2004 CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING(C-DAC) M.C.A

END-TERM EXAMINATION
FIRST SEMESTER [MCA] - DECEMBER 2004

INTRODUCTION TO INFORMATION TECHNOLOGY

Paper Code: MCA-101
Time: 3 Hours
Marks: 60

Q. 1. (a) Name any one sequential access data storage device and its principle of working. 3
(b) What is the difference between the dynamic random access memory (DRAM) and the static random access memory (SRAM). 2
(c) Distinguish between a compiler and an Interpreter. 3
(d) Describe the following DOS commands :- 5
(i) DIR
(ii) RMDIR
(iii) CD
(iv) DISKCOPY
(v) DISKCOMP
(e) Distinguish between Coaxial, STP and UTP cable(s). 3
(f) Compare and contrast Multimedia and Hypermedia. 2
(g) What is the transmission speed on CAT1, CAT2, CAT3 and CAT5 cables?2

Section -A
Q. 2. (a) Describe the evolution of the computers on the basis of hardware type and processing capacity. 5
(b) Describe the Institute of Advanced Studies Architecture (Also known as the Von Newman Architecture) of a computer using a block diagram. 5

Q. 3. (a) Discuss the working principle of an Impact Printer. 5
(b) Distinguish between:- 5
(i) A multi-tasking and a multi-user system.
(ii) The network model and the relational model for database system.

Q. 4. (a) Design a flow chart for the merging of two sorted list of names such that the combined list after merging is also sorted. 5
(b) “All software can be described as a collection of utility programs, therefore any software development if essentially program design. Thus, any person who can code a utility program of upto 100 lines of code is a good software programmer”. Comment. 5

Section - B
Q. 5. (a) Distinguish between LAN, WAN and MAN on the basis of architecture and geographical area coverage. 5
(b) Discuss the kernel based model of an operating system using the example of any modern OS. 5

Q. 6. (a) Describe the design principle of A/D and D/A converters and the usage in communication systems. 5
(b) Enumerate and describe the different network topologies. 5

Q. 7. Write short notes on any two :- 10
(a) Multimedia applications
(b) The Internet and the services available on it
(c) Search Engines
(d) Architecture of a multimedia systems
(e) Distributed Computing