OSDAV Public School, Kaithal

First Term Exams (2024-25)
Class: VII
Subject: Mathematics

SET- A

Time: 2 hrs.20 mins **M.M.: 60**

General Instructions:- All questions are compulsory.

Q.N.	Questions	Marks
	Section A	
1.	Absolute value of $\frac{-15}{29}$ is : (a)$\frac{-15}{29}$ (b)$\frac{29}{-15}$ (c)$\frac{15}{29}$ (d)$\frac{-29}{15}$	1
2.	The observation that occurs maximum number of times in a data is called: a)mean b)median c)mode d)range	1
3.	0.245 expressed as a rational number is – a)$\frac{245}{100}$ b)$\frac{49}{200}$ c)$\frac{245}{10}$ d)$\frac{49}{20}$	1
4.	Identity element of multiplication is: a)0 b)1 c)2 d)3	1
5.	1.5x0.4 =..... a)60 b)0.60 c)6.0 d)0.06	1
6.	Value of $(\frac{-5}{9})^8 \div (\frac{-5}{9})^4$ is- a)$(\frac{-5}{9})^2$ b)$(\frac{-5}{9})^{32}$ c)$(\frac{-5}{9})^{12}$ d)$(\frac{-5}{9})^4$	1
7.	Multiplicative inverse of $\frac{-5}{11}$ is : a)$\frac{-5}{11}$ b)$\frac{-11}{5}$ c)$\frac{11}{5}$ d)$\frac{5}{11}$	1
8.	Standard form of $\frac{21}{39}$ is : a)$\frac{7}{13}$ b)$\frac{39}{21}$ c)$\frac{21}{39}$ d)$\frac{-7}{13}$	1
9.	**3.5×10^{-2}** is equal to- a)3500 b)0.035 c)0.0035 d)0.00035	1
10.	Value of 30% of 150 is- a)45 b)35 c)25 d)15	1
11.	Profit% or loss% are always calculated on- a)cost price b)selling price c)marked price d)rate of interest	1
12.	**Assertion:** Marks scored by seven students in a class are 18, 21, 21, 32, 36, 50, 93.Then the median is32. **Reason:** When a given data is arranged in ascending or descending order, then the middle most observation is called the median of data. 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	
13.	Find the value of x: $(\frac{5}{7})^3 \times (\frac{5}{7})^5 = (\frac{5}{7})^{4x}$	2
14.	Find two rational number between $\frac{-5}{6}$ **and** $\frac{3}{4}$.	2

15.	Find the value of x , if – $\frac{7}{49} = \frac{x}{84}$	2
16.	In what time will a sum of money of Rs 1000 amounts to Rs 1200 at 5% per annum?	2
17.	The mean of 15 observations was 50.It was detected that 95 was misread as 59.Find the correct mean.	2
18.	By what number should $(3)^{-2}$ be multiplied so that the product may be equal to $(3)^{-4}$?	2
19.	Represent $\frac{3}{-7}$ on a number line.	2
	Section-C	
20.	In a co- educational school, 40% of the total students are boys .If there are 320 boys in the school, find the total number of students in the school. Also find the number of girls in the school.	3
21.	Find the mean, median and mode of the following data. 12,7,14,10,9,7,5,8,7	3
22.	Simplify: $[(\frac{4}{5})^2]^3 \times (\frac{4}{5})^{-3} \times 5^{-1} \times (\frac{1}{6})^0$	3
23.	Show that- $\frac{2}{3} \times (\frac{4}{5} - \frac{5}{2}) = (\frac{2}{3} \times \frac{4}{5}) - (\frac{2}{3} \times \frac{5}{2})$	3
24.	Using long division method,convert the rational number $\frac{125}{8}$ in decimal form . Also , wtite whether it is terminating or non terminating.	3
25.	Arrange the following rational numbers in ascending order: $\frac{3}{4}, \frac{5}{-12}, \frac{-7}{16}, \frac{3}{8}$	3
	Section-D	
26.	Verify that: x +(y+z) =(x +y) + z $x = \frac{3}{7}$, $y = \frac{5}{14}$, $z = \frac{-8}{21}$	4
27.	Anuj sold two washing machines at Rs 6000 each. On one he gains 25% and on the others he loses 25%. How much does he gain or loss in whole transaction.	4
28.	Marks obtained by two girls of class VII A in final term exam (out of 100) as follows: **Subjects** | English | Hindi | Maths | Science | S.Science **Monika** | 75 | 80 | 95 | 70 | 85 **Bhavna** | 72 | 85 | 95 | 85 | 85 Plot a double bar graph for this data.	4
	Section-E	
29.	Shreya is calling some friends over to her place. She wanted to buy some bakery items for them. She made a list of all the items she needed to buy. Item | Patties | Muffins | Bread Rolls | Box Of Candles Quantity required | 6 | 4 | 2 | 1 Her father gave her a note of Rs 500 and she went to the bakery to buy these items. Each patties cost Rs 22.50, each muffin costs Rs 11.75, each bread roll costs Rs 17.25 and the box of candles costs Rs 54.25. i) Find the cost of all patties. ii) Find the cost of all muffins. iii) How much did Shreya pay total bill at the bakery?	1+1+2

OSDAV Public School, Kaithal

First Term Exams (2024-25)

Class: VII

Subject: Mathematics

SET- B

Time: 2 Hrs.20 mins **M.M.: 60**

General Instructions:-All questions are compulsory.

