MCQ

Q1   b)   1

Q2   d)   (-4, 5)

Q3   b) 40^0

ASSERTION REASONING

Q4   c) Assertion is true but reason is false

Q5   a – b = $\dfrac{1}{3}(90^0)$

a – b = 30^0

a + b = 180^0

So   a = 105^0 and b = 75^0

Q 6

$\angle 1 + \angle 2 = \angle 3 + \angle 4 (\text{Alternate angles}).....(i)$

Since these angles are bisected, we have,

$\angle 1 = \angle 2 \text{ and } \angle 3 = \angle 4$
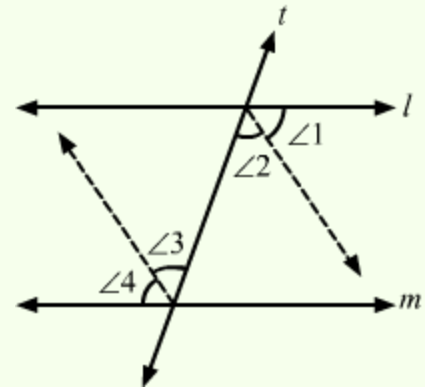
Substituing in (i), we get,

$\angle 2 + \angle 2 = \angle 3 + \angle 3$

$\Rightarrow 2\angle 2 = 2\angle 3$

$\Rightarrow \angle 2 = \angle 3$

As the angle bisectors form pairs of alternate angles, they are parallel.

Q7 CD II EF

$150^0 + y = 180^0$ (cointerior angles)

y = 30^0

AB II CD

70^0 = x +y   (alternate angles)

So x = 40^0

CASE STUDY

Q8 i) 3 miles

ii) 3 miles   (iii)   (6,6)