

6E3204	Roll No.	Total No of Pages: 4
	6E3204 B. Tech. VI Sem. (Main & Back) Exam., May/June-2014 Computer Engineering 6CS4 Programming in Java Common to SC & IT	

Time: 3 Hours

Maximum Marks: 80

Min. Passing Marks: 24

Instructions to Candidates:-

*Attempt any **five questions**, selecting **one question** from each unit. All Questions carry **equal marks**. Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitably be assumed and stated clearly.*

Units of quantities used/ calculated must be stated clearly.

Use of following supporting material is permitted during examination.

1. _____

2. _____

UNIT-I

Q.1 (a) Distinguish between the following terms:-

- (i) Object and class
- (ii) Data abstraction and data encapsulation
- (iii) Inheritance and polymorphism
- (iv) Dynamic binding and message passing

[4 x4 = 16]

OR

Q.1 (a) What is multithreading? How does it improve the performance of JAVA. [8]

- (b) What are command line arguments? How they are useful? [4]
- (c) What is type casting? Why is it required in programming? [4]

UNIT-II

Q.2 (a) Find errors, if any, in each of following looping segments

(i) While (Count != 10);

```
{  
  
Count = 1;  
  
Sum = sum + 1;  
  
Count = Count + 1;  
  
}
```

(ii) For (x =1, x > 10; x = x+1)

```
{  
  
.....  
  
.....  
  
}
```

[4 x 2 =8]

(b) Write a program to compute the sum of the digits of a given integer number [8]

OR

- Q.2 (a) What are the applications of wrapper classes? [4]
- (b) How does Java handle strings? [4]
- (c) Compare and contrast overloading and overriding methods. [8]

UNIT-III

- Q.3 (a) Describe the various forms of implementing interfaces. Give example of java code for each use. [10]
- (b) What is string buffer? Give the three ways of creating a string object. [6]

OR

- Q.3 (a) What is static import? How is it useful? [3]
- (b) How do we add a class or an interface to a package? [5]
- (c) Describe the various level of access protection available in packages. [8]

UNIT-IV

- Q.4 (a) What is a finally block? When and how is it used? Give a suitable example. [8]
- (b) Explain how exception handling mechanism can be used for debugging a program? [8]

OR

- Q.4 Define an exception called "No Match Exception" that is thrown when a string is not equal to "India". Write a program that uses the exception. [16]

UNIT-V

- Q.5 (a) Describe the complete life cycle of a thread. [8]
- (b) Why do applet classes need to be declared as public? [8]

OR

- Q.5 (a) Develop a simple real – life application program to illustrate the use of multithreads. [10]
- (b) How do applets differ from application programs? [6]
