Set 1 Code: 65/1/3		
Section	**Question Number**	**Answer**
A	1	C, It will have both maximum and minimum values
	2	A, k
	3	B, a+1-e/2
	4	A, -1/log2
	5	D
	6	B, -3
	7	A, 7/8
	8	D, tanx-secy
	9	C, π/3
	10	C, f(x) is continuous but not differentiable, at x = 0 and x = 1
	11	D, May or may not be consistent if |A| = 0 and (adj A) B = 0
	12	C, 4
	13	C, Order 2, degree 1
	14	C
	15	C, Z is maximum at (40, 15), minimum at (15, 20)
	16	A, Only AB
	17	A
	18	D
	19	D, Assertion (A) is false, but Reason (R) is true
	20	D, Assertion (A) is false, but Reason (R) is true
B	21	$\frac{1}{2}\left(\sqrt{62}\right)$ sq. units
	22	$a \in [1, \infty)$
	23	$\theta = \cos^{-1}\left(\sqrt{\frac{3}{7}}\right)$ OR -18i+6j+9k
	24	No solution for x

	25	$(\ln 2)2^{\cos^2 x}$ OR -x/y
C	26	Maximum at (30/13, 6/13), maximu value 294/13
	27	-1/6log|x-1|-1/3log|x+2|+1/2log|x-3|+c OR 55/2
	28	Constant
	29	9 sq units
	30	$\frac{8}{\sqrt{29}}$ OR 2:3
	31	p=1/7 and mean= 3 OR 1/3
D	32	Sports club= 90, Drama club= 2533 and Music club= 65
	33	$a\left[\left(\tan^1\sqrt{\frac{x}{a}}\right)\frac{x}{a}-\sqrt{\frac{x}{a}}+\tan^{-1}\sqrt{\frac{x}{a}}\right]+C$
	34	OR $\frac{2\sqrt{2}}{a^2}$
	35	Image is (1, 0, 7) and eq of line $\frac{x-1}{0}=\frac{y-6}{6}=\frac{z-3}{-4}$ OR P=(-4, 1, -3) and $\frac{x-2}{6}=\frac{y-4}{3}=\frac{z+1}{2}$
E	36	(i) R4, (ii) no relation, (iii) R1 OR (1,1), (2,2), (3,3), (2,1), (3,1), (2,3)
	37	(i) 0.018, (ii) 7/18
	38	(i) 2x+3y=300, (ii) x(100-2/3x), (iii) 3750 sq units OR 3750 sq units