

CS604 OPERATING SYSTEM

SOLVED BY SALMAN HAIDER (MC140402297@vu.edu.pk)

Q: There are five processes given below with their run time units. Assume that all processes arrived in order at time $P1 = 0$ $P2 = 4$ $P3 = 2$ $P4 = 5$ $P5 = 0$, then answer the question given below. **(Current Fall 2016 is important)**

P1	6
P2	4
P3	9
P4	1
P5	10

Show the scheduling order for the processes and First Come First Serve, Shortest Remaining Job First, Rounded Robin Scheduling (Quantum 4).

- Write the name of threads where OS is fully aware of its creation and mapping methods and also give an example of OS that support these threads. (2Marks)
- Consider the following statement,
“read (pfd[1], buf, -5);”
Do you think that the given statement will work properly? Give reasons to support your answer. (3 Marks)
- Selection of scheduling algorithm under specified workload is evaluated using a technique; do you know any technique which specifies this evaluation using some formula? State the technique name and also the name of its categories. (3 Marks)
- Calculate the performance of FCFS algorithm for three computer-bound processes. By calculating
Waiting Time per process.
Average waiting time of processes
When three process p1, p2, p3 ready in queue at time 0 and there burst times are
Process P1: takes 20 seconds, Process P2 takes 5 seconds, Process P3 takes 4 seconds.
In first turn when processes arrive in order P1, P2, P3.
In 2nd turn processes arrive in order p3, p2, p1. (5 Marks)
- Let us consider the following code.

There are five processes given below with their run time units. Assume that all processes arrived in order at time P1= 0 p2 =4 , P3 =2 , P4 =5 , P5 = 0. Then answer the question given below.

P1. 6

P2. 4

P3. 9

P4. 1

P5. 10

Show the scheduling order for the processes for FCFS, and Round -Robin (Quantum 4)

Virtual University Overseas Examination System V2.0 (x64)

Operating Systems (CS604)

Question: 25 (Marks: 5) Attempted Questions: 25 Total Questions: 26

There are five processes given below with their run time units. Assume that all processes arrive in numerical order at time 0 then answer the questions given below:

Process ID	CPU Requirements
P ₁	5
P ₂	4
P ₃	2
P ₄	1
P ₅	8

Show the scheduling order for these processes under first-come-first-served, shortest-job first, and round-robin scheduling (quantum = 2).

Answer:

CS604 OPERATING SYSTEM

SOLVED BY SALMAN HAIDER

(MC140402297@vu.edu.pk)

Virtual University Overseas Examination System V2.0 (x64)

Operating Systems (CS604)

Question: **24** (Marks: 3) Attempted Questions: **25** Total Questions: **26**

What is the function of following command in Linux/ Unix:

- a) `command ls> abc.txt`
- b) `cat < fileName.txt`

Virtual University Overseas Examination System V2.0 (x64)

Operating Systems (CS604)

Question: **23** (Marks: 3) Attempted Questions: **25** Total Questions: **26**

Open sources software's are continuously upgraded by different developers. How Open Source Software has made it possible for us to test various algorithms instead of pirated software's?

Virtual University Overseas Examination System V2.0 (x64)

Operating Systems (CS604)

Question: **21** (Marks: 2) Attempted Questions: **25** Total Questions: **26**

Let us consider a situation in which each process gets a small unit of CPU time, called *time slice* or *quantum*, which is usually 10-100 milliseconds. After this time has elapsed, the process is preempted and added to the end of the ready queue. Which scheduling algorithm is best suited for above situation?

Answer:

