| S.NO | ANSWER THE FOLLOWING QUESTIONS |
| :---: | :---: |
| 1 | Find the diameter of a circle whose circumference is 62.8 cm . (Take $\Pi=3.14$ ) |
| 2 | The diameter of a semicircular protractor is 7 cm . Find its perimeter. |
| 3 | Find the height of a triangle having an area of $175 \mathrm{~cm}^{2}$ and base is 0.25 m . |
| 4 | Find the side of a parallelogram whose area is $120 \mathrm{~cm}^{2}$ and altitude is 1.2 dm . |
| 5 | A wall 9.9 m long and 6.4 m high is covered with rectangular tiles of size 44 cm by 20 cm . Find the total cost of the tiles at the rate of ₹ 18.50 per tile. |
| 6 | The diameter of a cycle wheel is 56 cm . Find the distance covered by the cycle in 200 rotations. |
| 7 | A wire in the shape of a square of side 11 m is rebent into the shape of a circle. Find the area of the circle. |
| 8 | A 2 m wide road surrounds a circular park whose circumference is 352 m . Find the area of the road. |
| 9 | A rectangular park is 50 m long 35 m wide. <br> a)A path of 3 m width is constructed all around the park. <br> b)A path of uniform width 5 m runs round the inside of the park. <br> Find the area of the path in both cases. |
| 10 | A field 70 m long and 45 m wide has two crossroads in the centre. Each road is 5 m wide .Find the area of the remaining field. |
| 11 | Draw a line $P Q$ and consider a point $M$ at a distance of 5 cm from it. Through $M$, draw a line RS parallel to line AB. |
| 12 | Construct $\triangle X Y Z$ in which $Y Z=5.4 \mathrm{~cm}, \underline{Y}=90^{\circ}$ and $/ X=55^{\circ}$. |
| 13 | Suresh borrowed ₹5000 from his friend and returned ₹ 6500 to him after two years. Calculate the rate of interest. |
| 14 | Find the amount to be paid at the end of 4years on a sum of ₹ 2000 at 10\%. |
| 15 | A car dealer bought a second - hand car for ₹ 140000 . He spent ₹ 10000 on its repairs and then sold it for ₹170000. Find his profit or loss percent. |
| 16 | A machine is sold for ₹ 10500 at a loss of 10\%. What is the cost price? |
| 17 | The length of a rope is reduced from 150 m to 131.25 m . Find the decrease percent. |
| 18 | In an examination , $70 \%$ of the students achieved grade $A, 10 \%$ were placed in grade $B$ and 70 Students got grade C. Find the number of students placed in grade A and B. |
| 19 | Find the ratio of 2 kg 5 g to 0.5 kg |
| 20 | Find the number whose 7\% is 42. |
| 21 | Express a) $\frac{18}{5}$ and b) 0.9 as percentage |
| 22 | $\triangle P Q R$ is an isosceles triangle with $P Q=P R$ and $P M$ is one of its altitude. <br> a) Is $\triangle P M Q \cong \triangle P M R$ ? <br> b) Is $\angle \mathrm{Q}=\angle \mathrm{R}$ ? <br> Give reasons for your answer |


| 23 | Write the additional information needed to prove <br> a) $\triangle P Q R \cong \triangle A B C$ by $R H S$ congruence rule, given that $P Q=A B, \angle Q=\angle B=90^{\circ}$ <br> b) $\triangle P Q R \cong \triangle A B C$ by ASA congruence rule, given that $\angle Q=\angle B$ and $Q R=B C$ <br> c) $\triangle P Q R \cong \triangle A B C$ by SAS congruence rule, given that $P Q=A B$ and $P R=A C$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 24 | The lengths of the diagonals of a rhombus are 10 cm and 24 cm . Find the perimeter of the rhombus. |  |  |  |  |
| 25 | In a right angled triangle DEF, $\angle \mathrm{E}=90^{\circ}, \mathrm{DE}=15 \mathrm{~cm}, \mathrm{DF}=17 \mathrm{~cm}$, find EF. |  |  |  |  |
| 26 | Find the values $x, y, z$.Give reasons. <br> a) |  |  |  |  |
| 27 | The lengths of two sides of a triangle are 13 cm and 19 cm . Between what measures should the third side fall? |  |  |  |  |
| 28 | Is it possible to draw a triangle with the sides $7.4 \mathrm{~cm}, 5.2 \mathrm{~cm}$ and 3.9 cm ? |  |  |  |  |
| 29 | The exterior angle of a triangle is $130^{\circ}$, its interior opposite angles are equal in measure. Find the measures of all interior angles of the triangle. |  |  |  |  |
|  | Given below is the number of girls and boys in class VII of a school |  |  |  |  |
|  | class | VII A | VII B | VII C | VII D |
|  | No. of girls | 25 | 30 | 25 | 20 |
| 30 | No. of boys | 20 | 15 | 20 | 29 |
|  | Draw a double bar graph to represent the above data and answer the following questions. a)In which section(s) is the difference in the number of boys and girls (i)minimum (ii) maximum <br> b)Find the ratio of no. of boys to no. of girls in VII D. |  |  |  |  |
| 31 | Find the range, mean , median and mode of the following data $11,20,11,13,22,10,11,14,23,10$ |  |  |  |  |
| 32 | The mean rainfall for a week in a city is 5.5 mm . Find the total rainfall in the city during that week. |  |  |  |  |
| 33 | a) Divide 0.00951 by 0.317 b) multiply 3.14 by 0.4 |  |  |  |  |
| 34 | a)solve $50-6(x+1)=(-50)$ |  |  |  |  |
| 35 | Simplify $\left(\frac{1}{2}-\frac{3}{4}\right) \div\left[\frac{-3}{10} \times \frac{5}{8}\right]$ |  |  |  |  |
| 36 | a)Represent $\frac{5}{-3}$ on a number line b)Find four rational numbers between $\frac{-4}{5}$ and $\frac{-2}{3}$ c) Find the multiplicative and additive inverse of $\left(\frac{3}{8}-\frac{3}{4}\right)$. |  |  |  |  |

INDIAN SCHOOL MUSCAT - MIDDLE SECTION - DEPARTMENT OF MATHEMATICS (2018-19)

| S.NO | TOPIC |  |  |
| :---: | :--- | :---: | :--- |
| 1 | TRIANGLE \& ITS PROPERTIES | $\mathbf{6}$ | DATA HANDLING |
| 2 | CONGRUENCE OF TRIANGLES | 7 | FRACTIONS \& DECIMALS |
| 3 | PRACTICAL GEOMETRY | 8 | SIMPLE EQUATIONS |
| 4 | COMPARING QUANTITIES | 9 | RATIONAL NUMBERS |
| 5 | PERIMETER \& AREA |  |  |

