OSDAV Public School, Kaithal
May Test (2025-26)
Class: VIII
Subject: Mathematics

SET-A

Time: 1 hr 20 min. **M.M.:30**

General Instructions:-

I. All questions are compulsory.

Q.No.	Questions	Marks
	Section -A	
1)	The value of $\sqrt{40+\sqrt{81}}$ is (a) 47 (b) 7 (c) 29 (d) 49	**1**
2)	A number which is not a perfect cube, is (a) 3.43 (b) 0.343 (c) 343 (d) 0.0343	**1**
3)	The value of $\frac{5}{\sqrt{0.25}}$ is (a) $\frac{1}{10}$ (b) $\frac{5}{10}$ (c) 10 (d) 1	**1**
4)	If $5^{x-8}=1$ then the value of x is (a) 8 (b) 1 (c) 9 (d) 2	**1**
5)	**Assertion:** $\sqrt[3]{\frac{8}{512}}=\frac{1}{4}$ **Reason:** $a^m \div a^n = a^{m-n}$,where a be any non –zero rational number and m and n be integer. **(a)** Both assertion and reason are correct and Reason is the correct explanation for assertion. **(b)** Both assertion and reason are correct and Reason is not the correct explanation for assertion. **(c)** Assertion is true but reason is false. **(d)** Both assertion and reason are false.	**1**
	Section -B	
6)	Find the square root of 25 by repeated subtraction method.	**2**
7)	Evaluate: $\sqrt[3]{1728\times(-512)}$	**2**
8)	Find the cube root of 12167 by estimation method.	**2**
9)	Find the value of $(0.03125)^{-2/5}$	**2**
	Section -C	
10)	Find the least number which must be subtracted from 18265 to obtain a perfect square. Also find the square root of the number so obtained.	**3**
11)	Find the value of $[7\{(8)^{1/3}+(125)^{1/3}\}^2]^{1/3}$	**3**
12)	Evaluate: $\sqrt[3]{\frac{0.512}{0.343}} \div \sqrt{\frac{0.64}{0.49}}+1$	**3**
	Section-D	
13)	Find the smallest number by which 53240 must be divided so that it becomes a perfect cube. Also find the cube root of the number so obtained.	**4**
14)	Find the square root of $3\frac{3}{5}$ correct up to three places of decimal.	**4**

OSDAV Public School, Kaithal
May Test (2025-26)
Class: VIII
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SET-B

Time: 1 hr 20 min. **M.M.:30**

General Instructions:-

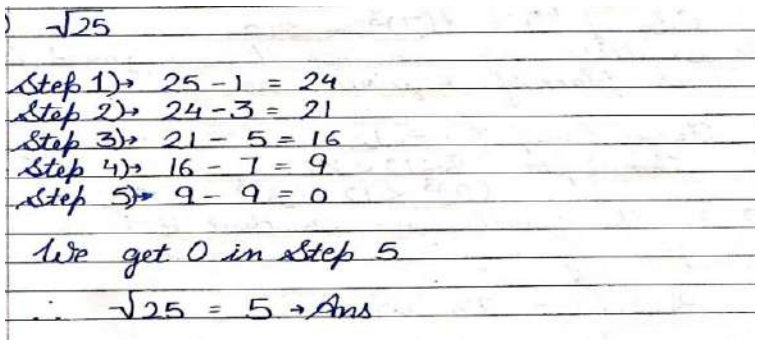
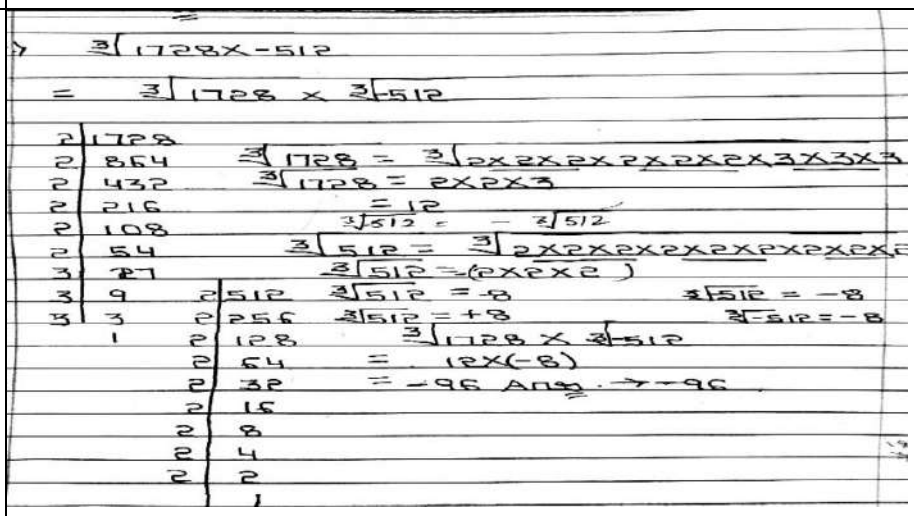
I. All questions are compulsory.

