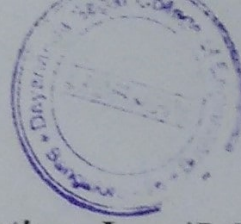


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**Sixth Semester B.E. Degree Examination, June/July 2015**  
**Programming in C++**

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions, selecting  
at least TWO questions from each part.*

**PART – A**

- 1
  - a. What are preprocessor directives? Explain each with an example. (06 Marks)
  - b. Explain how dynamic memory allocation is performed with the help of 'new' and 'delete' operators with an example program. (06 Marks)
  - c. What is an object oriented programming? Explain its advantages and applications. (08 Marks)
- 2
  - a. Mention few keywords in C++ not present in C. (04 Marks)
  - b. Explain string types and their associated operations with string class, with an example for each. (10 Marks)
  - c. Explain enumeration types with an example program. (06 Marks)
- 3
  - a. Explain the following : (08 Marks)
    - i) Arithmetic operators
    - ii) Relational and logical operators.
  - b. With an example C++ program, differentiate between break and continue statements. (06 Marks)
  - c. Write a C++ program to read 'n' integers from keyboard, store those numbers in an array and perform sum of those numbers, and display the result. (06 Marks)
- 4
  - a. Write a C++ program to swap the contents of two variables using functions with 'call by value' and 'call by reference' methods. (08 Marks)
  - b. Explain inline functions with an example program. (06 Marks)
  - c. Write a C++ recursive program to find factorial of a given number. (06 Marks)

**PART – B**

- 5
  - a. With the help of a C++ program, explain try, throw and catch mechanisms of exception handling. (10 Marks)
  - b. Explain the following : (10 Marks)
    - i) Exception specification
    - ii) Exceptions and design issues.
- 6
  - a. Define class and object. With an example C++ program, explain how data members are declared and accessed? (10 Marks)
  - b. Explain with a C++ program for each : (10 Marks)
    - i) Copy constructor
    - ii) Destructors.
- 7
  - a. What is operator overloading? Write a C++ program to overload '+' to concatenate two strings. (10 Marks)
  - b. Explain how 'new' and 'delete' operators be overloaded with a C++ program. (10 Marks)
- 8
  - a. Explain the concept of multiple inheritance with a C++ program. (10 Marks)
  - b. Explain public and protected inheritance with suitable example program for each. (10 Marks)