

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

May/ June 2017 End Semester Examinations
B.Tech. (Marine Engineering) Second Semester
(AY 2009-2014 batches)

Computer Science (UG11T1205/ UG11T2205)

Date : 20.06.2017

Maximum Marks: 100

Time: 3 Hrs

Pass Marks : 50

Part – A

(10 x 3=30 marks)

(All questions are compulsory)

1. a) Give an example for nested if-else conditions.
- b) Differentiate between RAM and ROM?
- c) Convert $7E0C_{[16]}$ to equivalent binary number.
- d) Briefly discuss the advantages of flow chart.
- e) What is infinite loop, give an example?
- f) What is LAN and where it is used?
- g) What will be the length of a variable if it is declared as int, float and char?
- h) What is the correct order of evaluation (operators) for the below expression in C programming?
$$z = x + y * z / 4 \% 2 - 1$$
- i) What is ASCII code?
- j) Describe the using of `Clrscr ()` and `Scanf ()` functions in C program.

Part – B

(5 x 14=70 marks)

(Answer any FIVE of the following)

2. a) *Difference between Static and Dynamic Memory* (7)
b) *Describe evaluation of computer generations.* (7)
3. a) *Briefly explain software development steps.*
b) *Describe evaluation of computer generations.*
4. a) *Define algorithm and flowchart. How is it useful in the context of software development?* (7)
b) *Write an algorithm and flowchart to convert Centigrade to Fahrenheit, where Fahrenheit = 32 + (centigrade * (1.8))* (7)
5. a) *Write a short note on standard hardware configurations of a personal computer.* (7)
b) *What is pointer in C program and explain it with an example.* (7)
6. a) *Write a C program to find the roots of a quadratic equation $aX^2 + bX + c = 0$, where a, b and c will be taken as runtime.* (10)
b) *What are the differences between structure, union?* (4)
- 7.a) *Write a C program to checks whether an year (integer) entered by the user is a leap year or not.* (7)
b) *Write C program to calculate Power of a number using function, where number and power should entered through Keyboard.* (7)
8. a) *Write a program in C for Matrix multiplication using array* (10)
b) *What is the difference between ++i and i++?, explain with suitable example.* (4)
