•	**Important Questions:**
•	Prove distributive law.
•	Prove de Morgan's law
•	The fixed cost of a factory is Rs.60000 and the variable cost per unit of production is Rs.50. If the selling price per unit is Rs. 100 find break oven point.
•	A textbook publisher finds that the production cost of each book is Rs. 30 and the fixed cost is Rs. 15,000. if each book can be sold for Rs. 45, then determine. (i) The cost function (ii) The revenue (iii) The break-even point
•	If A= 1 2 1 　　　　0 1 -1 　　　　3 -1 1　then prove $A^3-3A^2-A+9I=0$
•	Find Adjoint of A= 2 0 2 　　　　　　0 1 -3 　　　　　　2 1 1
•	Find Inverse of　1 1 3 　　　　　　1 3 -3 　　　　　　-2 -4 -4
•	Find the value using the value using crammer's rule 　　2X+Y-Z=3 　　X+Y+Z=1 　　X-2Y-3Y=4
•	1) Prove that the points (3,0), (4,5), (-1,4) and (-2,-1) forms a rhombus. 2) The area of a triangle format by the points (-1,6), (0,1) and (x,2) is 3 square units find the value of x.
•	**Explain .**
•	1) Find the ratio in which the line joining (2,2) and (7,8) is　divided by x axis. 2) Prove that (4,8), (4,12), (4+2√3 ,10) form an equilateral　triangle.
•	**Explain .**
•	1) Derive the formula to find equation of line joining two points A(x1,y1) and B(x2,y2). 2) Find the ratio in which the line 4X+y-6=0 　　Divides the line segment (-1,3) and (7,-1).
•	Explain.
•	1) Find equation of a straight line which makes intercepts on the axes equal in magnitude but opposite in signs and which passes through the

	point of intersection of the line x+3y-3=0 and 2x-y-13=0.
	2) Find the equation of lines passing through the intersection of 4x-3y-1=0 and 2x-5y+3=0. and parallel to 5x+4y-6=0 and perpendicular to 2x+3y+12=0.
•	**Explain .**
	1) define the continuity. 2) If $f(x) = x^2-1$, x$\mathcal{E}$R then $\qquad$ Find $\lim\limits_{x->0} \dfrac{f(x+1) - f(x-1)}{x}$ 3) Find the value of $\qquad \lim\limits_{x->\infty} (1-3/5x)^{2x}$
•	**Explain.**
	1. Find value of $\qquad \lim\limits_{x->\infty} \dfrac{5x^2+7x+2}{3x^2-x-4}$ 2. Find the value of $\lim \dfrac{\sqrt{x+7} -3}{\sqrt{x+2} -2}$ 3. If f(x) is defined in the following way, discuss its continuity at x=a $\qquad F(x)= \dfrac{x^2 -a}{a}$, $\quad$ 0<x<a $\qquad$ f(x)=0 , x=a $\qquad$ f(x)=a $- \dfrac{x^3}{a^2}$, x>a
•	**Explain any one.**
	1. If y= log $[e^x ((x-2)/x+2))^{3/4}]$ then prove that dy/dx = x^2-1/x^2-4 2. Integrate $\dfrac{x}{(x-2)(x-3)}$
•	**Explain .**
	1) find maximum and minimum values of function y=x+4/x 2) Find differentiation of function xy+x+2y-2=0