

AMIETE – IT (Current & New Scheme)

Time: 3 Hours

December - 2017

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)

- Suspend thread can be revived by using
(A) Start() (B) Suspend()
(C) Yield() (D) Resume()
- Which is the valid declaration within an interface definition?
(A) public final double methodA();
(B) public double methodA();
(C) static void methodA(double d1);
(D) protected void methodA(double d1);
- String is the predefined
(A) method (B) variable
(C) class (D) object
- In XML the attribute value must always be quoted with _____.
(A) name of attributes (B) single quotes
(C) Both (A) and (B) (D) double quotes
- If all three top-level elements occur in a source file, they must appear in which order?
(A) Package declaration, import statements, classes
(B) Import statements, package declaration, classes
(C) Imports must come first; order for package declaration and class definitions is not significant
(D) Package declaration must come first; order for import statement and class definitions is not significant

- f. It is desirable that a certain method within a certain class can only be accessed by classes that are defined within the same package as the class of the method. How can such restrictions be enforced?
- (A) Mark the method with the keyword *public*
 (B) Do not mark the method with any accessibility modifiers
 (C) Mark the method with the keyword *pack*
 (D) Mark the method with the keyword *protected*
- g. Which one of the following statements is true?
- (A) Any statement that can throw an Error must be enclosed in a try block
 (B) The Error class is a Runtime Exception
 (C) catch(X x) can catch subclasses of X where X is a subclass of Exception
 (D) Any statement that can throw an Exception must be enclosed in a try block
- h. What will be the output of the program?
- ```
public class foo {
 public static void main(String args[]) {
 try {
 return;
 } finally {
 System.out.println("finally");
 }
 }
}
```
- (A) An exception is thrown at runtime.  
 (B) Compilation fails.  
 (C) The code runs with no output  
 (D) Finally
- 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. What does AWT stands for?
- (A) Advanced Window Toolkit      (B) Abstract window Toolkit  
 (C) Adjust Window Toolkit      (D) None of these

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**PART A**

**Answer any THREE Questions. Each question carries 16 marks.**

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- Q.2** a. What do you mean by command line arguments? Write a program that uses command line arguments as input. (6)
- b. With the help of a suitable figure, describe the different steps using which Java communicates with a web page? (4)
- c. Explain the syntax of *for* loop. Also, describe with the help of an example, the *enhanced for* loop. (6)

Code: AT68/AT120

Subject: JAVA &amp; WEB PROGRAMMING

- Q.3** a. What is garbage collection? How is garbage collection performed in Java? (6)
- b. How is 'this' used with constructors? Explain with example. (6)
- c. What is inheritance? How does it create new classes? (4)
- Q.4** a. Discuss Thread Lifecycle with suitable diagram. Write a program to create a thread using Runnable interface. (8)
- b. What happens when an exception occurs within a method? Explain with an example. (8)
- Q.5** a. What is applet? Write a simple applet program that will print "HELLO IETE". Write the HTML code required to execute this applet program and write the command to execute this program using applet viewer? (8)
- b. 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". (8)
- Q.6** a. Explain briefly any four layout managers in Java. (8)
- b. What is Swing? Discuss advantages and disadvantages of using Swing. Write a program to display label with icon. (8)

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

- Q.7** a. What are the name servers? Explain (5)
- b. Bring out the differences between HTML & XHTML. (6)
- c. What role does white space play in an HTML file? What constitutes white space in an HTML document? (5)
- Q.8** a. With the help of HTML code, describe Page Forwarding. (4)
- b. What are the considerations which should be kept in mind while designing website's information content? (12)
- Q.9** a. Explain CGI and its Dataflow. Give example of CGI. (2+2+4)
- b. Write the CSS rule to achieve the following:
- (i) Set the default fonts for your page to Arial, san-serif
- (ii) Set the font size for all first level header to large, second level header medium and third level header to small
- (iii) Set the margin (3)
- c. What is a form? What elements can you use to submit a form? When a form is submitted, where the data is delivered to? (5)