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Total No. of Pages : 02

Total No. of Questions : 07

B.Sc. (IT) (2015 & Onward) (Sem.-3)
COMPUTER SYSTEM ARCHITECTURE

Subject Code : BSIT-301

M.Code : 74059

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A**Q1) Answer briefly :**

- a) Differentiate between Computer architecture and Organisation.
- b) What do you understand by Instruction Cycle?
- c) What is the main difference between Memory stack and Register stack?
- d) Differentiate between Logical and Physical addresses.
- e) Give the significance of page replacement algorithms.
- f) Write two pros of Layers Approach of Computer Architecture.
- g) Differentiate between Synchronous and asynchronous modes of data transfer.
- h) Give one example each for zero address, one address and two address and three address instructions.
- i) Differentiate between SISD and SIMD.
- j) List various shift operations.



**SECTION-B**

- Q2) What is stored program Concept? Discuss in brief the Flynn's Classification of architecture.
- Q3) Design 4-bit arithmetic circuit that implements eight arithmetic operations.
- Q4) What is Cache memory? Differentiate between Direct Mapping and associative Mapping by taking Suitable Example.
- Q5) What do you mean by initialization of DMA controller? How DMA Controller works? Explain with suitable block diagram.
- Q6) Define an addressing mode. Discuss the various addressing modes by taking suitable examples for each.
- Q7) Differentiate between Hardwired and Micro programmed control Unit.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