Q.N.	Questions	Marks
	Section=A	
1.	Value of 40% of 200 is- a) 40 b)30 c)20 d)80	1
2.	In a transaction we get profit when - a) C.P.>S.P. b) S.P.>C.P. c) C.P. =S.P. d)none of these	1
3.	Standard form of $\frac{45}{60}$ is : a) $\frac{9}{12}$ b)$\frac{3}{4}$ c)$\frac{45}{60}$ d)$\frac{-3}{4}$	1
4.	4.5×10^{-3} is equal to- a) 4500 b)0.045 c)0.0045 d)0.00045	1
5.	Additive inverse of $\frac{-15}{17}$ is : a) $\frac{-15}{17}$ b)$\frac{-17}{15}$ c)$\frac{17}{15}$ d)$\frac{15}{17}$	1
6.	2.5÷ 0.5 =..... a) 5 b)0.5 c)0.05 d)0.005	1
7.	Value of $(\frac{-5}{9})^8 \times (\frac{-5}{9})^4$ is- a) $(\frac{-5}{9})^2$ b)$(\frac{-5}{9})^{32}$ c)$(\frac{-5}{9})^{12}$ d)$(\frac{-5}{9})^4$	1
8.	Identity element of addition is: a)0 b)1 c)2 d)3	1
9.	0.345 expressed as a rational number is – a)$\frac{345}{100}$ b)$\frac{69}{200}$ c)$\frac{345}{10}$ d)$\frac{69}{20}$	1
10.	The difference between highest and lowest observation in a data is called: a)mean b)median c)mode d)range	1
11.	Absolute value of $\frac{-17}{19}$ is : (a)$\frac{-17}{19}$ (b)$\frac{19}{-17}$ (c)$\frac{17}{19}$ (d)$\frac{-19}{17}$	1
12.	**Assertion:** Marks scored by seven students in a class are 18, 21, 21, 32, 36, 50, 93.Then the median is32. **Reason:** When a given data is arranged in ascending or descending order, then the middle most observation is called the median of data. 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	
13.	By what number should $(4)^{-2}$ be multiplied so that the product may be equal to $(4)^{-3}$?	2
14.	In what time will a sum of money of Rs 1000 amounts to Rs 1200 at 5% per annum?	2
15.	Represent $\frac{4}{-3}$ on a number line.	2
16.	The mean of 15 observations was 50.It was detected that 95 was misread as 59.Find the	2

	correct mean.	
17.	Find the value of x: $(\frac{3}{5})^7 \div (\frac{3}{5})^5 = (\frac{3}{5})^{4x}$	2
18.	Find two rational number between $\frac{-3}{5}$ and $\frac{7}{10}$.	2
19.	Find the value of x , if – $\frac{10}{50} = \frac{x}{45}$	2
	Section-C	
20.	Using long division method,convert the rational number $\frac{165}{8}$ in decimal form . Also , wtite whether it is terminating or non terminating.	3
21.	Show that- $\frac{4}{7} \times (\frac{5}{7} - \frac{2}{3}) = (\frac{4}{7} \times \frac{5}{7}) - (\frac{4}{7} \times \frac{2}{3})$	3
22.	Arrange the following rational numbers in ascending order. $\frac{3}{7}, \frac{5}{-2}, \frac{-5}{14}, \frac{13}{21}$	3
23.	In a co- educational school, 40% of the total students are boys .If there are 320 boys in the school, find the total number of students in the school. Also find the number of girls in the school.	3
24.	Find the mean, median and mode of the following data. 10,14,26,12,12,11,12	3
25.	Simplify: $[(\frac{3}{5})^2]^3 \times (\frac{3}{5})^{-3} \times 5^{-1} \times (\frac{1}{8})^0$	3
	Section-D	
26.	A man sold two bed sheets at Rs600 each. On one he gains 20% and on the other he loses 25%. How much does he gain or lose in the whole transaction?	4
27.	Verify that: x +(y+z) =(x +y) + z x =$\frac{3}{4}$, y= $\frac{5}{8}$,z = $\frac{-9}{16}$	4
28.	Following data gives the maximum and minimum temperature (in ^{0}C) of the different cities on a particular day. Plot a **double bar graph** from this data:	4

City	Delhi	Mumbai	Patna	Chandigarh	Gurugram
Max. Temp.	25	30	34	25	30
Min. Temp.	20	22	25	20	25

	Section-E	
29.	Shreya is calling some friends over to her place. She wanted to buy some bakery items for them. She made a list of all the items she needed to buy.	1+1+2

Item	Patties	Muffins	Bread Rolls	Box Of Candles
Quantity required	6	4	2	1

Her father gave her a note of Rs 500 and she went to the bakery to buy these items.
Each patties cost Rs 22.50, each muffin costs Rs 11.75, each bread roll costs Rs 17.25 and the box of candles costs Rs 54.25.
i) Find the cost of all patties.
ii) Find the cost of all muffins.
iii) How much did Shreya pay total bill at the bakery?

