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**4th Sem.**
**Branch : Computer, Computer**
**(For Speech and hearing Impaired)**
**Sub. Computer Organisation and Architecture**

**Time : 3 Hrs.** **M.M. : 60**

**SECTION-A**

**Note: Multiple Choice Questions. All Questions are compulsory. (6x1=6)**

Q.1 Which of the following instruction formats supports the largest number of operands?

a) Zero address b) One address

c) Two Address d) Three Address

Q.2 Which of the following in NOT a type of address mode?

a) Relative b) Immediate

c) Reverse d) Indexed

Q.3 Which type of memory is non-volatile and used for permanent storage?

a) RAM b) Cache

c) ROM d) Flash



Q.4 What dos I/O stand for in computer architecture?

a) Internal / Output b) Input / Output

c) Interface / Operation d) Input / Operation

Q.5 What is the main advantage a parallel processing?

a) Increased hardware costs

b) Increased processing speed through simultaneous task execution

c) Simpler architecture

d) Decreased energy consumption

Q.6 What does the term "FIFO" stand for in data transfer?

a) Fast In, Fast Out b) First In, First Out

c) First Input, First Output

d) Fast Input, Fast Output

**SECTION-B**

**Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)**

Q.7 Expand RISC?

Q.8 True or False: In stack organization, the last item added is the first one removed.

Q.9 RAM is non-volatile memory, meaning it retains data even when the power is off. (True/False)

Q.10 Expand BIOS.

Q.11 General Purpose multiprocessors are designed specifically for high performance computing tasks. (True/False)

Q.12 What is an I/O interface?

## SECTION-C

**Note: Short answer type Questions. Attempt any eight questions out of ten Questions. (8x4=32)**

Q.13 Write in brief about a zero-address instruction format?

Q.14 What is direct addressing mode?

Q.15 Differentiate between RAM and ROM chips.

Q.16 Define cache memory.

Q.17 Explain BIOS and its function.

Q.18 Explain programmed I/O.

Q.19 Differentiate between synchronous and Asynchronous modes of data transfer.

Q.20 What are multi stage switching networks?



Q.21 What is an Input-Output Interface?

Q.22 What is handshaking in data transfer?

## SECTION-D

**Note: Long answer questions. Attempt any two questions out of three Questions. (2x8=16)**

Q.23 What are the different addressing modes in CPU architecture? Provide examples for each.

Q.24 Explain the concept of DMA (Direct Memory Access) and its advantages over traditional programmed I/O.

Q.25 Describe the basic characteristics of multiprocessor systems and their advantages.