

FACULTY OF ENGINEERING**B.E. I — Year (Old) Examination, May i June 2015****Subject : Programming in C & C++****Time : 3 hours****Max. Marks : 75****Note: Answer all questions from Part A. Answer any FIVE questions from Part B.****PART – A (25 Marks)**

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| 1 Differentiate compiler and interpreter. | 3 |
| 2 How one type of data can be converted into another type? Give example. | 2 |
| 3 What are the different ways of passing values to functions? | 2 |
| 4 List the operations performed on pointer variables. | 3 |
| 5 Differentiate structure and union. | 2 |
| 6 Explain the random accessing of the file. | 3 |
| 7 What is inline function? | 3 |
| 8 What is the use of 'this' pointer? | 2 |
| 9 Differentiate overloading and overriding. | 2 |
| 10 How static members of a class can be initialized and accessed? Give example. | 3 |

PART — B (50 Marks)

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| 11 a) Draw and explain the block diagram of a computer. | 6 |
| b) What are the various C pre-processor directives or commands and explain them with simple programs? | 4 |
| 12 a) Write a program to find the maximum in an array using pointer to array and function. | 5 |
| b) Explain the pointer arithmetic with example | 5 |
| 13 a) Write a program to read the numbers from a file and print all prime numbers in it. | 4 |
| b) Write a program to read the 'n' student information and display the information about the students in the increasing order of marks. Student structure should have following fields-roll-no, name, marks in 3 subjects. | |
| 14 a) Write a program to overload + operator. | 5 |
| b) Define a class called 'BOX', member function volume() to find volume and constructors | |
| i) with different number of arguments | |
| ii) with default argument | |
| iii) with object of BOX as argument | |
| 15 a) Explain the different access specifiers used in C++ with examples. | 5 |
| b) Explain the dynamic binding with example. | 5 |
| 16 a) Write a program to check for 'divisible by zero' exception. | 5 |
| b) Write a template class to search the array elements of integer or floats. | 5 |
| 17 Write the short notes on : | 4+3+3 |
| a) Programming Languages | |
| b) Friend class | |
| c) Operating system | |