<question>Write binary number in hex 1111 1000

<variantright>0xF8

<variant>0x67

<variant>0x15

<variant>0xCF

<question>The state of a process is defined by:

<variant>the final activity of the process

<variantright>the current activity of the process

<variant>the activity just executed by the process

<variant>the activity to next be executed by the process

<question>What is the main drawback of the First-Come-First-Served (FCFS) scheduling algorithm?

<variant>It causes starvation for long processes

<variantright>It leads to the "convoy effect," where short jobs wait behind long jobs

<variant>It does not work for multiprocessor systems

<variant>It is too complex to implement

<question>What is a key characteristic of the FCFS scheduling algorithm?

<variant>It ensures the shortest job is executed first

<variant>It uses preemption to allow priority processes to execute first

<variantright>It always selects the process that arrives first in the ready queue

<variant>It minimizes response time

<question>What is a major disadvantage of the Priority Scheduling algorithm?

<variant>It always selects the shortest job

<variantright>Low-priority processes may suffer from starvation

<variant>It is non-preemptive

<variant>It does not allow preemptive execution

<question>For each process OS creates and manages:

<variant>Thread control block

<variantright>Process control block

<variant>Program

<variant>Program code

<question>Which register contains the address of the next instruction to be fetched?

<variant>Process counter

<variantright>Program counter

<variant>Instruction register

<variant>Execution register

<question>A task in a blocked state:

<variant>is running

<variant>is executable

<variantright>is waiting for some temporarily unavailable resources

<variant>must still be placed in the run queues

<question>A sequence of instructions, in a computer language, to get the desired result, is known as?

<variant>Instruction

<variant>Process

<variantright>Program

<variant>Algorithm

<question>Which of the following provides for communication among elements of a computer system?

<variantright>System bus

<variant>Processor

<variant>Main memory

<variant>I/O modules

<question>Which of the following element of a computer system stores data and programs?

<variant>System bus

<variant>Processor

<variant>I/O modules

<variantright>Main memory

<question>Which register contains the instruction most recently fetched?

<variant>Process counter

<variantright>Instruction register

<variant>Program counter

<variant>Execution register

<question>How does Feedback Scheduling handle long-running processes?

<variantright>It gradually lowers their priority by moving them to lower-priority queues

<variant>It keeps them in the same priority queue indefinitely

<variant>It executes them first to clear the queue

<variant>It uses strict FCFS to ensure fairness

<question>Listing the sequence of instructions that are executed is called?

<variant>program counter

<variant>instruction

<variantright>trace

<variant>control block

<question>The processor contains a single data register, called

<variant>IR

<variant>PC

<variant>PSW

<variantright>AC

<question>Which of the following state transitions is not possible?

<variantright>blocked to running

<variant>blocked to ready

<variant>ready to running

<variant>running to blocked

<question>What is the primary feature of Round Robin scheduling?

<variant>It selects the process with the shortest burst time

<variant>It prevents preemption

<variant>It allows the highest-priority process to execute first

<variantright>It uses a time quantum to cycle through processes

<question>Short-term scheduler, or dispatcher, picks a process. Each process in the queue is given some time in turn. This strategy is called:

<variant>Carousel technique

<variant>Merry-go-round technique

<variant>Prioritizing

<variantright>Round-robin technique

<question>What is not a main structural element of a computer system?

<variant>Main memory

<variant>System bus

<variant>Processor

<variantright>Operating system

<question>What is the difference between SJF and SRT scheduling?

<variantright>SJF does not allow new processes to interrupt a running process, while SRT allows preemption

<variant>SJF is only used for I/O-bound processes, while SRT is for CPU-bound processes

<variant>SJF is preemptive, while SRT is non-preemptive

<variant>SRT scheduling does not require burst time estimation

<question>What does HRRN scheduling prioritize?

<variantright>The process with the highest response ratio (waiting time + execution time / execution time)

<variant>The process with the longest execution time

<variant>The process with the lowest priority

<variant>The process that has the shortest burst time

<question>Which scheduling algorithm uses preemption and a time quantum to ensure fairness?

<variant>Priority Scheduling

<variant>Shortest Process Next (SPN)

<variantright>Round Robin (RR)

<variant>First-Come, First-Served (FCFS)

<question>Write binary number in hex 1111 1111

<variant>0x67

<variant>0x15

<variant>0xCF

<variantright>0xFF

<question>Which of the following element of a computer system controls the operation of the computer and performs its data processing functions?

<variant>Main memory

<variant>I/O modules

<variantright>Processor

<variant>System bus

<question>Suppose that a process is in “Blocked” state waiting for some I/O service. When the service is completed, it goes to the:

<variant>Terminated state

<variantright>Ready state

<variant>Suspended state

<variant>Running state

<question>Which of the following is not the state of a process?

<variant>New

<variant>Waiting

<variant>Running

<variant>Ready

<variantright>Old

<variant>Terminated

<question>Which scheduling algorithm selects the process with the shortest estimated execution time next?

<variant>First-Come, First-Served

<variantright>Shortest Remaining Time First (SRTF)

<variant>Highest Response Ratio Next (HRRN)

<variant>Round Robin

<question>Short-term scheduler, or dispatcher, picks a process. Each process in the queue is given some time in turn. This strategy is called:

<variant>Carousel technique

<variant>Merry-go-round technique

<variant>Prioritizing

<variantright>Round-robin technique