## BLUE PRINT FOR HALF YEARLY EXAM: CLASS VII

<table>
<thead>
<tr>
<th>Unit/Topic</th>
<th>VSA (1 mark)</th>
<th>Short answer (2 marks)</th>
<th>Short answer (3 marks)</th>
<th>Long answer (4 marks)</th>
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<tr>
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<td>Lines and Angles</td>
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<td>Triangle and its properties</td>
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<td>Congruence of Triangles</td>
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<td>Comparing Quantities</td>
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<td>Rational Numbers</td>
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<td><strong>10(30)</strong></td>
<td><strong>8(32)</strong></td>
<td><strong>30(80)</strong></td>
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</table>

## MARKING SCHEME FOR HALF YEARLY EXAM

<table>
<thead>
<tr>
<th>SECTION</th>
<th>MARKS</th>
<th>NO. OF QUESTIONS</th>
<th>TOTAL</th>
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<tbody>
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<td>SA – II</td>
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<td>LA</td>
<td>4</td>
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<td><strong>GRAND TOTAL</strong></td>
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KENDRIYA VIDYALAYA SANGATHAN, HYDERABAD REGION
SAMPLE PAPER 03 FOR HALF YEARLY EXAM (2017-18)

SUBJECT: MATHEMATICS
CLASS : VII

MAX. MARKS : 80
DURATION : 3 HRS

General Instructions:
(i). All questions are compulsory.
(ii). This question paper contains 30 questions divided into four Sections A, B, C and D.
(iii). 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 and Section D comprises of 8 questions of 4 marks each.
(iv). Use of Calculators is not permitted

SECTION – A

1. Find the mean of the first five whole numbers.

2. Write equations for the statements: One fourth of \(m\) is 3 more than 7.

3. Express 4 kg 8 g in kg.

4. Write the Angle opposite to the side LM of \(\triangle LMN\).

5. The difference in the measures of two complementary angles is 12\(^\circ\). Find the measures of the angles.

6. Find the ratio of 30 days to 36 hours.

SECTION – B

7. Find the values of the angles \(a\), \(b\), \(c\) and \(d\) in the given figure lines \(l \parallel m\), \(p \parallel q\):

8. Find the perimeter of the rectangle whose length is 40 cm and a diagonal is 41 cm.

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

10. Find:

\[
\begin{align*}
(i) \quad & - \frac{9}{10} + \frac{22}{15} \\
(ii) \quad & \frac{7}{24} - \frac{17}{36}
\end{align*}
\]
11. If ΔABC ≅ ΔPQR under the correspondence ABC ↔ RQP, write all the corresponding congruent parts of the triangles.

12. Write two integers which are smaller than – 5 but their difference is – 5.

**SECTION – C**

13. Find the value of x in the following figures:

(i)

(ii)

(iii)

14. The ages in years of 10 teachers of a school are:
32, 41, 28, 54, 35, 26, 23, 33, 38, 40
(i) What is the age of the oldest teacher and that of the youngest teacher?
(ii) What is the range of the ages of the teachers?
(iii) What is the mean age of these teachers?

15. In the below figure, AB = AC and AD is the bisector of ∠BAC. Prove that (i) ΔADB ≅ ΔADC
(ii) ∠B = ∠C

16. In the adjoining figure, name the following pairs of angles.
(i) Obtuse vertically opposite angles
(ii) Adjacent complementary angles
(iii) Adjacent angles that do not form a linear pair

17. Raju’s father’s age is 5 years more than three times Raju’s age. Find Raju’s age, if his father is 44 years old.
18. Juhi sells a washing machine for Rs 13,500. She loses 20% in the bargain. What was the price at which she bought it?

19. Find any three rational numbers between \( \frac{3}{5} \) and \( \frac{3}{4} \).

20. Find the values of the angles \( x \), \( y \), and \( z \) in each of the following:

\[ \begin{align*}
\text{(i)} & \quad 55^\circ & x & \quad \text{y} \\
\text{(ii)} & \quad 40^\circ & x & \quad 25^\circ
\end{align*} \]

21. An elevator descends into a mine shaft at the rate of 6 m/min. If the descent starts from 10 m above the ground level, how long will it take to reach – 350 m.

22. Saili plants 4 saplings, in a row, in her garden. The distance between two adjacent saplings is \( \frac{3}{4} \) m. Find the distance between the first and the last sapling.

23. In a class test containing 15 questions, 4 marks are given for every correct answer and \((-2)\) marks are given for every incorrect answer. (i) Gurpreet attempts all questions but only 9 of her answers are correct. What is her total score? (ii) One of her friends gets only 5 answers correct. What will be her score? (iii) What you will do to get good marks?

24. In the below figure, ray AZ bisects \( \angle DAB \) as well as \( \angle DCB \).

\( \text{(i)} \) State the three pairs of equal parts in triangles BAC and DAC.

\( \text{(ii)} \) Is \( \triangle BAC \cong \triangle DAC \)? Give reasons.

\( \text{(iii)} \) Is \( AB = AD \)? Justify your answer.

\( \text{(iv)} \) Is \( CD = CB \)? Give reasons.
25. A girl is 28 years younger than her father. The sum of their ages is 50 years. Find the ages of the girl and her father.

26. 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. What are the benefits of savings?

27. Represent these numbers on the number line. (i) \(-\frac{6}{4}\)  (ii) \(\frac{7}{6}\)  (iii) \(\frac{11}{7}\)  (iv) \(\frac{7}{4}\)

28. In the morning, a milkman filled \(5\frac{1}{2}\) L of milk in his can. He sold to Renu, Kamla and Renuka \(\frac{3}{4}\) L each; to Shadma he sold \(\frac{7}{8}\) L; and to Jassi he gave \(1\frac{1}{2}\) L. How much milk is left in the can?

29. Find the unknown length \(x\) in the following figures

![Triangle](image)

30. A mathematics teacher wants to see, whether the new technique of teaching she applied after quarterly test was effective or not. She takes the scores of the 5 weakest children in the quarterly test (out of 25) and in the half yearly test (out of 25):

<table>
<thead>
<tr>
<th>Students</th>
<th>Ashish</th>
<th>Arun</th>
<th>Kavish</th>
<th>Maya</th>
<th>Rita</th>
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<tbody>
<tr>
<td>Quarterly</td>
<td>10</td>
<td>15</td>
<td>12</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td>Half Yearly</td>
<td>15</td>
<td>18</td>
<td>16</td>
<td>21</td>
<td>15</td>
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Prepared by: M. S. KumarSwamy, TGT(Maths)