CLASS: XI	**INDIAN SCHOOL MUSCAT** **FIRST PERIODIC TEST**	SUBJECT:
	SET - B	
QP.NO.	VALUE POINTS	SPLIT UP MARKS
1.	Inclination of the line=120° Slope of the line=tan 120°=-√3 Equation of the line: y-2=-√3(x-0) √3x+y-2=0	 1 1
2.	Given line is 3x+4y+k=0 $\left\|\frac{3x(-4)+4x2+k}{\sqrt{9+16}}\right\|$=3 ⇨k=19 or -11	 1 1
3.	The given lines are x+2y-5=0----------(i) 3x+y-11=0----------(ii) Slope of line (i)=$m_1=\frac{-1}{2}$ Slope of line (ii)=m_2=-3 tanØ=$\left\|\frac{-3+\frac{1}{2}}{1+(-3)x\frac{-1}{2}}\right\|$=1 Ø=45°	 $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$
4.	Given line is x-√3y=8----------(i) Dividing (i) by $\sqrt{1^2+(-\sqrt{3})^2}$=2 $\frac{x}{2}-\frac{\sqrt{3}}{2}$y=4----------(ii) Comparing (ii) with x cosα+ysinα=p Cosα=$\frac{1}{2}$ and sinα=-$\frac{\sqrt{3}}{2}$ and p=4 Angle=300° and perpendicular distance from the origin=4 units	$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$
5.	$\frac{x}{a}+\frac{y}{9-a}$=1----------(i) Line (i) passes through (2,2) $\frac{2}{a}+\frac{2}{9-a}$=1 a^2-9a+18=0 a=6 or 3 When a=6,eqn is 3x+2y-18=0 When a=3,eqn is 6x+3y-18=0	1 1 1 1
6.	Equation of the line 4x-3y-5=0----------(i) Let Q be the foot of the perpendicular drawn from P(1,-2) to line (i) Slope of (i)=$\frac{4}{3}$ Slope of PQ=$\frac{-3}{4}$ Equation of PQ is,3x+4y+5=0----------(ii) By solving (i) and (ii) X=$\frac{1}{5}$ and y=$\frac{-7}{5}$ Coordinates of the foot of the perpendicular is ($\frac{1}{5}$, $\frac{-7}{5}$)	 1 1 1 1

7.	Equation is (2x+y-5)+k(x+3y+8)=0 (2+k)x+(1+3k)y+(8k-5)=0 Slope=$\frac{-(2+k)}{(1+3k)}$ Slope of the given line 3x+4y-7=0 is $\frac{-3}{4}$ $\frac{-(2+k)}{(1+3k)}$=$\frac{-3}{4}$ K=1 Required equation is 3x+4y+3=0	1 1 1 1