

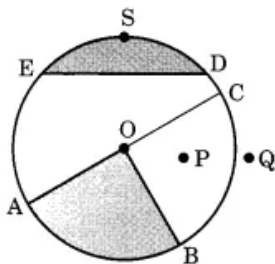
Board –CBSE

Class – 6<sup>th</sup>

Topic – Basic Geometrical Ideas Ex;4.6

## Exercise – 4.6

- Q1.** From the figure, identify:
- the center of the circle
  - three radii
  - a diameter
  - a chord
  - two points in the interior
  - a point in the exterior
  - a sector
  - a segment.



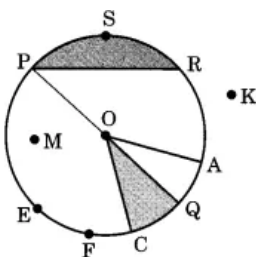
- Sol.** In the given figure,
- O is the center of the circle.
  - Three radii of the given circle are  $\overline{OA}$ ,  $\overline{OB}$  and  $\overline{OC}$
  - $\overline{AC}$  is the diameter of the circle.
  - $\overline{ED}$  is a chord of the circle.
  - O and P are in the interior of the circle.
  - Q is a point in the exterior of the circle.
  - OBA is a sector of the circle.
  - EDSE, the shaded region is a segment of the circle.
- Q2.**
- Is every diameter of a circle also a chord?
  - Is every chord of a circle also a diameter?
- Sol.**
- Yes, every diameter is the longest chord of a circle.

(b) No, every chord is not a diameter of a circle.

**Q3.** Draw any circle and mark

- (a) its centre
- (b) a radius
- (c) a diameter
- (d) a sector
- (e) a segment
- (f) a point in its interior
- (g) a point in its exterior
- (h) an arc.

**Sol.** In the given circle,



- (a) O is the center.
- (b)  $\overline{OA}$  is a radius.
- (c)  $\overline{PQ}$  is a diameter.
- (d) OQC is a sector (shaded part)
- (e) PSR (shaded part) is the segment.
- (f) M is in the interior of the circle.
- (g) K is in the exterior of the circle.
- (h)  $\overline{EF}$  is an arc of the circle.

**Q4.** Say 'true' or 'false'.

- (a) Two diameters of a circle will necessarily intersect.
- (b) The center of a circle is always in its interior.

**Sol.** (a) True

(b) True