

END TERM EXAMINATION

FIRST SEMESTER [BCA] DECEMBER-2015

Paper Code: BCA 107

Subject: Introduction to Computers and IT

Time : 3 Hours

Maximum Marks :75

Note: Attempt any five questions including Q.No. 1 which is compulsory. Select one question from each unit.

Q1. Answer the following in brief :-

(2.5x10=25)

- a) Mainframe computers
- b) ROM
- c) Services of Internet
- d) Compiler v/s Interpreter
- e) Data Transmission Modes
- f) Parallel Computers
- g) Flow Chart
- h) BCD
- i) IP Address
- j) FTP

Unit-I

Q2. Explain briefly the key hardware and software technologies used in building Computer of each of the five generations. (12.5)

- Q3. a) Define Memory. Explain different types of memory used in computers. (6.5)
b) Draw and explain the block diagram of computer. (6)

Unit-II

- Q4. a) Define Operating System. Discuss the various functions of Operating System. (6.5)
b) Write an algorithm for calculating greatest number among given 'n' numbers. (6)

- Q5. a) Discuss different types of language used in computers. Differentiate between assemblers and compilers. (6.5)
b) Write steps for creating a power point presentation on topic of your choice. (6)

Unit-III

- Q6. a) Perform the following: (2x5=10)
i) $(100001011)_2 = ()_{10}$
ii) Represent -20 using Signed 1's and 2's compliment
iii) Perform the subtraction for : $11100011-1111$
iv) $(192.625)_{10} = ()_8$
v) 11101100 (Gray to Binary)
b) Write short notes on UniCode. (2.5)

- Q7. a) Perform the following: (7.5)
i) Add $10111, 11000$ and 111
ii) Find 2's compliment of 100111100
iii) Binary Subtraction pm $1100, 1010$
b) Write short notes on ASCII and Grey Codes. (5)

Unit-IV

- Q8. a) Explain briefly the different applications of Internet in education. (5)
b) Draw and explain the various Network Topologies and transmission media in computer network. (7.5)

- Q9. a) Explain OSI Model in detail with the help of a labeled diagram. (10)
b) Discuss different types of networks with suitable diagrams. (2.5)

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