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170845/120845/
30845/31065B

4th Sem. / Computer Engineering / I.T.

Subject : Computer Organization

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Objectives questions. All questions are compulsory (10x1=10)

(Course Outcome/CO)

Q.1 Expand CISC (CO-3)

Q.2 Cache memory is part of Internal Memory (T/F) (CO-4)

Q.3 Two types of Addressing mode are _____ and _____ (CO-1)

Q.4 POST (Power On Self-Test) is the function of _____ (CO-5)

Q.5 CMOS stands for _____ (CO-5)

Q.6 EEPROM stands for _____ (CO-4)

Q.7 Three basic parts of CPU are _____, _____ and _____. (CO-1)

Q.8 Hard wired controlled CPU designs are high in speed (T/F) (CO-2)

Q.9 The simultaneous use of more than one CPU to execute a program is known as _____ (CO-6)

Q.10 Which type of cache is used in CPU? (CO-2)

SECTION-B

Note: Very Short answer type questions. Attempt any ten parts 10x2=20

Q.11 Define Pipelining. (CO-6)

Q.12 Write four types of instruction formats based on address. CO-1)

Q.13 Name four types of computers according to flynn's classification. (CO-6)

Q.14 Define Reverse polish notation. (CO-2)

Q.15 Define memory hierarchy. (CO-4)

Q.16 Define Registers. (CO-2)

Q.17 What is the role of DMA in data transfer? (CO-3)

Q.18 Define Auxiliary Memory. (CO-4)

Q.19 Define Bootstrap Loader program. (CO-5)

Q.20 What is BIOS POST test? (CO-5)

Q.21 Define hit rate in context with cache memory. (CO-3)

Q.22 Define two address instructions. (CO-1)

SECTION-C

Note: Short answer type questions. Attempt any eight questions. 8x5=40

Q.23 Explain five differences between RISC and CISC. (CO-3)

Q.24 Define the term memory stack. How stack organization is performed? (CO-1)

Q.25 Explain five characteristics of multi-processor. (CO-6)

Q.26 Explain memory address map. Why it is required. (CO-4)

Q.27 Give three advantages and three disadvantages of hardwired control CPU design. (CO-2)

Q.28 Using a suitable diagram show how DMA data transfer works in computer. (CO-5)

Q.29 Explain multistage switching network. (CO-6)

Q.30 Give five differences between direct mapping and associative mapping. (CO-4)

Q.31 Explain general register organization. (CO-1)

Q.32 Explain the concept of virtual memory. (CO-4)

SECTION-D

Note: Long answer type questions. Attempt any three questions. 3x10=30

Q.33 Define Addressing Modes. Explain any five types of addressing modes. (CO-1)

Q.34 Name five types of Interconnection networks used in multiprocessor. Explain any two of them. (CO-6)

Q.35 What is the usage of BIOS in I/O organization? Explain its five functions in detail. (CO-5)

Q.36 What is memory management hardware? Explain memory connections to CPU. (CO-4)

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4th Sem. / COMPUTER ENGINEERING /IT

Subject : COMPUTER ORGANIZATION

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SECTION-A

Note: Objective type questions. All questions are compulsory (10x1=10)

Q.1 RISC stands for _____. [CO1]

Q.2 One byte is equivalent to _____bits. [CO1]

Q.3 ANSI stands for _____. [CO1]

Q.4 Classify computer according to Flynn 'classification. [CO4]

Q.5 The full form of WORM is _____. [CO2]

Q.6 BIOS means _____. [CO2]

Q.7 Full form of DMA is _____. {CO3}

Q.8 CMOS stands for _____. [CO3]

Q.9 Hard wired control units is a rigid application.[T/F]

Q.10 SISD stands for _____. [CO4]

SECTION-B

Note: Very Short answer type questions. Attempt any ten questions. 10x2=20

Q.11 What is the function of control Unite? [CO3]

Q.12 Explain Boot Strap Loader. [CO3]

Q.13 Name various types of parallel processors. [CO4]

Q.14 Explain DMA Transfer. [CO3]

Q.15 Define POST. [CO3]

Q.16 Make a Block Diagram of Associative Memory. [CO2]

Q.17 Define RAM and ROM. [CO2]

Q.18 Write short note on Register indirect mode [CO2]

Q.19 Make block diagram of segmentation with Paging. [CO3]

Q.20 State single Accumulator Organization. [CO1]

