

6E3204

Roll No.

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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]
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