## INDIAN SCHOOL SALALAH

## SECONDTERM EXAMINATION, 2018-19

Subject: Mathematics
Time allowed: 3 hours
Class: VII
Max. Marks: 80

## GENERAL INSTRUCTIONS

a) All the questions are compulsory.
b) This question paper consists of 30 questions.
c) Section A contains 6 questions of 1 mark each. Section B contains 6 questions of 2 marks each. Section C contains 10 questions of 3 marks each. Section D contains 8 questions of 4 marks each.

## SECTION A

Question numbers 1 to 6 carry 1 mark each.

1. Find the ratio of 8 kg to 250 g
2. The circumference of a circle of diameter 28 cm is $\qquad$
3. The value of $3 x^{2}-5 x+3$ when $x=-2$ is $\qquad$
4. Write the equation for the following statement:
'If you take away 5 from three times of $x$, you get 25 '
5. How many altitude does a triangle have?
6. How many rational numbers are there between two rational numbers?

## SECTION B

## Question numbers 7 to 12 carry 2 marks each.

7. Babu saves ₹ 1000 from his salary. If this is the $20 \%$ of his salary. What is his salary?
8. In a triangle, if one side is 7 cm and its corresponding height 4 cm , find its area.
9. Solve: $3(x+2)-7=20$.

10 . From the given figure find the value of $x$ :

11. Give any two real-life examples for congruent shapes.
12. What should be added to $5 p q-3 p^{2}+q^{2}$ to get $7 p^{2}+2 p q+q^{2}$ ?

## SECTION C

## Question numbers 13 to 22 carry 3 marks each.

13. Rani borrows ₹ 10,000 from a Bank and pays back after 3 years at $13 \%$ interest p.a. Find the amount paid by Rani.
14. Construct $\triangle \mathrm{ABC}$ in which $\mathrm{AB}=5 \mathrm{~cm}, \mathrm{AC}=6.5 \mathrm{~cm}$ and $\mathrm{m} \angle \mathrm{B}=55^{\circ}$.

15 . Find the area of the shaded portion.

16. Simplify and find the value of the expression if $x=2, \mathrm{a}=-1$ and $\mathrm{b}=1$. $3(2 x-\mathrm{a}+2 \mathrm{~b})+x-2 \mathrm{a}-4 \mathrm{~b}$.
17. PQR is an isosceles triangle with $\mathrm{PQ}=\mathrm{PR}$ and PS is one of its altitude. Show that $\Delta \mathrm{PSQ} \cong \Delta \mathrm{PSR}$.
18. Find the values of $x$ and $y$ :

19. A man travelled 60 km by car and 240 km by train. Find what per cent of total journey did he travel by car and what per cent by train?
20. Draw a number line and represent the following rational numbers on it:

$$
\frac{-7}{4}, \frac{4}{5} \text { and } \frac{5}{-3}
$$

21. ABCD is a quadrilateral.


Is $\mathrm{AB}+\mathrm{BC}+\mathrm{CD}+\mathrm{DA}>\mathrm{AC}+\mathrm{BD}$ ? Justify your answer.
22. How many tiles whose length and breadth are 13 cm and 7 cm respectively are needed to cover a rectangular region whose length and breadth are 520 cm and 140 cm ?

## SECTION D

## Question numbers 23 to 30 carry 4 marks each.

23. Neethu's mother gave her ₹ $3 x^{2} y+x y^{2}$ and father gave her ₹ $5 x^{2} y+2 x y^{2}$. Out of this total money she spent ₹ $4 x^{2} y-x y^{2}$ on her birthday party. How much money is left with her?
24. (a) Manu's father's age is 6 years more than three times Manu's age. Find Manu's age, if his father is 39 years old.
(b) Solve the equation: $2 x-\frac{7}{2}=\frac{13}{2}$
25. The diagonals of a rhombus measure 40 cm and 30 cm . Find its perimeter.
26. By selling a chair for ₹ 1440 , a shopkeeper loses $10 \%$. At what price did he buy it?
27. In the given figure, Show that $\Delta \mathrm{AOC} \cong \Delta \mathrm{BOD}$.

28. A circular pond is surrounded by a 2 m wide circular path. If outer circumference of circular path is 44 m , find the inner circumference of the circular path. Also find area of the path.
29. Find the value of :
a) $\left(-\frac{1}{5}\right)+2 \frac{4}{3}$
b) $\frac{3}{13} \div\left(\frac{-4}{65}\right)$
30. Construct a right angled $\Delta \mathrm{ABC}$, where $\mathrm{m} \angle \mathrm{B}=90^{\circ}, \mathrm{BC}=7.6 \mathrm{~cm}$ and $\mathrm{AC}=9.8 \mathrm{~cm}$.