Q.No.	Questions	Marks
	Section -A	
1)	How many non-square numbers lie between 50^2 and 51^2 is (a) 100 (b) 102 (c) 101 (d) 250	**1**
2)	The value of $\sqrt{249+\sqrt{49}}$ is (a) 4 (b) 16 (c) 25 (d)18	**1**
3)	If $6^{x-1}=36$ then the value of x is (a) 2 (b) 3 (c) 1 (d) 7	**1**
4)	Which of the following is a Pythagorean triplet? (a) 8,15,17 (b) 13,20,21 (c) 8,9,10 (d) 2,3,4	**1**
5)	**Assertion:** $\sqrt[3]{\frac{-64}{125}}=\frac{-4}{5}$ **Reason:** for a positive integer x, $\sqrt[3]{-x}$ = - $\sqrt[3]{x}$ **(a)** Both assertion and reason are correct and Reason is the correct explanation for assertion. **(b)** Both assertion and reason are correct and Reason is not the correct explanation for assertion. **(c)** Assertion is true but reason is false. **(d)** Both assertion and reason are false.	**1**
	Section -B	
6)	Evaluate: $\sqrt[3]{121}\times\sqrt[3]{297}$	**2**
7)	Find the cube root of 110592 by estimation method.	**2**
8)	Find the value of $(0.03125)^{-2/5}$	**2**
9)	Find the square root of 16 by repeated subtraction method.	**2**
	Section -C	
10)	Evaluate: $\sqrt[3]{\frac{0.512}{0.343}}\div\sqrt{\frac{0.64}{0.49}}-1$	**3**
11)	Find the least number which must be subtracted from 194491 to obtain a perfect square. Also find the square root of the number so obtained.	**3**
12)	Find the value of $[11\{(125)^{1/3}+(216)^{1/3}\}^2]^{1/3}$	**3**
	Section-D	
13)	Find the square root of $2\frac{1}{2}$ correct up to three places of decimal.	**4**
14)	Find the smallest number by which 53240 must be divided so that it becomes a perfect cube. Also find the cube root of the number so obtained.	**4**