OSDAV Public School, Kaithal

Half yearly Exams (2024-25)

Class: VII

Subject: Mathematics

SET- A

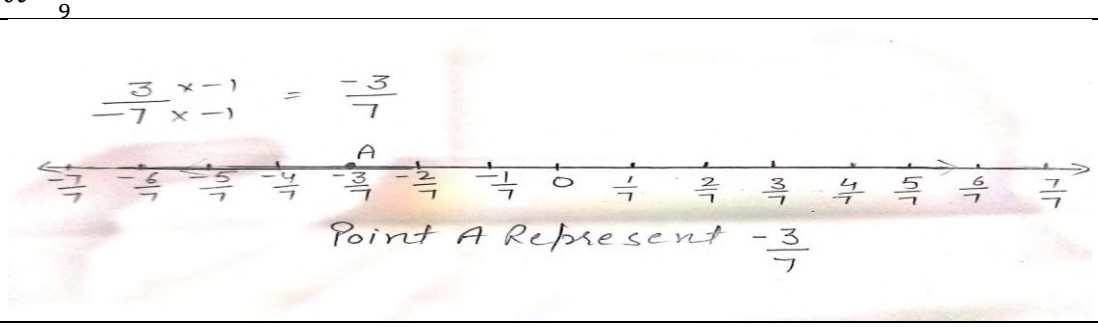
Time: 2 Hrs.20 mins

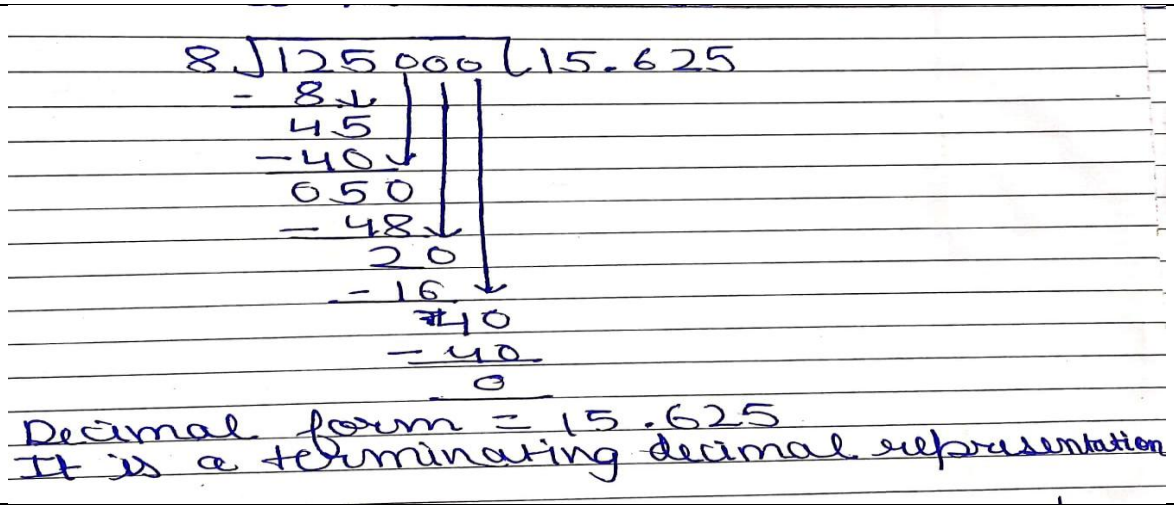
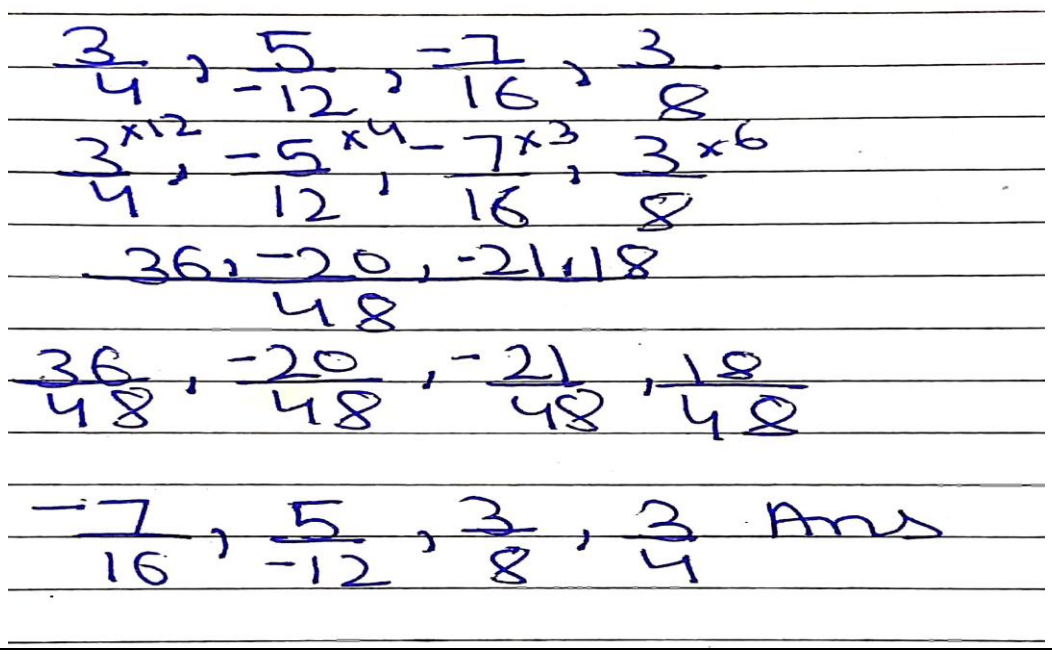
M.M.: 60

