

KENDRIYA VIDYALAYA SANGATHAN LUCKNOW REGION
SESSION ENDING EXAMINATION 2022-23
Marking Scheme SEE 2022-23

Class VIII

Subject- Maths

SECTION-A

- 1-b
- 2-c
- 3-b
- 4-c
- 5-a
- 6-a
- 7-d
- 8-b
- 9-b
- 10-a
- 11-a
- 12-a
- 13-d
- 14-b
- 15-b

SECTION-B

16- each exterior angle = $180^\circ - 165^\circ = 15^\circ$

1

Let no. of side be 'n' then $n \times 15^\circ = 360^\circ \Rightarrow n = 24$

1

Or

$$3x = 18 \Rightarrow x = 6$$

1

$$3y - 1 = 26 \Rightarrow y = 9$$

1

17- Prime factors of 9604 are = $2 \times 2 \times 7 \times 7 \times 7 \times 7$

1

$$\sqrt{9604} = 2 \times 7 \times 7 = 98$$

1

18- For correct calculation

1

$$\text{For finding Correct answer : } \frac{625}{2} t^4$$

1

Or

For correct calculation

1

For finding Correct answer : 29

1

19- (i) Winter Season (ii) 60

1+1

$$20-12(a^2 - 4y^2)$$

1

$$= 12(a+2y)(a-2y)$$

1

SECTION-C

$$\frac{x_1}{y_1} = \frac{x_2}{y_2}$$

21-For applying formula

1

$$\frac{2}{9 \times 10^6} = \frac{5}{y_2}$$

For putting the values

1

$$\text{For correct calculation and answer } y_2 = 2.25 \times 10^7$$

1

Or

$$\text{For applying formula } x_1 y_1 = x_2 y_2$$

1

$$\text{For putting values } 20 \times 6 = 30 \times x$$

1

$$\text{For correct calculation and answer } x = 4$$

1

22- $x + 50^\circ = 180^\circ$ (Adjacent angles in a parallelogram are supplementary)

1

$$x = 130^\circ, y = x = 130^\circ \text{ (opposite angles of a parallelogram are equal)} \quad 1$$

$$180^\circ - z = 50^\circ \quad \square \quad z = 130^\circ \quad 1$$

Or

$$y = 80^\circ \text{ (opposite angles of a parallelogram are equal)} \quad 1$$

$$x + 80^\circ = 180^\circ \quad \square \quad x = 100^\circ \text{ (Adjacent angles in a parallelogram are supplementary)} \quad 1$$

$$180^\circ - z + 80^\circ = 180^\circ \quad \square \quad z = 80^\circ \quad 1$$

23- Central angle for each sector:

2

Items	In Fraction	Central angle
Ordinary Bread	$\frac{4}{9}$	160°
Biscuit	$\frac{1}{6}$	60°
Cakes and Pastries	$\frac{2}{9}$	80°
Fruit Bread	$\frac{1}{9}$	40°
Others	$\frac{1}{18}$	20°

For correct Pie diagram

1
1.5+1.5

24- (i) 36 (ii) 13

25- For correct addition 1.5 and for final answer 1.5

SECTION-D

$$4y(3y^2 + 5y - 7) = 12y^3 + 20y^2 - 28y$$

$$2(y^3 - 4y^2 + 5) = 2y^3 - 8y^2 + 10$$

26- For Finding answer : $14y^3 + 12y^2 - 28y + 10$ 1+1+2

27- Area of rectangle sheet = 4224 cm^2

Length $\times$ 33 = 4224 $\square$ Length = 128 cm

Perimeter = $2x(l+b) = 2x(128+33) = 322 \text{ cm}$ 2+2

Or

Total Surface area of tank = $2\pi r(r+h) = 440 \text{ m}^2$

28- $44(x^4 - 5x^3 - 24x^2) = 2 \times 2 \times 11 \times x \times x(x^2 - 5x - 24)$

$$\frac{2 \times 2 \times 11 \times x \times x(x^2 - 5x - 24)}{11 \times x \times (x - 8)} = 4x(x + 3) \quad 2+2$$

Or

$$\frac{4yz(z^2 + 6z - 16)}{2y(z + 8)} = \frac{2z(z + 8)(z - 2)}{z + 8} = 2z(z - 2)$$

29- a) 4 units = 1 hour b) 3hrs 30 min c) 22 Km d) between 8 am and 9 am

1+1+1+1

30- If we begin with a single cell then the number of cells of bacteria after:

30 min = 2^1

1 hour = $4 = 2^2$

1 h 30 m = $8 = 2^3$

2 hours = $16 = 2^4$

2h 30 m = 2^5

$$\begin{aligned}3h &= 2^6 \\4h &= 2^8 \\5h &= 2^{10}\end{aligned}$$