

## Unit 13 – Practical Geometry (Circles)

### Multiple Choice Questions

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Three possible answers are given for the following questions. Tick (✓) the correct answer.

- The circumference of a circle is called:  
(a) Chord            (b) segment  
(c) Boundary        (d) point
- A line intersecting a circle is called:  
(a) Tangent          (b) secant  
(c) Chord            (d) diameter
- The portion of a circle between two radii and an arc is called:  
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(a) Sector            (b) segment  
(c) Chord            (d) interior
- Angle inscribed in a semi-circle is:  
(a)  $\frac{\pi}{2}$                 (b)  $\frac{\pi}{3}$   
(c)  $\frac{\pi}{4}$                 (d)  $\pi$
- The length of the diameter of a circle is how many times the radius of the circle?  
(a) 1                    (b) 2  
(c) 3                    (d) 4
- The tangent and radius of a circle at the point of contact are:  
(a) Parallel  
(b) Not perpendicular  
(c) Perpendicular  
(d) Collinear

7. Circles having three points in common  
 (a) Overlapping  
 (b) Collinear  
 (c) Not coincide  
 (d) Non-concentric
8. If two circles touch each other, their center and point of contact are:  
 (a) Coincident (b) non collinear  
 (c) Collinear (d) non co planer
9. The measure of the external angle of a regular hexagon is:  
 (a)  $\frac{\pi}{3}$  (b)  $\frac{\pi}{4}$   
 (c)  $\frac{\pi}{6}$  (d)  $\pi$
10. If the in-center and circum-centre of a triangle coincide, the triangle is:  
 (a) An isosceles  
 (b) A right triangle  
 (c) An equilateral  
 (d) A scalene triangle
11. The measure of the external angle of a regular octagon is:  
 (a)  $\frac{\pi}{4}$  (b)  $\frac{\pi}{6}$   
 (c)  $\frac{\pi}{8}$  (d)  $\pi$
12. Tangents drawn at the end points of the diameter of a circle are:  
 (a) Parallel (b) perpendicular  
 (c) Intersecting (d) non co planer
13. The lengths of two transverse tangents to a pair of circles are:  
 (a) Un equal (b) equal  
 (c) Overlapping  
 (d) Double of each other
14. How many tangents can be drawn from a point outside the circle?  
 (a) 1 (b) 2  
 (c) 3 (d) none
15. If the distance between the center of two circles is equal to the sum of the their radii, then the circles will:  
 (a) Intersect  
 (b) Do not intersect  
 (c) Touch each other externally  
 (d) Touch each other internally
16. If the two circles touches externally, then the distance between their center is equal to the:  
 (a) Difference of their radii  
 (b) Sum of their radii  
 (c) Product of the their radii  
 (d) Division of their radii
17. How many common tangents can be drawn for two touching circles?  
 (a) 1 (b) 2  
 (c) 3 (d) 4
18. How many common tangents can be drawn for two disjoint circles?  
 (a) 1 (b) 2  
 (c) 3 (d) 4

19. How many common tangents can be drawn for two intersecting circles?  
 (a) 1 (b) 2  
 (c) 3 (d) 4
20. The word geometry is derived from two \_\_\_ words Geo and Matron.  
 (a) English (b) Latin  
 (c) Greek (d) Chinese
21. Euclid was a \_\_\_ mathematician.  
 (a) English (b) Latin  
 (c) Greek (d) Chinese
22. The circle passing through vertices of a triangle is called:  
 (a) circus – circle (b) in-circle  
 (c) Escribed circle (d) right circle
23. The circle which touches the three sides of a triangle is called:  
 (a) circus – circle (b) in-circle  
 (c) Escribed circle (d) right circle
24. The circle touching one side of the triangle externally and two produced sides internally is called:  
 (a) circus – circle (b) in-circle  
 (c) Escribed circle (d) right circle
25. Tangent is a line touching a circle at:  
 (a) No point (b) one point  
 (c) Two points (d) infinite points
26. Two circles of different radii can touch each other at:  
 (a) No point (b) one point  
 (c) Two points (d) infinite points
27. Two circles of same radii can touch each other at:  
 (a) No point (b) one point  
 (c) Two points (d) infinite points

1.	c	2.	b	3.	a	4.	a	5.	b
6.	c	7.	a	8.	c	9.	a	10.	c
11.	a	12.	a	13.	b	14.	b	15.	c
16.	b	17.	c	18.	d	19.	b	20.	c
21.	c	22.	a	23.	b	24.	c	25.	b
26.	b	27.	d						