



ANGEL'S PUBLIC SCHOOL

HALF YEARLY EXAMINATION

(SAMPLE PAPER)

SESSION 2026 – 27

SUBJECT : MATHEMATICS

GRADE – VII

TIME : 03 HRS

M.M:80

General Instructions:

Read the following instructions carefully and follow them:

1. This question paper contains 38 questions. All questions are compulsory.
2. The Question Paper is divided into 5 Sections A, B, C, D and E.
3. In Section A, Question numbers 1–18 are multiple choice questions (MCQs) and Question Nos. 19 and 20 are Assertion–Reason based questions of 1 mark each.
4. In Section B, Question numbers 21–25 are Very Short Answer (VSA) type questions, carrying 2 marks each.
5. In Section C, Question numbers 26–31 are Short Answer (SA) type questions, carrying 3 marks each.
6. In Section D, Question numbers 32–35 are Long Answer (LA) type questions, carrying 5 marks each.
7. In Section E, Question numbers 36–38 are Case Study-based questions carrying 4 marks each, with sub-parts of the values of 1, 1 and 2 marks each respectively.

SECTION – A

This Section consists of 20 multiple choice questions carrying 1 mark each.

(20x1=20)

1. The place value of 6 in 5,63,28,941 is _____.
(a) 6,000 (b) 60,000 (c) 60,00,000 (d) 6,00,000
2. Which number is greatest?
(a) 9,99,999 (b) 10,00,000 (c) 99,99,999 (d) 1,00,000
3. Which of the following integers is greatest?
(a) –9 (b) –6 (c) –12 (d) –15
4. The opposite of –24 is _____.
(a) –24 (b) 0 (c) 24 (d) 48
5. Two parallel lines _____.
(a) meet at one point (b) never meet (c) intersect twice (d) are perpendicular
6. Vertically opposite angles are _____.
(a) complementary (b) supplementary (c) equal (d) unequal
7. A transversal intersects _____.
(a) one line (b) two or more lines (c) no line (d) only parallel lines

8. Corresponding angles formed by a transversal on parallel lines are _____.
 (a) equal (b) supplementary (c) complementary (d) unequal
9. The sum of angles on a straight line is _____.
 (a) 90° (b) 180° (c) 270° (d) 360°
10. Three lines intersecting at one point form _____.
 (a) 3 angles (b) 4 angles (c) 6 angles (d) 8 angles
11. Which fraction is equivalent to $\frac{2}{3}$?
 (a) $\frac{4}{6}$ (b) $\frac{3}{5}$ (c) $\frac{5}{8}$ (d) $\frac{6}{8}$
12. $3/8 + 1/8 =$ _____.
 (a) $\frac{1}{2}$ (b) $\frac{4}{6}$ (c) $\frac{5}{8}$ (d) $\frac{3}{16}$
13. $5/6 - 1/3 =$ _____.
 (a) $\frac{2}{6}$ (b) $\frac{1}{2}$ (c) $\frac{2}{3}$ (d) $\frac{1}{3}$
14. Reciprocal of $7/9$ is _____.
 (a) $\frac{7}{9}$ (b) $\frac{9}{7}$ (c) $\frac{2}{7}$ (d) 7
15. Which fraction is the greatest?
 (a) $\frac{1}{2}$ (b) $\frac{3}{4}$ (c) $\frac{2}{3}$ (d) $\frac{5}{8}$
16. -15 lies
 (a) to the right of -12 (b) to the left of -12 (c) at zero (d) between 4 and 5
17. The smallest whole number is _____.
 (a) 1 (b) 0 (c) -1 (d) 10
18. Supplementary angles add up to _____.
 (a) 90° (b) 180° (c) 270° (d) 360°

Assertion Reason

Choose the correct option

- (a) Both A and R are true and R is the correct explanation.
 (b) Both A and R are true but R is not the correct explanation.
 (c) A is true but R is false.
 (d) A is false but R is true.

19. Assertion (A): Alternate interior angles are equal when two parallel lines are cut by a transversal.

Reason (R): Parallel lines never intersect.

20. Assertion (A): Every proper fraction is less than 1.

Reason (R): In a proper fraction, numerator is smaller than denominator.

SECTION – B

Section – B consists of 5 questions of 2 marks each.

(5x2=10)

21. Write the Indian and International place value names of 45,678,912.

22. Compare:

–18 and –9

OR

Arrange in ascending order:

–5, 7, –12, 0, 4.

23. Find the complement and supplement of 48° .

24. Add:

$$\frac{5}{12} + \frac{1}{4}$$

OR

Subtract:

$$\frac{7}{5} - \frac{3}{8}$$

25. State any two properties of parallel lines.

SECTION – C

Section – C consists of 6 questions of 3 marks each.

(6x3=18)

26. Write any four pairs of equivalent fractions of $\frac{3}{5}$

27. Arrange the following numbers in descending order:

4,05,67,890 ; 4,50,67,089 ; 4,05,76,890 ; 4,05,67,980.

28. Draw a pair of lines and a transversal such that they form two distinct angles.

OR

A transversal cuts two parallel lines. One corresponding angle is 115° . Find the remaining corresponding and adjacent angles.

29. Solve:

$$\frac{3}{5} + \frac{2}{15} + \frac{1}{3}$$

30. Three lines intersect at a point. One angle is 50° and another is 70° . Find the remaining angles.

OR

Explain the relationship between vertically opposite angles and adjacent angles with a diagram.

31. Multiply:

$$\frac{7}{12} \times \frac{18}{21}$$

Reduce your answer to the lowest form.

SECTION – D

Section – D consists of 4 questions of 5 marks each.

(4x5=20)

32. A school library has 4,56,789 books. During the year, 34,562 new books were added and 18,795 damaged books were removed. Find the total number of books now available

OR

Write the Indian and International number names of:

76, 54, 32, 189.

Also write its expanded form.

33. Two parallel lines are cut by a transversal. One angle measures 125° . Find:

- (a) Corresponding angle (b) Alternate interior angle
(c) Interior angle on the same side (d) Vertically opposite angle .Give reasons.

34. A tank was filled with $\frac{5}{6}$ of its capacity. Later, $\frac{1}{4}$ of the total capacity was used.

How much water is left?

OR

A student studies Mathematics for $\frac{2}{5}$ of a day and Science for $\frac{1}{4}$ of a day.

What fraction of the day is spent studying?

35. Three lines intersect at one point.

One angle is 40° and another adjacent angle is 140° .

Find all remaining angles with proper reasons and a neat diagram.

SECTION – E

Section – E consists of 3 Case Study - Based questions of 4 marks each.

(3x4=12)

36. India is the most populated country and its population is approximately 1,45,00,00,000. And Delhi is the most crowded city and its population is approximately 48,75,620.

- (a) Write the population of India in words. (1)
(b) Write the city's population in expanded form. (1)
(c) Which number is greater and by how much? (2)

37. A railway track has two parallel rails. A road crosses the railway line making an angle of 70° .

- (a) Name the angle equal to 70° . (1)
(b) Find the supplementary angle. (1)
(c) State two angle pairs that become equal because the rails are parallel. (2)

38. Riya and Rohan have wedding anniversary tomorrow. During cake cutting ceremony cake is divided into 12 equal pieces.

Riya eats $\frac{5}{12}$ of the cake.

Rohan eats $\frac{3}{12}$ of the cake.

Answer:

- (a) How much cake is eaten altogether? (1)
(b) What fraction of cake is left? (1)
(c) If the remaining cake is equally divided between two children, what fraction does each get? (2)