第2次测试

答题版本 2020.11.11 15:38　　试卷得分 88

只能提交1次。如果不提交的话，系统会在测试截止时间自动提交

1. An atomic operation is a machineinstruction or a sequence of instructions that must be executed to completionwithout interruption

判断题 (4 分)　4分

A. TURE

B. FALSE

正确答案: A

2. While a process is blocked on a semaphore'squeue, it is engaged in busy waiting.

判断题 (4 分)　4分

A. TURE

B. FALSE

正确答案: B

3. Binary semaphores are those that are usedby no more than two threads.

判断题 (4 分)　4分

A. TURE

B. FALSE

正确答案: B

4. In order to implementmutual exclusion on a critical resource for competing processes, only oneprogram at a time should be allowed_____ .

单选题 (6 分)　6分

A. In the critical section of the program

B. To perform message passing

C. To Exhibit cooperation

D. None of the above

正确答案: A

5. The mutual exclusion semaphore of two concurrent processes hasthe value 0 (zero) at this moment. It indicates that_____.

单选题 (6 分)　6分

A. no process has entered the critical-section

B. a process has entered the critical-section, and no process is being blocked

C. a process has entered the critical-section,another process is waiting to enter the critical-section

D. two processes have entered the critical-section

正确答案: B

6. Suppose a shared printer is printing my job currently.While the printer is in use, you seek to print your job. Under any of the modern OS's which of the following events are likely to happen :　回答错误

单选题 (6 分)　0分

A. you will be notified that the printer is busy, print later

B. my job willbe aborted because you are my boss

C. your job will be spooled for printing in the order it arrived

D. your job willbe queued based on its priority

正确答案: C

7. Which of the following scheduling algorithms is based on time-sharing（分时）system?

单选题 (6 分)　6分

A. First-come-first-served scheduling

B. Shortest-job-first scheduling

C. Round-Robin scheduling

D. Priority scheduling

正确答案: C

8. 下列调度算法中，不可能导致饥饿现象的是 _____ 。

单选题 (6 分)　6分

A. 时间片轮转

B. 静态优先数调度

C. 非抢占式短作业优先

D. 抢占式短作业优先

正确答案: A

9. 有一个计数信号量S，若干个进程对S进行了28次P操作和18次V操作后，信号量S的值为0，然后又对信号量S进行了3次V操作。请问此时有多少个进程等待在信号量S的队列中？ 回答错误

单选题 (6 分) 0分

A. 0

B. 2

C. 3

D. 7

正确答案: A

10. 若某单处理器多进程系统中有多个就绪态进程，则下列关于处理机调度的叙述中错误的是___。

单选题 (6 分) 6分

A. 在进程结束时能进行处理机调度

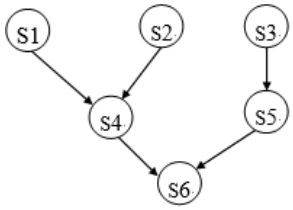
B. 创建新进程后能进行处理机调度

C. 在进程处于临界区时不能进行处理机调度

D. 在系统调用完成并返回用户态时能进行处理机调度

正确答案: C

11. Forthe following questions,consider a set of code sections (S1-S6) executing concurrently.



Here is the incomplete solution for solving this synchronization problem:

Semaphore a = *(1)*, b = *(2)*, c = 0, d = 0, e = 0;

Section S1: { …; *(3)*; }

Section S2: { …; *(4);* }

Section S3: { …; *(5)*; }

Section S4: { wait(a); (6); …; *(7)*; }

Section S5: { wait(c); …; *(8)*; }

Section S6: { *wait(d)*; *wait(e)*; …; }

Which is suitable for blank (1)?

单选题 (5 分) 5分

A. 0

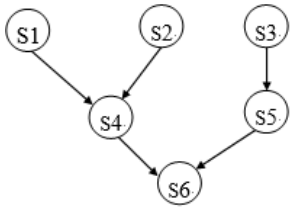
B. 1

C. 3

D. 6

正确答案: A

12. Forthe following questions,consider a set of code sections (S1-S6) executing concurrently.



Here is the incomplete solution for solving this synchronization problem:

Semaphore a = *(1)*, b = *(2)*, c = 0, d = 0, e = 0;

Section S1: { …; *(3)*; }

Section S2: { …; *(4);* }

Section S3: { …; *(5)*; }

Section S4: { wait(a); (6); …; *(7)*; }

Section S5: { wait(c); …; *(8)*; }

Section S6: { *wait(d)*; *wait(e)*; …; }

Which is suitable for blank (2)?

单选题 (5 分) 5分

A. 0

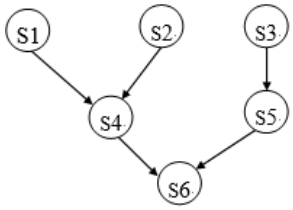
B. 1

C. 3

D. 6

正确答案: A

13. Forthe following questions,consider a set of code sections (S1-S6) executing concurrently.



Here is the incomplete solution for solving this synchronization problem:

Semaphore a = *(1)*, b = *(2)*, c = 0, d = 0, e = 0;

Section S1: { …; *(3)*; }

Section S2: { …; *(4);* }

Section S3: { …; *(5)*; }

Section S4: { wait(a); (6); …; *(7)*; }

Section S5: { wait(c); …; *(8)*; }

Section S6: { *wait(d)*; *wait(e)*; …; }

Which is suitable for blank (3)?

