

B.E. (Information Technology) Fifth Semester (C.B.S.)
Java Programming

P. Pages : 2

Time : Three Hours



NRT/KS/19/3442

Max. Marks : 80

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- Notes :
1. All questions carry marks as indicated.
 2. Solve Question 1 OR Questions No. 2.
 3. Solve Question 3 OR Questions No. 4.
 4. Solve Question 5 OR Questions No. 6.
 5. Solve Question 7 OR Questions No. 8.
 6. Solve Question 9 OR Questions No. 10.
 7. Solve Question 11 OR Questions No. 12.
 8. Assume suitable data whenever necessary.
 9. Diagrams and chemical equations should be given whenever necessary.
 10. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) Explain the following operators used in java programming:- 6
 - i) Arithmetic operators
 - ii) Bitwise operators
 - iii) Relational operators.
- b) What is the significance of wrapper classes in java programs? Explain any one java wrapper class with suitable java code. 7

OR

2. a) With suitable java program segment explain the keywords static, final and this. 6
- b) Brief the following concepts:- **any two.** 7
 - i) Garbage collection
 - ii) Inner classes
 - iii) Command line arguments.
3. a) What is vector class in java? Write a program to demonstrate some of the methods associated with vector class. 7
- b) State the difference between string and string Buffer class. Explain any two methods of string class with suitable java code. 7

OR

4. a) Explain valueOf () and toString () method used in java programming. 6
- b) Write a java program which reads a string and then check whether the entered string is palindrome or not. 8
5. a) Define package? Write a syntax or general format used to create a package. Create a package P1 and declare one class student having data members and methods as roll no., age, name and read-data () and display-data respectively. Write suitable program to access the class present in P1. 7

- b) What do you mean by exception? Explain the throw keyword used in exception handling in java. 6

OR

6. a) What is the difference between an interface and class. With the help of suitable java program explain the purpose of interfaces in java. 7
- b) Write a suitable java program to demonstrate the creation of user-defined exception. 6
7. a) State the difference between multitasking and multithreading. Draw and explain the life cycle of a thread. 8
- b) Elaborate interthread communication in java with suitable java code. 6

OR

8. a) Explain the difference between
i) isAlive () and join ()
ii) sleep () and suspend method 6
- b) What is the flow of a java program when a main thread is present in it? Explain the significance of main thread. 8
9. a) Write a java program to copy the contents of one file named as source. java to destination. txt. Read the files source java and destination. txt as command line arguments. 8
- b) Explain the hierarchy of stream classes in java. 5

OR

10. a) Explain with the help of suitable java program to read the input from the console to get the positive numbers from the console and to display them on the monitor. 6
- b) Explain instance of () and volatile modifier in java. 7
11. a) Explain the following with respect to swing package:- 6
i) Container ii) Component
- b) How event handling is done using swing? Explain. 7

OR

12. Explain the following swing components with suitable code: - 13
i) JButton ii) JRadioButton
iii) JTextField iv) JComboBox
v) JCheckBox
