FACULTY OF SCIENCE

M.Sc. IV – Semester Examination, May / June 2015
Subject: Physics (Electronic Instrumentation Spl.)
Paper – IV New / III Old
P.C. 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 (8x4 = 32 Marks)
[Short Answer Type]
1. What is an interrupt? Discuss different types of interrupts
2. What are instruction codes?
3. Explain subroutine
4. Define a) Micro operation b) Microinstruction c) Micro program d) Micro code
5. Explain stack organization.
6. Explain the division algorithms.
7. Write an algorithm for multiplication of two floating point numbers
8. Write the differences between programmed I/O and interrupt initiated I/O.

PART – B (4x12 = 48 Marks)
[Essay Answer Type]
9. a) Discuss in detail the four different phases of instruction cycle.
   OR
   b) With a flow chart of computer operation, explain the design of a basic computer.
10. a) Explain double precision addition with a suitable example write a program for the same.
    OR
    b) Discuss microinstruction format with suitable examples.
11. a) Explain different addressing modes with suitable examples.
    OR
    b) Write a flow chart for division operation.
12. a) What is handshaking. Discuss DMA transfer using DMA controller.
    OR
    b) Draw a flow chart for addition and subtraction of floating point members.

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