

Sample Questions

Computer Science

Q1. Tushar was studying about the network topology of his company. He asked one of his colleagues to guess the right topology on the following clues:

1. The topology used is point to point configured.
2. The topology provides fault isolation property.
3. If one link becomes unusable, then whole system is not incapacitated.

- a. Bus
- b. Mesh
- c. Star
- d. Tree

Q2. Anil is designing a database of motor vehicles. It has one base entity 'Vehicles' which is classified into two sub-entities, 2 wheeler and 4 wheeler. He further breaks them down into more entities. What is the process used here?

- a. Generalization
- b. Specialization
- c. Aggregation
- d. Segregation

Q3. Sunil is working on a database management system. He wants to program transactions such that a transaction is completed only if all the database operations are completed and committed, otherwise the transaction is aborted and rolled back. Which of the following database characteristics is he trying to implement?

- a. Atomicity
- b. Consistency
- c. Isolation
- d. Durability

Q4. There are 5 processes P1, P2, P3, P4 and P5 which are processed by Preemptive Priority scheduling algorithm. Calculate the average waiting time, if lower number in the priority column in the given image denotes the higher priority.?

Process	Arrival Time	Priority	Burst Time(in milliseconds)
P1	0	3	10
P2	0	1	1
P3	2	5	2
P4	2	4	1
P5	3	2	5

- a. 5.2
- b. 6.2
- c. 7
- d. 8

Q5. Any program residing in the memory contains a set of instructions that need to be executed by the computer in a sequential manner. This cycle for every instruction is known as the instruction cycle. The cycle consists of the following steps which may or may not be the proper sequence of the execution.

1. Fetch the operand from the memory
2. Execution
3. Fetch instruction
4. Decode the instruction
5. Result

In which of the following steps, is the Program Counter(PC) loaded with the address of the next instruction?

- a. Execution
- b. Fetch instruction
- c. Decode the instruction
- d. Result