## BLUE PRINT FOR SESSION ENDING EXAM: CLASS VII

<table>
<thead>
<tr>
<th>Unit/Topic</th>
<th>MCQ (1 mark)</th>
<th>FIB (1 mark)</th>
<th>VSA (1 mark)</th>
<th>SA-I (2 marks)</th>
<th>SA-II (3 marks)</th>
<th>LA (4 marks)</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Integers</td>
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<td>1(2)</td>
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<tr>
<td>Congruence of Triangles</td>
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<td>1(2)</td>
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<td>1(4)</td>
<td>2(6)</td>
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<tr>
<td>Comparing Quantities</td>
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<td>1(3)</td>
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<td>Rational Numbers</td>
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<td>Practical Geometry</td>
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<td>Perimeter and Area</td>
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<td>1(3)</td>
<td>1(4)</td>
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<td>Algebraic Expressions</td>
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<td>1(3)</td>
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<td>Exponents and Powers</td>
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<td>Visualizing Solid Shapes</td>
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<td><strong>Total</strong></td>
<td><strong>10(10)</strong></td>
<td><strong>5(5)</strong></td>
<td><strong>5(5)</strong></td>
<td><strong>6(12)</strong></td>
<td><strong>8(24)</strong></td>
<td><strong>6(24)</strong></td>
<td><strong>40(80)</strong></td>
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</table>

**Note:**
1) 20% i.e. 16 marks of 1st term syllabus covering significant topics/chapters have taken as per CBSE guidelines.
2) Numerals inside the bracket indicate marks and outside the bracket indicate the number of questions.

### MARKING SCHEME FOR SESSION ENDING EXAM

<table>
<thead>
<tr>
<th>SECTION</th>
<th>MARKS</th>
<th>NO. OF QUESTIONS</th>
<th>TOTAL</th>
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</thead>
<tbody>
<tr>
<td>MCQ</td>
<td>1</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>FIB (Fill in the Blank)</td>
<td>1</td>
<td>5</td>
<td>05</td>
</tr>
<tr>
<td>VSA</td>
<td>1</td>
<td>5</td>
<td>05</td>
</tr>
<tr>
<td>SA – I</td>
<td>2</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>SA – II</td>
<td>3</td>
<td>8</td>
<td>24</td>
</tr>
<tr>
<td>LA</td>
<td>4</td>
<td>6</td>
<td>24</td>
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<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>80</strong></td>
<td></td>
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</tbody>
</table>
SECTION – A

1. Find x such that \( \frac{3}{5} = \frac{x}{-25} \)
   (a) –5 (b) –15 (c) –15 (d) none of these

2. Which of the following statement is true:
   (a) 2 subtracted from –3 gives 1
tabulated form is
(b) –1 subtracted from –5 gives 6
(c) 3 subtracted from –8 gives –11
tabulated form is
(d) 1 subtracted from –7 gives –6

3. 8% children of a class of 25 like getting wet in the rain. How many children do not like getting wet in the rain.
   (a) 20 (b) 22 (c) 23 (d) none of these

4. Which of the followings has no line of symmetry:
   (a) S (b) A (c) U (d) H

5. What will be the area of circular button of radius 7 cm
   (a) 154 cm\(^2\) (b) 49 cm\(^2\) (c) 154 cm (d) 3.14 x 7 cm\(^2\)

6. The area of parallelogram whose base 6 cm & altitude 7 cm is
   (a) 18 cm\(^2\) (b) 18 cm (c) 9 cm\(^2\) (d) 9 cm

7. The sum of mn + 5 – 2 and mn+3 is
   (a) 2mn + 3 (b) 6 (c) 2mn + 8 (d) 2mn + 6.

8. On simplifying (a + b – 3) – (b – a +3) + (a – b + 3) the result is
   (a) a – b + 3 (b) a – b – 3 (c) 3a – b – 3 (d) 3a+b+3

9. Simplify and write in exponential form of \(2^2 \times 2^5\)
   (a) 2\(^3\) (b) 2\(^7\) (c) 128 (d) none of these

10. Simplify and write in exponential form of \((-4)^{100} \times (-4)^{20}\)
    (a) \((-4)^{120}\) (b) \((-4)^{80}\) (c) \((-4)^{200}\) (d) none of these

11. The letter look the same after reflection when the mirror is placed vertically is _______

12. The price of a scooter was Rs 34,000 last year. It has increased by 20% this year. The price now is _______
13. Diameter of a circular garden is 9.8 m. Its area is ______

