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Name.....

Reg. No.....

FIFTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION, DECEMBER 2006

EC 2K 505—COMPUTER ORGANISATION AND ARCHITECTURE

Time : Three Hours

Maximum : 100 Marks

Answer **all** *questions.*

I. (a) Explain the functions of ALU.

(b) Define and explain data path and control path.

(c) What is fetch cycle ? Explain. What is its significance ?

(d) What is Cache memory ? Explain.

(e) Explain the advantages of Semiconductor memories.

(f) What is an Interrupt ? Explain its types.

(g) Explain the architecture of memory subsystem.

(h) What are hazards ? Explain.

(8 × 5 = 40 marks)

II. (a) Describe in detail the evolution of computer systems.

Or

(b) Draw a neat block diagram of central processing unit. Explain its principle of operation in detail.

III. (a) Explain in detail associative and virtual memory. Differentiate them.

Or

(b) Explain in detail about CPU memory interaction.

V. (a) Explain in detail the advantages of digital recording methods.

Or

(b) Explain the functions of :

1 I/O interrupt.

2 I/O channel processor.

V. (a) Explain in detail the architecture of computer system.

Or

(b) Write short notes on :

1 Pipeline Hazards.

2 SIMD and MIMD systems.