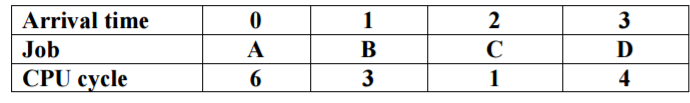
1. Assume that jobs A-D arrive in the ready queue in quick succession and have the CPU cycle requirements listed below. Using the Shortest Remaining Time Next algorithm

a) The average waiting time is \_\_\_\_ **4**

b) The Turnaround time of job D is **6**

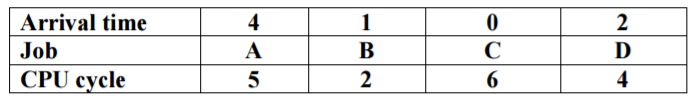
c) The Waiting time of job A is \_\_\_\_.**9**



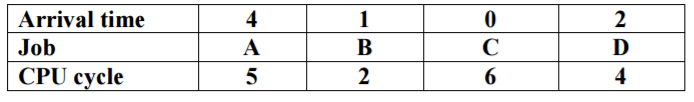
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| A | B | C | B | | D | | | | A | | | | |

|  |  |  |
| --- | --- | --- |
| PROCESS | WAIT | TURNAROUND |
| A | **9** | 14 |
| B | 3 | 4 |
| C | 1 | 1 |
| D | 3 | **6** |
| AT | **4** |  |

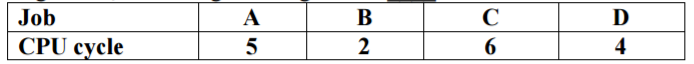
2. Assume that four jobs A-D require the CPU cycles listed below. Using the Shortest Job First algorithm, the \_\_\_\_ job is run first.



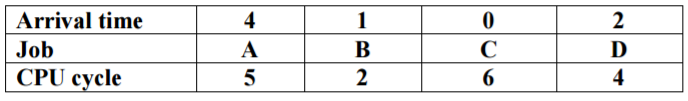
3) Assume that four jobs A-D require the CPU cycles listed below. Using the Round-Robin algorithm with time slide equaling 4, the average of turnaround time of one process is \_\_\_\_\_\_ .



4) Assume that four jobs A-D require the CPU cycles listed below. Using the Shortest Job First algorithm, the average waiting time is \_\_\_\_. Job



5) Assume that four jobs A-D require the CPU cycles listed below. Using the Round-Robin algorithm with time slide equaling 4, the waiting time of all process is \_\_\_\_\_\_ .

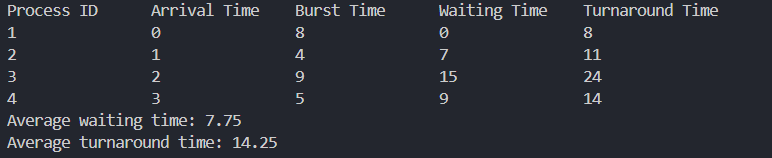


6) Assume jobs A-D arrive in quick succession in the READY queue. Using round robin scheduling with time slice equaling 4, the turnaround time for job D is \_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Arrival time** | **0** | **1** | **2** | **3** |
| **Job** | **A** | **B** | **C** | **D** |
| **CPU cycle** | **8** | **4** | **9** | **5** |

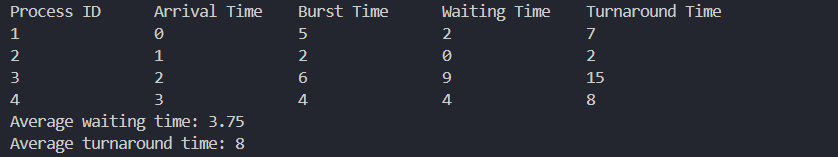
7) Assume jobs A-D arrive in quick succession in the READY queue. Using shortest job first scheduling, the average turnaround time for each process is \_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Arrival time** | **0** | **1** | **2** | **3** |
| **Job** | **A** | **B** | **C** | **D** |
| **CPU cycle** | **8** | **4** | **9** | **5** |



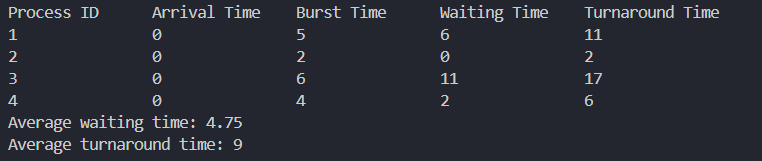
8) Assume jobs A-D arrive in quick succession in the READY queue. Using shortest remaining time next scheduling, the average waiting time for each process is \_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Arrival time** | **0** | **1** | **2** | **3** |
| **Job** | **A** | **B** | **C** | **D** |
| **CPU cycle** | **8** | **4** | **9** | **5** |



