1. Concurrency access to shared data may result in ……..
2. **The outcome** of the execution **depends on the particular order** in which the access takes place. What is this called?
3. What is the critical section of the producer-consumer problem?
4. What are the three requirements of a critical section solution?
5. Which requirements are met in the following solution? What are the main assumptions of Peterson’s solution?

**do {**

**flag[i] = true;**

**turn = j;**

**while (flag[j] && turn = = j);**

**critical section**

**flag[i] = false;**

**remainder section**

**} while (true);**

1. What is the problem of disabling interrupt solution?
2. What does it mean when we say this instruction is atomic?
3. Test\_and\_set and compare\_and\_swap solutions, are they hardware or software solutions?
4. Which requirement is not satisfy when apply the two solution above?
5. How to solve this requirement?
6. Mutex locks and semaphore, are they hardware or software solutions?
7. What is the issue with mutex locks (acquire and release)?
8. How this problem can be avoided in the semaphore solution?
9. What is a deadlock situation?