KOTHARI INTERNATIONAL SCHOOL, NOIDA
ANNUAL EXAMINATION, SESSION: 2025-26
GRADE: 8 SUBJECT: MATHEMATICS
SET B SECTION A (OBJECTIVE)

DAY & DATE: MONDAY – MARCH 9, 2026
MAXIMUM MARKS: 20 **TIME ALLOTTED: 30 MINUTES**
NAME: _____ **ROLL NO: _____**

GENERAL INSTRUCTIONS:

i. This question paper consists of 3 pages and contains 20 questions.
ii. Read the question carefully and then attempt it.
iii. All questions are compulsory.

Q1. **A point is at a distance of 4 units from the x-axis and 5 units from the y-axis. Write the possible coordinates of the point.** **(1)**

(a) (4, 5) **(b) (5, 0)** **(c) (5, 4)** **(d) (0, 4)**

Q2. **The square root of $0.16 + 2 \times 0.28 + 0.49$ is:** **(1)**

(a) $\sqrt{0.16} + \sqrt{0.49}$ **(b) $2\sqrt{0.28}$** **(c) 0.9** **(d) 1.1**

Q3. **For which value of a is the equation $a^2 + 2a - 55 = 200$ true?** **(1)**

(a) $a = -15$ **(b) $a = 15$** **(c) $a = 0$** **(d) $a = 17$**

Q4. **In a certain exam of 300 marks, 150 is the qualifying marks. Rohit scored 120 out of 300. In order to qualify the exam, what percentage of obtained marks he must need to secure more?** **(1)**

(a) 50% **(b) 25%** **(c) 30%** **(d) 10%**

Q5. **Assuming land to be uniformly fertile, the area of land and the yield on it vary** **(1)**

(a) directly with each other.
(b) inversely with each other.
(c) neither directly nor inversely with each other.
(d) sometimes directly and sometimes inversely with each other.

Q6. **Create an equation based on the condition that if the numerator is increased by 17 and the denominator is decreased by 1, the fraction becomes $\frac{3}{2}$.** **(1)**

(a) $\frac{(x+17)}{(y+1)} = \frac{3}{2}$ **(b) $\frac{(x+17)}{(y-1)} = \frac{3}{2}$** **(c) $\frac{(x-17)}{(y+1)} = \frac{3}{2}$** **(d) $\frac{(x-17)}{(y-1)} = \frac{3}{2}$**

Q7. The value of $\sqrt{10+\sqrt{25+\sqrt{108+\sqrt{154+\sqrt{225}}}}}$ **(1)**

(a) 4 **(b) 3** **(c) 1** **(d) 9**

Q8. If $\sqrt[3]{1+\frac{x}{2197}}=\frac{12}{13}$ then the value of $-(x+1)$ is **(1)**

(a) -468 **(b)468** **(c) -172** **(d) 564**

Q9. Which of the following ratio represents a larger quantity? **(1)**

(a) 2:3 **(b) 4:7** **(c) 3:5** **(d) 5:9**

Q10. The area of one face of a cube is $36m^2$. The volume of the cube is: **(1)**
(a) 36 m^3 **(b) 108 m^3** **(c) 216 m^3** **(d) 1296 m^3**

Q11. Assertion (A): If $x-\frac{1}{x}=\frac{3}{2}$ then the value of $x^2+\frac{1}{x^2}=\frac{17}{4}$ **(1)**

Reasons (R): $(a-b)^2=a^2+b^2-2ab$

(a) Both A and R are true and R is the correct explanation of A

(b) Both A and R are true but R is not the correct explanation of A

(c) A is true but R is false

(d) A is false but R is true

Q12. Assertion (A): The quadratic expression $4x^2+7x+3$ can be factorised as $(4x+3)(x+1)$. **(1)**

Reason (R): In the mid-term split method, the middle term is always split into two equal parts.

(a) Both A and R are true and R is the correct explanation of A

(b) Both A and R are true but R is not the correct explanation of A

(c) A is true but R is false

(d) A is false but R is true

Q13. The perimeter of a circle and its diameter vary _____with each other. **(1)**

Q14. Find the value of $(a - b)^2 - (a + b)^2$ _____. **(1)**

Q15. Number of terms in the expression $a^2 + bc \times da$ is _____. **(1)**

Q16. In a two-digit number, the digit in the ten's place is 4 less than twice the digit in the unit's place. If the units digit is x, then the number in terms of x is _____. **(1)**

Q17. Ratio of area of a circle to the area of a square whose side equals radius of circle is _____. **(1)**

Q18. If the price of sugar is decreased by 20%, then the new price of 3kg sugar originally costing ₹ 120 will be _____. **(1)**

Q19. An auto rickshaw takes 3 hours to cover a distance of 36 km. If its speed is increased by 4 km/h, the time taken by it to cover the same distance is _____. **(1)**

Q20. After 18 years, Swarnim will be 3 times as old as he is now. His present age in terms of x is _____. **(1)**