	Note	All correct answers in first column only					
			Ans				
Chapter	**Sr.no**	**questions**	**1**	**2**	**3**	**4**	**Moderator remark**
1	1	Find the value of x if $\log_3 (x + 6) = 2$	x=3	x=2	x=4	x=5	
	2	Find the area of triangle whose vertices are (3,1), (1, 3)and(2,3).	14 units	15 units	28 units	20 units	
	3	Null matrix is also called	zero matrix	Non -Singular Matrix	Diagonal matrix	Scalar Matrix	
	4	A square matrix whose all non- diagonal elements are zero is called a --------	Diagonal Matrix	Scalar Matrix	Non -Singular Matrix	Null Matrix	
	5	Find k, if the following points are collinear (2,3),(-1,k),(5,8)	k= -2	k= 2	k= 3	k= 4	
	6	The condition for a square matrix A to have the inverse is that it must be	Non -Singular Matrix	Diagonal matrix	Null Matrix	Scalar Matrix	
	7	The transpose of the matrix of the co-factors is called the _____ of the matrix	Adjoint	Inverse	Reciprocal	Diagonal	
	8	For a matrix A having |A| = 0, which of the following are true?	Inverse of A does not exists	Inverse of A exists	A is non singular	None	
	9	If A and B are two square matrices, then |A.B| is same as which of the following?	|A|.|B|	|B|.|A|	|B-A|	None	
	10	An improper fraction can be reduced to proper fraction by	Divison	Multiplication	Addition	Subtraction	
	11	If the degree of the numerator is less than the degree of the denominator then the fraction is called a----------	proper fraction	Improper fraction	Partial fraction	Linear fraction	
	12	Evaluate $\log_3 81$	4	5	3	2	
	13	Find the area of triangle whose vertices are (4,4), (3, -2)and(-3,16).	27 units	54units	28 units	20 units	
	14	If the determinant of the matrix A is zero than A is called --------	Singular Matrix	Non -Singular Matrix	Scalar Matrix	Null Matrix	
	15	A diagonal matrix whose each diagonal element is equal to one is called a	Identity Matrix	Scalar Matrix	Null Matrix	Non -Singular Matrix	
	16	Find k, if the following points are collinear (0,1),(1,2,),(k,-1)	k= -2	k= 2	k= 3	k= 4	
	17	A matrix B and ____ will have the same determinant.	Its transpose	Its Inverse	Its adjoint	None	
	18	Transpose of a rectangular matrix is a	Rectangular matrix	Identity Matrix	Scalar Matrix	Null Matrix	
	19	Matrix obtained by changing rows and column is called a	Transpose matrix	Rectangular matrix	Identity Matrix	Scalar Matrix	
	20	Transpose of a row matrix is	Column matrix	Identity Matrix	Scalar Matrix	Row matrix	