OSDAV Public School, Kaithal
May test 2025
Class: VIII
Subject: Maths

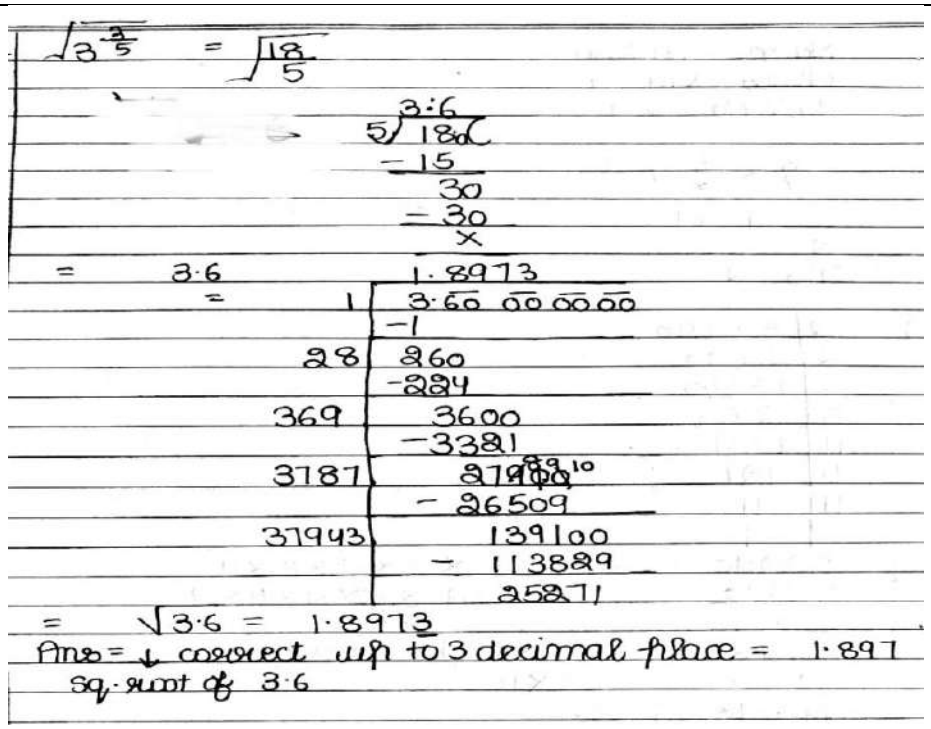
Set A

Time: 1 hr 30 min. **M.M: 30**

Q.No.	Questions	Marks
	Section A	
1	(b) 7	1
2	(a) 3.43 or (d) 0.0343	1
3	(c) 10	1
4	(a) 8	1
5)	(b) both Assertion and reason are correct and reason is not the correct explanation for assertion.	1
	Section B	
6)		1 ½ + ½
7)		1 for prime factors+ ½ for grouping+ ½ for answer

8)	Q8→ $\sqrt{12167}$ Step1 1st group 167, 2nd group 12 Step2 From 1st group Ones digit of no. 167 = 7 Cube of 7 = 343 ∴ 3 is the required ones place digit Step3→ From 2nd group $8 < 12 < 27$ $(2)^3 \quad (3)^3$ ∴ 2 is the required tens place digit ∴ $\sqrt{12167} = 23$ Ans.	**½ ×4=2**
9)	$(0.03125)^{-\frac{2}{5}}$ $= \left(\frac{3125}{100000}\right)^{-\frac{2}{5}}$ $= \left[\left(\frac{5}{10}\right)^5\right]^{-\frac{2}{5}}$ $= \left(\frac{5}{10}\right)^{-2}$ $= \left(\frac{10}{5}\right)^2$ $= (2)^2$ $= 4$ Ans. → 4	½ ½ ½ ½
	Section -C	
10)	$\sqrt{18265}$ 135 1 | 182 65 1 ↓ 23 | 82 69 ↓ 265 | 1365 1325 40 ∴ 40 is the smallest no. must be subtracted 18265 −40 18225 ∴ $\sqrt{18225} = 135$ Ans.	**1 ½** **½** **1**

