

MAA MANGLACOACHING INSTITUTE

MANGLA BHAWAN MARANPUR HAUNUMAN NAGAR GAYA

PERIODIC TEST

CLASS- VIII

MATHEMATICS

F.M-80

[SECTION A]

$$1 \times 20 = 20$$

Select the correct alternative: [$1 \times 10 = 10$]

1. By what least number should 324 be multiplied to get a perfect cube ?
a. 12 b. 14 c. 16 d. 18
2. Which of the following is a cube of an odd number?
a. 216 b. 512 c. 343 d. 1000
3. Sum of three consecutive integers is 51. The middle one is
a. 14 b. 15 c. 16 d. 17
4. What percent of 10 kg is 250 g?
a) 25 b) 5 c) 10 d) 2.5
5. 5% of a number is 9. The number is
a. 45 b. 90 c. 135 d. 180
6. Which of the following is a square of an odd number?
a. 2116 b. 3844 c. 1369 d. 2500
7. If $3(t-3) = 5(2t+1)$, then $t = ?$
a. -2 b. 2 c. -3 d. 3
8. By what least number should 648 be multiplied to get a perfect cube?
a. 3 b. 4 c. 6 d. 8
9. $(3^{-6} \div 3^4) = ?$
a) 3^{-2} b) 3^2 c) 3^{-10} d) 3^{10}
10. If $(2^{3x-1} + 10) \div 7 = 6$, then x is equal to
a) -2 b) 0 c) 1 d) 2

[EACH QUESTION CARRY 1 MARK]

11. Find a rational number between 2 and 3.
12. Find the square root of 4096.
13. Find the value of $(-7)^{-1}$

14. Factorize : $12x+15$

15. Solve : $9x+5=4(x-2)+8$

16. Solve : $2z-1=14-z$

17. Four fifths of a number is 10 more than two thirds of a number. Find the number.

18. Find the cube root of 3375

19. The sum of two rational number is -4. If one of them is -115, find the other.

20. Find the additive and multiplicative inverse of 4.

[SECTION B]

Each question carry 2 marks

21. What number should be added to $-\frac{3}{5}$ to get $\frac{2}{3}$?

22. Find the Pythagorean triplet whose smallest member is 12.

23. Evaluate : $[(5^{-1} \times 3^{-1})^{-1} \div 6^{-1}]$

24. Divide (x^2-4x+4) by $(x-2)$

25. If $x+y=12$ and $xy=14$, find the value of (x^2+y^2)

26. Find three consecutive odd numbers whose sum is 147.

[SECTION C]

Each question carry 3 marks

27. If $(x - \frac{1}{x}) = 4$, Find the value of i) $(x^2 + \frac{1}{x^2})$ ii) $(x^4 + \frac{1}{x^4})$

28. Divide 4500 into two parts such that 5% of the first part is equal to 10% of the second part.

29. Express 125% as a ratio.

30. By what number should $(-6)^{-1}$ be multiplied so that the product become 9^{-1} ?

31. Is 196 a perfect square? If so, find the number whose square is 196?

32. A man saves 18% of his monthly income. If he saves Rs 3780 per month, what is his monthly income?

33. If $x+y=12$ and $xy=14$, Find the value of (x^2+y^2)

34. Find the cost of $3\frac{2}{5}$ metres of cloth at Rs $63\frac{3}{4}$ metre.

SECTION D

[Each questions carry 4 marks]

35. After reading $\frac{4}{5}$ of a book, 40 pages are left. How many pages are there in book?

36. Factorize : $63a^2b^2-7$

37. What must be subtracted from $3a^2-6ab-3b^2-1$ to get $4a^2-7ab-4b^2+1$?

38. The sum of the digits of a two digit number is 12. If the new number formed by reversing the digits is greater than the original number by 54, Find the original number.

39. Evaluate $\sqrt{0.8}$ correct upto two places of decimal.

40. Divide the sum of $\frac{13}{5}$ and $\frac{-12}{7}$ by the product of $\frac{-31}{7}$ and $\frac{1}{-2}$.