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Name.....................................

Reg. No.................................

FOURTH SEMESTER B.Tech. (ENGINEERING) DEGREE EXAMINATION JUNE 2007

CS/IT 2K 405/PTCS 2 K 403—COMPUTER ORGANISATION AND DESIGN

Time : Three Hours | Maximum : 100 Marks

Answer **all** *questions.*

Part A

I. (a) Write short notes on measuring the performance of a processor.

(b) Explain SPEC 95 benchmark standard.

(c) Explain the procedure for constructing an ALU.

(d) How floating point operation is performed in 8086 ? Explain briefly.

(e) Write about the Microprogramming.

(f) Explain about building a data-path in Microprocessor.

(g) What is meant by memory hierarchy ?

(h) List the characteristics of I/O devices.

(8 × 5 = 40 marks)

Part B

II. (a) Explain the architecture of a general computer and explain the functions of all the components in detail.

(15 marks)

Or

(b) (i) Explain the various instruction set of 8086 with examples. (8 marks)

(ii) What are the various addressing modes in 8086 ? Explain in detail. (7 marks)

III. (a) Write a program to add/subtract a set of decimal numbers using 8086. (15 marks)

Or

(b) (i) List out and explain the various logical operation in 8086 with an example. (9 marks)

(ii) Explain signed and unsigned number representing with an example. (6 marks)

IV. (a) Discuss in detail about multi-path implementation of data paths.

Or

(b) Explain in detail about exception handling mechanism by the processor.

V. (a) Explain the common frame work for memory hierarchies.

Or

(b) Explain the design of I/O system with neat diagram.

[4 × 15 = 60 marks]