11)	$\left[7\left\{(8)^{\frac{1}{3}}+(125)^{\frac{1}{3}}\right\}^2\right]^{\frac{1}{3}}$ $\left[7\left\{(2)^{3\times\frac{1}{3}}+(5)^{3\times\frac{1}{3}}\right\}^2\right]^{\frac{1}{3}}$ $\left[7\left\{2+5\right\}^2\right]^{\frac{1}{3}}$ $\left[7(7)^2\right]^{\frac{1}{3}}$ $\left[7\times 49\right]^{\frac{1}{3}}$ $\left[343\right]^{\frac{1}{3}}$ $\left[7^3\right]^{\frac{1}{3}}$ $(7)^{3\times\frac{1}{3}} = 7$ Ans.	**1 ½** **1 ½**
12)	$\sqrt[3]{\frac{512}{1000}\div\frac{343}{1000}}\div\sqrt{\frac{64}{100}\div\frac{49}{100}}+1$ $\sqrt[3]{\frac{512}{1000}\times\frac{1000}{343}}\div\sqrt{\frac{64}{100}\times\frac{100}{49}}+1$ $\sqrt[3]{\frac{512}{343}}\div\sqrt{\frac{64}{49}}+1$ $=\frac{8}{7}\div\frac{8}{7}+1$ $\Rightarrow\frac{8}{7}\times\frac{7}{8}+1$ $1+1$ $=2$ Ans	**1+1+1**
	Section -D	
13)	$\rightarrow$ 53240 2 | 53240 2 | 26620 2 | 13310 5 | 6655 11 | 1331 11 | 121 11 | 11 | 1 $\therefore$ 5 is the smallest no. must be divided $\frac{53240}{5}=\frac{10648}{1}$ $\quad 53240 = 2\times2\times2\times5\times11\times11\times11$ $\Rightarrow 10648=(2)^3\times(11)^3$ $\Rightarrow 10648=(2\times11)^3$ $\Rightarrow 10648=(22)^3$ $\therefore\sqrt[3]{10648}=22$ Ans.	**2 for prime factors 1/2 for grouping** **½ for finding no.+ 1 for cube root**

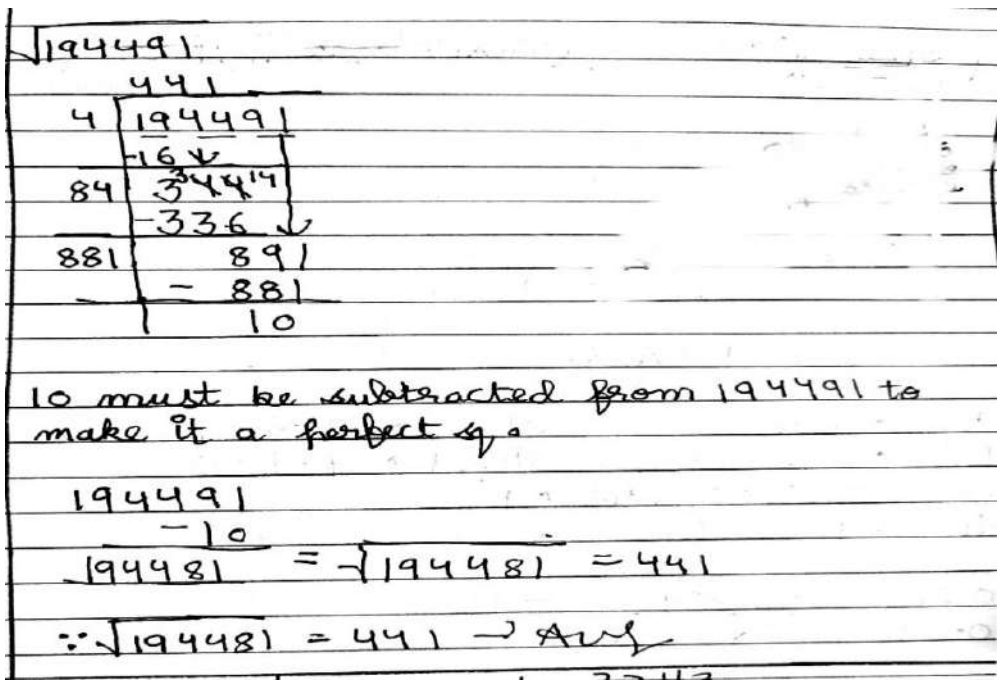
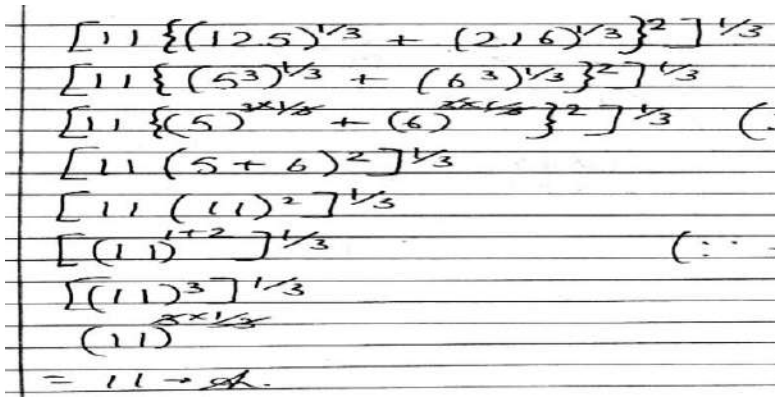
14)		½ **3** ½

