

Constructions

Question 1.

Two radii of the same circle are always:

- (a) may be inclined at any angle
- (b) parallel
- (c) parallel and may be inclined at any angle
- (d) perpendicular

Answer: (c) parallel and may be inclined at any angle

Question 2.

In $\triangle ABC$, which of the following information is needed to construct it if it is known that measure of $\angle B = 60^\circ$ and $BC = 6 \text{ cm}$:

- (a) $AB + BC$
- (b) $CA + AB$
- (c) $BC + CA$
- (d) All of the above

Answer: (d) All of the above

Question 3.

With the help of a ruler and a compass, it is possible to construct an angle of

- (a) 40°
- (b) 37.5°
- (c) 47.5°
- (d) 35°

Answer: (b) 37.5°

Question 4.

The construction of $\triangle ABC$, given that $BC = 5 \text{ cm}$, $\angle B = 60^\circ$ is not possible when the difference

of AB and AC is equal to

- (a) 4.2 cm
- (b) 5.9 cm.
- (c) 4 cm.
- (d) 3 cm.

Answer: (b) 5.9 cm.

Question 5.

Which of the following angles can be constructed using ruler and compass?

- (a) 35°
- (b) 40°
- (c) 90°
- (d) 50°

Answer: (c) 90°

Question 6.

Two radii of same circle are always :

- (a) may inclined at any angle
- (b) perpendicular
- (c) parallel
- (d) parallel and may inclined at any angle

Answer: (d) parallel and may inclined at any angle

Question 7.

If two circles touches internally then distance between their centres is equal to

- (a) sum of radii
- (b) difference of radii
- (c) not possible to determine
- (d) none

Answer: (b) difference of radii

Question 8.

On a ray AB with initial point A, Taking A as centre and some radius, draw an arc of a circle, which intersects AB, say at a point D. Taking D as centre and with the same radius as before, draw an arc intersecting the previously drawn arc, say at a point E. Draw the ray AC passing through E. Then, the measure of $\angle CAB$ is

- (a) 30°
- (b) 60°
- (c) 45°
- (d) 15°

Answer: (b) 60°

Question 9.

An angle whose measure is more than 180° and less than 360° is called a

- (a) Reflex angle
- (b) Acute angle
- (c) Straight angle
- (d) Complete angle

Answer: (a) Reflex angle

Question 10.

With the help of a ruler and compass, it is possible to construct an angle of

- (a) 40°
- (b) 37.5°
- (c) 65°
- (d) 50°

Answer: (b) 37.5°

Question 11.

Which of the following angles can be constructed using ruler and compasses?

- (a) 35°
- (b) 45°
- (c) 95°
- (d) 55°

Answer: (b) 45°

Question 12.

In $\triangle ABC$ if $\angle B = \angle C = 30^\circ$, which of the following is the longest side?

- (a) BC
- (b) AC
- (c) AB
- (d) none

Answer: (a) BC

Question 13.

An external bisector of an angle measuring 70° will divide the angle into two angles measuring

- (a) 35°
- (b) 55°
- (c) 70°
- (d) 110°

Answer: (b) 55°

Question 14.

The point of concurrence of the three angle bisectors of a triangle, is called

- (a) Centroid
- (b) Incentre
- (c) Circumcentre
- (d) Orthocentre

Answer: (b) Incentre

Question 15.

The construction of a triangle ABC with $AB = 4$ cm and $\angle A = 60^\circ$ is not possible when difference of BC and AC is equal to

- (a) 3.5 cm
- (b) 4.5 cm
- (c) 2.5 cm
- (d) 3 cm

Answer: (b) 4.5 cm

Question 16.

On a ray AB with initial point A, Taking A as centre and some radius, draw an arc of a circle, which intersects AB, say at a point D. Taking D as centre and with the same radius as before, draw an arc intersecting the previously drawn arc, say at a point E. Draw the ray AC passing through E. Then, the measure of $\angle CAB$ is

- (a) 15°
- (b) 30°
- (c) 45°
- (d) 60°

Answer: (d) 60°

Question 17.

Which of these angles cannot be constructed using ruler and compasses?

- (a) 120°
- (b) 60°
- (c) 140°
- (d) 135°

Answer: (c) 140°

Question 18.

The internal and external bisectors of an angle form a

- (a) Acute angle
- (b) Straight angle
- (c) Right angle
- (d) Reflex angle

Answer: (c) Right angle

Question 19.

The bisector of an angle lies in its

- (a) Interior
- (b) On the arms of the angle
- (c) Any where in the plane
- (d) Exterior

Answer: (a) Interior

Question 20.

If two circles touches internally then distance between their centres is equal to

- (a) difference of radii
- (b) not possible to determine
- (c) sum of radii
- (d) none

Answer: (a) difference of radii

Question 21.

To construct a $\triangle ABC$ in which $BC = 10$ cm and $\angle B = 60$ degrees and $AB + AC = 14$ cm, then the length of BD used for construction.

- (a) 7 cm
- (b) 14 cm
- (c) 20 cm
- (d) 10 cm

Answer: (b) 14 cm

Question 22.

With the help of a ruler and compass, it is not possible to construct an angle of

- (a) 35°
- (b) 67.5°
- (c) 82.5°
- (d) 7.5°

Answer: (a) 35°
