# KENDRIYA VIDYALAYA SANGATHAN, HYDERABAD REGION
## SAMPLE PAPER 01 FOR HALF YEARLY EXAM (2017-18)
### SUBJECT: MATHEMATICS

### 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>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Integers</td>
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<td>Fractions and Decimals</td>
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<td>Data Handlings</td>
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<tr>
<td>Lines and Angles</td>
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<td>2(6)</td>
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<tr>
<td>Triangle and its properties</td>
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<td>1(3)</td>
<td>1(4)</td>
<td>4(10)</td>
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<tr>
<td>Congruence of Triangles</td>
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<td>3(9)</td>
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<td>Comparing Quantities</td>
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<td>1(4)</td>
<td>4(10)</td>
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<tr>
<td>Rational Numbers</td>
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<td>3(9)</td>
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<td><strong>Total</strong></td>
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<td><strong>6(12)</strong></td>
<td><strong>10(30)</strong></td>
<td><strong>8(32)</strong></td>
<td><strong>30(80)</strong></td>
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</tbody>
</table>

### MARKING SCHEME FOR HALF YEARLY EXAM

<table>
<thead>
<tr>
<th>SECTION</th>
<th>MARKS</th>
<th>NO. OF QUESTIONS</th>
<th>TOTAL</th>
</tr>
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<tbody>
<tr>
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<td>1</td>
<td>6</td>
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<tr>
<td>SA – I</td>
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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>
<td><strong>80</strong></td>
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</table>
KENDRIYA VIDYALAYA SANGATHAN, HYDERABAD REGION
SAMPLE PAPER 01 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 median of the data: 24, 36, 46, 17, 18, 25, 35

2. Evaluate: \((-31) \div [(-30) + (-1)]\)

3. Find the ratio of 15 kg to 210 g

4. Express 7 rupees 7 paise as rupees using decimals.

5. Find the angle which is equal to its complement.

6. Find angle \(x\) in the adjoining figure:

\[50^\circ\]
\[110^\circ\]
\[x\]

SECTION – B

7. Solve: \(12p - 5 = 25\)

8. A school team won 6 games this year against 4 games won last year. What is the per cent increase?

9. Find the values of the angles \(x, y,\) and \(z\) in the given figure:

\[55^\circ\]
\[x\]
\[z\]

10. Find:
    \(i\) \(\frac{-8}{19} + \frac{-2}{57}\)
    \(ii\) \(\frac{-6}{13} - \frac{-7}{15}\)
11. If ΔABC ≅ ΔFED under the correspondence ABC ↔ FED, write all the corresponding congruent parts of the triangles.

12. ΔABC is right-angled at C. If AC = 5 cm and BC = 12 cm find the length of AB.

**SECTION – C**

13. The runs scored in a cricket match by 11 players is as follows:
   6, 15, 120, 50, 100, 80, 10, 15, 8, 10, 15
   Find the mean, mode and median of this data.

14. In the adjoining figure, identify:
   (i) Five pairs of adjacent angles. (ii) Three linear pairs. (iii) Two pairs of vertically opposite angles.

15. In the adjoining figure, p || q. Find the unknown angles.

16. People of Sundargram planted a total of 102 trees in the village garden. Some of the trees were fruit trees. The number of non-fruit trees were two more than three times the number of fruit trees. What was the number of fruit trees planted? What are the benefits of eating fruits?

17. A certain freezing process requires that room temperature be lowered from 40°C at the rate of 5°C every hour. What will be the room temperature 10 hours after the process begins?

18. In the below figure, AB = AC and D is the mid-point of BC. Prove that (i) ΔABD ≅ ΔADC (ii) ∠B = ∠C
19. Find $\frac{3}{4}$ of (i) 36 (ii) 64 (iii) 120

20. An article was sold for Rs 250 with a profit of 5%. What was its cost price?

21. Find any three rational numbers between $-\frac{5}{6}$ and $\frac{5}{8}$

22. A tree is broken at a height of 5 m from the ground and its top touches the ground at a distance of 12 m from the base of the tree. Find the original height of the tree.

SECTION D

23. The performance of students in 1st Term and 2nd Term is given. Draw a double bar graph choosing appropriate scale and answer the following:

<table>
<thead>
<tr>
<th>Subject</th>
<th>English</th>
<th>Hindi</th>
<th>Maths</th>
<th>Science</th>
<th>S.Science</th>
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</thead>
<tbody>
<tr>
<td>1st Term</td>
<td>62</td>
<td>72</td>
<td>88</td>
<td>81</td>
<td>73</td>
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<tr>
<td>2nd Term</td>
<td>70</td>
<td>65</td>
<td>95</td>
<td>85</td>
<td>75</td>
</tr>
</tbody>
</table>

(i) In which subject, has the child improved his performance the most?
(ii) In which subject is the improvement the least?
(iii) Has the performance gone down in any subject?.

24. Find the values of the unknowns $x$ and $y$ in the following diagrams:

25. A man travelled two fifth of his journey by train, one-third by bus, one-fourth by car and the remaining 3 km on foot. What is the length of his total journey?

26. In a test (+5) marks are given for every correct answer and (−2) marks are given for every incorrect answer. (i) Radhika answered all the questions and scored 30 marks though she got 10 correct answers. (ii) Jay also answered all the questions and scored (−12) marks though he got 4 correct answers. How many incorrect answers had they attempted?

27. Anita takes a loan of Rs 5,000 for donating books to the poor, at 15% per year as rate of interest. Find the interest she has to pay at end of three years. What value depicted from this?

28. Represent these numbers on the number line. (i) $\frac{7}{4}$ (ii) $\frac{-5}{6}$ (iii) $\frac{4}{7}$ (iv) $\frac{9}{4}$
29. In the below figure, ABC is an isosceles triangle with AB = AC and AD is one of its altitudes.
   (i) State the three pairs of equal parts in ΔADB and ΔADC.
   (ii) Is ΔADB ≅ ΔADC? Why or why not?
   (iii) Is \( \angle B = \angle C \)? Why or why not?
   (iv) Is BD = CD? Why or why not?

30. A square and an equilateral triangle have a side in common. If side of triangle is \( \frac{4}{3} \) cm long, find the perimeter of figure formed.