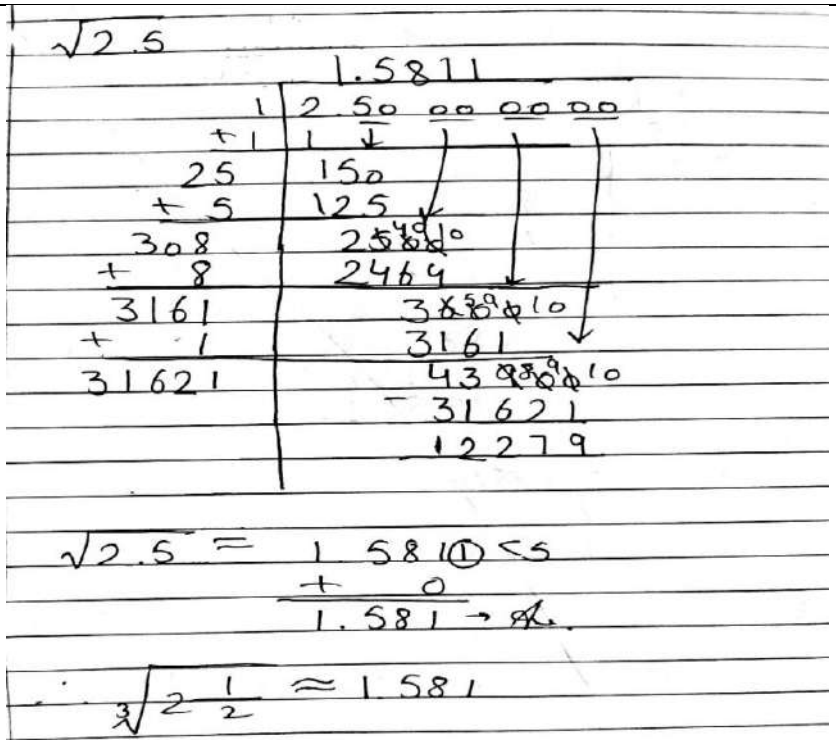
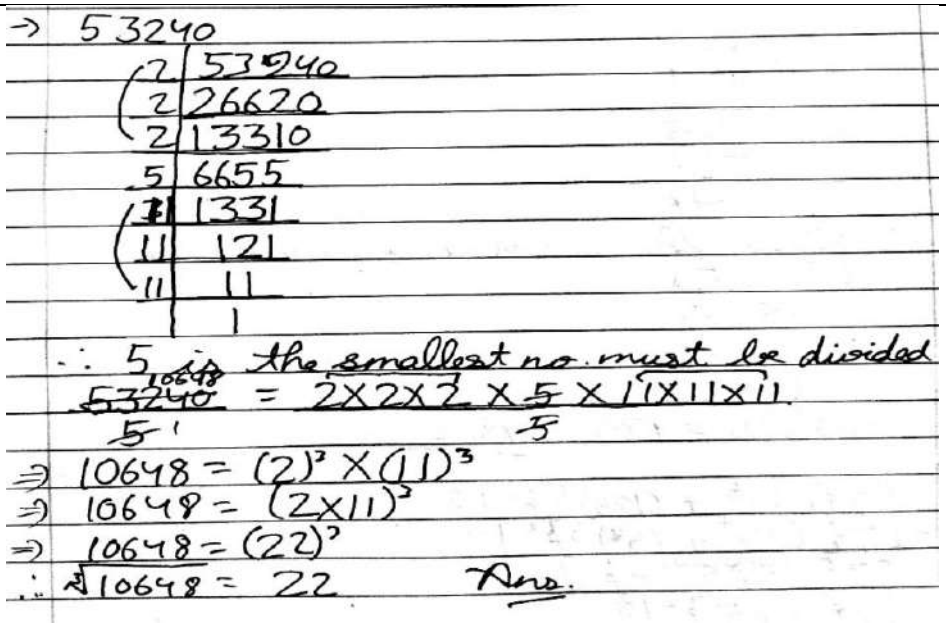
OSDAV Public School, Kaithal
May test 2025.
Class: VIII **Set B**
Subject: Maths

