

**MCA(6/7)/MX****5275****Java Programming and Internet Applications****Paper : MCA-401**

Time : Three Hours]

[Maximum Marks : 50

**Note :-** Attempt any **FIVE** questions, selecting at least **ONE** question from each Unit. All questions carry equal marks.

**UNIT-I**

1. Explain the following topics :
  - (a) Domain Name System
  - (b) WWW
  - (c) Telnet
  - (d) Chat and Bulletin Board
  - (e) USENET and NNTP10
2. (a) How to create and locate information on the web server ? 5
- (b) Explain the Client-Server Model with example. 5
3. (a) Explain the different types of internet account with example. 5
- (b) Explain the various advantages of Electronic Mail (E-mail). 5

**UNIT-II**

4. (a) Explain with the help of flow-chart to build and run Java Application Program using JDK. 5
- (b) Explain the uses of the following JDK tools with example :
  - (i) Javap
  - (ii) Javadoc
  - (iii) Jdb
  - (iv) Javah
  - (v) Jar5

5. (a) Write a program in Java to find the sum of digit, suppose the given number is 12345, the total is  $1+2+3+4+5=15=1+5=6$  in single digit. Don't use any looping structures. 5
- (b) Explain the precedence and associativity of Java operators. 5
6. (a) The numbers 153, 370, 371 have a special property. The sum of the cubes of the individual digits give the same number. Write a Java program to find Armstrong number from 100 to 1000. 5
- (b) Explain the following differences with example :
  - (i) Composition and inheritance
  - (ii) Overriding and overloading methods
  - (iii) Contrast overloading and overloading methods. 5

### UNIT-III

7. (a) Write a program to demonstrate the use of exception handling. 5
- (b) Write a program for user defined exception that checks the internal and external marks if the internal marks is greater than 40 it raise the exception internal mark is exceed, if the external mark is greater than 60 exception is raised and display the message the external marks is exceed. Create the above exception and use it in your program. 5
8. Write short notes on :
  - (i) Throw
  - (ii) Throws
  - (iii) Get Message
  - (iv) Printstack Trace 10

9. (a) Write a program in Java to create an applet with buttons hai, hello, howru. When we click hai, the message "Hai" must appear. Similary for the other two buttons "Hello" and "How are you" must appear. Each message must appear in a different Background, Text color and Font. 5
- (b) Explain the following differences with example :
  - (i) Difference between AWT and Swing.
  - (ii) Difference between component and container class. 5
10. (a) How can you create a button with an image loaded on it and how do you set a tool tip to a button control ? 5
- (b) Explain the life cycle of servlet. 3
- (c) Explain any five methods available in servlet package. 2