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***B.Tech. Degree II Semester Examination in
Naval Architecture and Ship Building April 2019***

**ST 18 1202 COMPUTER PROGRAMMING
(2018 Scheme)**

Time : 3 Hours

Maximum Marks : 100

**PART A
(Answer ALL questions)**

(5 × 4 = 20)

- I. (a) What is meant by 'void function'?
- (b) What is unary and ternary operators in c?
- (c) Write notes on variable data types in c language
- (d) Describe argc and argv used in command line arguments
- (e) What is the advantage of using pointers in c function?

PART B

(5 × 16 = 80)

- II. (a) Explain various secondary storage devices, their merits and demerits. (8)
- (b) What are the major task to be performed by the operating system? (8)
- OR**
- III. (a) Describe the architecture and working principle of hard disk. (10)
- (b) How do we represent data in computer? Also define bit, byte, nibble and word. (6)
- IV. (a) What are the various types of looping strategies? (8)
- (b) Write an algorithm to print first 10 prime numbers. (8)
- OR**
- V. (a) What is data structure? Describe its use with suitable example. (8)
- (b) Outline the steps in computer based problem solving procedures. (8)
- VI. (a) What is an array? How do we categorize arrays? Also explain initialization of one dimensional integer arrays. (8)
- (b) Write a c language program to find the sum of even numbers and odd numbers in a given set of numbers. (8)

OR

(P.T.O.)

- VII. (a) Write a c language program to sort a set of numbers in ascending order. (8)
 (b) Explain arithmetical and logical operators in c. (8)
- VIII. (a) Illustrate call-by-value and call-by-reference method using examples. (8)
 (b) What is function? Write syntax for function declaration and function calling. (8)
 What is meant by actual and formal parameters in a function?
- OR**
- IX. (a) Write a program to find minimum in an array using function. (8)
 (b) What are the various mechanism for parameter passing in functions? (8)
 Explain with simple programs?
- X. (a) Explain the usage of structures in c language with simple program. (8)
 (b) What is pointer? What are the basic operators used with pointers? (8)
- OR**
- XI. (a) Discuss the file accessing functions in c. (8)
 (b) Write a c program to create a data file named 'student.txt' to store register no, name and marks of three subjects of n students. (8)
