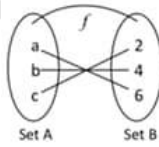
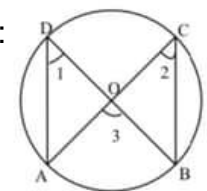


**Class 10 Mathematics
Paper 2021(Local)**

Q1. MCQs

1. The necessary condition for $ax^2 + bx + c = 0$ to be a quadratic equation is:
 (a) $a = 0$ (b) $b = 0$ **(c)** $a \neq 0$ (d) $b \neq 0$
2. If ω is the cube root of unity then $(1 + \omega - \omega^2)^8$ is equal to:
(a) 256ω (b) -256ω (c) ω^2 (d) ω
3. The value of x in the following continued proportion 8, x, 18 is:
 (a) 21 (b) $\frac{9}{4}$ (c) $\frac{4}{9}$ **(d)** 12
4. An equation that satisfies all the values of a variable is called:
(a) Identity (b) Equation (c) Conditional (d) In equation
5. For the given function the most suitable option is:
 (a) Onto (b) One-to-one
 (c) Into and one-to one **(d)** Bijective
 
6. The nth positive root of the product of $x_1, x_2, x_3, \dots, x_n$ observation is called:
(a) Geometric mean (b) Harmonic mean
 (c) Arithmetic mean (d) Median
7. If $\tan \theta = \sqrt{3}$, then θ is equal to:
 (a) 90° (b) 45° **(c)** 60° (d) 30°
8. The largest chord in a circle is:
 (a) Secant **(b)** Diameter (c) Tangent (d) Radius
9. The tangents drawn to a circle from a point outside it are:
 (a) Mutually Parallel (b) Mutually perpendicular
(c) Equal (d) Double
10. A pair of chords of a circle subtending two congruent central angles are:
(a) Congruent (b) Incongruent (c) Parallel (d) Overlapping
11. The angle in a segment less than a semicircle is:
 (a) Acute **(b)** Obtuse
 (c) Right (d) Less than right angle
12. In the adjacent figure if $m\angle 3 = 75^\circ$ then $m\angle 1$ and $m\angle 2$ respectively are:
 (a) $37.5^\circ, 75^\circ$ (b) $75^\circ, 37.5^\circ$
(c) $37.5^\circ, 37.5^\circ$ (d) $75^\circ, 75^\circ$

13. The circle passing through the three vertices of triangle is:
(a) Circumcircle (b) In circle (c) Escribe circle (d) Semicircle
14. If two circles touch each other, their centers and point of contact are:
 (a) Coinciding (b) Non coinciding
 (c) Non-collinear **(d)** Collinear
15. The length of two transverse tangents to a pair of circles are:
 (a) Parallel (b) Not equal **(c)** Equal (d) Overlapping