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***B.Tech. Degree I&II Semester Examination in  
Marine Engineering May 2017***

**MRE 1109 COMPUTER FUNDAMENTALS  
(2013 Scheme)**

Time : 3 Hours

Maximum Marks : 100

(5 × 20 = 100)

- I. (a) Write a note on various computer network systems. (10)  
(b) Compare the merits and demerits of Machine Language, Assembly Language and High level languages. (10)
- OR**
- II. (a) Write a note on various secondary storage devices. (10)  
(b) Distinguish between compilers and assemblers. (10)
- III. (a) Explain various operators available in C language. (15)  
(b) Write a note on Enumerated data types. (5)
- OR**
- IV. (a) Explain various types of expressions and the associativity of operators in C language. (15)  
(b) What is the difference between BREAK and CONTINUE statements? (5)
- V. (a) Write a note on scope, visibility and life time of variables in C language. (15)  
(b) Write a note on Recursion. (5)
- OR**
- VI. (a) Explain the concept of functions returning pointers with a sample C program. (10)  
(b) Explain the concept of command line arguments in C language. Illustrate with example. (10)
- VII. (a) Explain various operators available in relational Algebra and how it is realized in SQL. (15)  
(b) Write a note on virtual functions. (5)
- OR**
- VIII. Write notes on: (20)  
(i) inheritance (ii) Polymorphism (iii) Encapsulation (iv) Class diagrams.
- IX. (a) Differentiate between structures and union. (5)  
(b) Write a program in C language to prepare the rank list of n students using array of structure, reading the roll No., marks of three subjects. (15)
- OR**
- X. (a) Write a program to prepare a rank list and store it in a file 'ranklist.dat' using the mark list stored in data file 'marklist.dat'. (15)  
(b) Write notes on usage of following command in C language. (5)  
(i) fgetc() (ii) fgets() (iii) fseek()

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