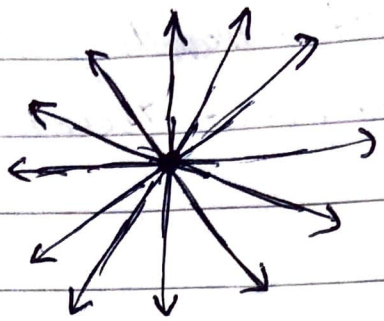
1. (i) False.

Infinite lines can pass through a single point.



(ii) False

As per the 1st postulate, only 1 line can pass through 2 distinct points

(iii) True

As per the 2nd postulate, a terminated line can be extended indefinitely on both

(iv) True

Only one circle can be drawn from one radius.

(v) True

2. (i) 2 lines whose distance is constant no matter how long they are extended

(ii) 2 lines with angle of 90°

(iii) A segment of a line with 2 fixed ending points.

(iv) Distance b/w centre of circle & any point on the circumference

(v) A rectangle with all equal sides.

4. 

Let $AC = x$ ..... (i)

$CB = x$

$AB = 2x$

$\Rightarrow \frac{AB}{2} = x$

Putting eq. (i)

$AC = \frac{AB}{2} = \frac{1}{2}AB$

5. If the length of the line segment is k, then the midpoint is present on $k/2$. Thus it has only one midpoint.

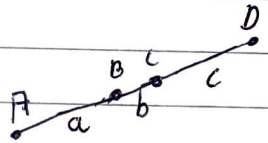
6. Let AB be a, BC be b, CD be c.

$\Rightarrow AC = BD$

$\Rightarrow a + b = b + c$

$\Rightarrow a = c$

$\Rightarrow AB = CD$



7. Because it is known by observation and there exists no proof of it.