**Studytonight – CAO test 2 – Aditya Jain**

1. **As of 2000, the reference system to find the SPEC rating are built with \_\_\_\_\_ Processor.**a) Intel Atom SParc 300Mhz  
   **b) Ultra SPARC -IIi 300MHZ**c) Amd Neutrino series  
   d) ASUS A series 450 Mhz
2. **CISC stands for \_\_\_\_\_\_\_**a) Complete Instruction Sequential Compilation  
   b) Computer Integrated Sequential Compiler  
   **c) Complex Instruction Set Computer**d) Complex Instruction Sequential Compilation

Explanation: There are two processor classifications: the Reduced Instruction Set Computer (RISC) and the Complex Instruction Set Computer (CISC). The primary difference between the two is that a RISC-based chip uses more basic instruction sets to achieve a greater clock frequency to process more information per clock cycle than a CISC processor. CISC-based chips, however, give developers the ability to do more with a shorter program due to the greater library of complex instructions embedded in the CISC chip.

CISC is a type of system architecture where complex instructions are grouped together and executed to improve the system performance.

1. **If the instruction, Add R1, R2, R3 is executed in a system which is pipe-lined, then the value of S is (Where S is term of the Basic performance equation)**  
   a) 3  
   b) ~2  
   **C) ~1**  
   d) 6

Explanation: S is the number of steps required to execute the instructions.

1. **During the execution of the instructions, a copy of the instructions is placed in the \_\_\_\_\_\_**a) Register  
   b) RAM  
   c) System heap  
   **d) Cache**
2. **Two processors A and B have clock frequencies of 700 Mhz and 900 Mhz respectively. Suppose A can execute an instruction with an average of 3 steps and B can execute with an average of 5 steps. For the execution of the same instruction which processor is faster ?  
   a) A**  
   b) B  
   C) Both take the same time  
   d) Insufficient information
3. **A processor performing fetch or decoding of different instruction during the execution of another instruction is called \_\_\_\_\_\_**a) Super-scaling  
   **b) Pipe-lining**c) Parallel Computation  
   d) None of the mentioned

Explanation: Pipe-lining is the process of improving the performance of the system by processing different instructions at the same time, with only one instruction performing one specific operation.

1. **The clock rate of the processor can be improved by \_\_\_\_\_\_\_\_\_**a) Improving the IC technology of the logic circuits  
   b) Reducing the amount of processing done in one step  
   c) By using overclocking method  
   **d) All of the mentioned**

Explanation: The clock rate (frequency of the processor) is the hardware dependent quantity it is fixed for a given processor.

1. **For a given FINITE number of instructions to be executed, which architecture of the processor provides for a faster execution ?**a) ISA  
   b) ANSA  
   **c) Super-scalar**d) All of the mentioned

Explanation: In super-scalar architecture, the instructions are set in groups and they’re decoded and executed together reducing the amount of time required to process them.

1. **An optimizing Compiler does \_\_\_\_\_\_\_\_\_**a) Better compilation of the given piece of code  
   **b) Takes advantage of the type of processor and reduces its process time**c) Does better memory management  
   d) none of the mentioned

Explanation: An optimizing compiler is a compiler designed for the specific purpose of increasing the operation speed of the processor by reducing the time taken to compile the program instructions.

1. **The ultimate goal of a compiler is to \_\_\_\_\_\_\_\_  
   a) Reduce the clock cycles for a programming task**b) Reduce the size of the object code  
   c) Be versatile  
   d) Be able to detect even the smallest of errors
2. **SPEC stands for \_\_\_\_\_\_\_**a) Standard Performance Evaluation Code  
   b) System Processing Enhancing Code  
   **c) System Performance Evaluation Corporation**d) Standard Processing Enhancement Corporation

Explanation: **System Performance Evaluation Corporation** (SPEC) is a corporation started to standardize the evaluation method of a systems performance.

1. **As of 2000, the reference system to find the performance of a system is \_\_\_\_\_  
   a) Ultra SPARC 10**b) SUN SPARC  
   c) SUN II  
   d) None of the mentioned

Explanation: In SPEC system of measuring a systems performance, a system is used as a reference against which other systems are compared and performance is determined.

1. **When Performing a looping operation, the instruction gets stored in the \_\_\_\_\_\_**a) Registers  
   **b) Cache**c) System Heap  
   d) System stack

Explanation: When a looping or branching operation is carried out the offset value is stored in the cache along with the data.

1. **he average number of steps taken to execute the set of instructions can be made to be less than one by following \_\_\_\_\_\_\_**a) ISA  
   b) Pipe-lining  
   **c) Super-scaling**d) Sequential

Explanation: The number of steps required to execute a given set of instructions is sufficiently reduced by using super-scaling. In this method a set of instructions are grouped together and are processed.

1. **If a processor clock is rated as 1250 million cycles per second, then its clock period is \_\_\_\_\_\_\_\_**a) 1.9 \* 10-10 sec  
   b) 1.6 \* 10-9 sec  
   c) 1.25 \* 10-10 sec  
   **d) 8 \* 10-10 sec**