**V Semester – SCSA1501 – Operating Systems**

**Assignment II**

**Fill in the Blanks:**

1. Producer consumer problem is otherwise called as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Any code segment that access shared variables and that has to be executed as an atomic action is called as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. If a process is executing in critical section, then no other process can be executing in their critical section is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. Two types of semaphores are \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the decomposability property of a program into order-independent or partially ordered components.

**Short Questions:**

1. What is the use of mutex lock?
2. Define deadlock. State the necessary conditions for a deadlock.
3. What is meant by cooperating process?
4. What is the deadlock avoidance?
5. What is RAG in operating system?

**Long Questions:**

1. Explain in detail about critical section and explain how to implement it.

**Instructions:**

1) Use A4 sheets for writing your assignments

2) Scan and send your assignment in any format preferably pdf and upload correct document 3) Save your assignment in file name (Register Number\_Name) eg: (39110018\_AARUSH)

4) For fill ups just write the answer alone