Question Paper SA-II

2011-2012

CBSE Class VIII Mathematics

General Instruction:

- All questions are compulsory.
- This question paper consists of 26 questions divided into four sections A, B, C and D.
- Section A contains 8 questions of mark each Section-B contain 6 questions of 2 marks each, Section-C contains 8 questions of 3 marks each and Section-D contains 4 questions of 4 marks each.
- Use of calculators is not allowed.

Section-A

Multiple Choice Questions:

l. Which one is binomial:

(a) 4l + 5m

(b) 2x

(c) $3x^2 - 5x + 2$

(d) $4 + \dfrac{3}{x}$

2. The relation between F, V and E are represented by Euler's formula as follows:

(a) F - V + E = 0

(b) F + E + V = 1

(c) F + V - E = 2

(d) F - V + E = 2

3. What is the multiplicative inverse of 3^{-1}:

(a) $\dfrac{1}{3^7}$

(b) 37

(c) 0

(d) 2

4. Which of the following number is divisible of 34:

(a) 295

(b) 432

(c) 616

(d) 1091

5. The perimeter of a square is 4 m. Its area is given by:

(a) 1 m^2

(b) 2 m^2

(c) 4 m^2

(d) 4m^3

6. The value of $(5° + 7) × 7$ is:

(a) 84

(b) 36

(c) 8

(d) 35

7. What is the product of 4 and 0:

(a) 4

(b) 0

(c) 2

(d) 1

8. $(a^2 - 2ab + b^2)$ is equal to:

(a) $(a + b)^2$

(b) $(a - b)^2$

(c) $a^2 - b^2$

(d) $a^2 + b^2$

Section-B

9. Find the value of m so that :

$3^{m+1} \times 3^5 = 3^7$

10. Plot the following points on a graph paper sheet:

A(1,3), B(1,2), C(4,3), D (6, 2)

11. A shirt is marked at Rs. 850 and sold it for Rs. 765. What is the discount and discount percentage.

12. Find the value using suitable identity:

97 × 103

13. Find the common factors of the given terms:

12 × 36

14. Simplify:

 (a + b) + (b - a) + (c - b)

Section-C

15. Find the compound interest on Rs.5000 for 2 years at the rate of 0% per annum compounded annually.

16. Subtract $5x^2 - 4y^2 - 6y - 3$ from $7x^2 - 4xy + 8y^2 + 5x - 3y$.

17. The diagonal of a quadrilateral shaped field is 24 m and the perpendicular dropped on it from the remaining-opposite vertices are 8 in and 13 m. Find the area of the field.
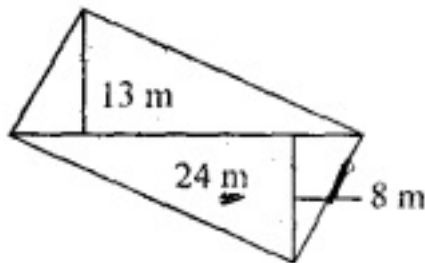
18. A machine in a soft drink factory fills 840 bottles in hours. How many bottles will it fill in 5 hours.

19. Divide:

$(7x^2 + 4x)$ by $(x + 2)$

20. A godown is in the form of a cuboid of measures 60 m × 40 m × 30 m. How many cuboidal boxes can be stored in it, if the volume of one box is 0.8 m^3.

21. Show that:

$(3x + 7)^2 - 84 × = (3x - 7)^2$

22. If any object has 20 faces, 12 vertices then find the value of Edges by using Euler's formula.

Section-D

23. Factorise:

(a) $a^2 - 2ab + b^2 - c^2$

(b) $p^2 + 6p + 8$

(c) $x^8 + y^8$

24. A rectangular paper of width 15 cm is rolled along its width and a cylinder of radius 20 cm is formed. Find the volume of the cylinder. (Take $\pi = \dfrac{22}{7}$)

25. There are 100 students in a Hostel. Food provision for them is for 20 days. How long will these provision last, if 25 more students join the group.

26. Draw a graph for following data:

Slide of square (in cm)	2	3	4	5	6
Area (in cm^2)	4	9	16	25	36

Is it a linear graph?