ST. XAVIER'S SENIOR SECONDARY SCHOOL, DELHI – 110054

Class 8 Time : 1½ hrs.

20-12-2017 Pre-Annual Test in MATHEMATICS M. Marks : 40

General Instructions:

i) All questions are compulsory.

ii) The question paper consists of 20 questions divided into four sections A, B, C & D. Section – A comprises of 8 questions of 1 mark each, Section – B comprises of 6 questions of 2 marks each, Section – C comprises of 4 questions of 3 marks each & Section – D comprises of 2 questions of 4 marks each.

Section – A [1 x 8 = 8 marks]

1. Name the graphs used to
   a) Compare parts of a whole.
   b) Display data that changes continuously over periods of time.

2. Find the surface area of a cube whose edge is 2.1 m.

3. Identify the proportion in each of the following.
   a) Number of articles and their price.
   b) Distance and time when the speed remains the same.

4. Simplify $(2^{-1} + 3^{-1})^{-1}$.

5. Name the point in the which the x axis and y axis meet in the Cartesian plane.

6. Find the height of a cuboid whose volume is $275cm^3$ and base area is $25cm^2$.

7. Rohit bought 12 registers for Rs. 156/-, find the cost of 7 such registers.

8. The diameter of the base of a right circular cylinder is 42cm and the height is 10cm. Find the area of the curved surface.

Section – B [2 x 6 = 12 marks]

9. If 52 men can do a piece of work in 35 days, in how many days 28 men will do it?

10. In which quadrant/axis do the following points lie?
    i) (2, -5) ii) (-4, 3) iii) (3, 0) iv) (0, -6)

11. By what number should 5^{-1} be multiplied so that the product may be equal to $(-7)^{-1}$.

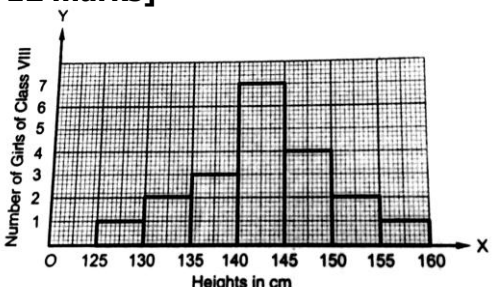
12. The volume of a cube is $1000cm^3$. Find its total surface area.

13. Sumit takes 125 seconds in walking a distance of 100m. What distance would he cover in 315 seconds?

14. The dimensions of a cuboid are in the ratio 1:2:3 and its total surface area is $88m^2$. Find the dimensions of the cuboid.

Section – C [3 x 4 = 12 marks]

15. Observe the following histogram and answer the questions given below:
    i) What information is being given by the graph?
    ii) Which group does contain maximum girls?
    iii) How many girls have a height of 145cm



and above?

16. If a and b vary inversely, find p, q and r.

a	8	2	**p**	5	1
b	10	**q**	20	**r**	80

17. Evaluate $(3^{-5} \times 10^{-5} \times 125) \div (5^{-7} \times 6^{-5})$.

18. The volume of a cylinder is $448\pi cm^3$ and height 7cm. Find its lateral surface area and total surface area.

Section – D [4 x 2 = 8 marks]

19. A class room is 4.5m long 3m wide and 350cm high. Find the cost of plastering the walls and ceiling of it at the rate Rs. 8/- per square metre.

20. The quantity of petrol filled in a car and the cost of petrol are given in the following table.

Litres of petrol filled	10	15	20	25
Cost of petrol	500	750	1000	1250

i) Draw the graph for the above data.
ii) Is it a linear graph?
ii) Find the cost of 12 litres of petrol from the graph.

-x-x-x-x-x-x-x-