

SUMMATIVE ASSESSMENT 1(2016-17)CLASS VIIIMATHEMATICS (Set - B)

Time : 3 Hours

M.Marks: 90

General Instructions:

- i) All questions are compulsory.
- ii) The question paper consists of 34 questions divided into four sections A,B,C,D. Section - A comprises of 8 questions of 1 mark each, Section -B comprises of 6 questions of 2 marks each, Section -C comprises of 10 questions of 3 marks each and Section D comprises of 10 questions of 4 marks each.
- iii) Question numbers 1 to 8 in section A are multiple choice questions where you are to select one correct option out of the given four.
- iv) Use of calculator is not permitted.

SECTION - A

1. 0.0000064 expressed in standard form is  
 a)  $64 \times 10^6$       b)  $6.4 \times 10^{-6}$       c)  $6.4 \times 10^{-7}$       d) none of these
2. The sides of a quadrilateral having a common end point are called  
 a) Diagonals      b) Adjacent sides      c) Opposite sides      d) none of these
3. 0.5 % when expressed as a decimal is  
 a) 0.005      b) 0.05      c) 0.5      d) none of these
4. If the present population of a place is P and it decreases at R % p.a. then, population after n years will be  
 a)  $P \left(1 - \frac{R}{100}\right)^n$       b)  $\frac{P}{\left(1 + \frac{R}{100}\right)^n}$       c)  $P \left(1 + \frac{R}{100}\right)^n$       d) none of these
5.  $5\sqrt{0.9} = ?$   
 a) 0.3      b) 0.03      c) 0.33      d) none of these
6. Difference between Upper Limit and Lower Limit of a class interval is called  
 a) Range      b) Class Mark      c) Class Size      d) none of these
7. Discount is allowed on the  
 a) Cost Price      b) Selling Price      c) Marked Price      d) none of these
8.  $(0.05)^3 = ?$   
 a) 12.5      b) 0.125      c) 0.00125      d) none of these

SECTION : B

9. Evaluate:  $\sqrt[4]{-32} \times \sqrt[3]{250}$

10.a) A collection of observations gathered initially is called \_\_\_\_\_.

b) The mid value of a Class Interval is called its \_\_\_\_\_.

11. Write a Pythagorean triplet whose smallest member is 8.

12. After allowing a discount of 12 % on a toy, it is sold for Rs. 528. Find the Marked Price of the toy.

13. Find  $8\frac{1}{3}\%$  of 24 .

14. Find the measure of each interior angle of a regular polygon having 8 sides.

SECTION : C

15. Construct a frequency distribution table for the following—

a) 7, 8, 6, 5, 6, 7, 7, 9, 8, 10, 9,  
7, 6, 7, 8, 8, 9, 10, 5, 7, 8, 6

b) Find the range of above data.

16. Divide  $(6p^2 - 13p + 6)$  by  $(3p - 2)$ .

17. Find the smallest number by which 8640 must be divided so that the quotient may be a perfect cube. Also, find the cube root of the number so obtained.

18. Prove that the sum of 4 angles of a quadrilateral is  $360^\circ$ .

19. Find the value of x if—

$$(2)^{3x+5} \div (2)^{-1} = 8$$

20. If  $x - \frac{1}{x} = 3$ , find  $x^2 + \frac{1}{x^2}$

21. The monthly salary of a peon is Rs. 15625. If he gets an increase of 12 %, find his new salary.

22. Evaluate  $\sqrt{10816}$  and then find the value of  $\sqrt{108.16} - \sqrt{1.0816}$

23. A cycle was sold at a gain of 10%. Had it been sold for Rs. 70 more, the gain would have been 14 %. Find the C.P. of the cycle.

24. At what rate % p.a. will a sum of Rs. 3125 amount to Rs. 3645 in 2 years?

Handwritten calculations on the right margin, including a vertical subtraction problem:  $\begin{array}{r} 61 \\ 12 \\ \hline 12 \end{array}$

Handwritten calculations on the right margin, including a vertical subtraction problem:  $\begin{array}{r} 3645 \\ - 12\% \\ \hline 3290 \end{array}$

Handwritten calculations on the right margin, including a vertical multiplication problem:  $\begin{array}{r} 70 \\ \times 25 \\ \hline 350 \\ 1400 \\ \hline 1750 \end{array}$

Handwritten calculations on the right margin, including a vertical division problem:  $\begin{array}{r} 1750 \\ \div 31 \\ \hline \end{array}$

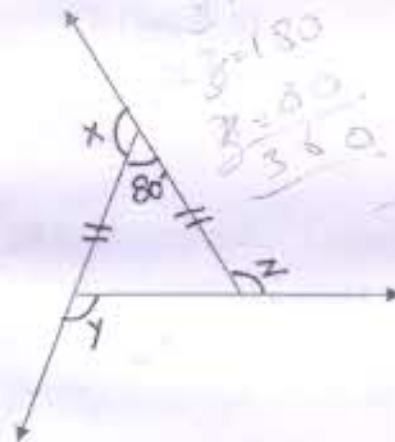
Handwritten calculations in the middle margin, including a vertical multiplication problem:  $\begin{array}{r} 2 \times 2 \times 2 \times 13 \times 2 \\ \times 13 \\ \hline 104 \end{array}$

Handwritten calculations on the right margin, including a vertical multiplication problem:  $\begin{array}{r} 100 \\ \times 35 \\ \hline 3500 \end{array}$

SECTION : D

25. Observe the given figure and find the value of

- a)  $x, y, z$   
 b)  $x + y + z$



26. The simple interest on a certain sum of money for 3 years at 5% p.a. is Rs. 1200. What will be the Compound Interest on that sum at the same rate for the same period?

27. a) What % of 4 km is 160 metre?

b) What quantity is 30 % less than 2 litre ?

28. The daily earnings (in Rs.) of 24 stores in a market was recorded as under—

- 715, 650, 685, 550, 573, 530, 610, 525,  
 742, 680, 736, 524, 500, 585, 723, 545,  
 532, 560, 580, 545, 625, 630, 645, 700

Prepare a frequency table taking equal class sizes, one such class is 500 - 550 where 550 is not included

29. Solve using algebraic identities—

- a)  $107 \times 93$                       b)  $(9x - 10)^2$

30. The angles of a quadrilateral are in the ratio 1 : 2 : 3 : 9 . Find the measure of each angle and tell the type of quadrilateral.

31. a) Find the product of  $(2x + 3)(x^2 - 3x + 7)$

b) Subtract  $2a - 5b + 2c - 9$  from  $2c - 5b + 2a$ .

32. Find the greatest 5-digit perfect square.

33. Evaluate

- a)  $(10^2 \cdot 8^2)^{\frac{1}{2}}$  <sup>Power</sup>                      b)  $(\frac{-2}{3})^7 \div (\frac{-2}{3})^{10}$

34. A vendor buys oranges at 20 for Rs. 56 and sells them at the rate of Rs. 35 per dozen. Find his gain or loss %.