INDIAN SCHOOL SOHAR
TERM - I EXAMINATION (2018-2019)
MATHEMATICS

Max. Marks: 80
Duration: 3 Hours

## General Instructions:

All questions are compulsory. Check whether the question paper contains 4 printed pages. The question paper consists of 30 questions divided into four sections A, B, C \& D. Section A comprises 6 questions of 1 mark each, Section B comprises 6 questions of 2 marks each, Section C comprises 10 questions of 3 marks each \& Section D comprises 8 questions of 4 marks each. Do the calculations in the working column. Give necessary formulae and steps wherever required.

## SECTION A

1. Find the supplement of $71^{\circ}$.
2. Find $\frac{3}{7}$ of $\frac{2}{5}$.
3. The number of trees in different parks of a city are $33,38,48,33,34,34,33$ and 24 . Find the mode of the data.
4. Find the value of ' $x$ ' in the equation $a x+b=0$.
5. The two interior opposite angles of an exterior angle of a triangle are $60^{\circ}$ and $80^{\circ}$. Find the measure of the exterior angle.
6. Find the product when $(-1)$ is multiplied $2 m$ times where $m$ is any natural number.

## SECTION B

7. Write down a pair of positive and negative integer whose sum is 5 .
8. Evaluate $5 \frac{1}{6} \div \frac{9}{2}$
9. Find the range of the given integers: $-11,15,0,-17,-4,+20,6$.
10. Solve $3 x+7=-20$.
11. If $a=40^{\circ}$, find the value of $b$ in the given figure.

12. Is it possible to have a triangle with the following angles?
$\angle \mathrm{A}=80^{\circ}, \angle \mathrm{B}=70^{\circ}$ and $\angle \mathrm{C}=30^{\circ}$. Why? Why not?

## SECTION C

13. The temperature of Delhi which was $42^{\circ} \mathrm{C}$ fell by $2^{\circ} \mathrm{C}$ each day for a week. What is the temperature after one week?

## OR

Verify that $a \div(b+c) \neq(a \div b)+(a \div c)$ if $a=15, b=-3$ and $c=1$.
14. In a class of 40 students, $\frac{1}{5}$ of the total number of students like to eat only rice, $\frac{2}{5}$ of the total number of students like to eat only chapatti and the remaining students like to eat both. What fraction of the total number of students like to eat both? Also find the number of students who like to eat both.

## OR

The monthly consumption of rice by a family is 12.5 kg . How much rice is consumed by the family in two years?
15. Find the mean of the first ten odd natural numbers.
16. The two angles of a triangle are $58^{\circ}$ and $44^{\circ}$. Find the third angle.
17. In the given fig. $P Q \| S T$. Find the value of $x+y$.
18. The angles of a triangle are in the ratio $2: 3: 5$. Find the angles.
19. Find the median of the following data.


111, 100, 199, 201, 54, 251, 111

## OR

A die is rolled. Find the probability of getting:
(a) A number greater than 5
(b) A multiple of 5
(c) A prime number
20. In a family the consumption of wheat is 4 times that of rice. The total consumption of the two cereals is 80 kg . Find the quantities of rice and wheat consumed by the family.

## OR

The length of a rectangle is two times its breadth. If the perimeter of the rectangle is 96 cm , find its length and breadth.
21. The three angles of a triangle are $x, 2 x$ and $30^{\circ}$. Find the unknown angles.
22. (i) Evaluate $(-3) \times(-6) \times(-8)$
(ii) Raju's father's age is 5 years more than 3 times Raju's age. Find Raju's age, if his father is 44 years old.

## SECTION D

23. A green grocer had a profit of 47 on Monday, a loss of 12 on Tuesday and a loss of 8 on Wednesday. Find his net profit or loss for these three days.

## OR

(i) Find the sign of the product if we multiply six negative integers and seven positive integers.
(ii) Evaluate $40 \times(-17)+40 \times(-13)$ using distributive property.
24. A car covers a distance of 89.1 km in 2.2 hours. What is the average distance covered by the car in 1 hour?

## OR

The weight of an object on moon is $\frac{1}{6}$ of its weight on Earth. If an object weighs $5 \frac{3}{5} \mathrm{~kg}$ on Earth, how much would it weigh on the moon?
25. A hiking group is planning an excursion. They note down the ages of the members of the group. Represent the given data in a double bar graph.

| Age | 18 | 20 | 22 | 24 | 26 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Male | 8 | 11 | 14 | 7 | 10 |
| Female | 5 | 9 | 6 | 7 | 12 |

26. In the given fig. I || m and tintersects these lines at $P$ and $Q$ respectively. Find the value of $2 a+b$.

27. In the given fig. $A B \| D E$ and $B C \| E F$. If $\angle D O B=110^{\circ}$, find the value of $x$ and $y$.


OR
In the given fig., y is five times x . Find the values of $\mathrm{x}, \mathrm{y}$ and z .

28. If five times a number is subtracted from eight times the number, the result is 60 . Find the number.
29. (i) For the given data $32,32,35,42,34,32,38 ;$ Median $=42$ and Mode $=32$. Find whether they are correct or not. Write the correct value if they are incorrect.
(ii) Check whether the value given in the bracket satisfies the equation

$$
4 x-3=13 \text { for }[x=1]
$$

30. (i) Name the pair of angles in the following figures:
(a)

(b)

(ii) Check whether I \| m in the given fig.
Give at least one reason for your answer.

