MATHEMATICS 2019

Time: 30 minutes 10th Class Karachi Board **Max. Marks: 20**

SECTION "A" (MULTIPLE CHOICE QUESTIONS)

1. Choose the correct answer for each from the given options:

1. The median of 2, 8, 6, 10, 4, 12 is: • 6 • 7 • 8 • 9
2. Sin 30° =

• $\frac{\sqrt{3}}{2}$ • $\frac{1}{\sqrt{2}}$ • $\frac{1}{2}$ • $\frac{1}{\sqrt{3}}$

3. The multiplicative inverse of a – b is:

• $-a+b$ • $a+b$ • $\frac{1}{a-b}$ • $\frac{1}{a+b}$

4. In 35, 30, 10, 48, 100, 90 the range ® is:

• 10 • 90 • 100 • 35

5. If $(x^3 + 4x^2 - 7x + 3) \div (x - 1)$ then the reminder is:

• 0 • 1 • 2 • -1

6. If $x = 2 + \sqrt{5}$, then x^2 is:

• 9 • $2\sqrt{5}$ • $9 + 4\sqrt{5}$ • none of these

7. The characteristic of log 226.7 is:

• $\bar{2}$ • $\bar{3}$ • 2 • 3

8. The point of concurrency of the medians of a triangle is called: • centroid • circum-centre
• in-centre • none of these

9. $8^{1/3} \times 36^{1/2} =$ • 8 • 36 • 12 • 24

10. The mean proportion of 14 and 56 is:

• 14 • 56 • 28 • 70

11. (-5, -3) is in quadrant:

• 1^{st} • 2^{nd} • 3^{rd} • 4^{th}

12. The solution set of $3x^2 - 10x = 0$ is:

• {10} • $\left\{\frac{10}{3}\right\}$ • {0} • $\left\{0, \frac{10}{3}\right\}$

13. If $\log_7 x = 2$, then x is:

• 14 • 128 • 49 • 64

14. If $x + y = 5$ and $x - y = 5$ then $4xy =$

• 10 • 25 • 0 • 5

15. H.C.F of $a^3 + b^3$ and $a^2 - ab + b^2$ is:

• $a + b$ • $a - b$ • $a^2 - ab + b^2$ • $a^2 + b^2$

16. The cartesion product of sets A and B is written as:

• A.B • A x B • A Δ B • B x A

17. If a:b = c:d then a:c = b:d this property of proportion is called: • invertendo • Dividendo
• Alternando • Componendo

18. The angle inscribed in a major arc is a/an: • Right angle
• Obtuse angle • Acute angle • None of these

19. The sum of two complementary angles is:

• 180° • 45° • 90° • 360°

20. If |A| = 0 then matrix A is called:

• Singular matrix • Non-singular matrix
• Square matrix • None of these