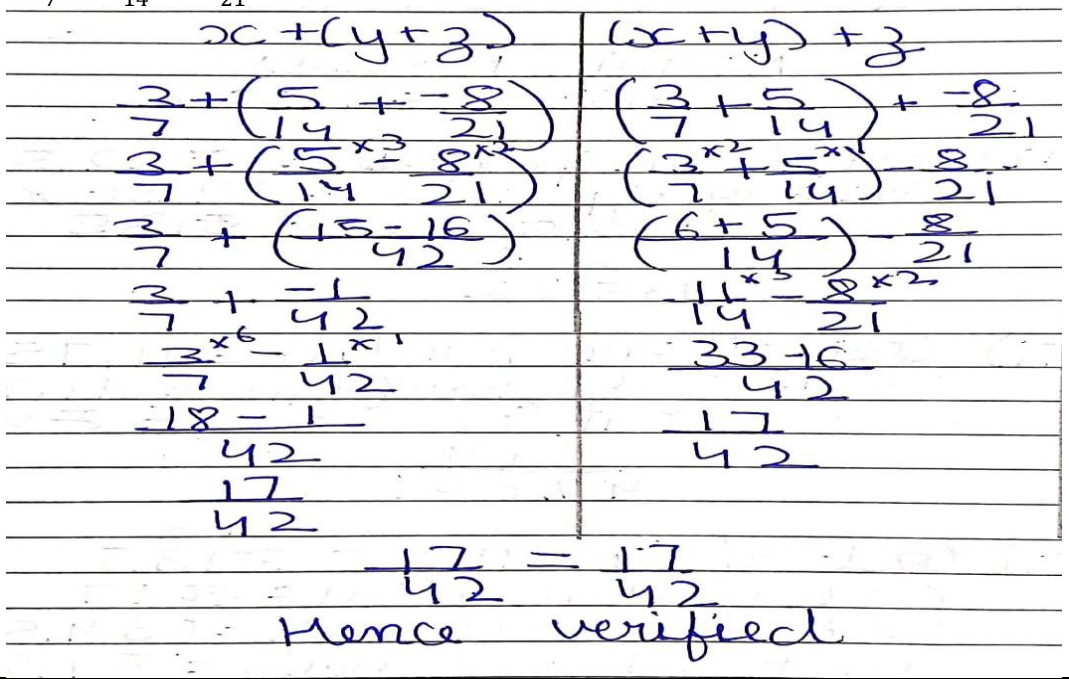
General Instructions:-

I. All questions are compulsory.

Q.N.	Value points /Key points	Marks allotted to each key	Ma
	Section=A		
1.	(c)$\frac{15}{29}$	1	1
2.	c)mode	1	1
3.	b)$\frac{49}{200}$	1	1
4.	b)1	1	1
5.	b)0.60	1	1
6.	d)$(\frac{-5}{9})^4$	1	1
7.	b)$\frac{-11}{5}$	1	1
8.	a)$\frac{7}{13}$	1	1
9.	b)0.035	1	1
10.	a)45	1	1
11.	a)cost price	1	1
12.	**a) Both assertion and reason are correct and Reason is the correct explanation for assertion.**	1	1
	Section-B		
13.	Find the value of x: $(\frac{5}{7})^3 \times (\frac{5}{7})^5 = (\frac{5}{7})^{4x}$ $(\frac{5}{7})^8 = (\frac{5}{7})^{4x}$ When bases are same equate the power 4x =8 x=$\frac{8}{4}$ x=2	1 1	2
14.	Find two rational number between $\frac{-5}{6}$ and $\frac{3}{4}$. First number: $\frac{1}{2}(\frac{-5}{6}+\frac{3}{4})$ $=\frac{1}{2}(\frac{-10+9}{12})$ $=\frac{1}{2}\times\frac{-1}{12}$ $=\frac{-1}{24}$ Second Number: $\frac{1}{2}(\frac{-5}{6}+\frac{-1}{24})$ $=\frac{1}{2}(\frac{-20-1}{24})$ $=\frac{1}{2}\times\frac{-21}{24}$ $=\frac{-21}{48}$	1+1	2
15.	Find the value of x , if – $\frac{7}{49}=\frac{x}{84}$ By cross multiplication 49x $\mathcal{X}$=84 x 7	1+1	2

	$\mathcal{X} = \frac{84\ x\ 7}{49}$ $\mathcal{X} = 12$		
16.	Principal= Rs1000 Amount= Rs1200 Rate of Interest=5%p.a. Simple Interest=1200-1000 =200 Time=$\frac{S.I.\times 100}{P\times R.I.}$ Time=$\frac{200\times 100}{1000\times 5}$ Time =4 years	½ ½ 1	2
17.	Mean of 15 observations =50 Sum of 15 observations =50 x 15 =750 95 was misread as 59 Correct sum of observation= 750+95-59 =786 Correct mean=$\frac{786}{15}$ =52.4	½ 1 ½	2
18.	Let the required number =$\mathcal{X}$ $(3)^{-2}$x $\mathcal{X}$ = $(3)^{-4}$ $\frac{1}{9}$ x $\mathcal{X}$ =$\frac{1}{81}$ $\mathcal{X}$ =$\frac{1}{81} \div \frac{1}{9}$ $\mathcal{X}$ =$\frac{1}{81}$ x $\frac{9}{1}$ $\mathcal{X}$ =$\frac{1}{9}$	½ ½ 1	2
19.		½ 1 ½	2
	Section-C		
20.	Let the total number of students= $\mathcal{X}$ % of boys=40 Number of boys=320 40% of $\mathcal{X}$ =320 $\frac{40}{100}$ x $\mathcal{X}$ =320 $\mathcal{X}$ =320x $\frac{100}{40}$ $\mathcal{X}$ =800 Total number of students=800 Number of girls=800-320=480	½ 2 ½	3
21.	Find the mean, median and mode of the following data. 12+7+14+10+9+7+5+8+7=79 Mean=$\frac{sum\ of\ observations}{total\ number\ of\ observations}$ Mean=$\frac{79}{9}$ =8.7... Ascending order- 5,7,7,7,8,9,10,12,14 Median =8	 1 1	3

