



SINDHI HIGH SCHOOL, BENGALURU
PERIODIC TEST-II [2024-25]
SUBJECT: MATHEMATICS

Class: VIII

Date: 9-12-2024

No of Sides: 2

Max Marks: 50

Reading Time: 8:25-8:35am

Writing Time: 8:35-9:35am

GENERAL INSTRUCTIONS:

- This Question Paper has 5 Sections A-E.
- Section A has 6 MCQs carrying 1 mark each
- Section B has 4 questions carrying 02 marks each.
- Section C has 6 questions carrying 03 marks each.
- Section D has 2 question carrying 05 marks..
- Section E has 2 case based integrated units of assessment carrying 4 marks sub-parts of the values of 1, 2 and 1.

	Section A	
	Section A consists of 6 questions of 1 mark each.	
1	The standard form of the number 0.00000037 is a) 3.7×10^{-6} b) 3.7×10^{-7} c) 3.7×10^{-8} d) 3.7×10^{-7}	1
2	Cube of an even natural number is a) a prime number b) an even natural number c) of an odd natural number d) the number itself	1
3	$2x^2 - 3x^3 + 4x^2$ is a) monomial b) trinomial c) binomial d) quadrinomial	1
4	$(\frac{-3}{4})^{-2}$ is equal to a) $\frac{3}{4}$ b) $\frac{-4}{3}$ c) $\frac{-9}{16}$ d) $\frac{-16}{9}$	1
5	The digit in the units place in the cube of 27 is a) 9 b) 3 c) 2 d) 1	1
6	Assertion: $3^{-7} \div 3^4 = 3^{-11}$ Reason: When we multiply two numbers having the same base we add the powers a) Both Assertion and Reason are correct and Reason is the correct explanation of assertion. b) Both Assertion and Reason are correct, but Reason is not the correct explanation of assertion. c) Assertion is correct but Reason is incorrect. d) Assertion is incorrect but Reason is correct.	1
	Section B	
	Section B consists of 4 questions of 2 marks each.	
7	Simplify $(\frac{1}{5})^{-3} \times (\frac{1}{25})^2$	2
8	Find the cube root of 1728 using prime factorisation	2
9	Find the product of	2

	$(x^2 - 3)(x^2 + 7)$	
10	a) Add $3xy$, $-12xy$ and $53xy$ b) Subtract $7ab$ from $-19ab$	2
	Section C	
	Section C consists of 6 questions of 3 marks each.	
11	Find m if $3^{-7} \div 3^{-10} = 3^{2m-1}$	3
12	Find the smallest number with which 2160 should be divided to make it a perfect cube . Write the cube root of the new number .	3
13	a) Simplify the following $-3a^2 + 7a(3a - 2b)$ b) Subtract $-p+6q-r$ from the sum of $3p-4q+4r$ and $2p+3q-8r$	3
14	a) Write the multiplicative inverse of i) $(\frac{5}{8})^{-2}$ ii) $(\frac{-2}{7})^3$ b) Find the value of $(-2)^2 \times (-2)^6$ using laws of exponents.	3
15	Find $\sqrt[3]{\frac{512}{1331}}$	3
16	Simplify using laws of exponents $\left[\left(\frac{2}{3}\right)^{-2} \times \left(\frac{1}{2}\right)^3\right] \div \left(\frac{1}{3}\right)^{-4}$	3
	Section D	
	Section D consists of 2 questions of 5 marks	
17	Find the side of a cube whose volume is 2744 cu cm If each side is increased by 2 cm ,what will the volume of the new cube .	5
18	Find the product of $(p^2 - 8p + 4q)$ and $(5p+2)$. find its value if $p = 1$, $q = (-2)$	5
	Section E	
	Section E consists of 2 questions of 4 marks	
19	Suresh has purchased a smart watch .There were many attractive features in it but the one Suresh liked the most was counting the number of foot steps.One day Suresh saw that the number of steps he has taken is 42,875 Based on this number answer the following questions a) Is the given number a perfect cube ? b) What is the digit in the ones place in cube root of the number c) Express 42875 as a product of its prime factors in exponential form	4
20	The students of a school are working on a project to enhance their school environment by creating a vibrant school garden.The garden is a rectangular plot of land ,whose length is $(x+3y)$ and breadth $(7x -8y)$. a) Rose plants are planted all along the border of the plot as a fence What is the total length of the land covered by the rose plants b) Grass saplings are planted inside the plot .What is the area covered by grass c) The cost of ploughing the plot was Rs $5z$ per square m . Find the amount spent in terms of z	4