```
module Queue
  op deposit(typeT), fetch(result typeT);
body
  typeT buf[n];
  int front = 1, rear = 1, count = 0;

  proc deposit(item) {
    if (count < n) {
      buf[rear] = item;
      rear = (rear+1) mod n; count = count+1;
    } else
      take actions appropriate for overflow;
  }

  proc fetch(item) {
    if (count > 0) {
      item = buf[front];
      front = (front+1) mod n; count = count-1;
    } else
      take actions appropriate for underflow;
  }
end Queue
```

Figure 8.11 A sequential queue.