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Name.....

Reg. No.....

FIFTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION, DECEMBER 2004

EC 2K 505. COMPUTER ORGANISATION AND ARCHITECTURE

Time : Three Hours

Maximum : 100 Marks

Answer **all** *questions.*

1. (a) Describe about different types of interfaces.
   (b) What is meant by complexity of computing ? Explain.
   (c) What is a Cache memory ? Explain.
   (d) What is memory array organisation ? Explain.
   (e) Write a note on "magnetic head".
   (f) What is the need for an I/O interrupt ? Explain.
   (g) Write a technical note on MCA bus.
   (h) Explain the functions of an interconnection network.

   (8 × 5 = 40 marks)

2. (a) Briefly explain the evolution of computer systems.

   Or

   (b) Briefly explain the functions and advantages of CPU and ALU.

   (15 marks)

3. (a) Distinguish Controller design from memory design. Explain each one of them in detail.

   Or

   (b) What are the different types of memory ? Explain all the types in detail.

   (15 marks)

4. (a) Discuss in detail all the digital recording methods. (15 marks)

   Or

   (b) Write technical notes on :

   (i) Magnetic tape drive and controller. (8 marks)

   (ii) Disk drive and controller. (7 marks)

5. (a) With a neat sketch, explain the architecture of memory subsystem. (15 marks)

   Or

   (b) Write short notes on :

   (i) Pipeline hazards. (8 marks)

   (ii) SIMD system. (7 marks)

[4 × 15 = 60 marks]