D 42092

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

Reg. No..............................
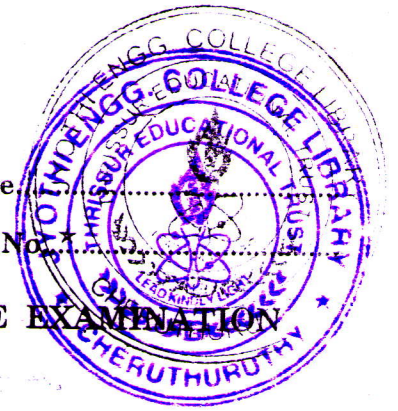
FIFTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION DECEMBER 2007

Electronics and Communication Engineering

EC 2K 505—COMPUTER ORGANISATION AND ARCHITECTURE

Time : Three Hours

Maximum : 100 Marks

Answer **all** *questions.*

I. (a) What is an interface ? Explain the need for interfacing.

   (b) What is a virtual memory ? Explain.

   (c) Define : Fetch cycle.

   (d) Explain the functions of memory subsystems.

   (e) What are primary and secondary storage devices ? Explain. Give examples.

   (f) What are the types of Interrupts ? Explain.

   (g) Give an account on 'Micro architecture by computer system'.

   (h) What are MIMD systems ? Explain.

(8 × 5 = 40 marks)

II. (a) Explain in detail the design steps of a computer system.

Or

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

III. (a) Explain in detail about controller and memory design.

Or

   (b) What is multiple module memory ? Explain in detail.

IV. (a) Explain in detail the advantages and applications of digital recording methods.

Or

   (b) Explain the following : —

      (i) Bus interface.

      (ii) I/O channel processor.

V. (a) With a neat sketch explain the architecture of a computer system.

Or

   (b) Explain in detail the principle of parallel processing system architecture.

(4 × 15 = 60 marks)