

VINAYAKA MISSIONS SIKKIM UNIVERSITY

(Estd. by Sikkim Legislative Act vide VMSU Act No. 11 of 2008)

DIRECTORATE OF DISTANCE EDUCATION

NH 10-A, Tadong, East Sikkim-737102

Programme: Master of Computer Application **Session:** January-March **Full Marks:** 10
Course/Subject Name: Computer Architecture and System Software **Course/Subject Code:** CS 4202
Assignment No: 1 **Last Date of Submission:** 31st March

SECTION –A

Answer the following questions.

[0.5x10=5]

- The decoded instruction is stored in:
a) PC b) IR c) MDR d) INPR
- CPU does not perform:
a) Data transfer b) logic operation c) arithmetic operation d) all of the above
- The register that keeps track of the instructions to be executed is:
a) Control register b) Status register c) Program Counter d) Data register
- One byte is equal to:
a) 4 bits b) 8 bits c) 16 bits d) 32 bits
- RISC stands for:
a) Reliable Instruction Set Computer
b) Reduced Instruction Set Computer
c) Reduced Information Set Computer
d) Random Information Set Computer
- An exception conditions in a computer system by an event external to the CPU is called:
a) Wait b) Interrupt c) Process d) Halt
- The addressing mode which make use of in-direction pointers is:
a) Index addressing mode
b) Relative addressing mode
c) Offset addressing mode
d) Indirect addressing mode
- The DMA transfers are performed by a control circuit called as:
a) Device interface b) DMA controller c) Data Controller d) Overlooker
- The fastest data access is provided using:

- a) Cache
- b) DRAM
- c) SRAM
- d) Registers

10. The write-through process is used :

- a) To write on the memory directly
- b) To write and read from the memory simultaneously
- c) To write directly on the memory and cache simultaneously
- d) None of the above

SECTION –B

Answer any Five questions from the following within 50 words

[1x5=5]

1. What do you mean by Computer Architecture and Organization?
2. How arithmetic micro operation is different from that of shift micro operation?
3. Perform Addition operation on following register operand:
R1=10101100 R2=00101111
4. Define direct and indirect address.
5. What is a Stack? Name the two operations associated with Stack.
6. Differentiate internal and external interrupts.
7. What is RISC?

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Assignment No: 2

Last Date of Submission: 15th April 2016

SECTION -A

Answer the following questions.

[0.5x10=5]

1. Which of the following system software resides in main memory always?
a) Text editor b) Assembler c) Linker d) loader
2. A Compiler is a translating program which:
b) Translate instructions of high level language into machine language.
c) Translate entire program into machine language program
d) Is not involved in program execution
e) all of the above
3. The Parsing is also known as:
b) Lexical analysis b) Syntax analysis c) Semantic analysis d) Code Generation
4. Which of the following is not a type of assembler?
b) One pass b) Two pass c) Three pass d) Load and go
5. Associative memory is also known as:
e) Content Addressable Memory
f) Control Addressable Memory
g) Content Accessible Memory
h) Counter Accessible Memory
6. The size of virtual memory depends on:
b) size of data bus b) size of address bus c) size of main memory d) none
7. The virtual memory stores the segment of data to be executed on the:
e) Secondary storage b) RAM c) ROM d) Disks
8. The end of a macro can be represented by the directive:
a) END b) ENDS c) ENDM d) ENDD

9. If a number of instructions are repeating through the main program, then the length of the program can be reduced by using:
- a) Procedure b) Subroutine c) Macro d) none of the above
10. The translator which perform macro expansion is called:
- a) Macro processor b) Macro pre processor c)Micro pre processor d) assembler

SECTION –B

Answer any Five questions from the following within 50 words

[1x5=5]

- 1 What is the main function of loader and linker?
- 2 Define Compiler.
- 3 What is the necessity of Memory Management Unit?
- 4 How RAM is different from that of Associative memory?
- 5 What is the main task of assembler?
- 6 When the bootstrap loader does get executed?
- 7 Specify the task carried out in lexical phase.

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Full Marks: 05

Course/Subject Name: Computer Architecture and System Software

Course/Subject Code: CS 4202

Assignment No: 3

Last Date of Submission: 15th April

Answer the following questions.

[0.5x10=5]

1. A unit of memory consisting of four bits is known as:
a) Byte b) word c) nibble d) bit
2. Mnemonic is used in which of the following language?
a) Machine language
b) Assembly language
c) High level language
d) none of the above
3. Which of the following loader is executed when a system is first turned on or restarted:
a) Boot loader b) Compile and go loader c) Bootstrap loader d) Relating loader
4. The control unit function in CPU is:
a) To transfer data to primary storage
b) To store program instruction
c) To perform logic operation
d) To decode program instruction
5. RTN stands for:
a) Register Transfer Notation
b) Register Transmission Notation
c) Regular Transmission Notation
d) Regular transfer Notation
6. In which addressing mode, the effective address of the operand is generated by adding a constant value to the content of register?
a) Absolute mode b) indirect mode c) immediate mode d) index mode

7. The register which is used to keep track of address of the memory location where the next instruction is located is:
- a) MAR b) MDR c) IR d) Program register
8. Match register is associated with:
- a) Main Memory b) Associative Memory c) Cache Memory d) None
9. _____ translate logical address into physical address.
- a) Translator b) MMU c) Compiler d) Linker
10. A macro can be defined at:
- a) Beginning of a program
- b) End of a program
- c) After initialization of program
- d) Anywhere in the program
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