5 Lecture - CS501

Important Mcqs

1. **What is SRC?**
   A. A computer architecture following the CISC approach
   B. A computer architecture following the RISC approach
   C. A programming language
   D. A data structure
   Answer: B

   What does RTL stand for?
   A. Register Transfer Logic
   B. Register Transfer Level
   C. Random Transmission Line
   D. Remote Transfer Language
   Answer: B

   What is the size of an SRC instruction word?
   A. 8 bits
   B. 16 bits
   C. 24 bits
   D. 32 bits
   Answer: D

   What is the purpose of the ALU in SRC?
   A. To handle communication between the processor and memory
   B. To store the operands and intermediate results during instruction execution
   C. To generate control signals for various components
   D. To perform arithmetic and logic operations on the operands
   Answer: D

   What is the role of the control unit in SRC?
   A. To handle communication between the processor and memory
   B. To store the operands and intermediate results during instruction execution
   C. To generate control signals for various components
   D. To perform arithmetic and logic operations on the operands
   Answer: C

   What does the memory interface do in SRC?
   A. Performs arithmetic and logic operations on the operands
   B. Stores the operands and intermediate results during instruction execution
   C. Generates control signals for various components
   D. Handles communication between the processor and memory
   Answer: D

   How are instructions encoded in SRC?
   A. Using a variable format

B. Using a hybrid format
C. Using a fixed format
D. Using a floating-point format
Answer: C

What types of instructions are included in the SRC instruction set?
A. Only arithmetic and logic operations
B. Only data transfer and control flow instructions
C. Basic operations such as arithmetic and logic operations, as well as data transfer and control flow instructions
D. Only data transfer instructions
Answer: C

What is the goal of SRC architecture design?
A. To have a complex and diverse instruction set
B. To have a streamlined and simple instruction set
C. To have a large number of complex hardware components
D. To have a large number of software instructions
Answer: B

What is required to implement SRC in RTL?
A. Understanding of the SRC architecture and the ability to design and implement the hardware components using RTL
B. Understanding of a high-level programming language
C. Understanding of data structures
D. Understanding of compiler design
Answer: A