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CREDIT BASED FOURTH SEMESTER B.Sc. DEGREE EXAMINATION APRIL 2012
COMPUTER SCEINCE
OBJECT ORIENTED PROGRAMMING CONCEPTS AND PROGRAMMING IN C++

Time: 3 Hrs   **Max. Marks: 80**

PART – A

1. **Answer any TEN questions from the following:**   **10x2=20**

    a) List any 4 areas for the application of OOP.

    b) Define class and object in C++.

    c) What do you mean by late binding?

    d) Explain the use of setfill and setprecision manipulators.

    e) What is the usage of scope resolution operator? Explain with an example.

    f) What are the characteristics of member functions?

    g) State the function of new operator.

    h) What are inline functions?

    i) Explain 'this' pointer.

    j) List the operators that can't be overloaded.

    k) What is association?

    l) List any 4 types of VML diagrams.

PART – B

Answer any TWO questions from each unit

UNIT – I

2. a) Distinguish the following:
        i) Data abstraction and Encapsulation
        ii) Inheritance and Polymorphism

    b) State the principal advantages of object oriented programming. **(4+6)**

3. a) What are the basic features of object oriented programming?

    b) What is procedure oriented programming? What are its main characteristics? **(6+4)**

4. a) Explain waterfall process.

    b) Write a note on Unified Approach. **(6+4)**

UNIT – II

5. a) Differentiate private and public member functions with suitable example.

    b) What are the special characteristics of static data members?

    c) How does C++ structure differ from a C++ class? **(5+3+2)**

6. a) What are array of objects? Explain with an example.

    b) List the characteristics of constructor functions.

    c) What are manipulators? **(4+4+2)**

7. a) Mention the special characteristics of a friend function.

    b) Write a program to add and subtract two complex numbers. Use the concept of returning of objects from a function. **(5+5)**

UNIT – III

8. a. What is function overloading? Write an overloaded function VOLUME for finding the volume of a cube, cylinder and rectangular box.

    b. How are friend functions used to carry out overloading of operators.

    c. Describe the syntax of an operator function.

    (4+4+2)

9. a) Explain the following:

i) multiple inheritance   ii) multilevel inheritance

b) Write a note on public mode of inheritance. Explain with an example.

c) What is a virtual base class?   **(4+4+2)**

10. a. Mention any 6 rules used with virtual function.

b. Write a C++ program to compare two strings using operator overloading concept.

c. What is containership?   **(6+3+1) COS 401**

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CREDIT BASED FOURTH SEMESTER B.Sc. DEGREE EXAMINATION
APRIL 2014
COMPUTER SCEINCE – IV
Java Programming & Object Oriented Programming

Time: 3 Hrs   **Max. Marks: 80**

PART – A

1. Answer any TEN questions from the following: **10x2=20**

a) What are Java Tokens?

b) Mention any two differences between Java & C++.

c) What is the purpose of instance of operator? Give example.

d) List any four java statements.

e) What is a wrapper class? Give example.

f) What is the purpose of finalizer method?

g) What is the difference between class and interface?

h) What is meant by method overloading? What is its use?

i) What is an exception? Give example.

j) What is a thread? Why do we call thread as a light-weight process?

k) List any two run-time errors.

l) What are local and remote applets?

Answer any TWO questions from each unit.

UNIT – I

2. a) Explain any five features of Java.

 b) Explain switch statement with syntax and example. **(5+5)**

3. a) With syntax and example explain the use of any four mathematical function.

 b) Explain the purpose of Java Development Tool kit. **(6+4)**

4. a) Explain the else-if ladder with syntax and example.

 b) What are constants? Explain the different types of constants in Java. **(5+5)**

UNIT – II

5. a) What is a class? How is it defined? Explain with its syntax.

 b) What is an array? Explain how a one dimensional array is created, declared and initialized with an example. **(5+5)**

6. a) What do you mean by method overriding? Explain with example.

 b) Explain how multiple inheritance is achieved in Java? **(5+5)**

7. a) Define a package. Write any three advantages of creating a package.

 b) What is a string buffer class? Explain any two methods of string buffer class with syntax and example. **(5+5)**

UNIT – III

8. a) Explain the thread life cycle with a state transition diagram.

 b) How applets are different from applications? **(5+5)**

9. a) Write the purpose of try and catch statements in Java.

 b) How do you pass parameters to the applet? Explain with example code. **(5+5)**

10. a) Write a short note on priority of threads.

 b) Write the steps in developing and testing an applet. **(4+6)**

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CREDIT BASED FOURTH SEMESTER B.Sc. DEGREE EXAMINATION
APRIL 2015
COMPUTER SCEINCE – IV
Java Programming & Object Oriented Programming Concepts

Time: 3 Hrs   Max. Marks: 80
PART – A

1. Answer any TEN questions from the following: **10×2=20**

   a) What is a byte code in Java?

   b) List the special operators. Give examples.

   c) What are symbolic constants? Give example.

   d) Write the general syntax of *for* statement.

   e) What is an Array? How do you declare two dimensional array in Java?

   f) Differentiate method overloading and method overriding.

   g) Define Interface. Why is it used?

   h) What is the use of 'this' keyword in Java?

   i) What is an exception? Give an example.

   j) What is a Thread? Why do we call a thread as a light weight process?

   k) What is the use of wrapper class? Give two examples.

   l) What are local and remote applets?

PART – B

Answer any TWO questions from each unit:

UNIT – I

2. a) Explain the structure of Java program.

   b) Explain the different data types available in Java.   **(5+5)**

3. a) Explain the relational and logical operators in Java.

   b) Explain *switch* statement with its syntax and example.   **(5+5)**

4. a) Explain if-else-if ladder with syntax and example.

   b) What are command line arguments? How are they useful?   **(5+5)**

UNIT – II

5. a) With an example explain constructors.

   b) What is a StringBuffer Class? Explain any two methods of StringBuffer class with syntax and example.   **(5+5)**

6. a) What is a Vector? Explain any four vector methods.

   b) Write a note on visibility controls.   **(5+5)**

7. a) Define a package. What are the advantages of using packages?

   b) What is inheritance? Explain different forms of inheritance with block diagrams.**(5+5**

UNIT – III

8. a) Explain the life cycle of a thread with a state transition diagram.

   b) Explain Exception handling mechanism.   **(7+3)**

9. a) How do we pass parameters to Applets? Explain.

   b) Write a note on Thread priorities.   **(5+5)**

10. a) Illustrate the use of threads with runnable interface. Give code example.

    b) Explain the purpose of *try* and *catch* statements in Java. Give examples.   **(6+4)**

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