KINETICS
We Nurture The Future
IIT-JEE | Medical | Foundations

Constructions

Question 1.
Two radii of the same circle are always:
(a) may inchired at any angle
(b) parallel
(c) parallel and may inchired at any angle
(d) perpendicular

Answer: (c) parallel and may inchired at any angle

Question 2.
In Δ ABC, which of the following information is needed to construct it if it is known that measure of ∠B = 60 and BC = 6 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 ΔABC, given that BC = 5 cm, ∠B = 600 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 inchired at any angle
(b) perpendicular
(c) parallel
(d) parallel and may inchired at any angle

Answer: (d) parallel and may inchired 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 Δ ABC if $\angle B = \angle C = 300$, 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 ∠A = 60° 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 ∠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 radil
(b) not possible to determine
(c) sum of radil
(d) none

Answer: (a) difference of radil

Question 21.
To construct a ΔABC in which BC = 10 cm and ∠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 rular 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°
