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

Class:- VI   **Subject:- Mathematics**
Time- 2 ½ Hrs.   **F. M:- 80**

Note :- Attempt all questions. There are no options overall. However there may be some internal choices. Rough work should be done in the right margin. Omission of steps may result in loss of marks.

<u>**Section – A**</u>   **(1 x 4 = 4)**

1. The sum of two integers is 48. If one of the integers is -24, determine the other.

2. Mukesh has a box of 44 pencils he gives $\frac{3}{4}$ of them to Sunita. How many does Sunita get? How many does Mukesh keep?

3. Find the sum : 18.003+41.7+10.97+5.057

4. Name a quadrilateral which has four lines of symmetry. Draw figure.

<u>**Section – B**</u>   **(2 x 6= 12)**

5. The HCF and LCM of two numbers are 13 and 1989 respectively. If one of the numbers is 117, determine the other.

6. If Δ is an operation on integers such that $a\Delta b = -a+b-(-2)$ for all integers a,b. Find the value of $6\Delta(-5)$.

7. Jai takes $2\frac{1}{2}$ minutes to walk across the school ground. Raj takes $\frac{7}{4}$ minutes to do the same. Who takes less time and by what fraction?

8. Rohan spends Rs. x daily and saves Rs. y per week. What is his income after three weeks?

9. Consider the letters of English alphabets, A to Z. List among them the letters which have
   (i) vertical lines of symmetry.   (ii) horizontal lines of symmetry.

10. Draw a triangle which has
    (i) exactly one line of symmetry.   (ii) exactly three lines of symmetry.

<u>**Section – C**</u>   **(3 x 8 = 24)**

11. In a seminar the number of participants in Hindi, English and Mathematics are 60,84 and 108 respectively. Find the minimum number of rooms required if in each room the same number of participants are to be seated and all of them being in the same subject.

12. Arrange the following fractions in descending order : $\frac{3}{8}, \frac{5}{6}, \frac{2}{4}, \frac{1}{3}, \frac{6}{8}$

13. Tina had 20m 5cm long cloth .She cuts 4m50cm length from this for making a curtain. How much cloth is left with her?

14. What is the length of the wooden strip required to frame a photograph of length and breadth 32cm and 21cm respectively ?

15. A marble tile measures 25cm by 20cm .How many tiles will be required to cover a wall of size 4m by 3m?

P.T.O

16. The volume of cuboids is given by the product of its length, breadth and height. The length of a cuboid is 3 times its breadth and the height is one-half of the length. Find the expression of its volume if breadth is b cm.

OR

A bus travels at v km per hour. It is going from Rampur to Bharatpur . After the bus has travelled 3hours, Bharatpur is still 40km away. What is the distance from Rampur to Bharatpur ? Express it using v .

17. If 18,x,x,50 are in proportion, find the value of x.

OR

Raju purchases 10 pens for Rs 50 and Manish buys 7 pens for Rs 84. Who got the pens cheaper ?

18. Draw a line segment PQ of 8.2cm. Take any point R on it .Through R draw a perpendicular to PQ.

Section – D   **(4 x 10 = 40)**

19. Salil wants to put a picture in a frame. The picture is $7\frac{3}{5}$ cm wide. To fit in the frame, the picture cannot be more than $7\frac{3}{10}$ cm wide. How much should the picture be trimmed ?

20. Ram, Rahim and Rohit bought 8.5 litres ,7.25 litres and 9.4 litres of milk respectively from a milk booth. How much milk did they buy in all ? If there was 30 litres of milk in the booth, find the quantity of milk left ?

21. Samson travelled 5km 52m by bus , 2km 265m by car and the rest 1km 30m he walked. How much distance did he travel in all ?

OR

(a) By how much should 34.79 be increased to get 70.15 ?
(b) By how much should 59.71 be decreased to get 34.58 ?

22. People of Greenland Society have a small empty land which measures 0.7km by 0.5km. They have planned to develop it into a park for children and old people. What is the length of wire needed to fence this park in four rows?
What values are shown by the people of the society ?

23. A floor is 5m long and 4m wide. A square carpet of sides 3m is laid on the floor. Find the area of floor that is not carpeted.

OR

The perimeter of a rectangular sheet is 100cm. If the length is 35cm, finds its breadth. Also find the area.

24. Pick out the solution from the values given in the bracket next to each equation. Show that the other values do not satisfy the equation.
(a) n+12 =20   (12,8,20,0)   (b) $\frac{q}{2} = 7$ (7,2,10,14)

25. The cost of 15 postcards is Rs 11.25. What will be cost of 36 postcards? How many postcards can be bought with Rs 45?

26. Divide Rs. 1200 between Aman , Amit and Anita in ratio 2:3:5.

27. Draw a line segment of 12.8cm, Using compasses, divide it into four equal parts. Verify by actual measurement.

28. Draw a circle with centre C and radius 3.4cm. Draw any chord AB. Construct the perpendicular bisector of AB and examine if it passes through C.

OR

Draw an angle of measure 135° and bisect it.