	Mode =7	1	
22.	Simplify: $[(\frac{4}{5})^2]^3 \times (\frac{4}{5})^{-3} \times 5^{-1} \times (\frac{1}{6})^0$ $=(\frac{4}{5})^6 \times (\frac{4}{5})^{-3} \times \frac{1}{5} \times 1$ $=(\frac{4}{5})^{6+(-3)} \times \frac{1}{5} \times 1$ $=(\frac{4}{5})^3 \times \frac{1}{5} \times 1$ $=\frac{64}{625}$	2 1	3
23.	Show that- $\frac{2}{3} \times (\frac{4}{5} - \frac{5}{2}) = (\frac{2}{3} \times \frac{4}{5}) - (\frac{2}{3} \times \frac{5}{2})$ L.H.S. $= \frac{2}{3} \times (\frac{8-25}{10})$ $= \frac{2}{3} \times \frac{-17}{10}$ $= \frac{-17}{15}$ R.H.S. $= \frac{8}{15} - \frac{5}{3}$ $= \frac{8-25}{15}$ $= \frac{-17}{15}$ L.H.S.=R.H.S. Hence Showed	1 ½ +1 ½	3
24.	 8⟌125000⟌15.625 −8↓ 45 −40↓ 050 −48↓ 20 −16↓ 040 −40 0 Decimal form = 15.625 It is a terminating decimal representation	2+1	3
25.	 $\frac{3}{4}, \frac{5}{-12}, \frac{-7}{16}, \frac{3}{8}$ $\frac{3^{\times 12}}{4}, \frac{-5^{\times 4}}{12}, \frac{-7^{\times 3}}{16}, \frac{3^{\times 6}}{8}$ $\frac{36}{48}, \frac{-20}{48}, \frac{-21}{48}, \frac{18}{48}$ $\frac{36}{48}, \frac{-20}{48}, \frac{-21}{48}, \frac{18}{48}$ $\frac{-7}{16}, \frac{5}{-12}, \frac{3}{8}, \frac{3}{4}$ Ans	½ 1 ½ 1	3

	Section-D		
26.	Verify that: x +(y+z) =(x +y) + z x =$\frac{3}{7}$, y= $\frac{5}{14}$,z = $\frac{-8}{21}$  $x+(y+z)$: $\frac{3}{7}+\left(\frac{5}{14}+\frac{-8}{21}\right)$ → $\frac{3}{7}+\left(\frac{5\times3-8\times2}{14\ \ 21}\right)$ → $\frac{3}{7}+\left(\frac{15-16}{42}\right)$ → $\frac{3}{7}+\frac{-1}{42}$ → $\frac{3\times6-1\times1}{7\ \ 42}$ → $\frac{18-1}{42}$ → $\frac{17}{42}$ $(x+y)+z$: $\left(\frac{3}{7}+\frac{5}{14}\right)+\frac{-8}{21}$ → $\left(\frac{3\times2+5\times1}{7\ \ 14}\right)-\frac{8}{21}$ → $\left(\frac{6+5}{14}\right)-\frac{8}{21}$ → $\frac{11\times3-8\times2}{14\ \ 21}$ → $\frac{33-16}{42}$ → $\frac{17}{42}$ $\frac{17}{42}=\frac{17}{42}$ Hence verified	2+2	4
27.	S.P. of one washing machine= Rs 6000 Profit %=25% C.P.= 6000x$\frac{100}{100+25}$ C.P.=6000x$\frac{100}{125}$ C.P.=4800 S.P. of other washing machine= Rs 6000 Loss% =25% C.P.=6000x$\frac{100}{100-25}$ C.P.=6000x$\frac{100}{75}$ C.P.=8000 Total cost price=4800+8000=12800 Total selling price=6000+6000=12000 Loss =12800-12000= Rs800	1 ½ 1 ½ ½ ½	4
28.	Marks obtained by two girls of class VII A in final term exam (out of 100) as follows: Subjects | English | Hindi | Maths | Science | S.Science Monika | 75 | 80 | 95 | 70 | 85 Bhavna | 72 | 85 | 95 | 85 | 85	1+ ½ +2 ½	4
	Section-E		
29.	If cost of 1 patty=Rs 22.50 Then cost of 6 patties=22.50x6 =Rs135 If cost of 1 muffin=Rs 11.75 Then cost of 4 muffins=11.75x4 =Rs 47 If cost of 1bread roll=Rs17.25 Then cost of 2 bread roll=17.25x2 =Rs34.50 Total bill=135+47+34.50+54.25	1 1 1 1	1+1

	=Rs270.75		

OSDAV Public School, Kaithal

Half yearly Exams (2024-25)

