# CONCEPT APPLICATION LEVEL - II

## SECTION -A

➢ **FILL IN THE BLANKS**

Q.1    The minimum interior angle possible for a regular polygon is _____.

Q.2    The sum of the measures of interior angle of a polygon of n-sides is 360°. Is it True?

Q.3    Can we have a regular polygon whose each exterior angle is 120°? _____.

Q.4    One angle of a parallelogram is 100° then its opposite angle and adjacent angle are _____, _____ respectively.

Q.5    If one angle of a rhombus is 60°, then the other angles is _____.

Q.6    Is every square a rhombus? _____

Q.7    Is every rhombus a square ? _____

Q.8    Is every parallelogram a rhombus? _____.

Q.9    If ∠A = 90°, ∠ECD = 60°, then the measures of x, y and z in the trapezium ABCD is _____, _____, _____.
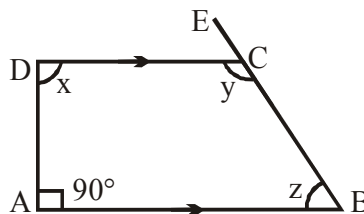


Q.10   Diagonals of a rhombus are equal and perpendicular to each other. Is it true? _____.

## SECTION -B

➢ **MULTIPLE CHOICE QUESTIONS**

Q.1    The number of sides of a regular polygon whose each exterior angle has a measure of 45°, is
(A) 5                (B) 6                (C) 7                (D) 8

Q.2    If the sides of a quadrilateral are produced in an order, the sum of the four exterior angles so formed is
(A) 180°            (B) 360°            (C) 540°            (D) 720°

Q.3    The measure of each angle of a convex quadrilateral is
(A) less than 180°    (B) equal to 180°    (C) greater than 180°    (D) none of these

Q.4    The angle of a quadrilateral are in the ratio 1 : 2 : 3 : 4. The largest angle is
(A) 36°            (B) 72°            (C) 108°            (D) 144°

Q.5    In the figure, the measure of ∠C is
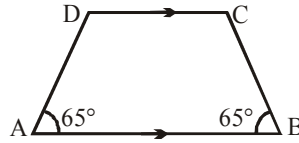


(A) 65°              (B) 115°              (C) 135°              (D) 125°

Q.6    A quadrilateral has three acute angles each measuring 70°. The measure of fourth angle is
       (A) 140°              (B) 150°              (C) 105°              (D) 120°

Q.7    If the angle of a quadrilateral are $x°$, $(x-10)°$, $(x+30)°$ and $2x°$, then the greatest angle is
       (A) 136°              (B) 180°              (C) 68°              (D) 148°

Q.8    The measures of two angles of a quadrilateral are 115° and 45°, and the other two angles are equal.
       The measure of each of the equal angles is
       (A) 200°              (B) 120°              (C) 100°              (D) 160°
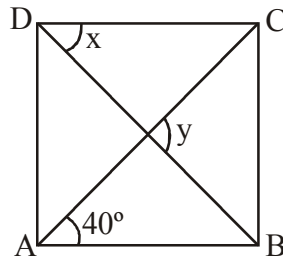
Q.9    In a square PQRS, the diagnonals bisect at T. Then ΔPTQ is.
       (A) An equilateral triangle                  (B) An isosceles but not right angled
       (C) A right angled but not isoscels          (D) An isosceles right angled

Q.10   A diagonal of a rectangle is inclined to one side of the rectangle at 35°. The acute angle between the
       diagonals is
       (A) 35°              (B) 45°              (C) 70°              (D) 55°

Q.11   In fig. ABCD is a rhombus. The value of $y-x$ is



(A) 40°              (B) 50°              (C) 20°              (D) 10°

Q.12   The sum interior angles of a hexagon is
       (A) 180°              (B) 360°              (C) 540°              (D) 720°
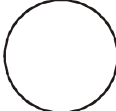
Q.13   The diagonals of a rhombus ABCD intersect at O, AO = 3 cm, BO = 4 cm then, length of BC is
       (A) 6 cm              (B) 8 cm              (C) 5 cm              (D) none.

