CLASS 9th CIRCLES PRACTICE QUESTIONS

1. In the given figure, AB is the diameter of the circle. If C is a point on the circle such that \( \angle ADC = 70^\circ \), then \( \angle BAC \) is

\[ \text{(a) } 20^\circ \quad \text{(b) } 60^\circ \quad \text{(c) } 70^\circ \quad \text{(d) } 30^\circ \]

Ans: (a)

2. In the following figure, the bisectors of angles BAD and BCD intersect the circle at E and F respectively. If \( \angle EFA = 40^\circ \), then \( \angle AEF \) is

\[ \text{(a) } 60^\circ \quad \text{(b) } 50^\circ \quad \text{(c) } 40^\circ \quad \text{(d) } 30^\circ \]

Ans: (b)

3. In the given figure, PR is the diameter of the circle with centre O. \( \angle QPS = 40^\circ \) and \( \angle PQT = 30^\circ \). Then \( \angle TUR \) is

\[ \text{(a) } 40^\circ \quad \text{(b) } 50^\circ \quad \text{(c) } 60^\circ \quad \text{(d) } 70^\circ \]

Ans: (d)

4. In the given figure, \( \angle CAB = 80^\circ \), \( \angle ABC = 40^\circ \). The sum of \( \angle DAB + \angle ABD \) is equal to

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5. In the given figure, chord ED is parallel to the diameter AC of the circle. If \( \angle CBE = 65^\circ \), then the value of \( \angle DEC \) is

\[
\begin{align*}
\text{(a)} & \quad 35^\circ \\
\text{(b)} & \quad 55^\circ \\
\text{(c)} & \quad 45^\circ \\
\text{(d)} & \quad 25^\circ 
\end{align*}
\]

Ans: (d)

6. In the given figure, if \( \angle ACB = 40^\circ \), \( \angle DPB = 120^\circ \) then \( y \) will be

\[
\begin{align*}
\text{(a)} & \quad 40^\circ \\
\text{(b)} & \quad 20^\circ \\
\text{(c)} & \quad 0^\circ \\
\text{(d)} & \quad 60^\circ 
\end{align*}
\]

Ans: (b)

7. In figure, AB is a diameter of a circle with centre O. If \( \angle ABC = 70^\circ \), \( \angle CAD = 30^\circ \) and \( \angle BAE = 60^\circ \). Then \( \angle BAC \) is

\[
\begin{align*}
\text{(a)} & \quad 20^\circ \\
\text{(b)} & \quad 40^\circ \\
\text{(c)} & \quad 110^\circ \\
\text{(d)} & \quad \text{none of these}
\end{align*}
\]

Ans: (a)

8. In the given figure, AB is a diameter of the circle C and the radius OD is perpendicular to AB. If C is any point on \( \), then \( \angle BAD \) is

\[
\begin{align*}
\text{(a)} & \quad 45^\circ \\
\text{(b)} & \quad 60^\circ \\
\text{(c)} & \quad 20^\circ \\
\text{(d)} & \quad \text{none of these}
\end{align*}
\]

Ans: (a)

9. In the given figure, A, B, C and D are four points on a circle. AC and BD intersect at a point E such that \( \angle BEC = 130^\circ \) and \( \angle ECD = 20^\circ \), then \( \angle BAC \) is
10. In the given figure, the bisector of \( \angle B \) of an isosceles triangle \( \triangle ABC \) with \( AB = AC \) meets the circumcircle of \( \triangle ABC \) at \( P \). If \( AP \) and \( BC \) produced meet at \( Q \). Then which of the following is true.

\[(a) \ AB = PB \quad (b) \ AP = AB \quad (c) \ CQ = CA \quad (d) \ none \ of \ these \]

Ans: (c)

11. In the given figure, \( O \) is the centre of the circle. Then

\[(a) \ \angle x = \angle y \quad (b) \ \angle x - \angle y = \angle z \quad (c) \ \angle x + \angle y = \angle z \quad (d) \ none \ of \ these \]

Ans: (c)