Class: VII

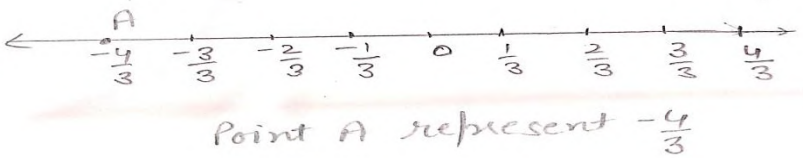
Subject: Mathematics

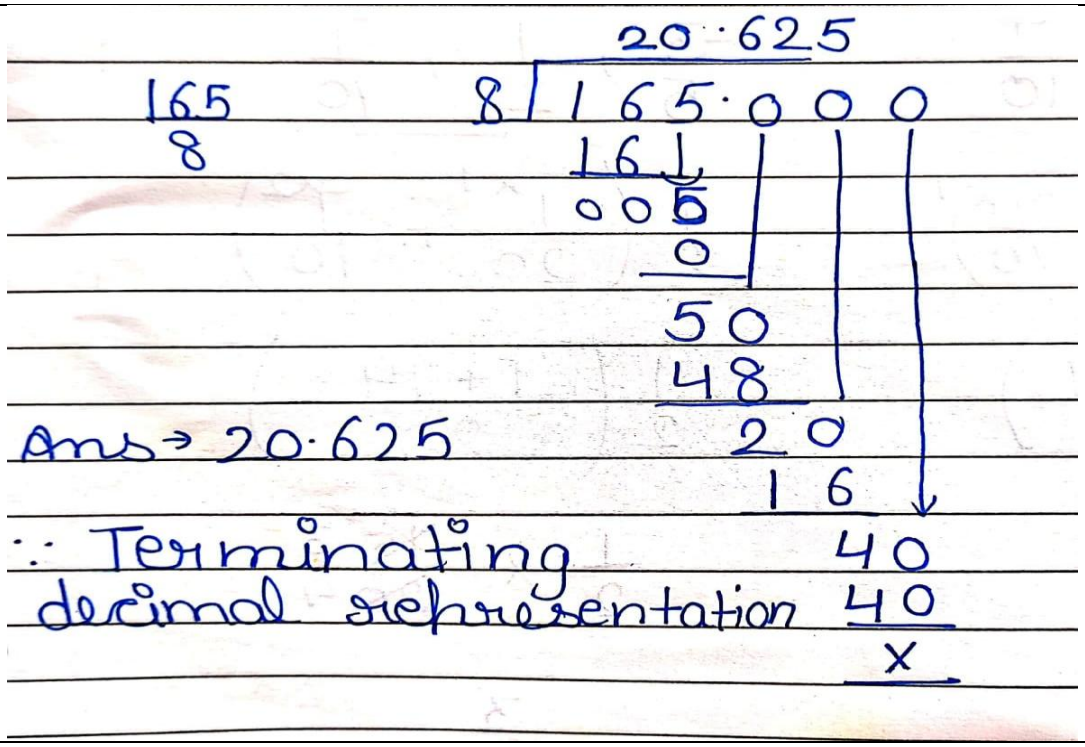
SET- B

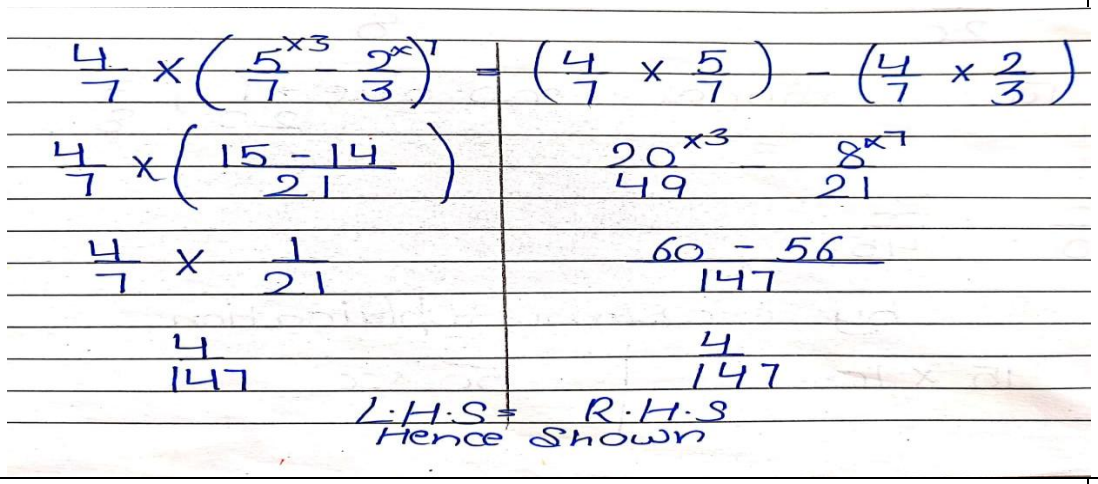
