

CSCI3150 Intro to Operating Systems, Fall 2024 MIDTERM EXAMINATION - Answers

Q1. (1 mark)

Question 1.a (0.5 marks) (Multiple choices)

Answer: A

Question 1.b (0.5 marks) (Multiple choices)

Answer: C

Q2. (1 mark)

Question 2.

Answer: a) (0.5 marks) 4

b) (0.25 marks each) 3, 7

Q3. (2 marks)

Question 3.

Answer:

(4x0.3 + 2x0.4 marks)

1. `meat == 0`
2. `pthread_cond_signal(&cond_meat);`
3. `bread < MAX_BREAD`
4. `pthread_cond_signal(&cond_bread);`
5. `pthread_cond_wait(&cond_meat, &mutex);`
6. `pthread_cond_wait(&cond_bread, &mutex);`

Note: The partial mark for this question is based on the number of TODOs you answer correctly:

# correct TODOs	0	1	2	3	4	5	6
Marks received	0	0.3	0.6	0.9	1.2	1.6	2

Q4. (1 mark)

Question 4:

Answer:

(0.25 marks each)

1. `sem_wait(&seats);`
2. `sem_wait(&waiters);`
3. `sem_post(&waiters);`
4. `sem_post(&seats);`