

CENTRAL PUBLIC SCHOOL

Subject – Maths
Class – VIII

TAJPUR ROAD, SAMASTIPUR
MID TERM EXAM - 2018

Time- 3 hrs.
F. M. – 80

Section – A

Attempt any 10 sums.

30

1. Define multiplication properties of rational numbers with suitable examples.
2. Verify that $a - (b - c) \neq (a - b) - c$ for $a = -\frac{1}{2}$, $b = \frac{3}{4}$ & $c = \frac{-7}{8}$.
3. Divide the sum of $\frac{15}{6}$ and $\frac{-2}{5}$ by the product of $-\frac{11}{23}$ & $\frac{2}{7}$.
4. Simplify $[(-15x^3y^{11})^9 (8^{12}x^6y^{20})^7]^0$.
5. Compare by writing in standard form 463×10^{-7} and 14.63×10^{-7} .
6. A train traveling 40km/hr crosses a post in 30 seconds. It passes a platform in 45 seconds. Find the length of platform.
7. If 18 cows can graze a field in 20 days. How many cows can graze the same field in 15 days?
8. Divide 5220 in three parts in the ratio: of 2:3:5.
9. The difference between C.I and S.I on a certain sum of money for 2 years at 5% p.a. is Rs. 100. Find the sum.
10. The S.P. of 9 apples is equal to the C.P. of 15 apples. Find the gain%.
11. The VAT on a refrigerator at 8% is Rs. 1170. Find actual S.P.
12. If $x + \frac{1}{x} = 5$ then find $\sqrt{x} + \frac{1}{\sqrt{x}}$ and $x^2 + \frac{1}{x^2}$.

Section – B

Attempt any 5 sums.

20

13. State True or False.
 - a. All trapeziums are parallelogram.
 - b. A parallelogram is a kite.
 - c. All squares are rectangles.
 - d. All rectangles are parallelogram.
14. X can do a piece of work in 3 days, Y can do it in 6 days. How long will X and Y take to complete the work working together?
15. Find the difference between simple interest and compound interest on Rs. 12000 at 9% per annum for 3 years, compounded annually.
16. A watch was sold at a profit of 12%. Had it been sold for Rs. 33 more, the profit would have been 14%. Find the cost price of the watch.
17. Solve by substitution method: $y=2x$, $7x - 2y = 15$.
18. Factorise $p^2 + 11p + 18$.

19. If $x + \frac{1}{x} = 7$, find the value of $x^2 + \frac{1}{x^2}$.

Section – C

Attempt any 4 sums.

20

20. Simplify: $(2x^2 - 5x + 8) - (x^2 + 3x - 2) + (14 - 12x)$

21. What the least number should be subtracted from 1456 to make a perfect square?

22. The measure of each exterior angle of a regular polygon is 60° . Find the number of sides of the polygon and hence the measure of each interior angle.

23. A hostel spends Rs. 5000 as cost of sugar for 30 students for 25 days. If they spend Rs. 4000 for 40 students, for how many days will the sugar last?

24. Two trains of length 200m and 250m respectively are running in opposite direction on parallel tracks. If their speed be 45km/h and 50km/h respectively, in what time will they cross each other?

25. A shopkeeper is allowing a discount of 20% on his goods, how much percent above the cost price should he mark his goods, so that after allowing a discount on the marked price, he gain 25%?

Section – D

Attempt any 5 sums.

10

26. $\frac{2}{3} \times \frac{1}{4}$

27. $(5)^{-2}$

28. Find the volume of cube if its side is 5cm long.

29. The length of rectangle is $(x+2)$ and the breadth is $(x+1)$. Find its area.

30. Find the value of x . $3x+2 = 2x - 1$

31. 20% of 80

32. If $p = 2000$, $S.I. = 200$. Find amount.

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