

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 7311

Roll No.

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**M.C.A.**

(SEM. III) ODD SEMESTER THEORY EXAMINATION  
2010-11

**INTERNET & JAVA PROGRAMMING**

*Time : 3 Hours*

*Total Marks : 100*

**Note : Attempt all questions.**

1. Attempt any four parts : (5×4=20)
  - (a) Explain Internet and why we use Internet.
  - (b) What are the different layers in the TCP/IP networking model ? Describe the facilities provided by the TCP.
  - (c) What is an Internet Address Space ? How does the Internet work ?
  - (d) Explain E-mail architecture.
  - (e) What is Telnet ? Explain the working of Telnet.
  - (f) Discuss Voice and Video conferencing.
  
2. Attempt any four parts : (5×4=20)
  - (a) How is Java more secured than other languages ? What is a default constructor ? How are an object's instances initialized; if a class has only a default constructor ?
  - (b) Write a program in Java to display the names and roll numbers of students using arrays. Incorporate mechanisms to handle possible exceptions.
  - (c) What are packages in Java ? What is difference between abstract class and interface ?

- (d) Describe the different stages in the life cycle of an Applet. Distinguish between `init()` and `start()` methods.
- (e) Explain the difference between Java AWT and Swing. Discuss drawing methods of the Graphics class.
- (f) What is the difference between multiprocessing and multithreading ? Write a program in Java for generating two threads, one for printing even numbers and the other for printing odd numbers.

3. Attempt any two parts : (10×2=20)

- (a) List the choice components that can support multiple selections. What is the difference between a normal menu and a context menu (pop-up menu) ? Write a simple program that shows the usage of both menus and pop-up menus.
- (b) Briefly describe various types of text component provided by Java swing and their usage. What is the major difference between the radio button and check box button by taking suitable example.
- (c) Explain the major components provided by JDBC. Write an interactive program that can query employee information via an employee database.

4. Attempt any two parts : (10×2=20)

- (a) What are steps followed for creating a juggler bean with start and stop juggling buttons. Discuss the convention about how to implement a Java object as JavaBean component.
- (b) What is Java RMI ? What are the major benefits of programming with Java RMI ? Explain how to enhance the RMI application by enabling transport layer security mechanism.

- (c) What is JavaBean ? What are the major services of JavaBean ? Explain how JavaBeans are used in the context of JSP especially how its properties are getting set via the request.

Attempt any two parts : (10×2=20)

- (a) What is a Servlet ? Explain how a Servlet handles HTTP requests via an example. Write a simple Servlet program displaying the current Date for each request.
- (b) Describe the relationship between JSP and Servlet. Explain the internal JSP work mechanism. Write a simple JSP page that prints all the odd numbers in the first row of the table and all the even numbers in a second row of the table (numbers from 1 to 100).
- (c) Write short notes on any two :
- (i) Cookies and Session
  - (ii) JSP Expression Language
  - (iii) JSTL.