

**Computer Architecture**

**2069**

Full Marks : 80

Pass Marks : 32

Time : 3 hrs.

**Group A**

Attempt any two questions :

(2\*10=20)

- 1.) Explain the non-restoring division algorithm with example.
- 2.) What do you mean by Memory system? Explain the characteristics of Memory systems of computer.
- 3.) Explain the Data transfer and manipulation instruction with example.

Attempt any ten questions :

- 4.) Differentiate between fixed point representation and floating point representation.
- 5.) Explain the arithmetic logic shift unit.
- 6.) What do you mean by computer register and computer instructions? Explain.
- 7.) Differentiate between Hardwired control and microprogram control unit.
- 8.) Explain the types of instruction format and compare each of them.
- 9.) What do you mean by DMA controller? What the three register is used in DMA controller? Explain.
- 10.) What is virtual memory? What are the major differences between Address space and Memory space?
- 11.) What do you mean by stack organization? What are the major difference between register stack and memory stack?
- 12.) Explain the logical and Bit manipulation instruction with example.
- 13.) What are the characteristics of CISC and RISC processes. Explain.
- 14.) What do you mean by interface? What are the major differences between I/O bus and memory bus?
- 15.) Write short notes on the following :
  - a.) Parity generator
  - b.) Array multiplier