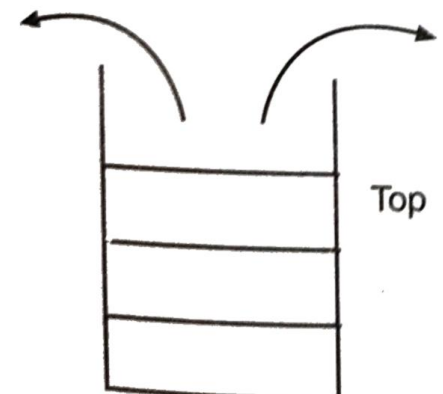
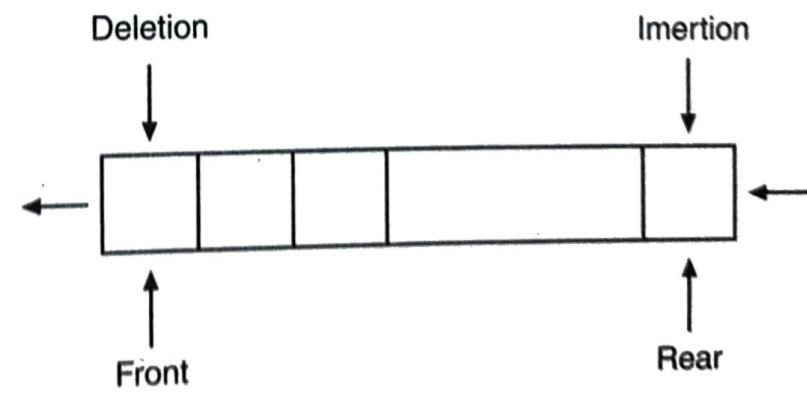


6.8 APPLICATIONS OF QUEUES

Some of the applications of queues are as follows :

1. There are several algorithms that use queues to solve problems easily. For example, BFS, traversing of a binary tree etc.
2. Round-robin technique for processor scheduling is implemented using queues.
3. When the jobs are submitted to a networked printer, they are arranged in order of arrival. *i.e.*, jobs sent to a printer are placed on a queue.
4. Every real-life line is a queue. For example, lines at ticket counters at cinema halls, railway stations, bus stands etc., are queues because the service, *i.e.*, ticket is provided on first come first served (FIFO) basis.

6.9 DIFFERENCE BETWEEN STACKS AND QUEUES

Stacks	Queues
<p>1. Stack is an ordered list where in all insertions and deletions are performed at one end called top.</p>  <p>2. Stack is called LIFO structure.</p> <p>3. Associated with stacks there is one variable called top.</p> <p>4. Stack is full can be represented by the condition $Top = MAX-1$</p> <p>5. Stack is empty is represented by the condition, $Top = -1$.</p>	<p>1. Queue is an ordered list where in insertions are performed at rear end and deletions are performed at front end.</p>  <p>2. Queue is called FIFO.</p> <p>3. Associated with queues there are two variables called front and rear.</p> <p>4. Queue is full can be represented by the condition $rear = MAX-1$.</p> <p>5. Queue is empty is represented by the condition $front > rear$.</p>