

Summative Assessment-1 (2014-15)

Class - VIII
Sub. - Maths

Time - 2½ hrs.

M.M. - 90

Note:- This paper is divided into four sections-

Section A contains 8 MCQs of 1 mark each.

Section B contains 10 questions of 2 marks each.

Section C contains 9 questions of 5 marks each.

Section - A

(1 mark each)

- Q.1. What should be added to $\frac{-5}{7}$ to get $\frac{-2}{3}$?
(a) $\frac{-29}{21}$ (b) $\frac{29}{21}$ (c) $\frac{1}{21}$ (d) $\frac{-1}{21}$
- Q.2. 0.0000463 in standard form is -
(a) 463×10^{17} (b) 4.63×10^{15} (c) 4.63×10^{19} (d) 46.3×10^{16}
- Q.3. The square root of 1444 -
(a) 38 (b) 28 (c) 18 (d) 48
- Q.4. By what least number should 1536 be divided to get a perfect cube ?
(a) 3 (b) 4 (c) 6 (d) 8
- Q.5. $(j 73 x^2 y^3) \div (j 8 xy)$
(a) $j 9xy$ (b) $j 9xy^2$ (c) $9xy^2$ (d) $9xy$
- Q.6. $x^3 j 144x = ?$
(a) $x(xj 12)^2$ (b) $x(x+12)^2$ (c) $x(xj 12)(x+12)$ (d) none of these
- Q.7. If $3m = 5m j \frac{8}{5}$, then $m = ?$
(a) $\frac{2}{5}$ (b) $\frac{3}{5}$ (c) $\frac{4}{5}$ (d) $\frac{1}{5}$
- Q.8. 5% of a number is 9. The number is -
(a) 45 (b) 90 (c) 135 (d) 180

Section - B

(2 marks each)

- Q.9. Represent $\frac{2}{3}$ and $\frac{-2}{3}$ on the number line.
- Q.10. Evaluate :- $\sqrt{125 \times 64}$
- Q.11. $49x^2 j 16y^2$.

- Q.12. Show that 216 is perfect cube. Find the number whose cube is 216.
- Q.13. Factorise :- $x^2 + 8x + 15$.
- Q.13. Solve the equation :- $\frac{x}{3} + 1 = \frac{7}{15}$
- Q.15. Express 121 as the sum of 11 odd numbers.
- Q.16. Find the square root of 9216.
- Q.17. 72% of 25 students are good in mathematics. How many are not good in mathematics.
- Q.18. Find the product :-
 $(5j - 2x)(3 + x)$

Section - C

(3 marks each)

- Q.19. Is $\frac{8}{9}$ the multiplicative inverse of $-1\frac{1}{8}$? Why or why not?
- Q.20. Insert three rational numbers between $\frac{1}{6}$ and $\frac{1}{3}$.
- Q.21. The ages of Rahul and Haroon are in ratio 5 : 7. Four years later, the sum of their ages will be 56 years. What are their present ages.
- Q.22. Rahul purchased a table for Rs. 1260 and due to some scratches on its top he had to sell it for Rs. 1197. Find his loss percent.
- Q.23. Evaluate using identity $(105)^2$.
- Q.24. Find the value of m for which $5^m \div 5^{j3} = 5^5$.
- Q.25. In a stack there are 5 books each of thickness 20 mm and 5 paper sheets each of thickness 0.016mm. What is the total thickness of stack.
- Q.26. Find the values of the letters in the following :-

$$\begin{array}{r} A \quad B \\ + \quad 3 \quad 7 \\ \hline 6 \quad A \end{array}$$

- Q.27. Simplify :-

$$\frac{25 \times t^4}{5^{-3} \times 10 \times t^8}$$

Section - D

(5 marks each)

- Q.28. If $x + \frac{1}{x} = 5$, find the value of $x^2 + \frac{1}{x^2}$.

Q.29. The denominator of a rational number is greater than its numerator by 8. If the numerator is increased by 17 and the denominator is decreased by 1, the number obtained is $\frac{3}{2}$. Find the number.

Q.30. If $21y5$ is a multiple of 9 where y is a digit. What is the value of y ?

Q.31. What least number must be subtracted from 7250 to get a perfect square? Also find the square root of this perfect square.

Q.32.(i) What is the smallest number by 3087 may be multiplied. So that the product is a perfect cube.

(ii) Evaluate :- $\sqrt[3]{2744}$

Q.33.(i) Divide as directed :- $5(2x+1)(3x+5) \div (2x+1)$

(ii) Divide the given polynomial by the given monomial -

$$(5x^2 + 6x) \div 3x.$$

Q.34. Simplify :-

$$(2x+5)^2 + (2x-5)^2$$