

Mathematics	9th, Gujranwala Board, 2015	Group - II
Time: 20 Min.	Objective	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. Cutting or filling two or more circles will result in zero mark in that question.

1.1 Arthur Cayley introduced the "Theory of Matrices" in _____

- (A) 1854 (B) 1856
(C) 1858 (D) 1860

2 The value of $(-i)^8$ is _____.

- (A) $-i$ (B) i
(C) -1 (D) $+1$

3 Antilogarithm table was prepared by _____

- (A) John Napier (B) Henry Briggs
(C) Jobst Burgi (D) Arthur Cayley

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$$x^3 - \frac{1}{x^3} = \left(x - \frac{1}{x}\right) \left(\text{_____}\right)$$

- (A) $\left(x - \frac{1}{x}\right)^2$ (B) $\left(x^2 - \frac{1}{x^2}\right)$

- (C) $x^2 - 1 + \frac{1}{x^2}$ (D) $x^2 + 1 + \frac{1}{x^2}$

5 If $(x - 2)$ is a factor of $P(x) = x^2 + 2kx + 8$, then the value of k is _____.

- (A) 3 (B) -3
(C) 2 (D) -2

6 The square root of

$$x^2 + 1 + \frac{1}{4x^2} \text{ is _____}$$

- (A) $\pm\left(x - \frac{1}{2x}\right)$ (B) $\pm\left(x + \frac{1}{2x}\right)$

- (C) $\left(x - \frac{1}{2x}\right)^2$ (D) $\sqrt{\left(x - \frac{1}{2x}\right)}$

7 Which is the solution set of the inequality $9 - 7x > 19 - 2x$?

- (A) -2 (B) 2
(C) -7 (D) 19

8 If $(x - 1, y + 1) = (0, 0)$, then (x, y) is equal to

- (A) $(-1, 1)$ (B) $(1, 1)$
(C) $(-1, -1)$ (D) $(1, -1)$

9 Mid-point of the line segment joining A $(8, 0)$ and $(0, -12)$ is _____.

- (A) $(8, -12)$ (B) $(4, 0)$
(C) $(4, -6)$ (D) $(0, -6)$

10 Symbol "for all" is _____

- (A) \forall (B) \exists
(C) \supset (D) \subset

11 How many right angles have a parallelogram?

- (A) 4 (B) 2
(C) 1 (D) 0

12 The hypotenuse of a right angle triangle is _____ than each of the other two sides.

- (A) double (B) half
(C) longer (D) shorter

13 Similar triangles are _____ in size.

- (A) same (B) different
(C) parallel (D) similar

14 A triangular region means the _____ of triangle and its interior.

- (A) compliment (B) intersection
(C) union (D) outlines

15 The point of concurrency of the three altitudes of a triangle is called

- (A) centroid (B) orthocentre
(C) circumcentre (D) in-centre