

## Ans to the Que. No: 1

```

#include <semaphore.h>
#include <stdio.h>
#include <pthread.h>
#include <bits/stdc++.h>
using namespace std;

void *print_odd (void *);

int read count = 0, sh_val = 5, bsize = [5];
sem_t x, y, z, psem;
pthread_t p[4];

void *print_odd (void *i) { sem_wait(&psem);
    count << " print odd Number" << endl;
    for (int i = 0; i < 10; i++) {
        cout << if (i % 2 != 0) {
            cout << i << endl;
        }
    }
}

```

18/10/64

(2)

```
sem_wait(&psem);  
sem_wait(&psem);  
sem_post(&psem);
```

```
}
```

```
int main() {
```

```
sem_init(&psem, 0, 1);
```

```
pthread_create(&p[0], NULL, (void *) print-odd reader,  
(void *) 0);
```

```
pthread_create(&p[1], NULL, (void *) print-odd reader,  
(void *) 1);
```

```
pthread_create(&p[2], NULL, (void *) print-odd reader,  
(void *) 2);
```

```
pthread_create(&p[3], NULL, (void *) print-odd reader,  
(void *) 3);
```

```
return 0;
```



Ans to the Que. No: 2

Resource Allocation Graph Algorithm  
pseudocode:

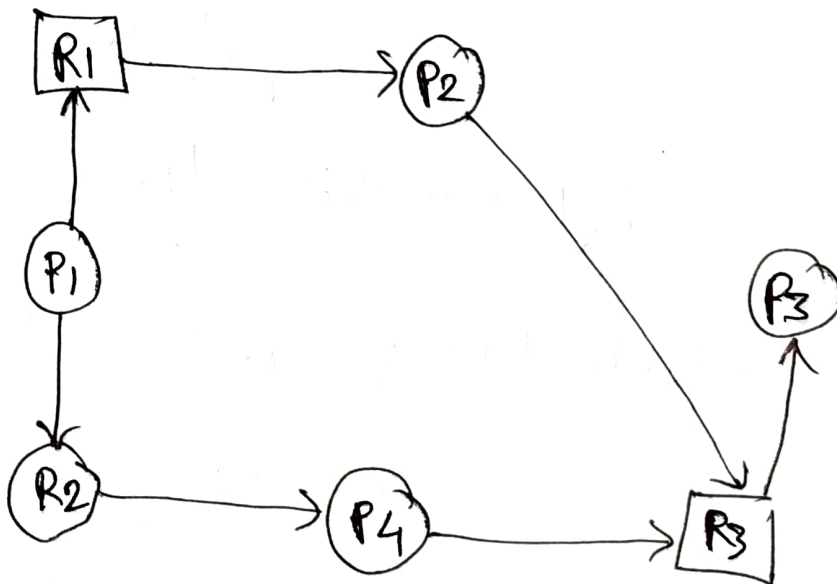
- ① claim edge  $P_i \rightarrow R_j$  indicated the process  $P_i$  may request  $(R_j)$ ;
- ② claim edge converts to request edge when a process request a resource.
- ③ request edge convert to an assignment edge when the resource is allocated to the process.
- ④ when a resource is released by a process assignment edge reconverts to claim edge.
- ⑤ Resource must be claim priority in the system.

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(4)

Wait for graph from the resource allocation

graph :-



wait for graph:

