

Roll No. ....

Total Pages : 3

**BT-5/D-22**

**45171**

**ESSENTIALS OF INFORMATION TECHNOLOGY**

**Paper-PC-CS-305A**

**Time : Three Hours]**

**[Maximum Marks : 75**

**Note :** Attempt *five* questions in all, selecting atleast *one* question from each unit. All questions carry equal marks.

**UNIT-I**

1. (a) Does Java support multi way selection statement? Justify your answer. (05)
- (b) Create a class with one integer instance variable. Initialize the variable using :
  - (i) Default constructor.
  - (ii) Parameterized constructor. (10)
2. (a) What is package? How do we add a class or an interface to a package? Discuss the various levels of access protection available for packages and their implementation? (10)
- (b) Explain how exception handling mechanism can be used for debugging a program. (05)

## UNIT-II

3. (a) What is Applet? Explain different types of Applets? Explain Life Cycle of an Applet in Java with suitable example. (10)
- (b) Why creating a subclass of Frame is preferred over creating an instance of Frame when creating a window? (05)
4. (a) What is Swing? How do we use containers and components through Swing? (07)
- (b) What is the significance of Layout Managers? Discuss briefly various Layout Managers. (08)

## UNIT-III

5. (a) What is Servlet? Explain its life cycle. (10)
- (b) Explain GET and POST method for Servlets. (05)
6. (a) Write the steps to create and run servlet program. Explain with example. (08)
- (b) Explain following with example :
- (i) Cookies.
  - (ii) Session Tracking. (07)

## UNIT-IV

7. (a) Define JDBC and mention the steps involved in JDBC connectivity. Discuss the four types of JDBC driver with suitable diagrams. (10)
- (b) How does a Hash map handle collisions in JAVA. (05)
8. (a) Discuss various types of statements available in SQL. (07)
- (b) Write a program in Java to retrieve database using resultset interface. (08)