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Test: Circles Class VI CBSE

I. Objective Questions:

Q1. Use the figure given below to fill in the blanks: **[1 x 10 = 10]**

(i) R is the _____ of the circle.

(ii) Diameter of a circle is_____

(iii) Tangent to a circle is _____

(iv) EF is a _____ of the circle

(v) _____ is a chord of the circle.

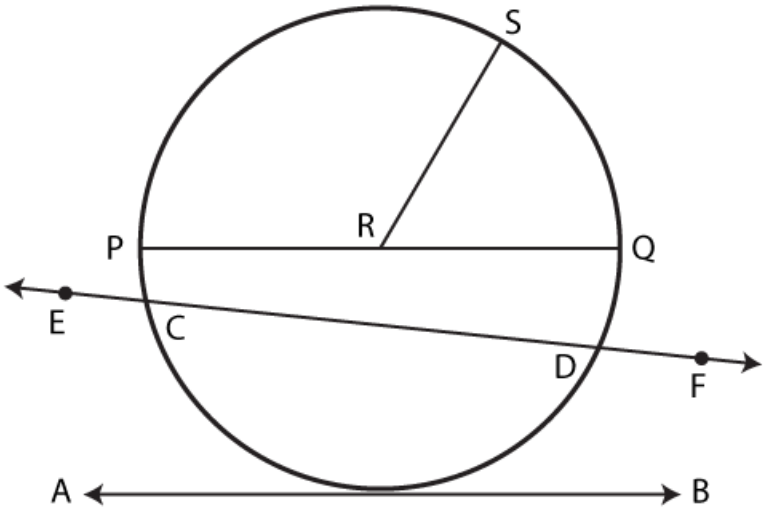
(vi) Diameter = 2 ×_____.

(vii)_____ is a radius of the circle.

(viii) If the length of RS is 5 cm, the length of PQ = _____

(ix) If PQ is 8 cm long, the length of RS = _____

(x) AB is a _____ of the circle



Q2. Fill in the blanks: **[0.5 x 13 = 6.5]**

(i) The diameter of a circle is _____times its radius.

(ii) The diameter of a circle is the _____ chord of the circle.

(iii) The diameter of a circle pass through_____

(iv) A chord of a circle is a line segment with its end points on the _____

(v) If we join any two points on a circle by a line segment, we obtain _____of the circle.

(vi) A radius of a circle is a line segment with one end at _____and the other end at _____

(vii) All radii of a circle are _____

(viii) The diameters of a circle are _____

(ix) The total number of diameters of a circle is _____

(x) Every point on a circle is _____ from its centre.

(xi) A chord of a circle contains exactly _____ points of the circle.

(xii) A diameter is the longest _____

(xiii) Concentric circles are circles having _____

Q3.A. In each of the following, state if the statement is true (T) or false (F): [0.5 x 9 = 4.5]

(i) Every circle has a centre.

(ii) The centre of a circle is a point of the circle.

(iii) Any two radii of a circle make up a diameter.

(iv) Every chord of a circle is parallel to some diameter of the circle.

(v) A circle is symmetric about each of its diameters.

(vi) The diameter is twice the radius.

(vii) A radius is a chord of the circle.

(viii) Concentric circles have the same radii.

(ix) The nearer a chord to the centre of a circle, the longer is its length.

Q3.B. State, which of following statements are true and which are false : [0.5 x 4 = 2]

(i) If the end points A and B of the line segment lie on the circumference of a circle, AB is a diameter.
(ii) The longest chord of a circle is its diameter.
(iii) Every diameter bisects a circle and each part of the circle so obtained is a semi-circle.
(iv) The diameters of a circle always pass through the same point in the circle.

Q4. A circle of radius r cm has a diameter of length (MCQ's = 1 mark each)
[1 x 7 = 7]

(a) r cm
(b) 2r cm
(c) 4r cm
(d) r/2 cm

Q5. A chord of a circle passing through its centre is equal to its

(a) radius
(b) diameter

(c) circumference
(d) none of these

Q6. The total number of diameters of a circle is
(a) 1
(b) 2
(c) 4
(d) uncountable number

Q7. By joining any two points on a circle, we obtain its
(a) radius
(b) diameter
(c) chord
(d) circumference

Q8. The longest chord of a circle is equal to its
(a) radius
(b) diameter
(c) circumference
(d) perimeter

Q9. How many circles can be drawn to pass through two given points?
(a) 1
(b) 2
(c) 0
(d) As many as possible

Q10. How many circles can be drawn to pass through three non-collinear points?
(a) 1
(b) 2
(c) 0
(d) As many as possible

II Main: Short Answer Questions: [2 x 4 = 8]

Q1. Draw a rough sketch of:
(a) open curve
(b) closed curve

Q2. The diameter of a circle is 12.6 cm. State, the length of its radius.

Q3. Can the length of a chord of a circle be greater than its diameter? Explain.

Q4. Draw a circle of diameter 7 cm. Draw two radii of this circle such that the angle between these radii is 90°. Shade the minor sector obtained. Write a special name for this sector.

III Main: Long Answer Questions: (Answer any 4 questions only) [3 x 4 = 12]

Q1. Draw a circle with centre O and radius 6 cm. Mark points P, Q, and R, such that

(i) P lies on the circle,

(ii) Q lies in the interior of the circle, and

(iii) R lies in the exterior of the circle.

Rewrite each of the following statements using the correct symbol (=, < or >):

(i) OQ …… 5 cm (ii) OP ……. 5 cm (iii) OR …… 5 cm.

Q2. Draw a circle with centre O and any radius. Draw AC and BD two perpendicular diameters of the circle. Join AB, BC, CD and DA.

Q3. Draw a semi-circle with centre O and radius 5 cm. Is the diameter that determines the semi-circle a part of the semi-circle?

Q4. Draw a circle of radius 6 cm. In the circle, draw a chord AB = 6 cm.

(i) If O is the centre of the circle, join OA and OB.

(ii) Assign a special name to $\triangle AOB$

(iii) Write the measure of angle AOB.

Q5. Draw a circle of radius 3.6 cm. In the circle, draw a chord AB = 5 cm. Now shade the minor segment of the circle.

Q6. Draw a line AB = 8.4 cm. Now draw a circle with AB as diameter. Mark a point C on the circumference of the circle. Measure angle ACB.

Q7. The centre of a circle is at point O and its radius is 8 cm. State the position of a point P (point P may lie inside the circle, on the circumference of the circle, or outside the circle), when :

(a) OP = 10.6 cm

(b) OP = 6.8 cm

(c) OP = 8 cm