Mathematics (Science) | **Lahore, Tenth 2021** | **Paper**

Time: 20 Min | **Objective Type** | **Marks : 15**

(Group-I)

(Session 2017-2019 to 2019-2021)

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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 Two square roots of unity are : (12)

Ⓐ 1, -1 Ⓑ 1, ω

Ⓒ 1, $-\omega$ Ⓓ ω, ω^2

2 A circle has only one ——— :

Ⓐ Secant Ⓑ Chord

Ⓒ Diameter Ⓓ Centre

3 The spread or scatterness of observations in a data set is called :

Ⓐ Average Ⓑ Central tendency

Ⓒ Dispersion Ⓓ Mean

4 The portion of a circle between two radii and an arc is called :

Ⓐ Chord Ⓑ Segment

Ⓒ Sector Ⓓ Diameter

5 Two linear factors of $x^2 - 15x + 56$ are :

Ⓐ $(x-7)$ & $(x+8)$ Ⓑ $(x+7)$ & $(x-8)$

Ⓒ $(x-7)$ & $(x-8)$ Ⓓ $(x+7)$ & $(x+8)$

6 If $A \subseteq B$, then $A \cup B$ is equal to :

Ⓐ A Ⓑ B

Ⓒ ϕ Ⓓ A - B

7 Line segment joining any point of the circle to the centre is called : _____

Ⓐ Radial segment Ⓑ Diameter

Ⓒ Circumference Ⓓ Perimeter

8 In a proportion a : b : : c : d , b and c are called :

Ⓐ Means Ⓑ Extremes

Ⓒ Third proportional Ⓓ Fourth proportional

9 The arcs opposite to incongruent central angles of a circle are always :

Ⓐ Congruent Ⓑ Incongruent

Ⓒ Parallel Ⓓ Perpendicular

10 The domain of R. = {(0, 2), (2, 3). (3, 3), (3, 4)}is :

Ⓐ {0, 3, 4} Ⓑ {2, 3, 4}

Ⓒ {0, 2, 4} Ⓓ {0, 2, 3}

11 If α, β are the roots of $x^2 - x - 1 = 0$, then product of the roots 2α and 2β is :

Ⓐ -2 Ⓑ 2

Ⓒ 4 Ⓓ -4

12 If $y^2 \propto \frac{1}{x^3}$, then :

Ⓐ $y^2 = \frac{k}{x^3}$ Ⓑ $y^2 = \frac{1}{x^3}$

Ⓒ $y^2 = x^3$ Ⓓ $y^2 = kx^3$

13 A histogram is a set of adjacent :

Ⓐ Squares Ⓑ Rectangles

Ⓒ Circles Ⓓ Triangles

14 Product of cube roots of unity is :

Ⓐ 0 Ⓑ 1

Ⓒ -1 Ⓓ 3

15 $\frac{3\pi}{4}$ radians = :

Ⓐ 115° Ⓑ 30°

Ⓒ 150° Ⓓ 135°