Paper code: 13509

1509

B.Sc. (Computer Science) (Part 1)

Examination, 2015

Paper No. 3.3

COMPUTER ARCHITECTURE

Time: Three Hours] [Maximum Marks: 34

Note: Attempt five questions in all selecting at least one question from each Unit.

Unit-1

1. (a) What is interrupt? Explain various types of interrupts.

(b) What do you mean by memory reference instructions?

2. What are registers? How many types of registers are there in control unit?

Unit-2

3. Compare and contrast:

    1. Array and Vector processor

    2. CISC and RISC

4. (a) What is pipelining? How is it beneficial? Explain its various types.

(b) Define parallel processing.

Unit-3

5. Write an algorithm to perform multiplication of two signed number. Also perform multiplication of (+5) × (+3). http://www.mjpruonline.com

6. Explain the following:

1. Floating point arithmetic operations.

2. Decimal arithmetic operations.

Unit-4

7. (a) What is the purpose of DMA module? How can a DMA module differ from input/output processor?

(b) Differentiate between serial and parallel data transmission.

8. Draw and explain programmed I/O mode of data transfer with the help of neat block diagram.

Unit-5

9. What are assemblers? Write and explain an assembly language programme to add two numbers.

10. Write shorts notes on the following:

    1. 8085 processor

    2. Programme loops

    3. Macros

………………..End………………..