

***B.Tech. Degree I & II Semester Supplementary Examination in  
Marine Engineering May 2014***

**MRE 109 COMPUTER FUNDAMENTALS**

Time : 3 Hours

Maximum Marks :100

(5 x 20 =100)

- I. (a) Describe the various secondary storage devices.  
(b) Explain the various types of computer networks.  
**OR**
- II. (a) What are the different types of OS available? Compare and contrast them. Briefly describe their functions also.  
(b) Distinguish LAN, MAN and WAN with each other?
- III. (a) Briefly describe conditional statements in C.  
Write a C programme to implement the following scenario  
if marks > 70: class = A  
if marks > 60 and marks ≤ 70, class = B  
if marks < 60 class = C  
Input should be mark 1, mark 2, mark 3, no, name .  
Output should be no, name, total marks, percentage and class  
**OR**
- IV. (a) Explain the switch-case structure.  
(b) Demonstrate the working of break. Continue with an example.
- V. (a) Explain the extern storage class with example.  
(b) Demonstrate cell by values.  
**OR**
- VI. (a) Explain register storage class with example.  
(b) Write a C programme to reverse a string using recursion.
- VII. (a) Explain array of structures with example.  
(b) Write a C programme to check whether a matrix is symmetric or not.  
**OR**
- VIII. (a) Explain pointer to an array concept.  
(b) Write a C programme to add two matrices using pointer to an array concept.
- IX. (a) Explain virtual functions in C++.  
(b) Demonstrate function overloading with a suitable examples.  
**OR**
- X. (a) Explain the advantages of DBMS over flat file systems.  
(b) Write SQL's for the following scenario for a table S (S#, Sname, City)  
(i) Insert (2, 'ANIL', 'LONDON')  
(ii) Delete records where City = "ROME"  
(iii) Select all records whose name starts with 'P'.