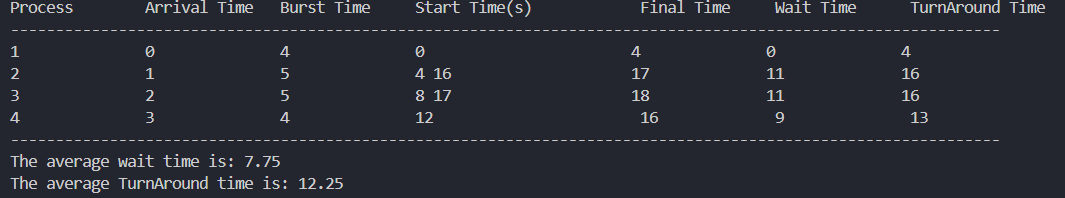
9) Assume that four jobs A-D require the CPU cycles listed below. Using the Shortest Job First algorithm, the \_\_B\_\_ job is run first.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Job** | **A** | **B** | **C** | **D** |
| **CPU cycle** | **5** | **2** | **6** | **4** |



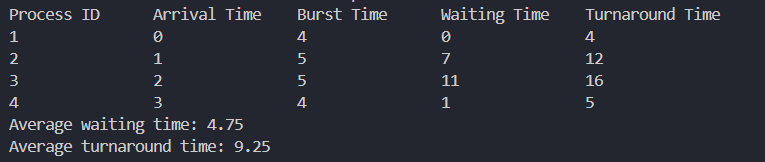
10) Assume jobs A-D arrive in quick succession in the READY queue. Using round robin scheduling with time slice equaling 4, the turnaround time for job C is \_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Arrival time** | **0** | **1** | **2** | **3** |
| **Job** | **A** | **B** | **C** | **D** |
| **CPU cycle** | **4** | **5** | **5** | **4** |



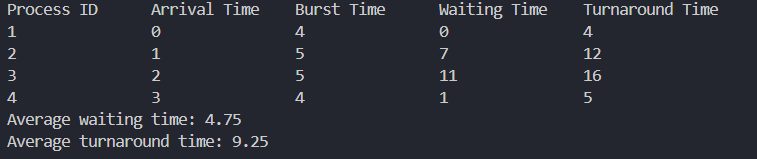
11) Assume jobs A-D arrive in quick succession in the READY queue. Using shortest job first scheduling, the average turnaround time for each process is \_\_\_\_\_\_\_\_\_\_\_ .

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Arrival time** | **0** | **1** | **2** | **3** |
| **Job** | **A** | **B** | **C** | **D** |
| **CPU cycle** | **4** | **5** | **5** | **4** |



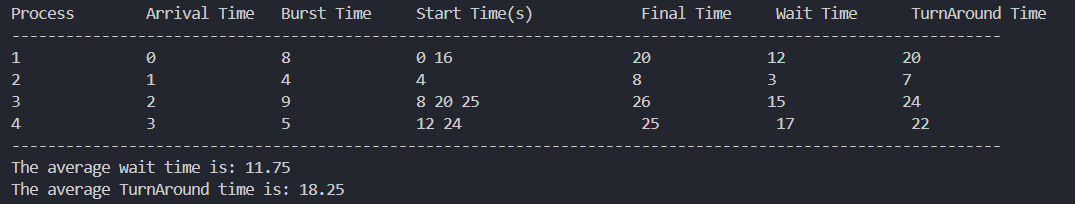
12) Assume jobs A-D arrive in quick succession in the READY queue. Using shortest remaining time next scheduling, the average waiting time for each process is \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Arrival time** | **0** | **1** | **2** | **3** |
| **Job** | **A** | **B** | **C** | **D** |
| **CPU cycle** | **4** | **5** | **5** | **4** |



13) Assume jobs A-D arrive in quick succession in the READY queue. Using round robin scheduling (quantum=4), the average turnaround time for each job is \_\_\_\_\_\_\_\_ .

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Arrival time** | **0** | **1** | **2** | **3** |
| **Job** | **A** | **B** | **C** | **D** |
| **CPU cycle** | **8** | **4** | **9** | **5** |



14) Five batch jobs A through E, arrive at a computer center at almost the same time. They have estimated running times of 8, 6, 2, 10, and 4 minutes. Determine the mean process average turnaround time for SJF (Shortest job first) scheduling. Ignore process switching overhead.

