## VII Class

## PARALLEL LINES

1. In the adjoining figure, a transversal ' $t$ ' cuts two parallel line ' $l$ ' and ' m ' at the points L and M respectively. If $\angle \mathrm{l}=55^{\circ}$, find all other angles.

2. In the adjoining figure, $\mathrm{AB} \| \mathrm{CD}$ and a transversal PQ cuts them at L and M respectively. If $\angle \mathrm{QMD}=100^{\circ}$, find all other angles in the figure.
3. In figure, AB and CD are two parallel lines intersected by a transversal PQ at L and M respectively. If $\angle \mathrm{CMQ}=45^{\circ}$, find $\angle \mathrm{ALM}$ and $\angle \mathrm{DMQ}$.

4. In each of the given figures, it is being given that $l \| \mathrm{m}$, find the values of x and y :

(i)

(ii)

(iii)

5. In figure, $l \| \mathrm{m}$ and $\mathrm{p} \| \mathrm{q}$. Find the values of $\mathrm{a}, \mathrm{b}$, c, d.

6. In figure, $\mathrm{AB} \| \mathrm{CD}$ and $\mathrm{AC} \| \mathrm{BD}$. Find the values of $\mathrm{x}, \mathrm{y}, \mathrm{z}$.

(i)

(ii)
7. In figure, side BC of triangle ABC has been produced to D and $C E \| B A$. If $\angle A B C=65^{\circ}, \angle B A C=55^{\circ}$, find $\angle A C E$, $\angle E C D$ and $\angle A C D$.

8. In figure, $\mathrm{DE} \| \mathrm{BC}$. Find the values of x and y .

9. In figure, the corresponding arms of $\angle \mathrm{ABC}$ and $\angle \mathrm{DEF}$ are parallel, as shown in the figure. If $\angle A B C=75^{\circ}$, find $\angle D E F$.

10. In figure, $\mathrm{PQ} \|$ RS. Find the value of $\mathrm{x} .\left(\right.$ Hint $\left.: \angle \mathrm{PBA}=75^{\circ}\right)$

11. In figure, $\mathrm{AB} \| \mathrm{CD}$ and $\mathrm{AE} \| \mathrm{CF} ; \angle \mathrm{FCG}=90^{\circ}$ and $\angle B A C=120^{\circ}$. Find the values of $x, y$ and $z$.

12. In figure, $A B \| C D$. Find the values of $x, y, z$.

13. In figure, two lines $l$ and $m$ are cut by a transversal $t$. Find whether $l \| m$. Give reasons.

(i)

(ii)

(iii)
14. In figure, $\mathrm{AB}|\mid \mathrm{CD}$ and CD$| \mid \mathrm{EF}$. Is $\mathrm{AB}|\mid \mathrm{EF}$ ? Give reasons.

