KENDRIYA VIDYALAYA SANGATHAN, LUCKNOW REGION

SESSION ENDING EAXAMINATION (2025-26)

CLASS-VII

SUBJECT-MATHEMATICS

Time:- 2 Hours 30 Minutes **Maximum Marks: 60**

General Instructions:-

1. The question paper consists of Four Sections - A, B, C and D.
2. Section - A consists of 15 questions of 1 mark each;
3. Section- B consists of 5 questions of 2 marks each;
4. Section- C consists of 5 questions of 3 marks each
5. Section- D consists of 3 questions of 4 marks each
6. Section- E consists of 2 questions (CBQ) of 4 marks each.
7. Internal choices are given in 2 questions in section C and 1 question in section D.
8. All questions are compulsory.

SECTION – A

(MULTIPLE CHOICE QUESTIONS)

1	If the sum of two angles is 180^0, then they are (a) complementary angles (b) supplementary angles (c) Vertically opposite angles (d) adjacent angles	1
2	Which of the following set can form a triangle? (a) 2 cm, 3 cm ,5 cm (b) 3 cm, 4 cm, 8 cm (c) 5 cm,6 cm,10 cm (d) 1cm,2 cm, 3cm	1
3	Which of the following is not a congruence rule (a) AAA (b) SSS (c) SAS (d) RHS	1
4	If $\frac{1}{6}$ of a piece of land is taken for a road , what fraction of land remains, (a) $\frac{1}{6}$ (b) $\frac{5}{6}$ (c) $\frac{1}{2}$ (d) $\frac{1}{3}$	1
5	Value of 3n+4 for n = 8 (a) 8 (b)16 (c) 28 (d) 24	
6	If $\Delta AIR \cong \Delta FLY$, then which of the following is incorrect? (a) IR=FY (b) $\angle A = \angle F$ (c) AR=FY (d)$\angle R = \angle Y$	1
7	Find the product of 0.07 x 0.006 is, (a)0.00042 (b) 0.000042 (c) 0.0042 (d) 0.0000042	1
8	The value of (-5) x{18+(-3)} (a) 110 (b)+75 (c) -110 (d) -75	1
9	Choose the correct answer: 1526÷4 (a)38.15 (b)380.15 (c)381.5 (d) 381.05	1
10	When two straight lines intersect, they can cut at most at (a) Two points (b) one points (c) Three points (d) Infinite points	1
11	In an Equilateral triangle the measure of each interior angle is (a) 180^0 (b) 60^0 (c) 90^0 (d) 360^0	1
12	If you add five odd numbers together , then parity of the resulting sum will always be (a)Odd (b) Even (c) Zero (d) Prime	1

13	Greatest Common factor of 16, 24 and 18 is (a) 1 (b) 2 (c) 3 (d) 4	1
14	$\frac{1}{2}$ meter of ribbon is used to make 8 badges, What is the length of the ribbon used for each badge? (a) 8 x $\frac{1}{2}$ (b) $\frac{1}{2} \div \frac{1}{8}$ (c) $8 \div \frac{1}{2}$ (d) $\frac{1}{2} \div 8$	1
15	Which among the following shows the maximum rise in temperature? (a) 23^0C to 32^0C (b) -10^0C to -1^0C (c) -18^0C to -11^0C (d) -5^0C to 5^0C	1

SECTION B (Each 2 marks)

Q16 Solve this cryptarithm:

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Q17. A farmer had 5 grand children She distributed 2/3 acres of land to each of her grand children . How much land in all did she give to her grand children?

Q18. Evaluate the following

(i) 25 ÷ ……. =2.5 (ii) 25 ÷ 0.10 =25 x …….

Q19 Identify whether the triangles below are congruent. What conditions did you use to establish their congruence? Express the congruence.

Q20. In a class test containing 20 questions, 5 marks are awarded for each correct answer and 2 marks are deducted for each wrong answer. If Riya get 15 correct answers out of all the questions attempted. What is her total score?

SECTION C (3 marks each)

Q21 Create a magic square using the number 2 to 10.

