

END TERM EXAMINATION

FIRST SEMESTER [BCA] DECEMBER-2011

Paper Code: BCA107

Subject: Introduction to Computers & IT

Time : 3 Hours

Maximum Marks :75

Note: Attempt one question from each unit including Q.no.1 which is compulsory.

- Q1 Attempt **any ten** of the following:- (2.5x10=25)
- (a) What are the basic components of CPU of computer system? Describe the role of each of the component.
 - (b) (i) $(428)_{10} = ()_{16}$ (ii) Convert $(101110.01101)_2$ to base 10.
 - (c) What are the features of Microsoft Excel?
 - (d) Draw a flow chart to print name of all students having age 20 or more in a class. The input record contains the name and age of the students.
 - (e) What do you understand by low level languages?
 - (f) What are the essential parts of an email?
 - (g) What are the different Data transmission modes?
 - (h) What are two primary objectives of Operating Systems?
 - (i) What is ROM and its different types?
 - (j) Why binary number system is used in computers? How a decimal Number is converted into binary number?
 - (k) Explain computer software and its different type.
 - (l) How intranet is different from internet?

SECTION-A

- Q2 (a) List some of the parameters that were traditionally used to classify computers. What are the major types of computers based on these clarification parameters? (6.5)
- (b) Explain Direct or Random access storage devices. What are the parameters on which access time depends? (6)
- Q3 (a) What do you understand by input and output devices of a computer? Discuss any three of each in details. (1.5x6=9)
- (b) Describe characteristics features of the computer generation in which Integrated circuits (IC) replaced transistors. (3.5)

SECTION-B

- Q4 (a) Write pseudo code, algorithm and draw flow chart for adding two numbers inputted by the user and displaying their sum. (2+2+2.5)
- (b) What is an operating system? Illustrate main functions provided by most operating system. (6)
- Q5 Describe **any five** of the following:- (2.5x5=12.5)
- (a) Interpreter (b) DOS (c) Mail merge in MS-Word
 - (d) Decision Table (e) Utility Programs (f) Loader and linker

SECTION-C

- Q6 (a) Write short notes on the following:- (2x4=8)
- (i) ASCII (ii) BCD (iii) EBCDIC Codes (iv) Unicode
- (b) Converts 527 in binary, octal and hexadecimal and BCD number. (4.5)
- Q7 (a) Convert the following:- (1x5=5)
- (i) $(11100110)_2 = ()_{16}$ (ii) $(13.75)_{10} = ()_2$
 - (iii) $(11010011)_2 = ()_{10}$ (iv) $(8049)_{10} = ()_8$
 - (v) $(6BC)_{16} = ()_{10}$
- (b) Perform the following and check the result by converting the binary numbers to decimal:- (2.5x3=7.5)
- (i) $(11101)_2 + (10101)_2$ (ii) $(11001) - (10001)_2$
 - (iii) $(101)_2 - (111)_2$ (Using 1's or 2's complement)

SECTION-D

- Q8 Describe the following:- (2.5x5=12.5)
- (a) Advantages and disadvantages of STAR Topology
 - (b) Types of Networks (c) Guided transmission media
 - (d) Digital and Analog Transmission (e) Client and Server
- Q9 Explain the following:- (2.5x5=12.5)
- (a) FTP (b) URL (c) IP Address (d) Web browser (e) Domain name
