Code: AT68   **Subject: JAVA & WEB PROGRAMMING**

AMIETE – IT (NEW SCHEME)

Time: 3 Hours   **JUNE 2012**   **Max. Marks: 100**

PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE QUESTION PAPER.

NOTE: There are 9 Questions in all.

- **Question 1 is compulsory and carries 20 marks. Answer to Q.1 must be written in the space provided for it in the answer book supplied and nowhere else.**
- **The answer sheet for the Q.1 will be collected by the invigilator after 45 minutes of the commencement of the examination.**
- **Out of the remaining EIGHT Questions, answer any FIVE Questions, selecting THREE questions from Part A and TWO questions from Part B. Each question carries 16 marks.**
- **Any required data not explicitly given, may be suitably assumed and stated**

Q.1   **Choose the correct or the best alternative in the following:**   **(2×10)**

a. The Java Compiler product generates _____, an *architecture neutral* intermediate format designed to transport code efficiently to multiple hardware and software.

    (A) byte-code   **(B)** literal
    (C) interpreter   **(D)** package

b. _____ is a java program that is referenced by a java page and runs inside a java enabled java browser.

    (A) Servelet   **(B)** Applet
    (C) Bean   **(D)** Swing

c. The Swing library makes heavy use of the Model/View/Controller software design pattern, which attempts to separate the data being viewed from the method by which it is viewed

    (A) NBC   **(B)** VCM
    (C) MVC   **(D)** None of these

d. Name the container which uses Border Layout as their default layout?

    (A) Window.   **(B)** Frame
    (C) Dialog Classes   **(D)** All of these

e. Every class inherits finalize() method from _____.

    (A) Object class   **(B)** Constructor class
    (C) Abstract class   **(D)** None of these

f.   We use the _____to create a hyperlink to a web page at another website.

   (A) <r> tag   **(B)** <h> tag
   (C) <a> tag   **(D)** None of these

g.   The term CGI script is used as a generic term for _____

   (A) Come and get it scripts
   (B) Program that help you create HTML documents
   (C) Program that allow you to obtain information from www servers
   (D) Program that process information that comes from forms

h.   Commonly used site for name registration is _____

   (A) Yahoo   **(B)** InterNIC
   (C) Indiatimes   **(D)** None of these

i.   Which of the following is a "Web browser"?

   (A) Netscape   **(B)** World Wide Web
   (C) Launcher   **(D)** E-mail

j.   In Java System.out is an object of type

   (A) InputStream   **(B)** PrintStream
   (C) OutputStream   **(D)** None of the above

PART A
Answer any THREE Questions. Each question carries 16 marks.

Q.2   a.   Differentiate between non-primitive and primitive data types. Give suitable examples. **(6)**

   b.   Write a program in Java to find sum and product of the digits in a number passed to the program as a command line argument. **(10)**

Q.3   a.   What are the differences between an interface and an abstract class? Also discuss the similarities. **(4)**

   b.   Write a brief note on finalize() method. Explain using a small Java program. **(6)**

   c.   How can you use a public package member from outside its package? Explain. **(6)**

Q.4   a.   What happens when an exception occurs and is not handled properly? Explain using a suitable example. How to handle an exception? Write a program that handles an exception. **(8)**

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    b. What are different thread priorities defined in Java. Discuss two ways by which a thread is created in Java. Write a program in Java that create a thread by extending Thread class. **(8)**

Q.5 a. Describe the structure and lifecycle of an applet? How can we see its output? **(10)**

    b. Briefly describe following String comparison functions:
equals(), equalsIgnoreCase(), comapreTo() **(6)**

Q.6 a. Write a brief note on Enumeration interface and discuss two methods declared by Enumeration. Write a Java program that shows usage of Enumeration. Discuss the output. **(8)**

    b. What is a Swing? Discuss advantages and disadvantages of using Swings. Write a program that prints Hello World using Swing. **(8)**

PART B
Answer any TWO Questions. Each question carries 16 marks.

Q.7 a. What are Name servers? Explain. **(5)**

    b. Discuss the framework of an HTTP transaction. **(6)**

    c. What is an image map? How is it useful? How to create an image map placed in an HTML file? How is an image associated with its map? **(5)**

Q.8 a. Give a brief note on Web Page Layout Grids. **(4)**

    b. What is design? What are elements of design? Discuss. **(4)**

    c. What is XHTML? In what way it differs from HTML? Give an example that shows an XHTML document with a minimum of required tags. **(8)**

Q.9 a. What is CSS? Discuss components of CSS. Write a small program that explains usage of CSS by setting the background color of a page. **(8)**

    b. Discuss outline of a CGI program. Write a CGI program that when called will display the environmental variables. **(8)**