REGULAR QUIZ 07

Form 1

Simple Rectangular Coordinate

Part A - MC (@2marks)

1.	C	$b-(-12)=20$ or $(-12)-b=20$ $b=8$ or $b=-32$
2.	D	horizontal line, y-coordinate is the same
3.	A	$2x+1=x-3$ $x=-4$
4.	C	$\frac{5\times(-2-k)}{2}=15$ or $\frac{5\times(k-(-2))}{2}=15$ $k=-8$ or 4
5.	B	$\frac{(4+6)\times 4}{2}-\frac{4\times 1}{2}-\frac{6\times 1}{2}=15$ sq.units
6.	A	$[18-(-12)+20-(-4)]\times 2=108$ units

Part B – Short Questions (20 marks)

1. $A(-1,0)$ 1A

$B(-1,2)$ 1A

$C(2,2)$ 1A

$D(2,-2)$ 1A

$E(-3,-2)$ 1A

2. (a) $N(-2,0)$ 1A

(b) Area of $ABCD$

$=\frac{[4-(-5)]\times 6}{2}-\frac{[4-(-5)]\times 3}{2}$ 2M

$=13.5$ sq.units 1A

3. Area of $ABCD$

$= \frac{1}{2}(8+1)(7)+\frac{1}{2}(9+16)(7)$ 2M

$= 119$ sq.units 2A

4. (a) Let h be the height of ΔABC

$27 = \frac{\left[3-(-9)\right]\times h}{2}$ 1M

$h = 4.5$ 1A

$D(0,-4.5)$ 1A

(b) $31.5 = \frac{CD\times 4.5}{2}$

$CD = 14$ 1M

$\therefore C(-14,-4.5)$ 1A

(c)(i) $DE = \frac{14}{4} = 3.5$ 1A

(ii) $E(-3.5,-4.5)$ 1A

Part C – Bonus Questions (4 marks)

1. (a) Area of ΔABC

$= \frac{(a-4)(a+3-(-1))}{2}$ 1M

$= \frac{(a-4)(a+4)}{2}$

$= \frac{a^2-16}{2}$ sq.units 1A

(b) Area of ΔABC

$= \frac{8^2-16}{2}$ 1M

$= 24$sq.units 1A