INDIAN MARITIME UNIVERSITY
(A Central University, Government of India)

June 2016 End Semester Examinations
B.Sc. (Nautical Science) - 2013 batch onwards
Semester III

Computer Science-I   (UG21T2301)

Date : 04.07.2016/F.N   **Maximum Marks: 70**
Time: 3 Hrs   **Pass Marks   : 28**

NOTE: Attempt any <u>SEVEN</u> questions. All questions carry equal marks   **7x10=70**
Use of Non-programmable scientific calculator is allowed.

1) a) *Convert the following decimal numbers to their binary equivalents: (5)*
      i.   49.13
      ii.   21.32
      iii. 255
   b) Subtract using 2's complement   (5)
      i. $(11001101)_2 - (10101010)_2$
      ii. $(100100)_2 - (11101)_2$

2) *Carry out the following conversions (10)*
      (a) $(254)_{10} = (?)_8$
      (b) $(CA8)_{16} = (?)_{10}$
      (c) $(19.98)_{10} = (?)_{16}$
      (d) $(1BE9)_{16} = (?)_2$
      (e) $(332)_8 = (?)_{10}$

3) a) Explain EBCBIC code and Excess 3 code (5)
   b) Explain the types of secondary memory with examples (5)

4) *a*) What is Virtual memory? How and when it is used? (5)
   b) Explain the units of memory measurement (5)

5) a) Differentiate compiler and interpreter (5)
   b) Discuss various facilities available on Internet (5)

6) a) Explain Satellite based communication and it uses   (10)

7) What is Ecommerce? What are its advantages and disadvantages?(10)

8) Write short notes on
   a) Internet bandwidth(5)
   b)   Smart cards(5)
9) Write Short Notes on
    a) Anti-Virus Programme(5)
   b)   E-Wallet(5)