FACULTY OF SCIENCE
M.Sc. IV - Semester (CBCS/Non-CBCS)(New) Examination, April / May 2014

Subject: Physics
(Specialization : Electronic Instrumentation)
Paper - IV (404): PC Architecture

Time : 3 Hours
Max. Marks: 80

Note: Answer all questions from Part-A and Part-B. Each question carries 4 marks in Part-A and 12 marks in Part - B.

PART – A (8 x 4 = 32 Marks)
(Short Answer Type)

1. List the register for the basic computer and explain their functions.
2. Draw the instruction formats for a basic computer and explain.
4. Explain the logical operations of a basic computer.
5. Mention the various addressing modes of basic computer.
6. What is Booth multiplication Algorithm?
7. Write a short note on DMA.
8. Explain Isolated I/O and memory mapped I/O.

PART – B (4 x 12 = 48 Marks)
(Essay Answer Type)

9. (a) Explain the design of Basic computer system using suitable diagram.
    OR
    (b) Discuss the interrupt cycle using suitable flow chart.

10. (a) Explain programming arithmetic operations of basic computer with suitable examples.
    OR
    (b) Explain the rules of assembly language programming using suitable examples.

11. (a) Discuss the stack organization in CPU.
    OR
    (b) Explain in detail characteristics of RISC and CISC computer.

12. (a) Explain multiplication of floating point number using a neat flow chart diagram.
    OR
    (b) Describe various asynchronous data transfer schemes.

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