



KINETICS

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IIT-JEE | Medical | Foundations

Quadrilaterals

Question 1.

A diagonal of a Rectangle is inclined to one side of the rectangle at an angle of 25° . The Acute Angle between the diagonals is :

- (a) 115°
- (b) 50°
- (c) 40°
- (d) 25°

Answer: (b) 50°

Question 2.

The diagonals of a rectangle PQRS intersect at O. If $\angle QOR = 44^\circ$, $\angle OPS = ?$

- (a) 82°
- (b) 52°
- (c) 68°
- (d) 75°

Answer: (c) 68°

Question 3.

If angles A, B, C and D of the quadrilateral ABCD, taken in order, are in the ratio 3:7:6:4, then ABCD is

- (a) rhombus
- (b) parallelogram
- (c) trapezium
- (d) kite

Answer: (c) trapezium

Question 4.

All the angles of a convex quadrilateral are congruent. However, not all its sides are congruent. What type of quadrilateral is it?

- (a) Parallelogram
- (b) Square
- (c) Rectangle
- (d) Trapezium

Answer: (c) Rectangle

Question 5.

In a Quadrilateral ABCD, $AB = BC$ and $CD = DA$, then the quadrilateral is a

- (a) Triangle
- (b) Kite
- (c) Rhombus
- (d) Rectangle

Answer: (b) Kite

Question 6.

The angles of a quadrilateral are $(5x)^\circ$, $(3x + 10)^\circ$, $(6x - 20)^\circ$ and $(x + 25)^\circ$. Now, the measure of each angle of the quadrilateral will be

- (a) 115° , 79° , 118° , 48°
- (b) 100° , 79° , 118° , 63°
- (c) 110° , 84° , 106° , 60°
- (d) 75° , 89° , 128° , 68°

Answer: (a) 115° , 79° , 118° , 48°

Question 7.

The diagonals of rhombus are 12 cm and 16 cm. The length of the side of rhombus is:

- (a) 12 cm
- (b) 16 cm
- (c) 8 cm
- (d) 10 cm

Answer: (d) 10 cm

Question 8.

In quadrilateral PQRS, if $\angle P = 60^\circ$ and $\angle Q : \angle R : \angle S = 2 : 3 : 7$, then $\angle S =$

- (a) 175°
- (b) 210°
- (c) 150°
- (d) 135°

Answer: (a) 175°

Question 9.

In parallelogram ABCD, if $\angle A = 2x + 15^\circ$, $\angle B = 3x - 25^\circ$, then value of x is:

- (a) 91°
- (b) 89°
- (c) 34°
- (d) 38°

Answer: (d) 38°

Question 10.

If ABCD is a trapezium in which $AB \parallel CD$ and $AD = BC$, then:

- (a) $\angle A = \angle B$
- (b) $\angle A > \angle B$
- (c) $\angle A < \angle B$
- (d) None of the above

Answer: (a) $\angle A = \angle B$

Question 11.

The diagonals of a parallelogram:

- (a) Equal
- (b) Unequal
- (c) Bisect each other
- (d) Have no relation

Answer: (c) Bisect each other

Question 12.

The sum of all the angles of a quadrilateral is equal to:

- (a) 180°
- (b) 270°

- (c) 360°
- (d) 90°

Answer: (c) 360°

Question 13.

If an angle of a parallelogram is two-third of its adjacent angle, the smallest angle of the parallelogram is:

- (a) 81°
- (b) 54°
- (c) 108°
- (d) 72°

Answer: (d) 72°

Question 14.

In a parallelogram ABCD, if $\angle A = 75^\circ$, then $\angle B = ?$

- (a) 95°
- (b) 80°
- (c) 105°
- (d) 15°

Answer: (c) 105°

Question 15.

Angles of a quadrilateral are in the ratio 3 : 6 : 8 : 13. The largest angle is :

- (a) 178°
- (b) 156°
- (c) 90°
- (d) 36°

Answer: (b) 156°

Question 16.

Perimeter of a parallelogram is 22 cm. If the longer side, measures 6.5 cm, the measure of the shorter side will be

- (a) 4.5 cm
- (b) 6.5 cm
- (c) 2.5 cm
- (d) 3.0 cm

Answer: (a) 4.5 cm

Question 17.

If ABCD is a Parallelogram with 2 Adjacent angles $\angle A = \angle B$, then the parallelogram is a

- (a) Rhombus
- (b) Triangle
- (c) Rectangle
- (d) Square

Answer: (c) Rectangle

Question 18.

Which of the following is not a parallelogram?

- (a) Rectangle
- (b) Rhombus
- (c) Square
- (d) Trapezium

Answer: (d) Trapezium

Question 19.

In a parallelogram the sum of two consecutive angles is

- (a) 360°
- (b) 100°
- (c) 180°
- (d) 90°

Answer: (c) 180°

Question 20.

Two angles of a quadrilateral are 50° and 80° and other two angles are in the ratio 8 : 15. Find the measure of the remaining two angles.

- (a) 100° , 130°
- (b) 140° , 90°
- (c) 80° , 150°
- (d) 70° , 160°

Answer: (c) 80° , 150°

Question 21.

The opposite angles of a parallelogram are $(3x - 2)^\circ$ and $(50 - x)^\circ$ the measure of these angles is

- _____.
- (a) $140^\circ, 140^\circ$
 - (b) $20^\circ, 160^\circ$
 - (c) $37^\circ, 143^\circ$
 - (d) $37^\circ, 37^\circ$

Answer: (d) $37^\circ, 37^\circ$

Question 22.

The diagonals AC and BD of a parallelogram ABCD intersect each other at the point O. If $\angle DAC = 32^\circ$, $\angle AOB = 70^\circ$, then $\angle DBC$ is equal to:

- (a) 32°
- (b) 88°
- (c) 24°
- (d) 38°

Answer: (d) 38°

Question 23.

Each angle of rectangle is:

- (a) More than 90°
- (b) Less than 90°
- (c) Equal to 90°
- (d) Equal to 45°

Answer: (c) Equal to 90°

Question 24.

A diagonal of a parallelogram divides it into two congruent:

- (a) Square
- (b) Parallelogram
- (c) Triangles
- (d) Rectangle

Answer: (c) Triangles
