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 computes
  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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