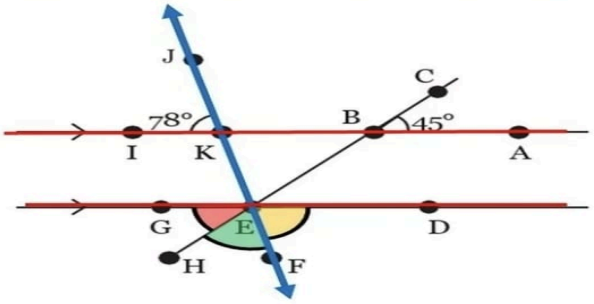
Q22 which one is greater $\frac{1}{8} \div \frac{1}{2}$ or $8 \div 2$

Or

What is the smallest number that is a multiple of 1,2,3,4,5,6,8,9 and 10?

Q23.

In Fig. 5.33, ∠ABC = 45° and ∠IKJ = 78°. Find angles ∠GEH, ∠HEF, ∠FED



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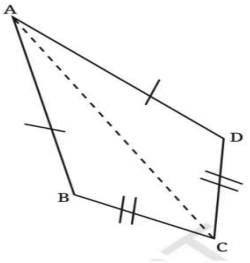
Q24. . Find H.C.F and L.C.M of following

(a) 300,150 (b) 5 x13, 5 x20

Or

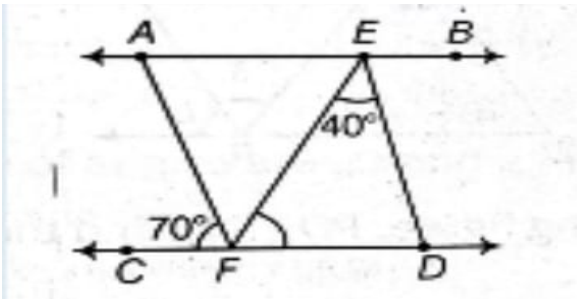
Find factors of following using prime factorization:
(a) 225 (b) 3003

Q25. In the figure below, AB = AD, CB = CD.
Can you identify any pair of congruent triangles? If yes, explain why they are congruent.
Does AC divide ∠BAD and ∠BCD into two equal parts? Give reasons.



SECTION – D (4 marks each)

Q26. In the following figure , AB ‖ CD, AF ‖ ED, ∠AFC= 70^0 and ∠FED=40^0, then find ∠EFD



Q27.Constuct a triangle of following measurements
3 cm, 75^0 and 7 cm, also write brief steps of construction

Q28. Meenu bought 4 notebooks and 3 erasers. The cost of each book was ₹15.50 and each eraser was ₹2.75. How much did she spend in all?

Or

A cement company earns a profit of ₹ 8 per bag of white cement sold and a loss of ₹ 5 per bag of grey cement sold. [Represent the profit/loss as integers.]

(a) The company sells 3,000 bags of white cement and 5,000 bags of grey cement in a month. What is its profit or loss?
(b) If the number of bags of grey cement sold is 6,400 bags, what is the number of bags of white cement the company must sell to have neither profit nor loss?

SECTION – E (4 marks each)
(CASE STUDY BASED QUESTIONS)

Q29. Mr. Pawan, the school librarian, has 780 English books and 364 Science books. He wants to store these books on shelves so that each shelf has the same number of books of each subject.

From above information answer the following:
(i) What is the prime factorization of 780 and 364? (2)
(ii) What is the maximum number of books he can put in each shelf so that they are distributed equally? (1)
(iii) What is the maximum number of book that he can put if, he has 540 Hindi books and 351 Maths books. (1)

Q30.

Designing a Park Entrance:

A park designer wants to create a triangular flower bed at the entrance. To ensure it fits the space, they decide to use specific measurements. The base of the flower bed is 7 meters long. The angle at one end of the base is 60°.The angle at the other end of the base is 70°. From above information answer the following:

(i) What is the value of the third angle of the triangular flower bed?
(ii) If the designer increases the base length from 7 meters to 10 meters while keeping the angles (60° and 70°) the same, will the third angle change?
(iii) Can the designer construct a triangle where the two given angles are 100° and 90°?
(iv) If the designer instead has the lengths of two sides (5m and 4m) and the angle between them (45°), is it always possible to construct a unique triangle?