

**INDIAN MARITIME UNIVERSITY**  
(A Central University, Govt.of India)

**May/June 2015 End Semester Examinations**

**SEMESTER – II, B.TECH ( MARINE ENGINEERING)**

**COMPUTER SCIENCE (T 2205 / T 1205)**

**Date:18.06.2015**

**Time:-3 Hrs**

**Max.Marks:100**

**Pass Marks:50**

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**PART – A**  
**(Compulsory Questions)**

**(3 x10 = 30 Marks)**

1. a) What is SRAM.
- b) What do you understand by secondary memory?
- c) Subtract using 2's complement method                      i) 101111 – 100101
- d) What are system utility programs?
- e) List the characteristics of an Algorithm?.
- f) Write a C program to add two numbers?
- g) What do you mean by nested loop?
- h) Explain do-while loop with a suitable example?
- i) What is the byte size of 'char' variable in C
- j) Find the out put  

```
#include <stdio.h>
main()
{
    int a , b;
    a = 10;
    printf( "Value of b is %d\n", (a == 10) ? 20: 30 );
}
```

**PART – B**  
**(Answer any five of the following)**

**(5 x14 = 70 Marks)**

2. a) Write a short note on memory hierarchy in computer system (7)  
b) Explain the basic computer architecture? (7)
3. a) What do you mean by system software? Give suitable example (7)  
b) What is a local area network (LAN) and a wide area network (WAN) (7)
4. a) Make a flow chart to find largest number from a set of 'k' numbers. (7)  
b) Explain in detail software development cycle. (7)
5. a) With the help of block diagram explain various network-topologies present in computer network. (7)  
b) Discuss any three service provided by internet? (7)
6. a) Write a C program to find whether a number is an even number or odd number. where number will be taken as fly ( runtime) (10)  
b) What is the differences between i ++ and ++ i in C language (4)
7. a) Write a C program to add two  $2 \times 2$  matrix (7)  
b) Write C program using switch case . (7)
8. a) Convert a data sets of Centigrade (C) to Fahrenheit(F) temperature and store it in an array. {hint:  $F = (C \times \frac{9}{5}) + 32$ } (10)  
b) What is the byte size of floating point, int variable in C ? (4)
9. a) Define structure and union with suitable example. (6)  
b) Write a C program to find the value of  $\sin(x)$ . (8)  
[hint:  $\sin(x) = x - \frac{x^2}{2!} + \frac{x^3}{3!}$  neglecting higher orders terms]

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