

# END TERM EXAMINATION

FOURTH SEMESTER [MCA] MAY-2010

Paper Code:MCA 206

Subject: Java Programming & Website & Design

Paper ID: 44206

Time:3 Hours

Maximum Marks : 60

Note: Question 1 is compulsory. Attempt any four question from Q. 2 to Q. 6

**Q1. Attempt any eight parts: (2.5\*8=20)**

- (a) What is Java Virtual Machine? Explain it.
- (b) Draw the AWT class hierarchy.
- (c) Differentiate between Method overloading and Method Overriding.
- (d) How do you create a button labelled "GGSIPU"? How do you change a label on button?
- (e) How do interfaces and abstract classes differ in Java? Give an example of each type?
- (f) Define an exception and discuss how user defined exceptions can be implemented in Java.
- (g) What is a difference between HTML and DHTML?
- (h) Discuss the requirement of each Keyword in the following Java program statement :-  
"public static void main(String args [])"
- (i) Define Multithreading. How is a thread different from a process?

**Q2. (a) Write a program using array/vectors to obtain the output a: (5)**

```

1
1 2
1 2 3
1 2 3 4
1 2 3 4 5

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(b) Write a program to construct a binary tree of numbers and implement function for tree traversal. (5)

- (i) Preorder
- (ii) Postorder
- (iii) Inorder

**Q3. (a) Write a Program using AWT/Layout Managers to draw a Human face using an applet. (5)**

(b) Write a Program to implement TCP/UDP Client Server Architecture Program. (5)

**Q4. (a) Design a HTML/DHTML based Web Page for displaying your own profile on the Web using the appropriate JAVASCRIPT validations. The form can contain various set of information like Enrollment no, Name, Age, Course Name and College Name etc. (5)**

(b) Write the code snippet for: (5)

- (i) Set the password character in a text field to '#'.
- (ii) Check Whether the CTRL Key was down when a key event occurred.

- Q5. (a) Create a package called “math”, then use the Package in your program to perform different functions like Addition ,Subtraction ,Multiplication and Division. (5)**
- (b) What is the difference between the Reader and Writer classes? Show the stream class hierarchy as defined in java.io.package.**
- Q6. (a) Write a vector based program to: (5)**
- (i) Create a vector with initial capacity of 5 element.**
  - (ii) Decrease the size of vector by 2 element.**
  - (iii) Display all the elements from the vector.**
  - (iv) Fetch a specific value from a vector on the user choice and replace it with value specified by the user.**
  - (v) Display all the elements from the vector.**
- (b) Write short notes on (any two) :- (2\*2.5=5)**
- (i) JavaBeans**
  - (ii)Servlets**
  - (iii) Swings**