

**AMIETE – IT (NEW SCHEME)**

Time: 3 Hours

**DECEMBER 2011**

Max. Marks: 100

**NOTE: There are 9 Questions in all.**

- Please write your Roll No. at the space provided on each page immediately after receiving the Question Paper.
- 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. Java runs on \_\_\_\_\_

- (A) Windows (B) Unix/Linux  
(C) Mac (D) All of the above

b. Which will legally declare, construct, and initialize an array?

- (A) `int [] myList = {"1", "2", "3"};` (B) `int [] myList = (5, 8, 2);`  
(C) `int myList [] [] = {4,9,7,0};` (D) `int myList [] = {4, 3, 7};`

c. If you want your conditional to depend on two conditions BOTH being true, what is the proper notation to put between the two Boolean statements?

- (A) & (B) &&  
(C) | (D) ||

d. Which of the following may be part of a class definition?

- (A) instance variables. (B) instance methods  
(C) constructors (D) all of the above

e. What is the name of the method used to start a thread execution?

- (A) `init()` (B) `start()`  
(C) `run()` (D) `resume()`

f. What is an Applet?

- (A) Type of computer  
(B) A Java program that is run through a web browser  
(C) An interactive website  
(D) A type of fruit

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

- g. What does AWT stands for?
- (A) Advanced Window Toolkit      (B) Abstract window Toolkit  
(C) Adjust Window Toolkit      (D) None of these
- h. XHTML is almost same as which version of HTML?
- (A) HTML 1.0      (B) HTML 2.01  
(C) HTML 3.0      (D) HTML 4.01
- i. What is JavaScript?
- (A) Another name for Java  
(B) A scripting language mostly for the web  
(C) When you use Java without compiling  
(D) None
- j. Which HTML tag is used to define an internal style sheet?
- (A) <css>      (B) <script>  
(C) <style>      (D) <css script>

**PART A****Attempt any THREE questions. Each question carries 16 marks.**

- Q.2** a. Discuss three OOPs principles giving suitable examples. (4)
- b. List differences and similarities between JAVA and C++. (4)
- c. List out the 8 basic data types used in java. Explain these with examples. (8)
- Q.3** a. What is a constructor? How do we invoke a constructor in Java? Give a small Java program making use of different constructors. List special properties of a constructors. (6)
- b. What is inheritance? How does it create new classes? (5)
- c. What is an abstract class? Explain with example. (5)
- Q.4** a. What is an exception? Explain the exception handling mechanism with an example program. (8)
- b. What is thread priority? How is it assigned? Give appropriate Java code. (8)
- Q.5** a. Explain the construct of a simple "Hello world" applet. Also explain how to display an applet using html tags. (8)
- b. Explain about String class, String constructor, and different String methods using a suitable Java program. (8)

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- Q.6**
- a. What is the Collections API? Discuss various interfaces defined in the collection framework. (10)
  - b. Write a brief note on AWT. (3)
  - c. Explain two key features of Swing. (3)

**PART B****Attempt any TWO questions. Each question carries 16 marks.**

- Q.7**
- a. Discuss the hardware, software and protocols required to design a web. (6)
  - b. How to build a "Hello World" page with XHTML? (5)
  - c. Write the XHTML code to generate a Web Page with the following considerations.
    - (i) Background colour of the page should be "Cyan".
    - (ii) Text style should be Comic Sans MS and colour should be Red.
    - (iii) Picture used in the page is the file "activity.jpg"
    - (iv) Use the concept of nested lists for creating the list given in the web page with specified bullets.
    - (v) Pages linked to: • Indoor Activities as "in.html" • Outdoor Activities as "out.html" (5)
- Q.8**
- a. How to define tables using HTML tags. Give a small example program. (5)
  - b. What is a frameset? What are the advantages of using HTML frames? How do you create frames? (5)
  - c. Explain Website Architectures. (6)
- Q.9**
- a. What is CCS? Why do we require it? Show by an appropriate example how CCS is used. Discuss Internal and External style sheets. (10)
  - b. Write a Javascript program which accepts a text, then prints the count of number of characters and words in the text. (6)