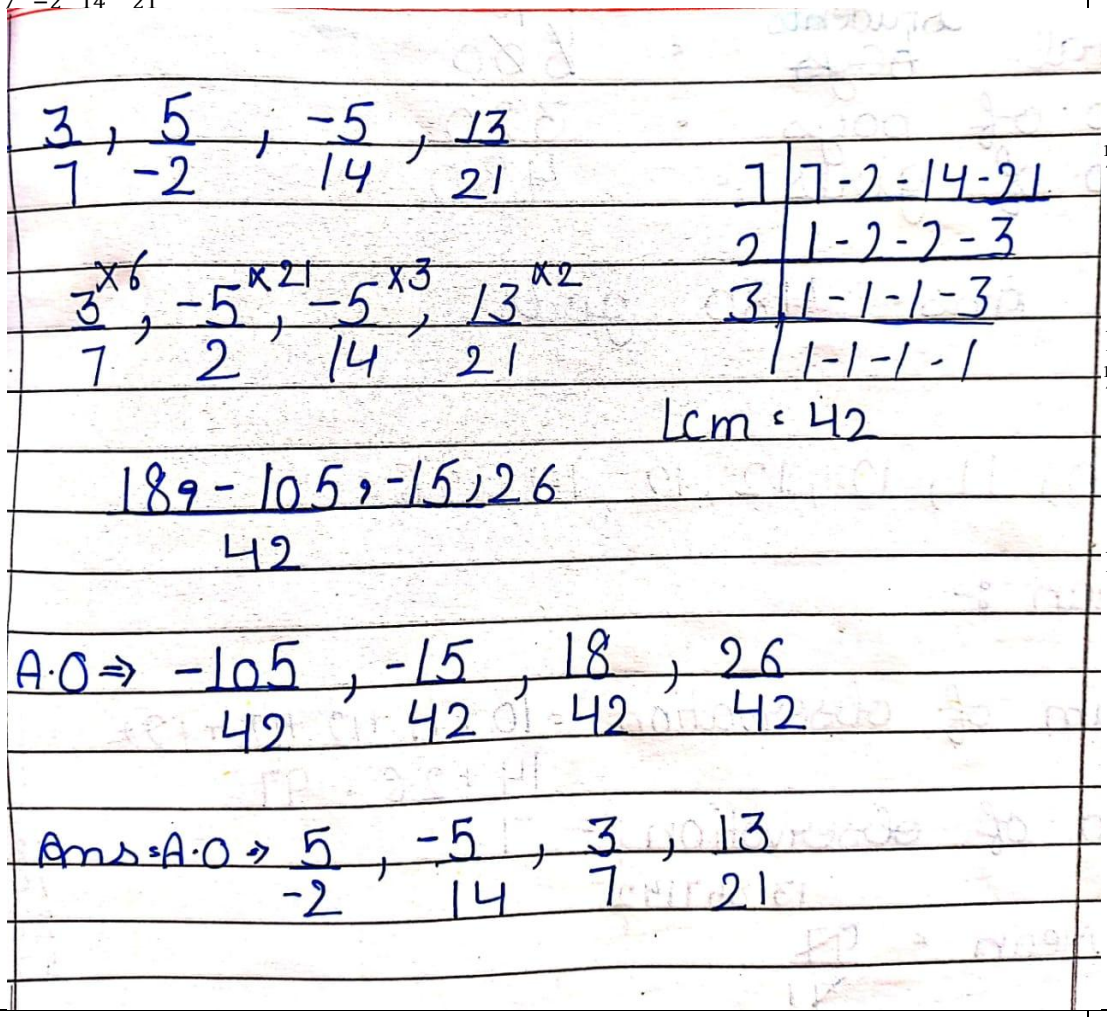
Time: 2 Hrs.20 mins **M.M.: 60**

General Instructions:-

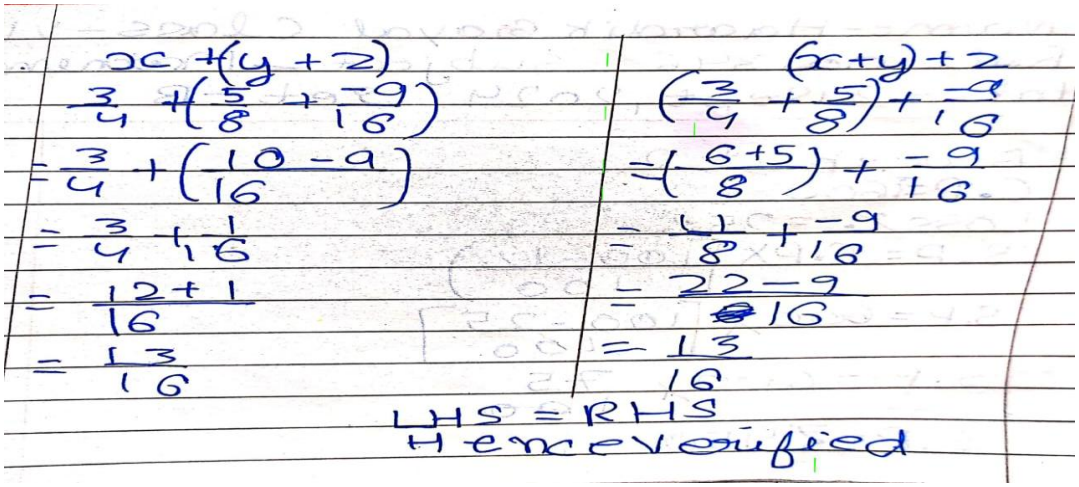
I. All questions are compulsory.

