B.Sc (IT)-SEM-IV Examination

March/April 2015

Paper Name: JAVA Programming   Paper No: 405

Subject Code No: ___4791___

Time: 2:30   **Total Marks: 70**

Q1
(a)   Explain features of JAVA.   7
(b)   Explain Abstraction, Encapsulation and Inheritance with example.   7

OR

Q1
(a)   What is command line argument? Write a program to check that whether   7
the name given from command line is file or not? If it is a file then print
the size of file and if it is directory then it should display the name of all
files in it.
(b)   Define polymorphism with its need. Define and explain static and   7
dynamic binding using program.

Q2
(a)   What is constructor? Explain constructor overloading with example.   7
(b)   What is the difference between method overloading and method   7
overriding? Explain giving examples.

OR

Q2
(a)   What is an Exception? Explain Exception handling in JAVA.   7
(b)   What is package? Explain steps to create package with example.   7

Q3
(a)   What is Multithreading? Explain Life Cycle of Thread with example.   7
(b)   Justify statement.   7
(i) JVM is platform dependent.
(ii) There is no destructor in Java.

OR

Q3
(a)*   Explain thread Synchronization with join() and isAlive() methods.   7
(b)   Why synchronization is required in multithreaded programming. Write a   7
program that uses thread synchronization to guarantee data integrity in a
multithreaded application.

Q4

(a) Answer the following: 7
1. Text I/O v/s Binary I/O.
2. String class operations to create and manipulate strings.

(b) Write a program to replace all "word1" by "word2" from a file1, and   7
output is written to file2 file and display the no. of replacement.

OR

Q4

(a) Write a program that counts the no. of words in a text file. The file name   7
is passed as a command line argument. The program should check
whether the file exists or not. The words in the file are separated by white
space characters.

(b) Differentiate String class and String Buffer class with explanation of its   7
methods.

Q5

(a) Write a program that illustrates interface inheritance. Interface A is   7
extended by A1 and A2. Interface A12 inherits from both P1 and P2.Each
interface declares one constant and one method. Class B implements
A12.Instantiate B and invokes each of its methods. Each method displays
one of the constants.

(b) Explain serialization and deserialization of an object with example.   7

OR

Q5

(a) What are the benefits of using generic types? Differentiate between   7
abstract class and interface.

(b) Explain buffer stream and print stream in detail giving examples of each.   7