



INDIAN SCHOOL SOHAR
TERM II EXAMINATION (IOP) 2018-19
MATHEMATICS

Class: VIII
Date: /03/2019

Maximum Marks: 80
Duration: 3 Hours

General Instructions:

1. All questions are compulsory
2. The question paper consists of 30 questions divided into four sections A, B, C and D.
3. Section A comprises of 6 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. Section D comprises of 8 questions of 4 marks each.
4. There is no overall choice. However an internal choice has been provided in two questions of 1 mark each, two questions of 2 marks each, four questions of 3 marks each and three questions of 4 marks each. You have to attend only one of the alternatives in all such questions.
5. Use of calculators is not permitted.

SECTION-A

1. Find the square root of 484 by prime factorization
2. Find 12% of Rs 12000.
3. Add: $x^2 - x - 1$, $x^2 + x + 1$

(OR)

Subtract: $2x^2 - 9x - 6$ from $5x^2 - 6x + 3$

4. Find the volume of a cuboid of length 8 cm, breadth 5 cm and height 3cm.

(OR)

The length of an edge of a cube is 7 cm. Find its total surface area.

5. Write in standard form: 0.000 000 000 000 048 5
6. Which of the following situations are in direct proportion?
 - a) The number of workers on a job and the time to complete the job.
 - b) The time taken for a journey and the distance travelled in uniform speed.
 - c) Area of cultivated land and the crop harvested.
 - d) The time taken for a journey and the speed of the vehicle.

SECTION – B

7. Solve the equation: $\frac{x}{2} + 1 = \frac{7}{15}$.

8. Find the square root of 1936 by division method.

(OR)

Find the square root of 2704 by division method.

9. Express 49 as the sum of 7 odd numbers.

10. Gopal bought a CD player for Rs 1500 and sold it for Rs 1200. Calculate his profit or loss percent.

(OR)

A shop gives 20% discount on all goods sold. What would be the sale price of a dress marked at Rs 1200?

11. Find the product: $(\frac{2}{3}pq) \times (\frac{3}{5}qr) \times (\frac{1}{10}rp)$

12. The radius of a cylinder is 6 cm. Its height is 7 cm. Find its volume.

SECTION – C

13. Kareem is 3 times as old as his son. After 10 years the sum of their ages will be 76 years. Find their present ages.

(OR)

The sum of three consecutive multiples of 8 is 888. Find the multiples.

14. What is the smallest number that should be added to 1750 so as to get a perfect square? Also find the resulting perfect square and its square root.

(OR)

What is the smallest number that should be subtracted from 3250 to get a perfect square? Also find the resulting perfect square and its square root.

15. Solve the equation: $x = \frac{4}{5}(x + 10)$

(OR)

Solve the equation: $8x + 4 = 3(x - 1)$

16. An article is available for Rs 1650 inclusive of 10% of VAT. Find the price of the article before VAT was added.

17. Find the compound of interest on Rs 28000 for 3 years at 5% per annum compounded annually.

18. Find the product using suitable identity: $(0.4p + 0.5q)(0.4p + 0.5q)$.

19. Evaluate: $(2^{-1} \times 4^{-1}) \div 2^{-2}$

20. If 18 men can do a work in 8 days, how many men are required to complete the work in 12 days?

21. Factorise: $2x + 4y - 8xy - 1$

(OR)

Factorise: $x^2 - ax + bx - ab$

22. Plot the following points on a graph sheet. Draw the triangle ABC

A (2,1), B (5,7), C (9,1)

SECTION – D

23. The unit's digit of a two digit number is three times the ten's digit. If you interchange the digits of this number and add the resulting number to the original number you get 88. What is the original two digit number?

(OR)

The ages of Mohan and Ram are in the ratio 5:7. Four years later their ages will be in the ratio 3:4. Find their ages.

24. A gardener has 1100 plants. He wants to plant them in such a way that the number of rows and the number of columns remain the same. Find the minimum number of plants he needs more for this.

(OR)

A General wishing to arrange his men who were 3256 in number in the form of a square, found that there were 7 men left. How many men were there in each row?

25. Find the value using identities: a) 103×104 b) 998^2

26. There are 80 students are in a hostel. There is food provision for them for 15 days. How long will the food provision last if 20 more students join the hostel?

27. The height of a cylinder is 18 cm and its diameter is 3.5 cm. Find its lateral surface area and total surface area.

28. Simplify and evaluate: $\left\{ \left(\frac{2}{7}\right)^{-1} - \left(\frac{3}{5}\right)^{-1} \right\}^{-1} \div \left(\frac{3}{2}\right)^{-2}$

29. Factorise: $4a^2 + 12ab + 9b^2 - 8a - 12b$

(OR)

Factorise: $a^4 - 2a^2b^2 + b^4$

30. Draw a linear graph for the following table of values.

Number of Oranges	1	2	3	4	5
Cost (in Rs)	4	8	12	16	20