Q.14   A quadrilateral whose angles are equal but only adjacent side are equal, then the quadrilateral is a
       (A) square              (B) rectangle              (C) rhombus              (D) parallelogram

Q.15    The adjacent angles of a prallelogram are in the ratio 4 : 5, then the measure of the adjacent angles is
        (A) 40º, 50º              (B) 80º, 80º              (C) 100º, 100º              (D) 80º, 100º

Q.16    One of the diagonals of a rhombus is of same length as the of the side of the rhombus. The angles of the
        rhombus measure.
        (A) 80º, 100º             (B) 60º, 80º              (C) 90º, 90º                (D) 60º, 120º

Q.17    Which of the following is not true ?
        (A) A plane figure formed by joining a number of points without lifting the pencil from the paper and
        without retracting any portion of the drawing other then single point is called a curve.
        (B) a simple closed curve made up of only line segments is called a polygon.

        (C)  is a figure of closed curve.

        (D) None of these

Q.18    Adjacent sides of a polygon are
        (A) any two sides of the polygon
        (B) any two sides connecting two non-consecutive vertices of a polygon
        (C) any two sides with a common vertex
        (D) None of these

Q.19    Adjacent vertices are
        (A) uncommon vertices of two adjacent sides of a polygon
        (B) end points of the same side of a polygone
        (C) end points of the diagonal of a polygon
        (D) none of these

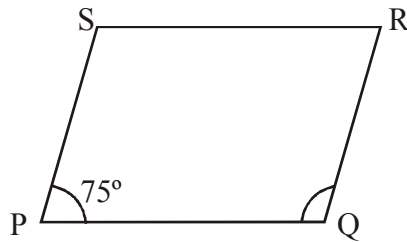Q.20    In the given figure

        

        (A) point A and B are in the interior of the curve
        (B) point B and C are at the exterior of the curve
        (C) point A is at the exterior of the curve and point C is in the interior of the curve
        (D) point A is in the interior of the curve and point C at the exterior of the curve

Q.21    Which of the following is not true ?
        (A) a polygon is a convex polygon if the line segement joining any two points inside it lies completely
            inside the polygon
        (B) if a polygon has position of its diagonal in tis exterior then it is known as a concave polygon
        (C) a polygon having all sides and all agnles equal is a regular polygon
        (D) rohombus is a regular polygon

Q.22    Which of the following is not true?
(A) equilateral triangle is a regular polygon          (B) square is a regular polygon
(C) rectangle is a regular polygon          (D) a regular polygon is both equiangular and equilateral.

Q.23    Which of the following is not true
(A) every trapezium is a parallelogram but every parallelogram is not a trapezium
(B) opposite sides of a parallelogram are not equal
(C) opposite angles of a parallelogram are equal
(D) both (A) and (B)

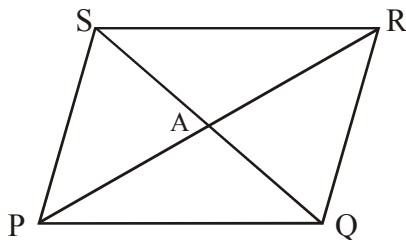Q.24    In the given figure, PQRS is a parallelogram. If $\angle P = 75º$, then $\angle Q$ is



(A) 75º                (B) 90º                (C) 105º                (D) 100º

Q.25    In the given figure, PQRS is a parallelogram. If perimeter of ||gm PQRS is 40 cm and PQ = 12 cm then PS is equal to
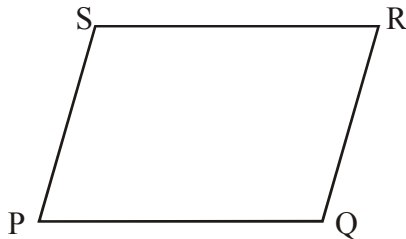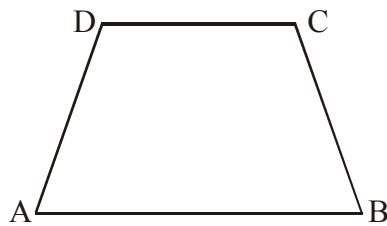


