CBSE Board
Class VIII Mathematics
Term II
Sample Paper - 3

Time: 2 hour Total Marks: 50

General Instructions:

1. **All** questions are **compulsory**.
2. The question paper consists of **28** questions and it is divided into **three sections** A, B and C.
3. **Section A** comprises of **10** questions carrying 1 mark each.
4. **Section B** comprises of **14** questions carrying 2 marks each.
5. **Section C** comprises of **4** questions carrying 3 marks each.
6. Question numbers **1 to 10** in **Section A** are multiple choice questions where you are to select **one** correct option out of the given four.

Section A
(Questions 1 to 10 carry 1 mark each)

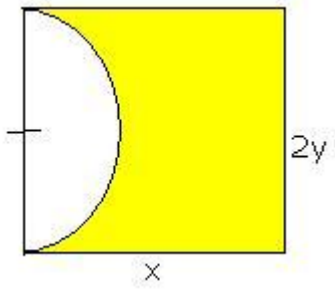
1. The expression 0.84×0.76 can be written as

   A. $(0.80)^2 - (0.04)^2$
   B. $(0.80)^2 + (0.04)^2$
   C. $(0.90)^2 - (0.04)^2$
   D. $(0.90)^2 + (0.04)^2$

2. Number of faces in a sphere is:

   A. 1
   B. 2
   C. 0
   D. 4

3. Area of the shaded portion in the following figure is given by:



A.	$2xy - \frac{1}{2}\pi y^2$
B.	$xy - \frac{1}{2}\pi y^2$
C.	$2xy - \pi y^2$
D.	$2xy + \frac{1}{2}\pi y^2$

4. For what value of k, $3^{k+1} \times 27^2 = 9^4$ is true?

A. 2
B. 3
C. -1
D. 1

5.

x	b	33
y	11	3

If x and y are inversely proportional then find the value of b.

A. 9
B. 8
C. 7
D. 6

6. $36a^2b^5c^3 - 49a^2bc =$ _____

A. $a^2b\,(6b^2c - 7)\,(6b^2c + 7)$
B. $bc\,(6b^2c - 7)\,(6b^2c + 7)$
C. $a^2bc\,(6b^2c - 7)\,(6b^2c + 7)$
D. $abc\,(6b^2c - 7)\,(6b^2c + 7)$

7. A linear graph is given by the relation "y = 2x + 5". Find the value of y if the value of x is 3.
   A. 9
   B. 10
   C. 11
   D. 14

8. 68 + 86 is divisible by:
   A. 11
   B. 9
   C. 5
   D. 13

9. If the base of a triangle is 4x(x+ 1) and its corresponding height is (x - 3), then the area of the triangle is ___.
   A. $2x^3 + 4x^2 - 6x$
   B. $2x^3 - 4x^2 + 6x$
   C. $2x^3 - 4x^2 - 6$
   D. $2x^3 - 4x^2 - 6x$

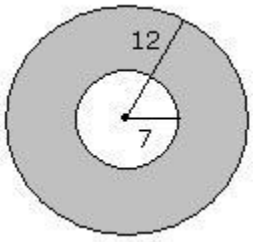
10. Number of faces in a triangular prism is:
   A. 4
   B. 6
   C. 7
   D. 5

Section B
(Questions 11 to 24 carry 2 marks each)

11. Find the product:
$(0.9ab)(-0.3b^2c^3)(-2a^2c^2)$

12. "The sum of a two digit number and the number obtained by reversing its digits is divisible by 11." Verify this property for the numbers 32 and 89.

13. In the figure given below, a circle is inscribed inside another circle. The radius of the outer circle is 12 cm and that of the inner circle is 7 cm. Find the area of the shaded portion between the circles.



14. Name the cross-sections obtained after giving vertical cut and horizontal cut to the following solid.

15. An agent receives a commission of Rs 45 on sales of Rs 1500. How much commission will he get on sale of Rs 1000?

16. Find all the factors of 6xy.

17. Plot the graph for the following table and check whether it is a linear graph or not.

x	3	5	7	9
y	12	20	40	36

18. Test the divisibility of 46602479 by 11.

19. Write the following in expanded form:

(i) $\left(\frac{-7}{9}\right)^3$

(ii) $\left(\frac{5}{8}\right)^6$

20. Expand: $(p + 2q)^2 + (p - 2q)^2$

21. Write the condition to check the divisibility of a number by 5 and then identify the numbers from the following numbers which are divisible by 5.
2540, 4215, 423, 369, 78950, 7450, 457

22. The following shape is a hexagonal prism. Write the number of faces, vertices and edges. Also verify the Euler's formula.

23. Express the number 451900000 in the form K x 10^n where K is a number and n is an integer in 4 different ways.

24. Find the common factors of the given terms:
$12ab$, $4a^2b$, $6ab^2$

Section C
(Questions 25 to 28 carry 3 marks each)

25. The edge of a cube is 2 cm. Find the total surface area of the cuboid formed by three such cubes joined edge to edge.

26. Quantities x and y vary inversely and when x = 15, y = 6. Which of the following is not a possible pair of corresponding values of x and y.
(i) 10 and 9
(ii) 18 and 6
(iii) 5 and 18

27. Verify division algorithm, i.e., Dividend = Divisor x Quotient + Remainder for following:
Dividend: $6y^5 - 28y^3 + 3y^2 + 30y - 9$

Divisor: $2y^2 - 6$

28. A bank gives 10% simple interest on the deposits. Draw a graph to show the relation between the sum deposited and the simple interest earned.