

T.Y. Diploma : Sem. V  
[CO/CM/IF]  
**Java Programming**  
Prelim Question Paper



Time : 3 Hrs.]

[Marks : 100

Instruction : (1) All questions are compulsory.

(2) Answer each next main question on a new page.

(3) Illustrate your answers with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Assume suitable data, if necessary.

1. (a) Attempt any **THREE** of the following: [12]
- (i) Describe any two relational and any two logical operators in Java with simple example.
  - (ii) What are stream classes? List any two input stream classes from character stream.
  - (iii) Explain any four features of Java.
  - (iv) Describe life cycle of thread.
- (b) Attempt any **ONE** of the following: [6]
- (i) Explain following methods of string class with their syntax and suitable example.  
(1) substring ( ) (ii) replace ( )
  - (ii) Write a program to create a vector with seven elements as (10, 30, 50, 20, 40, 10, 20). Remove element at 3<sup>rd</sup> and 4<sup>th</sup> position. Insert new element at 3<sup>rd</sup> position. Display the original and current size of the vector.
2. Attempt any **TWO** of the following: [16]
- (a) Describe dynamic dispatch method with example.
  - (b) Describe with example how to achieve multiple inheritance with suitable program.
  - (c) Write a simple applet program which display three concentric circle.
3. Attempt any **FOUR** of the following: [16]
- (a) Define constructor. Explain parameterized constructor with example.
  - (b) Write a program to check whether an entered number is prime or not.
  - (c) Explain serialization with stream classes.
  - (d) State syntax and explain it with parameters for :  
(i) drawRect ( ) (ii) drawOval ( )
  - (e) Describe use of 'super' and 'this' with respect to inheritance.
4. (a) Attempt any **THREE** of the following: [12]
- (i) Explain break and continue statements with example.
  - (ii) Describe use of 'throws' with suitable example.
  - (iii) State syntax and describe working of 'for each' version of for loop with one example.
  - (iv) Define JDK. List the tools available in JDK explain any one in detail.
- (b) Attempt any **ONE** of the following: [6]
- (i) Write method to set font of a text and describe its parameters.
  - (ii) Describe final method and final variable with respect to inheritance.
5. Attempt any **TWO** of the following: [16]
- (a) What is thread priority? How thread priority are set and changed? Explain with example.
  - (b) Write a program to input name and age of person and throws user defined exception, if entered age is negative.
  - (c) Explain <applet> tag with its major attributes only. State purpose of get AvailableFontFamilyName ( ) method of graphics environment class.

6. Attempt any **FOUR** of the following: [16]
- (a) Write a program to search a number in an array.
  - (b) What is use of Array list class? State any two methods with their use from ArrayList.
  - (c) Design an Applet program which displays a rectangle filled with red color and message as "Hello Third year Students" in blue color.
  - (d) Design a package containing a class which defines a method to find area of rectangle. Import it in Java application to calculate area of rectangle.
  - (e) Define a class having one 3-digit number as a data member. Initialize and display reverse of that number.

**Paper Discussion Schedule for T.Y. Diploma (Sem. V) – All Subjects**

Date	Day	Timing	Centres
14 Nov. 2016	Monday	9 a.m. to 11 a.m.	Borivali ,Thane
14 Nov. 2016	Monday	12 p.m.to 2 p.m.	Dadar

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