KENDRIYA VIDYALAYA SANGATHAN, RAIPUR REGION
SESSION ENDING EXAM (2024-25)
SUBJECT-MATHS
CLASS VIII
MARKING SCHEME

ANS NO.	SOLUTIONS	MARKS
1	(a)$2a^{22} \times b^2$	1
2	(d) 0	1
3	(d) $\frac{1}{2} \times d_1 \times d_2$	1
4	(b) $\frac{1}{49}$	1
5	(b) 8.5×10^{-6}	1
6	(b) 6(p-2q)	1
7	(a)$2x^2$	1
8	(a)Linear graph	1
9	(a)Direct proportion	1
10	(c) 750	1
11	1000 cm^3	1
12	2^{13}	1
13	1	1
14	Direct proportion	1
15	3x	1
16	(a)28p (b)$-32p^2q$	1 1
17	Total Surface area of cube is=600 cm^2 We know that total surface area of cube is $6a^2$ So according to question, $6a^2=600$ $a^2=100$ a=10 Hence, side of a cube is 10 cm.	 ½ ½ ½ ½
18	$\frac{1}{4}+\frac{1}{9}+\frac{1}{16}$ $\frac{36 + 16 + 9}{144}$ $= \frac{61}{144}$	½ ½ 1
19	$x^2 +4x + 4x +16$ x(x+4) +4 (x+4) (x+4) (x+4) $(x+4)^2$	½ ½ ½ ½
20	(a) The patient's temperature was 36.5°C at 1 p.m	1 1

	(c) The patient's temperature was same at 1 p.m. and 2p.m	
21	$2pq(p+q) - 3pq(p-q)$ $2p^2q + 2pq^2 - (3p^2q - 3pq^2)$ $2p^2q + 2pq^2 - 3p^2q + 3pq^2$ $5pq^2 - p^2q$	1 1/2 ½ 1
22	The diagonals of rhombus are 7.5 cm and 12 cm So, $d_1 = 7.5$ cm, $d_2 = 12$cm We know that Area of Rhombus is: $\frac{1}{2} \times d_1 \times d_2$ $\frac{1}{2} \times 7.5 \times 12$ 7.5×6 45 cm^2 Hence, area of rhombus is 45cm^2.	½ 1 1 ½
23	$(-3)^{m+1} \times (-3)^5 = (-3)^7$ $(-3)^{m+1+5} = (-3)^7$ $(-3)^{m+6} = (-3)^7$ $[a^m \times a^n = a^{m+n}]$ $m + 6 = 7$ $[a^m = a^n, m=n]$ $m = 7-6$ $m = 1$	1 ½ ½ 1
24	Let the number of bottles filled in five hours be x Here ratio of hours and bottles are in direct proportion. ∴ $6/840=5/x$ $6 \times x = 5 \times 840$ $x = (5 \times 840)/6$ =700 bottles Hence, machine will fill 700 bottles in five hours.	1 ½ ½ 1
25	(a) The sales in (i) 2002 was Rs. 4 crores and (ii) 2006 was Rs. 8 crores (b) The sales in (i) 2003 was Rs. 7 crores and (ii) 2005 was Rs. 10 crores. (c) The difference of sales in 2002 and 2006 = Rs. 8 crores–Rs. 4 crores= Rs. 4 crores	1 1 1

Hours	6	5
Bottles	840	x

26	$(a+b)(c-d)+(a-b)(c+d)+2(ac+bd)$ $(ac-ad+bc-bd)+(ac+ad-bc-bd)+2ac+2bd$ $ac+ac-ad+ad+bc-bc-bd-bd+2ac+2bd$ $2ac-2bd+2ac+2bd$ $4ac$	½ 1 1 ½ 1
27	For 100 students, food provision is 20 days. So, 25 more students join the group, total number of students =100+25=125 Now, we shall find how long the food last for 125 students. Let y be the required number of days for 125 students. As we increase the number of students, the number of days food will last decrease. So, its inverse proportion: 100×20=125×y ⇒y=(100×20)/125 =4×4 ∴y=16 Hence, it takes 16 days if 25 more students join the group.	1 ½ ½ 1 ½ ½
28	$52pqr(p+q)(q+r)(r+p)\div 104pq(q+r)(r+p)$ $52pqr(p+q)(q+r)(r+p)$ $104pq(q+r)(r+p)$ $52r(p+q)$ 104 $r(p+q)$ 2	1 1 1 1
29	(i) CSA= 2πrh (ii) Height of the label h = 20 - 2 - 2 = 16 cm (iii) Curved surface area of label = 2πrh=2×(22/7)×7×16=704 cm2 Hence the area of the label of 704 cm^2	1 1 2
30	(a) On Tuesday, Friday and Sunday, the forecast temperature was same as the actual temperature. (b) The maximum forecast temperature was 35°C. (c) The minimum actual temperature was 15°C. (d) The actual temperature differed the most from the forecast temperature on Thursday.	1 1 1 1