Q.N.	Questions		Marks
	Section=A		
1.	d)80	1	1
2.	b) S.P.>C.P.	1	1
3.	b)$\frac{3}{4}$	1	1
4.	c)0.0045	1	1
5.	d)$\frac{15}{17}$	1	1
6.	a)5	1	1
7.	c)$(\frac{-5}{9})^{12}$	1	1
8.	a)0	1	1
9.	b)$\frac{69}{200}$	1	1
10.	d)range	1	1
11.	(c)$\frac{17}{19}$	1	1
12.	**a) Both assertion and reason are correct and Reason is the correct explanation for assertion.**	1	1
	Section-B		
13.	Let the required number =$\mathcal{X}$ $(4)^{-2}$x $\mathcal{X}$ = $(4)^{-3}$ $\frac{1}{16}$ x $\mathcal{X}$ =$\frac{1}{64}$ $\mathcal{X}$ =$\frac{1}{64}$ ÷ $\frac{1}{16}$ $\mathcal{X}$ =$\frac{1}{64}$ x $\frac{16}{1}$ $\mathcal{X}$ =$\frac{1}{4}$	½ ½ 1	2
14.	Principal= Rs1000 Amount= Rs1200 Rate of Interest=5%p.a. Simple Interest=1200-1000 =200 Time=$\frac{S.I.\times 100}{P\times R.I.}$ Time=$\frac{200\times 100}{1000\times 5}$ Time =4 years	½ ½ 1	2
15.	Represent $\frac{4}{-3}$ on a number line. $\frac{4}{-3}\times\frac{-1}{-1} = -\frac{4}{3}$  Point A represent $-\frac{4}{3}$		2

16.	Mean of 15 observations =50 Sum of 15 observations =50 x 15 =750 95 was misread as 59 Correct sum of observation= 750+95-59 =786 Correct mean=$\frac{786}{15}$ =52.4	½ 1 ½	2
17.	Find the value of x: $(\frac{3}{5})^7 \div (\frac{3}{5})^5 = (\frac{3}{5})^{4x}$ $(\frac{3}{5})^2 = (\frac{3}{5})^{4x}$ When bases are same equate the power 4x =2 x=$\frac{2}{4}$ x=$\frac{1}{2}$	 1 1	2
18.	First number: $\frac{1}{2}(\frac{-3}{5}+\frac{7}{10})$ $=\frac{1}{2}(\frac{-6+7}{10})$ $=\frac{1}{2}$ x $\frac{1}{10}$ $=\frac{1}{20}$ Second Number: $\frac{1}{2}(\frac{7}{10}+\frac{1}{20})$ $=\frac{1}{2}(\frac{1+14}{20})$ $=\frac{1}{2}$ x $\frac{15}{20}$ $=\frac{3}{8}$	1+ 1	2
19.	Find the value of x , if – $\frac{10}{50}=\frac{x}{45}$ By cross multiplication 50 x $\mathcal{X}$=45 x 10 $\mathcal{X} = \frac{45\ x\ 10}{50}$ $\mathcal{X} = 9$	 1 1	2
	Section-C		
20.		2+ 1	3

21.		1 ½ +1 ½	3
22.	Arrange the following rational numbers in ascending order. $\frac{3}{7}, \frac{5}{-2}, \frac{-5}{14}, \frac{13}{21}$ 	½ 1 ½ 1	3
23.	Let the total number of students= $\mathcal{X}$ % of boys=40 Number of boys=320 40% of $\mathcal{X}$ =320 $\frac{40}{100}$ x $\mathcal{X}$ =320 $\mathcal{X}$ =320x $\frac{100}{40}$ $\mathcal{X}$ =800 Total number of students=800 Number of girls=800-320=480	½ 2 ½	3

24.	10, 11, 12, 12, 12, 14, 26 Mean :- Sum of observation = 10 + 11 + 12 + 12 + 12 + 14 + 26 = 97 No. of observation = 7 Mean = $\frac{97}{7}$ = 13.857142 Mean = $13.\overline{857142}$ → Ans Median :- 10, 11, 12, (12) 12, 14, 26 Median = 12 → Ans Mode :- 12 occurs max. 3 times Mode = 12	1 1 1	
25.	Simplify: $[(\frac{3}{5})^2]^3 \times (\frac{3}{5})^{-3} \times 5^{-1} \times (\frac{1}{8})^0$ $=(\frac{3}{5})^6 \times (\frac{3}{5})^{-3} \times \frac{1}{5} \times 1$ $=(\frac{3}{5})^{6+(-3)} \times \frac{1}{5} \times 1$ $=(\frac{3}{5})^3 \times \frac{1}{5} \times 1$ $=\frac{27}{625}$	2 1	3
	Section-D		
26.	S.P. of one bed sheet= Rs 600 Profit %=20% C.P.= $600 \times \frac{100}{100+20}$ C.P.=$600 \times \frac{100}{120}$ C.P.=500 S.P. of other bed sheet= Rs 600 Loss% =25% C.P.=$600 \times \frac{100}{100-25}$ C.P.=$600 \times \frac{100}{75}$ C.P.=800 Total cost price=500+800=1300 Total selling price=600+600=1200 Loss =1300-1200= Rs100	1 ½ 1 ½ ½ ½	4

27.		2+ 2	4
28.	Following data gives the maximum and minimum temperature (in ^{0}C) of the different cities on a particular day. Plot a double bar graph from this data: City | Delhi | Mumbai | Patna | Chandigarh | Gurugram Max. Temp. | 25 | 30 | 34 | 25 | 30 Min. Temp. | 20 | 22 | 25 | 20 | 25	½ +1 +2 ½	4
	Section-E		
29.	If cost of 1 patty=Rs 22.50 Then cost of 6 patties=22.50x6 =Rs135 If cost of 1 muffin=Rs 11.75 Then cost of 4 muffins=11.75x4 =Rs 47 If cost of 1bread roll=Rs17.25 Then cost of 2 bread roll=17.25x2 =Rs34.50 Total bill=135+47+34.50+54.25 =Rs270.75	1 1 1 1	1+1+2