SECTION A: (1 MARK)

\begin{tabular}{|c|c|c|c|}
\hline 1. \& \multicolumn{2}{|l|}{An angle is \(20^{\circ}\) more than three times the other angle. If the two angles are supplementary, find the angles.} \& \(40^{\circ}, 140^{\circ}\) \\
\hline 2. \& \multicolumn{2}{|l|}{An exterior angle of a triangle is \(105^{\circ}\) and its two interior opposite angles are equal. Find each of these equal angles.} \& \(5212^{\circ}\) \\
\hline 3. \& \multicolumn{2}{|l|}{If two times the measure of one angle is three times the other which is complement, find the angles.} \& \(36^{\circ}, 54^{\circ}\) \\
\hline 4. \& \begin{tabular}{l}
In the given fig, find the value of \(x\) \\
Fig1. \\
In fig2, ABCD is a rectangle in which \(\angle \mathrm{DRC}\)
\end{tabular} \& (CCE 2011) \& \(30^{\circ}\)

50 \\
\hline
\end{tabular}

SECTION B: (2 MARKS)

| 6. | The exterior angles obtained on producing the base of a triangle both ways are $100^{\circ}$ and $120^{\circ}$. Find all the angles <br> (CCE 2011) |  | $\begin{aligned} & 80^{\circ}, 60^{\circ}, \\ & 40^{\circ} \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| 7. | In $\triangle \mathrm{ABC}, \angle \mathrm{A}-\angle \mathrm{B}=63^{\circ}, \angle \mathrm{B}-\angle \mathrm{C}=18^{\circ}$. Find the measure of all the angles |  | $\begin{aligned} & 108^{\circ}, 45^{\circ}, \\ & 27^{\circ} \end{aligned}$ |
| 8. | In fig. 3, find the value of $c$. | 9. In fig. 4 , If $\angle$ TRS $=y$ and $\angle T Q S=x$, find the measure of $\angle \mathrm{QPR}$. | $\mathrm{C}=26^{\circ}$ $\text { 9. } 42^{\circ}$ |

## SECTION C: (3 MARKS)



SECTION D: (4 MARKS)
13. The sides $B C, C A$ and $A B$ of a $\triangle A B C$ are produced in order, forming exterior angles $\angle A C D, \angle B A E$ and $\angle C B F$. Show that $\angle A C D+\angle B A E+\angle C B F=360^{\circ}$
14. If the bisectors of the angles $B$ and $C$ of $\triangle A B C$ meet at a point $O$, then prove that $\angle B O C=90^{\circ}+1 / 2 \angle A$
15. In the given figure, lines PQ and RS intersect at O . If $\angle \mathrm{POT}=75^{\circ}$, find $\mathrm{a}, \mathrm{b}$ and c .
$84^{\circ}, 21^{\circ}$, $48^{\circ}$

