

Roll No. ....

**3217**

**B. Tech. 5th Semester (ECE)  
Examination – March, 2021**

**COMPUTER ORGANIZATION & ARCHITECTURE**

Paper : PCC-ECE- 303-G

*Time : Three hours ] [ Maximum Marks : 75*

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

**Note :** Attempt *five* questions in all, selecting *one* question from each Unit. Question No. 1 is *compulsory*. All questions carry equal marks.

**1.** Write short notes on : 2.5 × 6 = 15

- (a) Virtual memory
- (b) Microoperations
- (c) Addressing modes
- (d) Stack organization

(e) Hazards

(f) Cache memory

#### UNIT - I

2. Describe various types of Codes in detail. 15
3. (a) What is Register Transfer Language ? Explain with suitable example. 8
- (b) Explain Arithmetic Microoperations in detail. 7

#### UNIT - II

4. (a) Explain Input-output Instruction in detail. 8
- (b) Compare RISC and CISC in detail. 7
5. (a) Explain Instruction format of a CPU. 8
- (b) Define various types of Computer Registers. 7

#### UNIT - III

6. (a) Define Amdahl's law in detail. 7
- (b) Explain SIMD array processors in detail. 8
7. Explain various types of pipeline in detail. 15

#### UNIT - IV

8. (a) Describe the concept of DMA. 8
- (b) Compare Hardware and Software Interrupts. 7
9. (a) Explain the concept of Memory Hierarchy. 8
- (b) Define various types of Memory in detail. 7
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