KENDRIYA VIDYALAYA SANGATHAN, LUCKNOW REGION
SESSION ENDING EXAM (2018-19)

SUBJECT: MATHEMATICS   SET I   **MAX. MARKS: 80**
CLASS: VI   **DURATION: 2:30 HRS**

General Instructions:
- All questions are compulsory.
- This question paper contains **30** questions divided into four Sections A, B, C and D.
- **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.
- Use of Calculators is not permitted

SECTION – A

1. How many lines can pass through (i) one point (ii) two points?

2. The length of Ramesh's notebook is 9 cm 5 mm. What will be its length in cm?

3. Find the area of a rectangle whose length and breadth are 12 cm and 4 cm respectively.

4. Find any two pair of prime numbers whose difference is two.

5. A bird flies 1 kilometer in one minute. Express the distance covered by the bird in terms of its flying time in minutes? (Use t for flying time in minutes)

6. Following table shows the number of bicycles manufactured in a factory during the year 1998 to 2002. In which year were the maximum numbers of bicycles manufactured?

Years	No. of bicycles manufactured
1998	800
1999	600
2000	900
2001	1100
2002	1200

SECTION – B

7. There are 45 persons working in an office. If the number of females is 25 and the remaining are males, find the ratio of :
   (i) The number of females to number of males.
   (ii) The number of males to number of females.

8. What should be added to 37.28 to obtain 46.8?

9. Write the two letters of the word 'MATHEMATICS' which have horizontal line of symmetry.

10. Find the rule, which gives the number of matchsticks required to make matchstick pattern of letter E as E. Use a variable to write the rule.

11. Draw a line segment of length 8.5 cm and construct its perpendicular bisector.
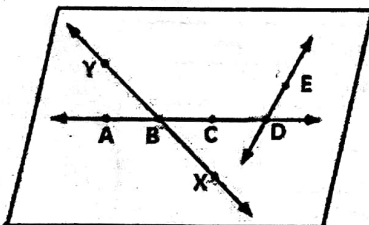
12. Following is the pictograph of the number of Auto manufactured by a factory in a particular week.

Days	Number of Auto manufactured	🛺 = 300 Autos
Monday	🛺🛺🛺🛺🛺🛺🛺🛺	
Tuesday	🛺🛺🛺🛺🛺🛺🛺🛺🛺🛺	
Wednesday	🛺🛺🛺🛺🛺	
Thursday	🛺🛺🛺🛺🛺🛺	
Friday	🛺🛺🛺🛺🛺	
Saturday	🛺🛺🛺🛺🛺🛺🛺🛺	

(a) On which day were the least number of Autos manufactured?

(b) On which day were the maximum numbers of Auto manufactured?

SECTION – C

13. Answer according to the figure

(a) Line on which X lies.

(b) Line containing point D.
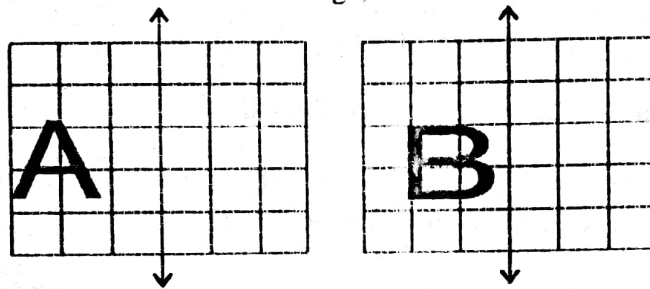
(c) Two pairs of intersecting lines.

14. Express as kg using decimals:

(a) 4 g (b) 37 g (c) 1 kg 250g

15. A piece of string is 30 cm long. What will be the length of each side if the string is used to form :

a square? (b) an equilateral triangle? (c) a regular hexagon?

16. Draw a circle of radius 4 cm. Draw any two of its chords. Construct the perpendicular bisectors of these chords. Where do they meet?

17. Find the common factors of 8 and 12.

18. Sweety runs around a square park of side 75 m. Bulbul runs around a rectangular park with length 60 m and breadth 45 m. Who covers less distance?

19. Cost of a dozen pens is Rs 120 and cost of 8 ball pens is Rs 40. Find the ratio of the cost of a pen to the cost of a ball pen.

20. In each figure alongside, a letter of the alphabet is shown along with a vertical line. Take the mirror image of the letter in the given line. Find which letters look the same after reflection (i.e. which letters look the same in the image) and which do not.

21. Take Sarita's present age to be y years
   (a) What will be her age 5 years from now?

   (b) What was her age 3 years back?

   (c) Sarita's grandfather is 6 times her age. What is the age of her grandfather?

22. The following are the number of electric bulbs purchased for a lodging house during the first four months of a year.

Months	January	February	March	April
No. of bulbs	32	28	40	36

Represent the details by a pictograph

SECTION – D

23. Determine if the following ratios form a proportion. Also, write the middle terms and extreme terms where the ratios form a proportion.
   (a) 25 cm : 100 cm and Rs 40 : Rs 160   (b) 39 litres : 65 litres and 6 bottles : 10 bottles

24. Find the sum in each of the following :

   (a) 0.007 + 8.5 + 30.08   (b) 15 + 0.632 + 13.8

   (c) 27.076 + 0.55 + 0.004   (d) 25.65 + 9.005 + 3.7

25. Complete the table and by inspection of the table find the solution to the equation $m + 10 = 16$.

m	1	2	3	4	5	6	7	8	9
m+10									

26. Following table shows the monthly expenditure of Imran's family on various items.

Items	Expenditure (in Rs)
House rent	3000
Food	3400
Education	800
Electricity	400
Transport	600
Miscellaneous	1200

Represent this data in the form of a bar diagram

27. Form four expressions using y, 2 and 7. Every expression must have y in it. Use only two number operations. These should be different.

28. Construct with ruler and compasses, angles of following measures: (a) 30^0 (b) 120^0

29. Mother wants to divide Rs 36 between her daughters Shreya and Bhoomika in the ratio of their ages. If age of Shreya is 15 years and age of Bhoomika is 12 years, find how much Shreya and Bhoomika will get.

30. By splitting the following figures into rectangles, find their areas.