

MATHEMATICS

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 natural logarithm has the base:
• π • e • 10 • none of these
2. $\{2, 3, 5, 7, \dots\}$ is the set of:
• Prime number • Whole number
• Natural number • Even number
3. $\frac{a}{\sqrt{a}} = \dots$ • a • $\frac{1}{\sqrt{a}}$ • \sqrt{a} • a^2
4. The Cartesian product of set A and B is written as:
• A.B • $A \times B$ • $A \Delta B$ • $B \times A$
5. If $x = 1$ and $y = 1$, then value of $x - y + xy$ will be:
• 1 • 0 • 2 • -1
6. The sum of supplementary angles is:
• 90° • 180° • 360° • None of these
7. $x^4 + 64$ will be a perfect square by adding:
• 16 • $16x^4$ • $16x^2$ • 8
8. The duplicate ratio of $2a : 3b$ is:
• $4a^2 : 9b^2$ • $8a^3 : 27b^3$ • $\sqrt{2a} : \sqrt{3b}$ • None of these
9. If $\sum D = 125$, $A = 25$ and $n = 5$, then x is:
• 50 • 100 • 150 • None of these
10. $1 - \sin^2 \theta = \dots$
• $\cos \theta$ • $\tan \theta$ • $\sec \theta$ • $\sin \theta$
11. The value which appears most often in a set of data is called:
• range • mode • mean • median
12. The angle inscribed in a major arc is:
• acute • obtuse • right • none of these
13. $a : b :: b : c$ then b is called:
• mean Proportion • 1^{st} Proportion
• 4^{th} Proportion • none of these
14. $4 \times 5^0 = \dots$ • 4 • 5 • 20 • 0
15. $\sqrt[5]{43}$, 5 is called:
• Index • radicand • exponent • none of these
16. The point through which medians of a triangle pass is called:
• Orthocenter • Centroid • circum centre • in centre
17. The multiplicative inverse of $a - b$ is:
• $a + b$ • $-a + b$ • $\frac{1}{a - b}$ • $\frac{1}{a + b}$
18. $(\sqrt{2} + 1)(\sqrt{2} - 1) = \dots$
• 2 • 0 • 1 • $\sqrt{2}$
19. The degree of polynomial $x^2 + xy^2 + y$ is:
• 2 • 3 • 4 • 1
20. The characteristic of 0.08595 is:
• 2 • 2 • 1 • $\bar{1}$