

Second Semester Examination March - 2016

Time : 1 hr 30 mts

VIII – Mathematics

Marks : 40

1. $a^m \times a^n = \dots\dots\dots$ 1×8=8
 A) a^{m+n} B) a^{m-n} C) $a^{m \cdot n}$ D) a^{mn}
2. The median value of 22, 31, 15, 25, 26. is $\dots\dots\dots$
 A) 15 B) 22 C) 25 D) 26
3. Which of the following is an equation of a line parallel to x-axis ?
 A) $x - 5 = 0$ B) $x = 2y$ C) $y = 5$ D) $x = y + 1$
4. In $\triangle ABC$, if $AB = AC$ and $\angle A = 40^\circ$ then $\dots\dots\dots$
 A) $\angle A = \angle B = 40^\circ$ B) $\angle B = \angle C = 70^\circ$ C) $\angle C = \angle A = 40^\circ$ D) $\angle B = \angle C = 80^\circ$
5. If in $\square ABCD$, $\angle A = 50^\circ$ then, $\angle C = \dots\dots\dots$
 A) 150° B) 130° C) 100° D) 50°
6. The quadrilateral in which unequal diagonals bisect perpendicularly is $\dots\dots\dots$
 A) Square B) Rectangle C) Rhombus D) Trapezium
7. The formula to calculate the total surface area of a cuboid $\dots\dots\dots$
 A) $V = lbh$ B) $A = 6l^2$ C) $V = l^3$ D) $A = 2(lb + bh + lh)$
8. If the total surface area of a cube is 150 cm^2 , then its side is $\dots\dots\dots$
 A) 25 cm B) 15 cm C) 6 cm D) 5 cm
9. Commission is always calculated on $\dots\dots\dots$ value. 1×4=4
10. Formula to find the simple interest is $\dots\dots\dots$
11. Write $\frac{1}{x^5}$ in negative exponent form.
12. In a triangle the sum of any two sides is $\dots\dots\dots$ than the third side.
13. Simplify : $2^3 \times 2^4 \div 2^5$ 2×7=14
14. If a radio purchased for Rs 400 is sold for Rs 380, find the loss %.
15. Out of 200 students 30% like to play. Find the number of students who don't like to play.
16. A toy marked at Rs 250 is sold for Rs 220. Find the rate of discount.
17. In $\triangle PQR$, $PQ = PR$, $QS \perp PR$ and $RT \perp PQ$. Prove that $\triangle PQS \cong \triangle PRT$.
18. Construct $\triangle ABC$ so that $AB = 5\text{cm}$, $BC = 4\text{cm}$ and $\angle B = 120^\circ$.
19. Write the differences between Rectangle and Rhombus.
20. Construct $\triangle PQR$ so that $PQ = 5 \text{ cm}$, $QR + PR = 9 \text{ cm}$ and $\angle P = 90^\circ$. 3×2=6
21. Draw the graph of $y = x - 3$.

22. Calculate mean :

C.I.	30 – 40	40 – 50	50 – 60	60 – 70	70 – 80
f	2	3	5	3	2

4×2=8

23. Prove that 'The angles opposite to equal sides of a triangle are equal'.

8th Standard Second Semester Examination March – 2016

Design of the Question Paper

Time : 1 hr. 30 mts.

Mathematics

Marks : 40

1) Weightage to chapters :

2) Weightage to objectives :

Sl.No.	Chapters	Marks
1	Commercial Arithmetics	8
2	Statistics	5
3	Exponents	4
4	Introduction to Graph	4
5	Congruency of triangles	8
6	Construction of triangles	5
7	Quadrilaterals	4
8	Mensuration	2
Total		40

Objectives	Marks	% Marks
Remembering	8	20 %
Understanding	16	40 %
Application	8	20 %
Skill	8	20 %

3) Weightage to difficulty level :

Difficulty Level	Marks	% Marks
Easy	12	30 %
Average	16	40 %
Difficult	12	30 %

4) Weightage to form of questions :

Types of questions	No. of questions	Marks
M.C.Q.	8	8
Short answer type (1 marks)	4	4
Short answer type (2 marks)	7	14
Long answer type (3 marks)	2	6
Long answer type (4 marks)	2	8
Total	23	40

Sl.No.	Chapters	Remembering				Understanding				Application				Skill				Total
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
1	Commercial Arithmetics	1+1									2+2 +2							8(5)
2	Statistics					1			4									5(2)
3	Exponents	1				1	2											4(3)
4	Introduction to Graph	1														3		4(2)
5	Congruency of triangles	1					2		4	1								8(4)
6	Construction of triangles														2	3		5(2)
7	Quadrilaterals	1+1					2											4(3)
8	Mensuration	1								1								2(2)
Total		8(8)				2(2)	6(3)		8(2)	2(2)	6(3)				2(1)	6(2)		40(23)