Q.21 Define three address instructions. [CO1]

Q.22 Define Auto Increment Mode. [CO1]

SECTION-C

Note: Short answer type questions. Attempt any eight questions. 8x5=40

Q.23 Write short note on direct memory access. [CO3]

Q.24 Explain Arithmetic pipeline. [CO4]

Q.25 Differentiate between RISC and CISC. [CO1]

Q.26 What is priority interrupts? [CO3]

Q.27 Explain memory hierarchy. [CO2]

Q.28 State and Explain BIOS. [CO3]

Q.29 Write note on Cross-Bar Switches. [CO4]

Q.30 What is the concept of Virtual and Cache Memory. [CO2]

Q.31 Write short note on- [CO2]

a) Hit rate

b) DVD

Q.32 Differentiate between Access time and Latency Time. [CO2]

SECTION-D

Note: Long answer type questions. Attempt any three questions. 3x10=30

Q.33 What is addressing mode? Explain the type of addressing mode. [CO1]

Q.34 Explain Pipelining and its techniques with diagram. [CO4]

Q.35 Differentiate Direct Mapping, Associative Mapping and set Associative mapping. [CO2]

Q.36 Write short mote one :-

a) Multi Processing [Co4]

b) Functions of BIOS. [CO3]

(**Note:** Course outcome/CO is for office use only)

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180845/170845/120845/
30845/31065B

Branch : Computer Engineering
Subject : Computer Organization

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Multiple Choice Questions. All questions are Compulsory. (10x1=10)

Q.1 Input device is (CO1)

a. Keyboard b. Printer
c. Monitor d. Plotter

Q.2 RISC stands for (CO1)

a. Reduced Instruction set computer
b. Read Instruction set computer
c. Reduced Instruction set coming
d. Reduced Input self computer

Q.3 1 GB = _____ Bytes (CO1)

a. 1,000 b. 1,000,000,000,000
c. 1,000,000 d. 1,000,000,000

Q.4 RAM is (CO2)

a. Volatile memory b. Static Memory
c. Garbage memory d. Low speed memory

Q.5 An address generated by CPU is generally referred as_____ (CO2)

a. Physical Address b. Associative Address
c. Referral Address d. Logical Address

Q.6 Which of the following is not type of ROM (CO3)

a. PROM b. EEPROM
c. EAROM d. MEPROM

Q.7 RAM can be_____ (CO3)

a. SRAM, DRAM b. ROM
c. PROM d. MEPROM

Q.8 A_____ buffer can be used for fetch segment (CO4)

a. MIFO b. SIFO
c. FIFO d. LIFO

Q.9 Name the parallel processing (CO_)

a. SIMD, MIMD b. MISD
c. SISD D. All of above

Q.10 Parallel processor is (CO4)

a. Distributed architecture b. pipelining
c. BIOS d. RISC

SECTION-B

Note: Objective type Questions. All Questions are compulsory. (10x1=10)

Q.11 The ___ stores intermediate data used during the execution of the instructions. (CO-1)

Q.12 ALU performs micro operations for executing the (CO-1)

Q.13 Register that hold the address for the stack is called_____ (CO-1)

Q.14 The ____ points at the address of the next instruction in the program. (CO-1)

Q.15 Memory refers to the ____ of a computer system. (CO-2)

Q.16 Parts of primary memory are ___ and ____ (CO-2)

Q.17 EPROM stands for _____ (CO-2)

Q.18 Access time = _____ + _____ (CO-2)

Q.19 I/O Bus consists of ____, ____ and ____ (CO-3)

Q.20 A parallel MIMD systems, communication is essential for processing. (CO-4)

SECTION-C

Note: Short Answer type Question. Attempt any twelve questions out of fifteen Questions. (12x5=60)

Q.21 Explain One-Address Instructions? (CO-1)

Q.22 Explain 1) Direct Address Mode, 2) Indirect Address Mode (CO-1)

Q.23 What are the steps followed by CPU when an interrupt occur? (CO-1)

Q.24 Compare internal interrupts and external interrupts. (CO-1)

Q.25 Write short note on 1) SRAM, 2) DRAM (CO-2)

Q.26 Why virtual memory is used in computer system? (CO-2)

Q.27 What is memory mapping? Explain. (CO-2)

Q.28 What are the components of memory management unit? (CO-2)

Q.29 What is difference between static RAM and dynamic RAM? (CO-2)

