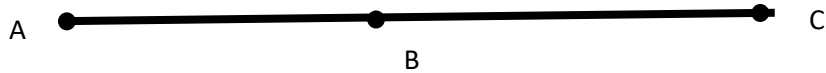


**SUB:-MATHEMATICS, STD-VI**  
**BASIC GEOMETRICAL CONCEPT**  
**HOTS(Advance)**

- 1) Are horizontal line and vertical line always intersect at right angles? Give reasons.
- 2) A fixed point P is given. How many rays can be drawn with P as initial point?
- 3) Is the length of line segment AB and line segment BC make the length of line segment AC in the figure?



- 4) How is globe different from a stamp?
- 5) Generally a statement ends with a full stop. What is the term used to represent full stop in geometry?

**Short answer type questions (I)**

- 6) With the help of figures, find the maximum number of points of intersections of
  - i. Four lines in a plane
  - ii. Five lines in a plane

- 7) If  $\overrightarrow{PQ}$  is a ray
  - i. What is its starting point ?
  - ii. Where does the point Q lie on the ray ?

- 8) Draw the following figures.

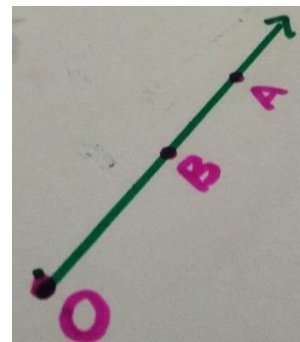


a.  $DE \parallel FG$

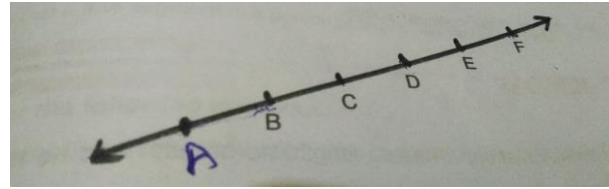
b.  $\overline{RS}$  intersecting  $\overline{TU}$

- 9) Here is a ray  $\overrightarrow{OA}$ . It starts at O and passes through point A. It also passes through point B.

- i. Can we also name it as  $\overrightarrow{OB}$ ? Why?
- ii. Can we write  $\overrightarrow{OA}$  as  $\overrightarrow{AO}$ ? Justify.



10) Look at the figure and answer the questions.



- i. How many line segments are there in all?
- ii. Name one line segment whose end point is
  - a. E
  - b. C

11) In the given figure, name

- i. The lines concurrent at point A
- ii. All the sets of collinear point
- iii. The point of intersection of 3 lines l, p and n

