INDIAN SCHOOL AL WADI AL KABIR

Pre-Mid-Term Examination (2025-26)

Class: VIII | Sub: MATHEMATICS | Max Marks: 30

Date: 22/05/2025 | Set - 1 | Time: 1 hour

Instructions:

Section A: Multiple Choice Questions (Q.1 to Q.8)

Section B: Source based questions (Q.9 to Q.12)

Section C: Long Answer Questions (Q.13 to Q.16)

Section D: 4 Marks Question & Case study Question (Q.17 to Q.18).

NOTE: This question paper consists of 3 printed pages.

Section A: Multiple Choice Question (Q.1 to Q.6) of **1** mark each

1. If m=$(3^4 \div 3^2) + 3^0$, the value of m is:

A 1 **B** 9 **C** 3 **D** 10

2. The property used in $\frac{5}{7} \times (\frac{-3}{11} \times \frac{6}{13}) = (\frac{5}{7} \times \frac{-3}{11}) \times \frac{6}{13}$

A Commutativity **B** Associativity **C** Identity **D** Distributivity

3. Seven more than thrice of a number gives 43 can be written as equation as:

A 7x +3 = 43 **B** $\frac{x}{3}$ +7 = 43 **C** 3x +7 = 43 **D** 7x – 3 = 43

4. The value of $\left(\frac{8}{5}\right)^{-3}$ is:

A $\frac{125}{512}$ **B** $\frac{512}{125}$ **C** $\frac{-125}{512}$ **D** $\frac{-512}{125}$

5. The size of a bacteria is 0. 00000543.It can be expressed in standard form as:

A 5.43×10^{-5} **B** 5.43×10^{-6} **C** 0.543×10^{-5} **D** 543×10^{-6}

6. If 2t -11= 25, then t is equal to

A $\frac{7}{2}$ **B** 12 **C** 18 **D** 8

7. The standard form of $\frac{48}{-56}$ is:

A $\frac{-6}{7}$ **B** $\frac{6}{-7}$ **C** $\frac{24}{-28}$ **D** $\frac{-7}{6}$

8. The multiplicative inverse of $\frac{-4}{3}\times\frac{9}{20}$ is:

A $\frac{5}{3}$ **B** $\frac{-3}{5}$ **C** $\frac{-5}{3}$ **D** $\frac{-5}{-3}$

Section B: Source based questions (Q.9 to Q.12) of 1 mark each

Mithali and Navami played card game of exponents and powers. They removed all cards with image. To start out both of them flip one at the same time and this card is base. Next both flip up the next card and this card is exponent. The player who gets higher value wins that round and the winner must answer the questions on laws of exponents. Based on the information answer the following questions.

9. The value of $(5^3 \div 5^4) \times 5^5$

A 2 **B** 125 **C** 625 **D** 225

10. Simplify: $\{(2)^{-2} \times (2)^5\} \div 2$

A 8 **B** 4 **C** $\frac{1}{4}$ **D** -4

11. The value of $\left[\frac{(8^0+7^0)\times(5^0+9^0)}{(13^0\times 3^0)}\right]^2$ is

A 1 **B** 4 **C** 8 **D** 16

12. The value of $(3^2)^3 \times \left(\frac{2}{3}\right)^0 \times 3^5 \times \left(\frac{1}{3}\right)^0$

A 3^{11} **B** 3^{13} **C** 3^{10} **D** 3^{12}

Section C: Long Answer Questions (Q13 to Q.16)

13. Simplify by distributive property: $\frac{2}{9} \times \frac{5}{12} + \frac{2}{9} \times \frac{-3}{4}$ (2m)

14. Preeti has 9 marbles more 5 times the marbles Poonam has. If Preeti has 39 marbles, how many marbles Poonam has? (2m)

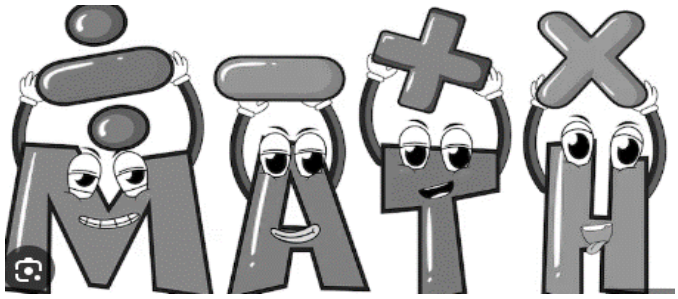
15. The rational numbers $\frac{-6}{5}$, $\frac{-1}{5}$, $\frac{4}{5}$ and 0 on the same number line. (3m)

16. Simplify: $\frac{32^{-1} \times 2^{7} \times m^{-5}}{3^{-7} \times 81 \times m^{-7}}$ (3m)

Section D: Long Answer Question of 4 marks &Case study (Q.17 & Q.18)

17. Find 4 rational numbers between $\frac{3}{7}$ and $\frac{4}{8}$. (4m)

18. Case Study: To enhance the calculating skill of grade 8 students, the school set up Mathematics club activity, Neha and Midhun were selected as leaders of the activity. Testing students on exponents is a smart way to build their foundational math skills and they prepared few questions for this as given below. Answer the following questions.



I. Evaluate: $\left(\frac{1}{5}\right)^{-2} + \left(\frac{1}{3}\right)^{-2} - \left(\frac{1}{2}\right)^{-2}$ (2m)

II. Find the value of y if $\left(\frac{7}{11}\right)^{2y+1} \times \left(\frac{7}{11}\right)^{2} = \left(\frac{7}{11}\right)^{9}$ (2m)

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