Q.30 What are the mazor functions of BIOS? (CO-3)

Q.31 Write short note on synchronous and asynhronous data transfer. (CO-3)

Q.32 Explain briefly interrupt priority encoder. (CO-3)

Q.33 Explain types of parallel processing? (CO-4)

Q.34 What is Reverse Polish Notation? (CO-4)

Q.35 What are the various characteristics of multiprocessors? (CO-4)

SECTION-D

Note: Long Answer Type Questions. Attempt any Two Questions out of three Questions . (2x10=20)

Q.36 Explain the characteristic of RISC architecture (CO-1)

Q.37 Write short notes on (CO-2)

1. Virtual Memory 2. Demand Paging
3. Associative Memory

Q.38 Write short note on (CO-4)

1. Explain various types of pipelining
2. Discuss characteristics of computer architecture

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4th Sem. / Comp/ IT

Subject : COMPUTER ORGANIZATION

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

Q.1 a) Write down the various parts of CPU.

b) Define control word.

c) Define instruction format.

d) What is indexed mode?

e) Define general register organization.

f) Define memory stack.

g) What is effective address?

h) What is two address Instruction?

i) Explain SEL A and SEL B.

j) What is opcode?

k) Define main memory.

l) Write the full form of DVD.

m) What is access time?

n) What do you mean by storage and retrieval?

o) What is the main drawback of direct Mapping?

p) How can we map physical address from virtual address?

q) Define BIOS.

r) What is Multiprocessor?

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

Q.2 i) Explain ROM chip in brief.

ii) Explain associative memory in short.

iii) Write short note on virtual memory.

iv) Differentiate between CISC characteristics and RISC characteristics.

v) Write short note on following:

a) Time shared Bus

b) Multi-port Memory

vi) Write short note on following:

a) Synchronous Data Transfer

b) Asynchronous Data Transfer

vii) Discuss Interrupt Initiated Data Transfer in short.

viii) Write down the advantages and disadvantages of Hardwired control unit.

ix) Explain the types of multi-processor.

x) Write short note on multi stage switching networks.

xi) Explain BIOS setup.

xii) Explain DMA data transfer.

xiii) Explain power on self test.

xiv) What is Direct and Indirect Mapping?

xv) Write short notes on following:

a) One address Instruction

b) Zero address Instruction

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

Q.3 Explain cache Memory in detail.

Q.4 Write notes on:

a) Magnetic disks

b) Magnetic tapes

Q.5 Differentiate between Micro programmed CPU designed and Hard wired control CPU.

Q.6 What do you mean by addressing Modes? Explain any four addressing modes in detail.

Q.7 What is parallel processing. Explain the types of parallel processing in detail.

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120845/030845

4th Sem. / Comp. Engg.

Subject : Computer Organization

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

Q.1 a) Expand RISC.

b) Define Virtual Memory.

c) Expand DMA.

d) Define Register.

e) What is parallel processing?

f) Define immediate addressing mode.

g) Expand RAM & ROM.

h) What is associative memory?

i) What is Booting?

j) Define stack.

k) Define Pipelining.

l) Expand BIOS.

m) Give example of one address instruction.

n) What is relative addressing mode?

o) What is multiport memory?

p) What is multiprocess system?

q) Define POST.

r) Where Cross bar switch is used.

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

Q.2 i) Explain stack organisation.

ii) List the main characteristics of CISC architecture.

iii) Explain instruction formats in detail.

iv) Write a note on :-

(a) Virtual memory

(b) Cache memory

v) Explain different types of Auxillary memory.

vi) Define memory. Explain memory Hierarchy.

vii) List various advantages and disadvantages of Hardwired control CPU design.

viii) Explain the concept of Associative memory.

ix) Why memory address map is required. Explain.

x) Explain addressing modes with the help of example.

xi) Explain pipelining with the help of diagram.

xii) Explain RAM and ROM chips.

xiii) Explain parallel processing with example.

xiv) List basic characteristics of multiprocessor.

xv) Explain DMA data transfer technique.

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

Q.3 Explain BIOS and its functions.

Q.4 What do you mean by RISC. What are its characteristics. How RISC is different from CISC architecture. Explain.

Q.5 Write note on :-

(a) Hyper cube structure

(b) Time shared common bus.

(c) Multistage Switching network.

Q.6 Explain different modes of data transfer.

Q.7 What is memory management hardware. Explain memory connections to CPU.