

Comp. 3

Reg. No. :

D 1573

Q.P. Code : [07 DSC 04]

(For the candidates admitted from 2007 onwards)

B.Sc. DEGREE EXAMINATION, DECEMBER 2009.

Second Year

Part III — Computer Science

C++ PROGRAMMING

Time : Three hours

Maximum : 100 marks

Answer any FIVE.

(5 × 20 = 100)

1. (a) Explain call by value and call by reference on functions with examples.
(b) Discuss various advantages of object oriented languages.
2. (a) Define object, encapsulation and polymorphism.
(b) Write a program to print 'A' to 'Z' three times using for loop, while loop and do-while loop.
3. (a) Create a class 'Circle' and create three objects for it. Use default, parameterized and copy constructors.
(b) Give the difference between in line function and friend function.

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4. (a) Write a program to find the volumes of cube and cylinder. Apply function overloading.
(b) Explain unary operator overloading with example.
5. (a) Explain Hybrid Inheritance and virtual base class.
(b) Explain virtual function, pure virtual function and abstract class.
6. (a) Write a program to convert the decimal number into octal and hexa using manipulators. Apply runtime polymorphism.
(b) Explain multiple and Hierarchical inheritances with examples.
7. (a) Explain Template function and Template class with examples.
(b) Explain various file mode parameters in C++ with their meaning.
8. (a) Write a program to create a file of records where each record consists of two fields 'employee number' and 'salary'. Also write a code to modify the salary of given employee number. Apply random access.
(b) Write a note on Exception handling mechanism.

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B.Sc. DEGREE EXAMINATION, DECEMBER 2009.

Second Year

Part III — Computer Science

SYSTEM SOFTWARE AND OPERATING SYSTEM

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

(5 × 20 = 100)

All questions carry equal marks.

1. Explain the following :
 - (a) One Pass Assembler
 - (b) Multi-Pass Assembler
2. Discuss the following :
 - (a) Linkage Editors
 - (b) Dynamic Linking.
3. With a neat diagram, explain the Editor structure.

4. Describe the following :

- (a) Interpreters. (5)
 - (b) P-Code Compilers. (10)
 - (c) Compiler-Compilers. (5)
5. Explain the concept of Storage Management.
 6. With a suitable diagram, discuss the Demand Paging.
 7. Elucidate the concept of Process Scheduling.
 8. Describe File Systems and its Components. _____

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354
884
Reg. No. :

D 1575
Q.P. Code : 107 DSC 06/
07 DSCA 061

(For the candidates admitted from 2007 onwards)

B.Sc./B.C.A. DEGREE EXAMINATION,
DECEMBER 2009.

Second Year

Part III — Computer Applications/Computer Science

SOFTWARE ENGINEERING

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions. (5 × 20 = 100)

1. Explain the factors that influence quality and productivity.
2. Describe in detail the phased model of the software life cycle.
3. Explain the COCOMO cost estimation model.
4. Explain the various formal specification techniques.
5. Discuss in detail the fundamental concepts of software design.

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6. Describe the various design notations.
7. What are the guidelines for documentation? Explain.
8. Write short notes on the following:
 - (a) Unit testing
 - (b) Software Quality Assurance
 - (c) Debugging
 - (d) Software maintenance.

Reg. No. :

D 1576

Q.P. Code : [07 DSC 071]

(For the candidates admitted from 2007 onwards)

B.Sc. DEGREE EXAMINATION, DECEMBER 2009.

Second Year

Computer Science

JAVA PROGRAMMING

Time : Three hours

Maximum : 100 marks

Answer any FIVE of the following. (5 × 20 = 100)

1. (a) Write short notes on method overloading. Give an example.
(b) How do you convert strings to numbers? Give an Example.
2. (a) Write a java program to read a matrix and find the biggest and smallest value and interchange their position.
(b) Write a java program to find the diagonal sum of the matrix.
3. (a) Explain the package. How it works?
(b) Give an account on states of thread.

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4. Explain the exceptional handling in JAVA.
5. Explain the life cycle of an applet. Give an example.
6. Write a java program to draw a human face using graphics functions.
7. Explain the various I/O streams used in JAVA.
8. Write a Java program to read a employee file. It contains empno, ename, designation, salary
 - (a) Calculate DA, HRA, CCA
 - (b) Calculate deduction
 - (c) Find the Net salary.