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

AMIETE – IT

Time: 3 Hours   **JUNE 2013**   **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 public keyword in Java is a

    (A) class   **(B)** method
    (C) access specifier   **(D)** instance

b. Floating-point numbers are also know as

    (A) Complex numbers   **(B)** Imaginary numbers
    (C) Real numbers   **(D)** Natural Numbers

c. The process of defining something in terms of itself is called……

    (A) Construction   **(B)** Recursion
    (C) Repulsion   **(D)** None of these

d. Which of the following is incorrect?

    (A) "?" is the operator that can replace certain types of if-then-else statements
    (B) parentheses raise the precedence of the operations that are inside them
    (C) The operator ^^ is also called the Short circuit XOR
    (D) If you use || and && forms, rather than the | and & forms of these operators, Java will not bother to evaluate the right hand operand when the outcome of the expression can be determined by left hand operand alone.

e. Java provides a mechanism for partitioning the class name space into more manageable chunks. This mechanism is called ………….

    (A) directory   **(B)** library
    (C) interface   **(D)** package

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f. The switch statement in java is a

   (A) singleway branch statement   **(B)** multiway branch statement
   (C) ternary operator   **(D)** none of these

g. The methods wait ( ) and notify ( ) are defined in

   (A) java.lang.String   **(B)** java.lang.Runnable
   (C) java.lang.Object   **(D)** java.lang.Thread

h. Desirable properties of a website are
   (i) a meaningful address
   (ii) Help and search facilities
   (iii) Links to related sites
   (iv) Features to allow users to give feedback
   (v) Hosting on a mainframe

   (A) (i), (ii), (iii)   **(B)** (i), (ii), (iii), (iv)
   (C) (i),(ii), (iii), (iv), (v)   **(D)** (i), (ii), (iii), (v)

i. HTML tags define

   (A) The data types of elements of document
   (B) Presentation of specified elements of a document
   (C) The contents of the document
   (D) The structure of the document

j. A search engine is a program to search

   (A) for information
   (B) web pages
   (C) web pages for specified index terms
   (D) web pages for information using specified search terms

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

Q.2 a. Give a detailed note on java creation and evolution.   **(4)**

   b. What is JVM? Illustrate with an example.   **(4)**

   c. Explain various types of Java selection statements along with suitable examples
      in Java.   **(8)**

Q.3 a. What are the THREE things performed by Declaration in Java?   **(3)**

   b. What is an interface? Explain how to implement an interface in Java.   **(8)**

   c. Explain the concept of Inheritance in Java.   **(5)**

Q.4 a. Explain the mistake in the following program. What changes would you
      recommend?   **(10)**

```
class ThrowsDemo
{
        static void throwOne( )
        {
                System.out.println("Inside throwOne.");
                Throw new IllegalAccessException("demo");
        }
        public static void main(String args[])
        {
                 throwOne ( );
        }
}
```

    b. Is it necessary that each try block must be followed by a catch block? Explain.

                        (2)

    c. What is the basic difference between the given two approaches to exception handling: "try catch block" and "specifying the candidate exceptions in the throws clause"? When should you use which approach?   **(4)**

Q.5 a. Write a code in Java for a tiny text editor. The steps involved would be creation of an array of String objects, reading lines of text, storing each line in the array. It should read up to 100 lines or until you enter "stop".   **(11)**

    b. Classify byte stream in Java.   **(5)**

Q.6 a. List any four interfaces along with brief description that underpin collections in Java.   **(8)**

    b. Discuss swing packages for Java programs   **(8)**

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

Q.7 a. What are the three major components of DNS and how are they related to the three layers or views of the domain system?   **(8)**

    b. Explain the core attributes of XHTML with examples.   **(8)**

Q.8 a. Describe the concept of Server Side Include. Elaborate how this concept is used with files located in the same directory and files located in a different directory?   **(8)**

    b. A common mistake is to begin creating Web pages before doing sufficient groundwork on the information blueprint for a site. What you need to is to create the site's Information Architecture or IA. List six concrete steps to IA. Specify the questions which may help you reveal the true objectives of the site.   **(8)**

Q.9 a. Describe the outline and structure of a CGI Program.   **(8)**

    b. Elaborate four major categories of Event attributes for elements that are used to connect events to handlers.   **(8)**