(Please write your Exam Roll No.) Exam Roll No. 06521402011

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) $(428)_{10}=(\quad)_{16}$ (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) $(11100110)_2=(\quad)_{16}$ (ii) $(13.75)_{10}=(\quad)_2$

(iii) $(11010011)_2=(\quad)_{10}$ (iv) $(8049)_{10}=(\quad)_8$

(v) $(6BC)_{16}=(\quad)_{10}$.

(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

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