



DELHI PUBLIC SCHOOL
SAIL TOWNSHIP, RANCHI
HALF YEARLY EXAMINATION (2017-18)

Class:- VI

Subject:- Mathematics

Time:- 3 Hrs.

F. M:- 80

General Instruction

- 1) All questions are compulsory.
- 2) It consists 28 questions divided into 4- Sections.

| | | |
|-----------|---|-------------|
| Section A | - | 1 x 4 =4 |
| Section B | - | 2 x 6 =12 |
| Section C | - | 3 x 8 = 24 |
| Section D | - | 4 x 10 = 40 |

Section-A

(1x4=4)

1. Find the difference between the greatest and the least number that can be written using the digits 6, 2, 7, 4, 3 each only once.
2. Find the sum by Suitable rearrangement.
 $837 + 208 + 363$
3. Draw rough diagram of two angles such that they have-
 - a) two points in common
 - b) three points in common
4. How many right angles do you make if you start facing south and turn clockwise to west?

Section-B

(2x6= 12)

5. Estimate the sum $5290 + 17986$ by estimating the numbers to their nearest (i) hundreds (ii) thousands
6. Find the product using suitable properties 854×102
7. Find HCF of 513 and 783
8. Draw a rough sketch of a pentagon and draw its diagonals
9. Add on number line :-
 - (i) $(-2) + 8 + (-4)$
 - (ii) $5 + (-11)$
10. Draw a bar graph for the given data-

| | | | | |
|--------------------|--------|--------|-------|-------|
| Name of fruits | Banana | Orange | Apple | Guava |
| Number of Students | 8 | 3 | 5 | 4 |

Section -C

(3x8= 24)

11. A student multiplied 7236 by 65 instead of multiplying by 56. How much was his answer greater than the correct answer.
12. Find the value of the following :-
 $3845 \times 5 \times 782 + 769 \times 25 \times 218$
13. Find the least number which when divided by 12, 16, 24 and 36 leaves a remainder 7 in each case.
14. Find the smallest 4 digit number which is divisible by 18, 24 and 32

OR

Determine the number nearest to 100000 but greater than 100000 which is exactly divisible by each of 8, 15 and 21

15. Draw a circle and mark
 - (i) its centre
 - (ii) a radius
 - (iii) a diameter
 - (iv) a sector
 - (v) a segment
 - (vi) an arc
16. Which direction will you face if you start facing
 - a) East and make $\frac{1}{2}$ of a revolution clock wise?
 - b) East and make $1\frac{1}{2}$ of a revolution clockwise?
 - c) West and make $\frac{3}{4}$ of a revolution anti-clock wise.
17. If Δ is an operation on integers such that for integers a and b.
 $a \Delta b = a - b - (-2)$. Find the value :
 - (i) $(-3) \Delta (-4)$
 - (ii) $(-4) \Delta 3$

OR

Find the sum of –

- (i) $(-9) + (+4) + (-6) + (+3)$
 - (ii) $30 + (+55) + (-23) + (-63)$
18. The lengths in centimetres of 30 carrots are given as follow:-
15, 22, 21, 20, 22, 15, 15, 20, 20, 15, 20, 18, 20, 22, 21
20, 21, 18, 21, 18, 20, 18, 21, 18, 22, 20, 15, 21, 18, 20.
Arrange the data given above in a table using tally marks and answer the following questions.
 - a) What is the number of carrots which have length more than 20cm?
 - b) Which length of the carrots occur (i) maximum number of times?
(ii) Minimum number of times?

Section-D

(4x10=40)

19. The number of sheets of paper available for making note book is 75,000. Each sheet make 8 pages of a note book. Each note book contains 200 pages. How many note books can be made from the paper available?
20. a) The product of two numbers is 504347. If one of the numbers is 1591, find the other.
b) Find using distributive property 728×101
21. Find the greatest number of 6 digits exactly divisible by 24, 15 and 36
22. Four bells toll at intervals of 4, 7, 12 and 84 seconds. The bells toll together at 5 O'clock. When will they again toll together ? How many times will they do it in 28 minutes?
23. Draw a rough sketch of a quadrilateral
a) KLMN State
 a) two pairs of opposite sides
 b) two pairs of opposite angles
 c) two pairs of adjacent sides.
 d) two pairs of adjacent angle.
b) Draw diagonals of the quadrilateral KLMN.
24. Where will the hand of a clock stop if it.
a) Starts at 12 and makes $\frac{1}{2}$ of a revolution clockwise.
b) Starts at 2 and makes $\frac{1}{2}$ of a revolution clockwise.
c) Starts at 5 and makes $\frac{1}{4}$ of a revolution clockwise.
d) Starts at 5 and makes $\frac{3}{4}$ of a revolution clockwise.

OR

Can we have two acute angles whose sum is-

- a) an acute angle? Why or Why Not?
b) a right angle? Why or Why Not?
c) an obtuse angle? Why or Why Not?
d) a straight angle? Why or Why Not?
25. Subtract the sum of -1250 and 1138 from the sum of 1136 and -1272 .
26. (a) The sum of two integers is 238. If one of the integers is -122 , determine the other.
(b) Calculate $1 - 2 + 3 - 4 + 5 - 6 + \dots + 15 - 16$

27. Madan threw a dice 40 times and noted the number appearing each time as shown below.

1 3 5 6 6 3 5 4 1 6
2 5 3 4 6 1 5 5 6 1
1 2 2 3 5 2 4 5 5 6
5 1 6 2 3 5 2 4 1 5

Make a table and enter the data using tally marks. Find the number that appeared.

- The minimum number of times.
- The maximum number of times.
- Find those numbers that appear an equal number of times.

OR

In a Mathematics test, the following marks were obtained by 40 students.

Arrange these marks in a table using tally marks

8 1 3 7 6 5 5 4 4 2
4 9 5 3 7 7 6 5 2 7
7 3 8 4 2 8 9 5 8 6
7 4 5 6 9 6 4 4 6 6

- Find how many students obtained marks equal to or more than 7.
- How many students obtained marks below 4.

28. In a botanical garden, the number of different types of plants are found as follows:-

| Types of Plant | Number of Plants |
|----------------|------------------|
| Herb | 50 |
| Shrub | 60 |
| Creeper | 20 |
| Climber | 45 |
| Tree | 95 |

Draw a bar graph to represent the above information.

Write why we plant trees?