



USN

## Fifth Semester B.E. Degree Examination, June/July 2019 Programming in JAVA

Time: 3 hrs.

Max. Marks: 80

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

### Module-1

- 1 a. What is object oriented programming? Explain the main features of OOP. (06 Marks)
- b. What is an array? How do you declare and initialize arrays in JAVA? Write a java program to create and display a 2-Dimensional array with 10 even numbers as elements without directly initializing them. (10 Marks)

OR

- 2 a. Describe the main five java buzzwords and elucidate the process of executing a java program. (06 Marks)
- b. With examples, explain the various data types in java programming language. (04 Marks)
- c. Explain type casting and type promotion rules in java with examples. (06 Marks)

### Module-2

- 3 a. Describe the following operators with example programs:  
(i) << (ii) >>> (iii) && and || (iv) ?: (12 Marks)
- b. With examples, explain labeled break and continue in java. (04 Marks)

OR

- 4 a. Describe the general format of foreach. Write a program using foreach to determine the sum and the average of 8 subjects marks of a student. (06 Marks)
- b. Write a java program to find the largest of three numbers using nested if-else statements. (06 Marks)
- c. Write a java program to display the days of a week as per the valid selection using switch statement. (04 Marks)

### Module-3

- 5 a. Describe class and the object with an example java program. (04 Marks)
- b. What is a constructor? Write a program to describe the various types of constructors in java. (08 Marks)
- c. With an example java program explain the significance of this keyword. (04 Marks)

OR

- 6 a. With example program, describe the following in java:  
(i) Method overloading (ii) Method overriding (08 Marks)
- b. Describe the need of the following keywords with example programs:  
(i) super (ii) static (iii) final (08 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

**Module-4**

- 7 a. What is an exception? How do you manage to handle exceptions in java? With an example program, describe the various exception handling constraints in java. (10 Marks)
- b. What are packages? Describe their significance based on the visibility and access specifiers in java. (06 Marks)

**OR**

- 8 a. Write a program using packages to show the visibility of the variables using various types of access specifiers in java. (08 Marks)
- b. Describe the significance of interfaces in java. Write a program to show one interface extending another interface. (08 Marks)

**Module-5**

- 9 a. What is an applet? Describe its significance with an example. (10 Marks)
- b. With examples, describe the following in java:  
(i) transient (ii) volatile (iii) strictfp (iv) instanceof (06 Marks)

**OR**

- 10 a. Write a program to read strings from the console input. (06 Marks)
- b. With examples, describe the following operations on strings:  
i) String comparison  
ii) String search  
iii) Modifying a string  
iv) Changing the case of characters (10 Marks)

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