

[Apr-24]

**GITAM (Deemed to be University)**  
**[CSEN2011]**  
**GST/GSS/GSB/GSHS. Degree Examination**

**IV Semester**

**COMPUTER ORGANIZATION AND ARCHITECTURE**

(Effective for the admitted batch 2021–22)

**Time: 2 Hours**

**Max.Marks: 30**

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**Instructions:** All parts of the unit must be answered in one place only.

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**Section-A**

**1. Answer all Questions:** **(5×1=5)**

- a) Define Register transfer language.
- b) Define Micro programmed control unit.
- c) What is stack?
- d) What are status register bits?
- e) What is auxiliary memory?

**Section-B**

**Answer the following:** **(5×5=25)**

**UNIT-I**

2. Draw one stage connections of an ALU and explain the operations performed by it.

**OR**

3. What way 2's complement subtraction is efficient over other kinds of subtraction techniques? Give your reasoning.

**UNIT-II**

4. What are the basic computer instructions? Explain in brief.

**OR**

5. Discuss about the design of Accumulator Logic with the help of a figure.

### **UNIT-III**

6. Explain four types of instruction formats.

**OR**

7. Explain pipelining technique. Draw the general structure of four segment pipeline.

### **UNIT-IV**

8. What is priority interrupt? Explain Daisy Chaining.

**OR**

9. Explain Asynchronous data transfer with Handshaking method.

### **UNIT-V**

10. Discuss about set-associative mapping of cache memory.

**OR**

11. Explain in detail about magnetic disks.

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