Electronic Circuits		

Decision:-

Part B

- * Question No: 3 and 9 are cancelled
- * Consider the marks of 6 highest scored questions out of remaining 8 questions
- * Marks secured will be considered as out of 69
- * The percentage of marks secured out of 69 shall be calculated and the same percentage of marks out of 6 shall also be added to the marks secured to arrive at the actual marks admissible out of 75.

Govt. G. Seralo Dept. O. Seralo Edn V.V Ray
Joint Controller

Grount Controller of Technical Examination