(A) 12 cm          (B) 10 cm          (C) 8 cm          (D) 9 cm

Q.26    In the given figure, PQRS is a parallelogram and diagonal PR and QS intersect each other at A. If QA = 3 cm, AR = 5 cm and PS = 6 cm, then perimeter of ΔAQR is



(A) 16 cm          (B) 14 cm          (C) 12 cm          (D) 10 cm

Q.27   In the given figure, ABCD is a trapezium in which AB ∥ CD. If ∠A = 50º then ∠D is equal to


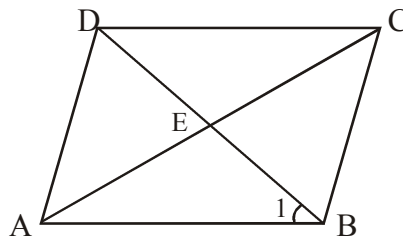
(A) 50º                    (B) 100º                    (C) 130º                    (D) 120º

Q.28   Which of the following is not the property of a square ?
(A) each angle of a square is a right angle
(B) the diagonals of a square are not equal
(C) the sides of a square are equal
(D) the diagonals of a square bisect each other at right angle

Q.29   In the given figure, ABCD is a rhombus. Diagonals AC and BD intersect each other at E. If ∠1 = 50º then ∠BCD is equal to



(A) 100º                    (B) 90º                    (C) 80º                    (D) none of these

Q.30   How many diagonals does a regular hexagon have ?
(A) 2                    (B) 0                    (C) 4                    (D) 9

Q.31   The angle sum of a convex polygon with number of sides 7 is
(A) 900º                    (B) 1080º                    (C) 1440º                    (D) 720º

Q.32   Two adjacent angles of a quadrilateral measure 130º and 40º. The sum of the remaining two angles is
(A) 190º                    (B) 180º                    (C) 360º                    (D) 90º

Q.33   the measure of each exterior angle of a regular polygon of 15 sides is
(A) 30º                    (B) 45º                    (C) 60º                    (D) 24º

Q.34   How many sides does a regular polygon have if each of its interior angles is 165º ?
(A) 12                    (B) 24                    (C) 9                    (D) 6

Q.35    In a regular polygon of n sides, the measure of each internal angle is

(A) $\dfrac{360^\circ}{n}$       (B) $\left(\dfrac{2n-4}{n}\right)90^\circ$       (C) $n\,90^\circ$       (D) 2n right angles.
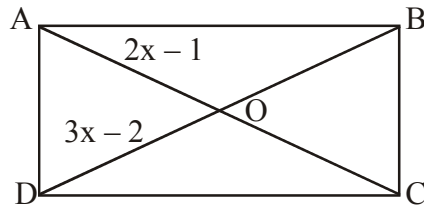
Q.36    If one angle of a parallelogram is of 65° then the measure of the adjacent angle is
(A) 65°                (B) 115°                (C) 25°                (D) 90°

Q.37    In a kite, what is false ?
(A) The diagonals are perpendicular to each other
(B) The diagonals equal to each other
(C) Only one paire of opposite angles is equal
(D) All the four sides are equal

Q.38    ABCD is rectangle. Its diagonals meet at O.



OA = 2x – 1, OD = 3x – 2. Find x
(A) 1                (B) 2                (C) 3                (D) – 1
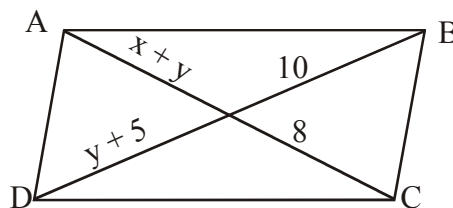
Q.39    In a parallelogram $\angle A : \angle B = 1 : 2$. Then $\angle A =$
(A) 30°                (B) 60°                (C) 45°                (D) 90°

Q.40    Two adjacent angles of a parallelogram are of equal measure. The measure of each angle of the parallelogram is
(A) 45°                (B) 30°                (C) 60°                (D) 90°

Q.41    ABCD is a parallelogram as shown. Find x and y.



(A) 1, 7                (B) 2, 6                (C) 3, 5                (D) 4, 4