

AMCAT Process Management and Synchronisation Questions

Question 1: In ————, if a parent process terminates, then all of its children processes must also be terminated.

- A. process termination
- B. serial termination
- C. parallel termination
- D. cascading termination

Answer: Option D

Explanation: If one process is terminated, its related processes are also terminated abnormally then it is called cascade termination. It occurs in the case of parent child process. If the parent process is terminated normally or abnormally then all its child processes must be terminated.

Question 2: A semaphore S is an integer variable that, apart from initialization, is accessed only through two standard atomic operations What are those operations?

- A. test() and set()
- B. wait() and signal()
- C. lock() and unlock()
- D. test() and flag()

Answer: Option B

Question 3:For FIFO page replacement algorithms with 4 frames, the number of page faults is :

- A. 16
- B. 14
- C. 11
- D.15

Answer: Option B

Question 4:Consider the following page reference string : 1 2 3 4 2 1 5 6 2 1 2 3 7 6 3 2 1 2 3 6 i) For LRU page replacement algorithm with 4 frames, the number of page faults is :

- A. 14
- B. 8
- C. 11
- D. 1

Answer: Option D

Question 5:The most optimal scheduling algorithm is :

- A. FCFS – First come First served
- B. SJF – Shortest Job First
- C. RR – Round Robin
- D. None of these

Answer: Option B

Question 6: Round robin scheduling falls under the category of :

- A. Non Preemptive
- B. Preemptive
- C. Mutli Preemptive
- D. None of these

Answer: Option B

Question 7: Bankers Algorithm is a technique of _____

- A. deadlock avoidance
- B. deadlock prevention
- C. deadlock detection
- D. deadlock creation

Answer: Option A

Question 8: Which of the following statements is/are incorrect' 1. A thread can acquire more than one lock(Mute). 2. Deadlock will occur if a non-recursive mutex is locked more than once. 3. Mutex Is a signalling mechanism used to synchronise access to a resource.

- A. Only 1
- B. Only 2
- C. Only 3
- D. Both 1 and 2

Answer: Option D

Question 9: Which of the following is/are true? 1 Banker's algorithm is used for the avoidance of deadlock 2 Resource-allocation graph is used for a system with multiple instances of each resource type

- A. Only 1
- B. Only 2
- C. Both 1 and 2
- D. Neither 1 or 2

Answer: Option A

Explanation: Resource allocation graph may be used for even single resource.

Question 10: There are 5 processes P1, P2, P3, P4 and P5 which are processed by Preemptive Priority scheduling algorithm. In what sequence the processes would be scheduled, if lower number in the priority column in the given table denotes the higher priority?

Pro A Pri B(in ms)

P1	0	3	10
P2	0	1	1
P3	2	5	2
P4	2	4	1
P5	3	2	5

Process> Pro

Arrival Time>A

Priority >Pri

Burst Time in Milliseconds (ms)>B

A. P2-P1-P1-P5-P1-P1-P4-P3

B. P2-P1-P5-P1-P1-P4-P3

C. P2-P1-P1-P5-P4-P1-P3

D. P2-P1-P1-P5-P1-P4-P3

Answer: Option D