单选题 (6 分) 6分

A. signal(a)

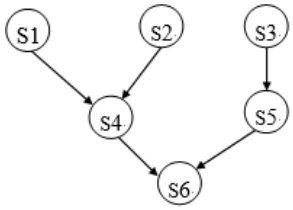
B. signal(c)

C. wait(a)

D. wait(c)

正确答案: A

14. Forthe following questions,consider a set of code sections (S1-S6) executing concurrently.



Here is the incomplete solution for solving this synchronization problem:

Semaphore a = *(1)*, b = *(2)*, c = 0, d = 0, e = 0;

Section S1: { …; *(3)*; }

Section S2: { …; *(4);* }

Section S3: { …; *(5)*; }

Section S4: { wait(a); (6); …; *(7)*; }

Section S5: { wait(c); …; *(8)*; }

Section S6: { *wait(d)*; *wait(e)*; …; }

Which is suitable for blank (4)?

单选题 (6 分) 6分

A. signal(b)

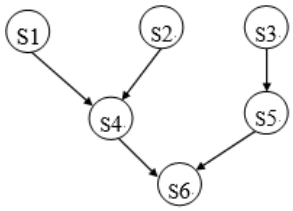
B. signal(e)

C. wait(b)

D. wait(e)

正确答案: A

15. Forthe following questions,consider a set of code sections (S1-S6) executing concurrently.



Here is the incomplete solution for solving this synchronization problem:

Semaphore a = *(1)*, b = *(2)*, c = 0, d = 0, e = 0;

Section S1: { …; *(3)*; }

Section S2: { …; *(4);* }

Section S3: { …; *(5)*; }

Section S4: { wait(a); (6); …; *(7)*; }

Section S5: { wait(c); …; *(8)*; }

Section S6: { *wait(d)*; *wait(e)*; …; }

Which is suitable for blank (5)?

单选题 (6 分) 6分

A. signal(a)

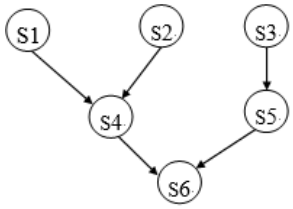
B. signal(c)

C. wait(a)

D. wait(c)

正确答案: B

16. Forthe following questions,consider a set of code sections (S1-S6) executing concurrently.



Here is the incomplete solution for solving this synchronization problem:

Semaphore a = *(1)*, b = *(2)*, c = 0, d = 0, e = 0;

Section S1: { …; *(3)*; }

Section S2: { …; *(4);* }

Section S3: { …; *(5)*; }

Section S4: { wait(a); (6); …; *(7)*; }

Section S5: { wait(c); …; *(8)*; }

Section S6: { *wait(d)*; *wait(e)*; …; }

Which is suitable for blank (6)?

单选题 (6 分) 6分

A. signal(b)

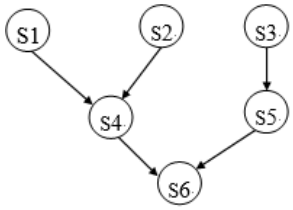
B. signal(e)

C. wait(b)

D. wait(e)

正确答案: C

17. Forthe following questions,consider a set of code sections (S1-S6) executing concurrently.



Here is the incomplete solution for solving this synchronization problem:

Semaphore a = *(1)*, b = *(2)*, c = 0, d = 0, e = 0;

Section S1: { …; *(3)*; }

Section S2: { …; *(4);* }

Section S3: { …; *(5)*; }

Section S4: { wait(a); (6); …; *(7)*; }

Section S5: { wait(c); …; *(8)*; }

Section S6: { *wait(d)*; *wait(e)*; …; }

Which is suitable for blank (7)?

单选题 (6 分) 6分

A. signal(d)

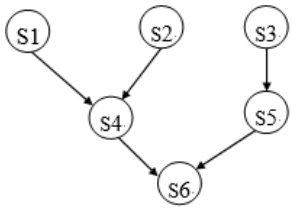
B. signal(a)

C. wait(d)

D. wait(e)

正确答案: A

18. Forthe following questions,consider a set of code sections (S1-S6) executing concurrently.



Here is the incomplete solution for solving this synchronization problem:

Semaphore a = *(1)*, b = *(2)*, c = 0, d = 0, e = 0;

Section S1: { …; *(3)*; }

Section S2: { …; *(4);* }

Section S3: { …; *(5)*; }

Section S4: { wait(a); (6); …; *(7)*; }

Section S5: { wait(c); …; *(8)*; }

Section S6: { *wait(d)*; *wait(e)*; …; }

Which is suitable for blank (8)?

单选题 (6 分) 6分

A. signal(d)

B. signal(e)

C. wait(d)

D. wait(e)

正确答案: B