

01042

MCA (Revised)

Term-End Examination

June, 2010

**MCS-024 : OBJECT ORIENTED
TECHNOLOGIES AND JAVA
PROGRAMMING**

Time : 3 hours

Maximum Marks : 100

*Note : Q. No. 1 is compulsory. Attempt any three questions
from the rest.*

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1. (a) Consider a class that stores a Bank account holder's account number, ATM card number, account balance and ATM PIN. Write a program to store the data onto a disk file, except for the account balance and ATM PIN. Use serialization and transient variables. 6
 - (b) What makes compiled JAVA programs platform independent ? Explain. 4
 - (c) Explain the significance of PATH and CLASS PATH. 5
 - (d) Is this a complete and legal comment ? 2
`/* // */`
Justify .
 - (e) Are inner class secure and useful ? 5
 - (f) What are the two fundamental mechanisms for building a new classes of a existing class ? 5

- (g) The members of which classes can access members of a class in a particular package ? 5
- (h) Explain the significance of each argument in the function main (string args []). 5
- (i) Why cannot the "abstract" method modifier be used together with the "native" modifier ? 3
2. (a) Differentiate the following and support with example : 2.5x4=10
- (i) Final and static member
 - (ii) Inheritance and Aggregation
 - (iii) Abstract class and Interface
 - (iv) String and String Buffer
- (b) Write a program to implement the following operations on a string : 3.5x2=7
- (i) Convert to uppercase
 - (ii) Convert to lowercase
- (c) What are user - defined exceptions ? 3
3. (a) What is the difference between checked and unchecked exceptions ? 3

- (b) Create a class account with the following data members : 5
- (i) account id
 - (ii) name
 - (iii) current balance
- and implement the member functions :
- (i) Withdraw
 - (ii) deposit
- (c) How multiple inheritance is achieved in Java ? Explain with an example. 3
- (d) Write an applet that prints "Here" at the current cursor position whenever the mouse left button is clicked. 9
4. (a) Write short notes on following :
- (i) Interthread communication 3
 - (ii) Event Handling in Java 3
- (b) What is a layout managers ? Explain layouts with example. 6
- (c) Write a Java program to set up JDBC and execute the following SQL statement on a database table employee-t with the fields emp-id, emp name, emp-department, emp-basic "SELECT * FROM employee-t where emp-basic < 10000; 8

5. (a) Write a program to sort the list given as command line arguments using bubble sort. 10
- (b) What is Java Bean ? What are its advantages ? 5
- (c) What is Introspection in Java Beans ? 5
Illustrate with a code fragment.
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