Class – VIII **Subject – Mathematics**

Section – A

Q1. 'a' and '$\sqrt{b}$' varies inversely as each other and a = 6 when b = 16. If a = 8, then b = ?

(a) 36	(b) 12
(c) 3	(d) 9

Q2. The value of $[(3^2 + 4^2)^{½}]^3$ is equal to –

(a) 256	(b) 7^3
(c) 125	(d) 27

Q3. The measure of each interior angle of a Nonagon is –

(a) 140°	(b) 180°
(c) 40°	(d) 90°

Q4. Two cubes have their volumes in the ratio 1:8, then the ratio of their surface areas is –

(a) 1 : 2	(b) 2 : 1
(c) 1 : 4	(d) 1 : 3

Q5. The distance of the point (4, –3) from the x-axis is –

(a) 4 units	(b) –3 units
(c) 5 units	(d) 3 units

Q6. Cards are marked with numbers 1 to 25 are placed in a box and mixed thoroughly, one card is drawn at random from the box. What is the probability of getting a prime number ?

(a) $\frac{8}{25}$	(b) $\frac{9}{25}$
(c) $\frac{12}{25}$	(d) $\frac{13}{25}$

Q7. Factorised form of $m^2 – 14m – 32$ is

(a) (m – 8) (m – 4)	(b) (m + 16) (m – 2)
(c) (m –8) (m + 4)	(d) (m – 16) (m + 2)

Q8. I purchased an article for ₹400. If the cost of the article after two years depreciates to ₹361, then the rate of depreciation is –

(a) 4 %	(b) 5 %
(c) 3 %	(d) 5½ %

Q9. We have four squares : (i) $(217)^2$, (ii) $(61)^2$, (iii) $(83)^2$, (iv) $(109)^2$.
Which of the above squares will end with digit '1' ?

(a) Only (ii)	(b) (i), (ii) and (iv)
(c) Only (iv)	(d) (ii) and (iv)

Q10. The additive identity for rational numbers is –

(a) –1	(b) 0
(c) 1	(d) 0.5

Q11. The number of edges of a pyramid with square base is _____ .

(a) 5	(b) 6
(c) 8	(d) 12

Q12. If 1A × A = 7A , then A = ?

(a) 7	(b) 5
(c) 0	(d) 1

Q13. 10000.012 in standard form is -

(a) 1.0000012×10^4	(b) 10.000012×10^4
(c) 1.0000012×10^{-4}	(d) $0.10000012 \times 10^{-5}$

Q14. The number of times a particular entry occurs in an observation is known as –

(a) range	(b) frequency
(c) class size	(d) none of these

Q15. If $8x = (45)^2 - (43)^2$, then x is equal to –

(a) 12	(b) $\frac{1}{4}$
(c) 11	(d) 22

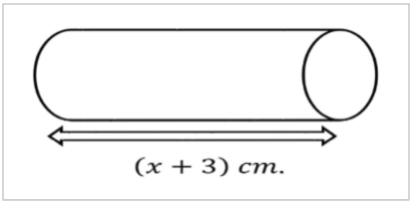
Q16. The area of a trapezium is 28 cm² and one of its parallel sides is 8 cm. If the distance between parallel sides is 4 cm., then the other parallel side is –

(a) 8 cm.	(b) 7 cm.
(c) 9 cm.	(d) 6 cm.

Q17. The value of $[(2789)^0]^{-2}$ is equal to –

(a) $\frac{1}{(2789)^2}$	(b) –2
(c) 2789	(d) 1

Q18. Height of the adjacent figure is $(x + 3)$ cm. and curved surface area is $(10\pi x^2 + 28\pi x - 6\pi)$ cm², then radius of the base of the given figure is



(a) $(5x - 1)$ cm.	(b) $(10x - 2)$ cm.
(c) π cm.	(d) none of these

Q19. **DIRECTION: In this question, a statement of Assertion (A) is followed by a statement of Reason (R).**

Statement A (Assertion): If two diagonals of a rectangle are of length (4x + 1) cm. and (2x + 15) cm., then the value of x is 8.

Statement R (Reason): Two diagonals of a rectangle are equal.

Choose the correct option.

(a) Both A and R are true and R is the correct explanation for A.	(a) Both A and R are true and R is not the correct explanation for A.
(c) A is true but R is false.	(d) A is false but R is true.

Q20. **DIRECTION: In this question, a statement of Assertion (A) is followed by a statement of Reason (R).**

Statement A (Assertion): A boy runs 2 km in 30 minutes. Then he will take 9 minutes to ran 600 m.

Statement R (Reason): If speed is uniform, the distance covered is directly proportional to time taken.

Choose the correct option.

(a) Both A and R are true and R is the correct explanation for A.	(a) Both A and R are true and R is not the correct explanation for A.
(c) A is true but R is false.	(d) A is false but R is true.