14. Sum of – 36 and 29 is ______

15. 3125 is expressed using exponential notation is ______

16. The population of a city decreased from 25,000 to 24,500. Find the percentage decrease.

17. Find the value of the expression \( n^3 + 5n^2 + 5n - 2 \) when \( n = -2 \).

18. What is the circumference of a circular disc of radius 14 cm?

19. Two dice are placed side by side with 5 + 2, what is the total on the face opposite to the given numbers.

20. Express 540 as a product of powers of prime factors

**SECTION – B**

21. In the below figure, \( DA \perp AB, CB \perp AB \) and \( AC = BD \). State the three pairs of equal parts in \( \triangle ABC \) and \( \triangle DAB \). Which of the following statements is meaningful?
   (i) \( \triangle ABC \cong \triangle BAD \) (ii) \( \triangle ABC \cong \triangle ABD \)

22. A green grocer had a profit of Rs. 47 on Monday, a loss of Rs. 12 on Tuesday and loss of Rs. 8 on Wednesday. Find his net profit or loss in 3 days.

23. State the number of lines of symmetry for the following figures:
   (a) A square (b) A rectangle

24. Expand by expressing powers of 10 in the exponential form: (i) 172 (ii) 5,643

25. What cross-sections do you get when you give a (i) vertical cut (ii) horizontal cut to the following solids? (a) A die (d) A circular pipe

26. Find the value of \( \frac{7}{24} - \frac{17}{36} \).

**SECTION – C**

27. Anil deposited Rs. 20,000 for saving as a fixed deposit in a bank at 10% per annum. Find the amount he will get after 5 years.

28. The dimensions of a cuboid are 5 cm, 3 cm and 2 cm. Draw three different isometric sketches of this cuboid.
29. In a park of dimensions 20 m × 15 m, there is a L shaped 1m wide flower bed as shown in below figure. Find the total cost of manuring for the flower bed at the rate of Rs 45 per m².

![Diagram of a park with a L shaped flower bed]

30. Simplify: \( \frac{3^5 \times 10^5 \times 25}{5^7 \times 6^5} \)

31. Find the value of (i) \( \frac{-7}{12} \div \left( \frac{-2}{13} \right) \) (ii) \( \frac{-1}{8} \div \frac{3}{4} \) (iii) \( \frac{9}{2} \times \left( \frac{-7}{4} \right) \)

32. Find the value of the following expressions when \( n = -2 \).
   (i) 5n – 2 (ii) 5n² + 5n – 2 (iii) n³ + 5n² + 5n – 2

33. Construct a triangle PQR, given that PQ = 3 cm, QR = 5.5 cm and \( \angle PQR = 60^\circ \).

34. Draw a line, say AB, take a point C outside it. Through C, draw a line parallel to AB using ruler and compasses only.

SECTION – D

35. A school playground is divided by a 2 m wide path which is parallel to the width of the playground, and a 3 m wide path which is parallel to the length of the ground (see below figure). If the length and width of the playground are 120 m and 80 m respectively, find the area of the remaining playground.

![Diagram of a playground with paths]

36. In each of the following figures, write the number of lines of symmetry and order of rotational symmetry.

(a) ![Figure a](image)
(b) ![Figure b](image)
(c) ![Figure c](image)
(d) ![Figure d](image)
37. Four friends had a competition to see how far could they hop on one foot. The table given shows the distance covered by each.

<table>
<thead>
<tr>
<th>Name</th>
<th>Distance covered (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seema</td>
<td>( \frac{1}{20} )</td>
</tr>
<tr>
<td>Nancy</td>
<td>( \frac{1}{40} )</td>
</tr>
<tr>
<td>Megha</td>
<td>( \frac{1}{32} )</td>
</tr>
<tr>
<td>Soni</td>
<td>( \frac{1}{25} )</td>
</tr>
</tbody>
</table>

(a) How farther did Soni hop than Nancy?
(b) What is the total distance covered by Seema and Megha?
(c) Who walked farther, Nancy or Megha?

38. In the adjoining figure, AD = CD and AB = CB.
(i) State the three pairs of equal parts in \( \triangle ABD \) and \( \triangle CBD \).
(ii) Is \( \triangle ABD \cong \triangle CBD \)? Why or why not?
(iii) Does BD bisect \( \angle ABC \)? Give reasons.
(iv) Does BD bisect \( \angle ADC \)? Give reasons.

39. Construct \( \triangle ABC \) such that \( AB = 2.5 \text{ cm}, BC = 6 \text{ cm} \) and \( AC = 6.5 \text{ cm} \). Measure \( \angle B \).

40. (a) What should be taken away from \( 3x^2 - 4y^2 + 5xy + 20 \) to obtain \( -x^2 - y^2 + 6xy + 20 \)?
(b) From the sum of \( 3x - y + 11 \) and \( -y - 11 \), subtract \( 3x - y - 11 \).