10th Class 2019

Math (Science)	Group-II	PAPER-II
Time: 20 Minutes	(Objective Type)	Max. Marks: 15

Note: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

1-1- A fraction in which the degree of the numerator is less than the degree of the denominator is called ----.

(a) An equation   (b) An improper fraction

(c) An identity   (d) A proper fraction ✓

2- A circle has only one ----.

(a) Secant   (b) Chord

(c) Diameter   (d) Centre ✓

3- $\dfrac{1}{1 + \sin \theta} + \dfrac{1}{1 - \sin \theta}$:

(a) $2 \sec^2 \theta$ ✓   (b) $2 \cos^2 \theta$

(c) $\sec^2 \theta$ (d) $\cos \theta$

4- How many common tangents can be drawn for two touching circles?

(a) 1   (b) 2

(c) 3 ✓   (d) 4

5- The number of methods to solve a quadratic equation is:

(a) 1   (b) 2

(c) 3 ✓   (d) 4

6- Power set of an empty set is:

(a) ϕ (b) {a}

(c) {ϕ, {a}}   (d) {ϕ} ✓

7- The symbol for a triangle is denoted by:

(a) $\angle$ (b) $\triangle$ ✓

(c) $\perp$ (d) $\odot$

8- In a ratio a : b, a is called:

(a) Relation   (b) Antecedent √

(c) Consequent   (d) Proportion

9- The length of a chord and the radial segment of a circle are congruent, then the central angle made by the chord will be ----.

(a) 30°   (b) 45°

(c) 60° √   (d) 75°

10- If A and B are disjoint sets, then $A \cup B$ is equal to:

(a) A   (b) B

(c) ϕ (d) $B \cup A$ √

11- Two square roots of unity are:

(a) 1, −1 √   (b) 1, ω

(c) 1, −ω (d) ω, ω^2

12- The third proportional of x^2 and y^2 is:

(a) $\dfrac{y^2}{x^2}$ (b) $x^2 y^2$

(c) $\dfrac{y^4}{x^2}$ √   (d) $\dfrac{y^2}{x^4}$

13- A histogram is a set of adjacent:

(a) Squares   (b) Rectangles √

(c) Circles   (d) Triangles

14- Sum of cube roots of unity is:

(a) 0 √   (b) 1

(c) −1   (d) 3

15- $\dfrac{3\pi}{4}$ radians = ----.

(a) 115°   (b) 135° √

(c) 150°   (d) 30°