

Registration No:

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Total Number of Pages: 01

B.Tech
BECS2212

3rd Semester Back Examination 2017-18
C++ and Object Oriented Programming
BRANCH : CHEM, CIVIL, EEE, ELECTRICAL,
ETC, MECH, METTA, MINERAL, MINING, MME, PLASTIC, TEXTILE

Time : 3 Hours

Max Marks : 70

Q.CODE : B1109

Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

- Q1 Answer the following questions: (2 x 10)**
- a) What are class and objects?
 - b) Define scope and life of a variable.
 - c) What do you mean by function overloading?
 - d) What is a virtual class? Why it is used in C++?
 - e) Differentiate between function templates and class templates.
 - f) When will the destructors called? Is it implicit or explicit?
 - g) What do you mean by dynamic binding?
 - h) Describe nested namespace and unnamed namespace.
 - i) What do you mean by catch-all exception handlers?
 - j) What are I/O streams? Give an example.
- Q2**
- a) What are the needs for object oriented paradigm? (5)
 - b) Write a program in c++ to check whether entered year is leap year or not. (5)
- Q3**
- a) Illustrate the concept of function overloading, to find the maximum of 2 numbers. (5)
 - b) What are inline functions? Write a suitable example to explain it. (5)
- Q4**
- a) What is the need of constructor? Define parameterized constructor. Differentiate between constructor and destructor. (5)
 - b) Write a C++ program to implement $B \cdot A \cdot C = I$, $B \cdot A \cdot C = I$ and $B \cdot A \cdot C = I$ where A, B and C are objects containing an int value (vector). (5)
- Q5**
- a) Explain virtual functions with suitable program. (5)
 - b) Write a c++ program to find the area of the square, rectangle and circle using function overloading. (5)
- Q6**
- a) Explain the different types of streams and various formatted I/O in C++. (5)
 - b) Explain the various file handling mechanisms in C++. (5)
- Q7** With suitable examples describe various types of inheritance concept used in C++. (10)
- Q8 Write short answer on any TWO: (5 x 2)**
- a) Polymorphism in c++
 - b) Exception handling
 - c) Friend function
 - d) Static member function