## Sylhet Cadet College 2nd Term-End Examination - 2024 Class: VII

## Subject: Mathematics

Time: 25 minutes Full Marks: 30

 $[{\rm N.B\text{-}Answer}\ {\rm all}\ {\rm the}\ {\rm questions.}\ {\rm Each}\ {\rm question}\ {\rm is}\ {\rm worth}\ {\rm 01}\ ({\rm one})\ {\rm mark.}]$ 

Cadet No Form: Sign of Invigilator:
Short Questions
1. If a piece of paper is folded 10 times, how many layers are created?
2. What is the value of $\frac{2^5}{4^2}$
3. What is GCD of $\frac{1}{2}$ and $\frac{1}{4}$ ?
4. What is Unit Ratio?
5. In a polygon, what is the relationship between the no. of vertices and the no. of sides?
6. Which ratio gives us the value of Pi $(\pi)$ ?
7. If $4x + 6 = 18, x = ?$
8. If $\frac{a}{c} = \frac{d}{b}, b = ?$
9. What is the LCM of $\frac{1}{2}$ and $\frac{1}{6}$
10. The ratio of two numbers is 2:3. If the first number is 20, what is the other number?
11. Where do you have to put your finger to hold a disk on it?
12. $x - 42 = 915; x = ?$
13. Write ten thousand in exponent form.
14. Write 3 mutliples of 0.3, excluding itself.
15. Write 2 common factors of $\frac{1}{2}$ and $\frac{1}{4}s$
16. A:B = 5:6 and B:C = 8:12. What is A:B:C? $\_$
17. Two numbers are 10 and 35. Express them as a ratio.
18. The are of a circle is 28.26. What is its radius? [assume $\pi = 3.14$ ]
19. Name the type of the equation: $ax^2 + bx + c$
20. $d \div 20 = 20$ . What is the value of d?
21. $(2^{-2})^2 = ?$
22. If $8^{27} \times 8^x = 8^{30}$ , what is the value of x?
23. Write 10 Crore in exponent form.
24. Price of 4 apples is equal to that of 2 apples and 1 orange. If price of an apples is 5 taka, what is the price of an orange?
25. A pattern is: $X_n = 3 \times 2^{n-1}$ ; where $X_n$ is the nth value. what is 5th number?
26. What is the value if 2 is divided by 0.5?
27. Write down 3 multiples of $\frac{1}{6}$
28. $\frac{1}{3}, \frac{1}{4}, \frac{2}{4}, \frac{4}{9} \rightarrow \text{Which is the greatest?}$
29. $0.25, 0.125, 0.30, 0.55 \rightarrow$ Which one is a factor of 0.5 ?
30. The radius of a circle is 1 m. What is its circumference?