	21	To resolve a combined fraction into its part is called a	Partial fraction	Rational fraction	Combined fraction	None	
	22	If the degree of the numerator is greater thanor equal to the degree of the denominator then the fraction is called a----------	Improper fraction	proper fraction	Partial fraction	Linear fraction	
3	1	Find the equation of the line passing through(1,7) and having slope 2 units	2x-y+5 =0	2x-y-5 =0	2x+y+5 =0	2x-y+15=0	
	2	Find p if the lines 3x+ 4py+8=0 and 3py-9x+10=0 are perpendicular to each other	3/√2	4/3	3/6	4/3	
	3	Find the two intercepts of a line 2x+3y=6	x=3,y=2	x=3,y=4	x=2,y=2	x=3,y=3	
	4	Find the length of perpendicular from (2,3) to the line 4x+3y=12	1 unit	2 unit	3 unit	4 unit	
	5	Find the distance between two parallel lines 5x-12y+1=0,10x-24y-1=0	3/26 unit	5/26 unit	4/26 unit	1/26 unit	
3	1	Find the equation of the line passing through (2,3) and having slope 5 units	5x-y-7=0	5x-y+ 7 =0	5x+y+ 7 =0	5x-y=0	
	2	Find k if the lines 4y+3kx+5=0 and 5kx-3y+6=0 are perpendicular to each other	3/√2	4/3	3/6	4/3	
	3	Find the two intercepts of a line 2x+3y=6	x=18 ,y=24	x=28 ,y=24	x=18 ,y=26	x=18 ,y=22	
	4	Find the length of perpendicular from (3,4) to the line 3x+4y=7	18/5 unit	2 unit	3 unit	4 unit	
	5	Find the distance between two parallel lines 3x+4y-7=0,6x+8y-5=0	9/10 unit	3 unit	4 unit	4/10 unit	
4	1	Find the volume of the sphere whose surface area is 616 sq. m.	1437.37 cu. m	1435.37 cu. m	1430.37 cu. m	1431.37 cu. m	
	2	Find the length of the longest pole that can be placed in a room 12 m long 9 m broad and 8 m high.	17 m	20 m	22 m	25 m	
	3	Find the total surface area of a cuboid of dimensions 26 cms ; 20 cms ans 12 cms.	2144 sq cm	2044 sq cm	214 sq cm	144 sq cm	
	4	Find the capacity of a cylindrical water tank whose radius is 2.1m and length is 5m.	69.3 cu. m	68 cu. m	60 cu. m	65 cu. m	
	5	A square grassy plot is of side 100 metre.It has a gravel path 10 metres wide all round it on the inside. Find the area of path.	3600 sq m	360 sq m	3609 sq m	3200 sq m	
4	1	Find area of rhombus whose diagonals are of length 10 cm and 8.2 cm	41 sq cm	42 sq cm	40 sq cm	45 sq cm	
	2	The length , breadth and height of a cuboid are 8 cm,11 cm and 15 cm respectively.Find the total surface area	746 sq cm	716 sq cm	726 sq cm	749 sq cm	
	3	The length of one side of the rectangle is twice the length of its adjacent side. If the perimeter of rectangle is 60 cms, find the area of the rectangle.	200 sq cm	20sq cm	210sq cm	200	
	4	The volume of cube is 1000 cm .Find its total surface area.	600 sq cm	60 sq cm	610 sq cm	600 sq m	
	5	The volume of a sphere is 88/21cubic meters. Find its surface area	4π sq m	8π sq m	π sq m	2π sq m	
5	1	Find range and coefficient of range for the data :3, 7, 11, 2, 16, 17, 22, 20, 19	Range =20 C. R=0.833	Range =10 C. R=0.833	Range =20 C. R=0.333	Range =20 C. R=0.5	
	2	If mean is 82 and standard deviation is 7, find the coefficient of variance	-	7.5	9.537	8.9	
	3	If coefficient of variation of a distribution is 60and standard deviation is 20, find its mean	33.33	30.33	31	30.31	
	4	Calculate mean of the following data 1, 1.2, 1.3, 1.5, 1.8 ,2, 2.1 ,2.2 ,2.3, 3	1.84	18.4	184	18	
	5	The standard deviation is divided by the coefficient of variation to calculate	Arithmetic mean	Coeeficient of mean	coeeficient of deviation	none	
	6	Find the median of the set of numbers: 21, 3, 7, 17, 19, 31, 46, 20 and 43	20	19	3	67	
	7	Mode is the	maximum frequent value	middle most frequent value	Least frequent value	none	
	8	Find the mode from these test results: 17, 19, 18, 17, 18, 19, 11, 17, 16, 19, 15, 15, 15, 17, 13, 11	17	15	11	19	
	1	Find the range and coefficient of range of the data: 50 , 90 , 120 , 40 , 180 , 200 , 80.	Range =160 C.R=0.667	Range =140 C.R=0.667	Range =160 C.R=0.5	Range =150 C. R=0.667	
	2	If mean is 82.5 and standard deviation is 7.3, find the coefficient of variance	8.848	7.5	9.537	8.9	

5	3	If coefficient of variation of a distribution is 75 and standard deviation is 24, find its mean	32	30	35	31	
	4	Calculate mean of the following data 1, 2,3,4,5,6,,8,9,10	4.111	3.1111	36.99	12	
	5	If the arthimetic mean is multiplied to coeeficient of variation than the resulting value is classified as	Standard Deviation	Coeeficient of mean	coeeficient of deviation	none	
	6	Which of the following can not be determined graphically?	Mean	Median	Mode	none	
	7	Find the median of the set of numbers: 100, 200, 450, 29, 1029, 300 and 2001.	300	65	43	none	
	8	Find the mode from these test results: 90, 80, 77, 86, 90, 91, 77, 66, 69, 65, 43, 65, 75, 43, 90.	90	77	65	43	
	1	Without using calculator, find the value of tan (315°)	-1	1	0	2	
	2	If sin 0.4 A = , find the value of sin 3A .	0.9444	0.5	0.844	0.644	
	3	Without using calculator,find the value of sec 3660°	2	1/2	0	1	

chapter	Marks	40 Marks paper	rounded
1 Algebra	20	11.42	11
2 Trigonometry	20	11.42	11
3 Straight line	8	4.57	5
4 Mensuration	8	4.57	5
5 Statistics	14	8	8
	70	**39.98**	**40**

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	11					
	12					
	13					
	14					
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	17					
	18					
	19					
	20					

No	chapter	Marks	40 Marks paper	rounded
1	Differential	24	13.71	14
2	Integration	16	9.14	9
3	Definite Integration	8	4.57	4
4	D.E	8	4.57	5
5	Numerical	14	8	8
		70	**39.99**	**40**

Chapter	Sr.no	questions	1	2	3	4	Moderator remark
Numerical methods	1	Newton-Raphson method is applicable to the solution of	Both algebraic and transcendental Equations	Algebraic equations only	Transcendental Equations Only	None	
	2	In which of the following methods proper choice of initial value is very important?	Newton-Raphson	Bisection method	Flase position	None	
	3	Solve the following system of equations by Jacobi-Iteration method 15x+2y+z=18, 2x+20y-3z=19,3x-6y+25z=22	x=1.2,y=0.95,z=0.88				
	4	Find the approximate root of the equation x2+x-3=0 in the interval(1,2) by using Bisection method(use one iterations)	x=1.5				
	5						
	6						
	7						
	8						
Numerical methods	1						
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	8						

No	**chapter**	**Marks**	**40 Marks paper**	**rounded**	
1	Differential	24	13.71	14	
2	Integration	16	9.14	9	
3	Definite Integration	8	4.57	4	
4	D.E	8	4.57	5	
5	Complex and Laplace	14	8	8	4,4
		70	**39.99**	**40**	