Time: 1 hr 30 min. **M.M: 30**

Q.No.	Questions	Marks
	Section A	
1	(a) 100	1
2	(b) 16	1
3	(b)3	1
4	(a) 8,15,17	1
5)	(a) both Assertion and reason are correct and reason is the correct explanation for assertion.	1
	Section B	
6)	$\sqrt[3]{121} \times \sqrt[3]{297}$ 11 | 121 ; 11 | 11 ; 1 3 | 297 ; 3 | 99 ; 3 | 33 ; 11 | 11 ; 1 $\Rightarrow \sqrt[3]{11\times11} \times \sqrt[3]{3\times3\times3\times11}$ $\sqrt[3]{11\times11\times11\times3\times3\times3}$ $\sqrt[3]{(11\times3)^3}$ $= 33 \rightarrow$ Ans.	1 for Prime factor +1/2 for grouping+ ½ for answer
7)	$\sqrt[3]{110592}$ Step 1) II group 110 ; I group 592 Step 2) In group 1, 592 Here, digit at ones place = 2 Cube of ones place = $(2)^3$ = 8 ∴ 8 is the digit at ones place of required cube root. Step 3) In group 2, 110 $64 < 110 < 125$ $(4)^3 < 110 < (5)^3$ Here, smallest digit between 4 and 5 is 4. ∴ 4 is the digit at tens place of required cube root $\Rightarrow \sqrt[3]{110592} = 48 \rightarrow$ Ans	½ ×4=2

8)	$(0.03125)^{-\frac{2}{5}}$ $= \left(\frac{3125}{100000}\right)^{-\frac{2}{5}}$ $= \left[\left(\frac{5}{10}\right)^5\right]^{-\frac{2}{5}}$ $= \left(\frac{5}{10}\right)^{-2}$ $= \left(\frac{10}{5}\right)^2$ $= (2)^2$ $= 4$ Ans. $\rightarrow 4$	½ ½ ½ ½
9)	$\sqrt{16}$ Step 1) $16 - 1 = 15$ Step 2) $15 - 3 = 12$ Step 3) $12 - 5 = 7$ Step 4) $7 - 7 = 0$ We get 0 at 4 steps. $\therefore \sqrt{16} = 4.$	**1 ½ + ½**
	Section -C	
10)	b) $\sqrt[3]{\frac{0.512}{0.343}} \div \sqrt{\frac{0.64}{0.49}} - 1$ $= \sqrt[3]{\frac{512 \times 1000}{1000 \quad 343}} \div \sqrt{\frac{64 \times 100}{100 \quad 49}} - 1$ $= \sqrt[3]{\frac{512}{343}} \div \sqrt{\frac{64}{49}} - 1$ $= \sqrt[3]{\left(\frac{8}{7}\right)^3} \div \sqrt{\left(\frac{8}{7}\right)^2} - 1$ $= \frac{8}{7} \div \frac{8}{7} - 1$ $= \frac{8}{7} \times \frac{7}{8} - 1$ $= 1 - 1$ $= 0$ Ans	**2** **1**

11)		**1 ½ for long division** **½** **1**
12)		**1 ½** **1 ½**
	Section -D	

13)		½ **3** ½
14)		**2** ½ **1 ½**