Grade : 9 Subject : Mathematics Set : B

Multiple choice questions (correct answer will get 1 and 0 otherwise)

Correct answers

1. c
2. a
3. a
4. d
5. c
6. c
7. d
8. d
9. b (1 and 4)
10. b
11. d
12. b
13. a

Q.no.	steps	Marks		Total
14.	36 -16	0.5 mark		
	20	0.5 mark		1
15.	162	1 mark		1
16.	quotient 7	0.5 mark		
	remainder 5	0.5 mark	OR	
	directly quotient 7.7 (or 7 and 5/7)	1 mark		1
17.	{3, 5 } or {3, 7 } or {5, 7 }	0.5 mark		
	{3, 5, 7}	1 mark		1
	if there is more element other than 3, 5, 7. like 1 or 2 or both. Don't give marks			
18.	5x + 4x =36	1 mark		
	x = 4	0.5 mark		
	Children = 5x = 20	0.5 mark		2

19.	cost of 10 pens = 150	0.5 mark	
	cost of 1 pen = 15	0.5 mark	
	cost of 15 pens = 15×15	0.5 mark	
	cost of 15 pend = 225	0.5 mark	2
20.	500 - 100	0.5 mark	
	400	0.5 mark	1
21.	$4l = 24$ (or $l = 24/4$)	0.5 mark	
	$l = 6$	0.5 mark	1
22.	$6 \times 4 = 24$	0.5 mark	
	cm^2	0.5 mark	1
23.	$(3x)^2 - (4y)^2$	0.5 mark	
	$9x^2 - 16y^2$	0.5 mark	1
	OR		
	$3x(3x-4y) + 4y(3x-4y)$ or $9x^2 - 12xy + 12xy - 16y^2$	0.5 mark	
	$9x^2 - 16y^2$	0.5 mark	1
24.	$\sqrt[3]{2 \times 2 \times 2 \times 2 \times 2 \times 2}$ or $\sqrt[3]{(2 \times 2)^3}$	0.5 mark	
	$2 \times 2 = 4$	0.5 mark	1
OR			
	$\sqrt[3]{4 \times 4 \times 4}$	0.5 mark	
	4	0.5 mark	1
25.	$95^\circ + 85^\circ + 70^\circ + x = 360^\circ$	0.5 mark	

x = 110° 0.5 mark 1

Group B

1. good mangoes = 15-3 = 12 0.5 mark
   The total selling price of good mangoes = 12× 8 = 96 0.5 mark
   96 > 90 so he gets profit 0.5 mark
   Profit = 96 - 90 = Rs. 6 0.5 mark 2

2. Absent percentage = $\frac{4}{40} \times 100\%$ 0.5 mark
   = 10 % 0.5 mark 1

3.
   I = $\frac{2000 \times 5 \times 10}{100}$ 1 mark
   I = $\frac{100000}{100}$ 0.5 mark
   I = 1000 0.5 mark 2

4.
   $5^{2\times3} \times 2^{-2\times3}$ (or variants such as $5^6/2^6$) 1 mark
   $\frac{15625}{64}$ 1 mark 2

5. $\frac{(x-2)(x-3)}{(x-3)(x+3)} + \frac{(x-3)}{(x+3)}$ 0.5×2 = 1 mark
   $\frac{(x-2)}{(x+3)} + \frac{(x-3)}{(x+3)}$ 0.5 mark
   $\frac{(2x-5)}{(x+3)}$ 0.5 mark 2

6.
V = *10 × 9 × 8 = 720* 1 mark
   $1m^3 = 1000\ l$ 0.5 mark
   Total Diesel = 720 × 1000 = 720,000*l* 0.5 mark 2

7. i Length of green colored bamboo = $6 \times \frac{2}{3}$ 0.5 mark
   Length of green colored bamboo = *4 m* 0.5 mark
   ii. Length of blue colored bamboo = $6 \times \frac{1}{3}$ 0.5 mark
   Length of blue colored bamboo = *2 m* 0.5 mark 2

8. The increase rate than last year = 6.5-6 = 0.5. 0.5 mark
   The total increase money = 0.5 × 400 = 200 0.5 mark

Increase percentage = $\frac{200}{2400} \times 100\%$ 0.5 mark

Increase percentage = 8.33% 0.5 mark 2

OR

Total amount from last year: 400*6 = 2400 and total amount to be collected this year: 400*6.5 = 2600 0.5 mark

More amount to be collected this year: 2600-2400 = 200 0.5 mark

Increase percentage = $\frac{200}{2400} \times 100\%$ 0.5 mark

Increase percentage = 8.33% 0.5 mark 2