B.Tech. Degree I & II Semester Examination in Marine Engineering May 2016

MRE 1109 COMPUTER FUNDAMENTALS

Time: 3 Hours   Maximum Marks: 100

(5 × 20 = 100)

I. (a) Briefly explain the working of a digital computer system with the help of necessary diagrams. (10)
    (b) Write short note on various computer network systems. (10)

OR

II. (a) Distinguish between system software and application software and explain its role in digital computer processing. (10)
    (b) List out the features of high level languages. Give some examples too. (10)

III. (a) Briefly explain various operators in C with examples. (10)
    (b) Write short note on fundamental datatypes in C. (10)

OR

IV. (a) Write a C program to print all the even numbers between 0 and 200 which are divisible by 9. (10)
    (b) Explain the purpose of the following statements in C. (10)
        (i) goto
        (ii) break
        (iii) continue
        (iv) return
        (v) clrscr ( )

V. (a) What is meant by function prototyping? Write a C program to implement binary searching using functions. (10)
    (b) Briefly explain various storage class in C. (10)

OR

VI. (a) Write a C program to multiply two matrices and output the resultant matrix. (10)
    (b) (i) Explain how pointers are used in structures. (5)
        (ii) Write a C program to find the sum of two arrays using the concept of pointers. (5)

VII. (a) (i) Briefly explain the relational model of DBMS. (6)
        (ii) List out some DML commands in SQL. (4)
    (b) Explain the fundamental features of object oriented programming. (10)

OR

VIII. (a) (i) Distinguish between class and object with the help of an example. (5)
        (ii) What are the advantages of using virtual functions? (5)
    (b) What is meant by inheritance? Explain various type of inheritance with the help of examples. (10)

IX. (a) (i) Distinguish between structure and union. (4)

        (ii) Write a C program to create a bank database. Also print the customer (6)
details for a particular bank account number.

   (b) Give the format of opening and closing a file. Briefly explain the different (10)
modes of opening a file.

OR

X. (a) Write a C program to swap the contents of two files. (10)

   (b) Explain the concept of nested structure and array of structure with the help of (10)
examples.

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