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# **BCA-13**

### Programming in JAVA

Bachelor of Computer Application (BCA-11/16/17)

Forth Semester Examination, 2019 (June)

Time: 3 Hours] Max. Marks: 80

**Note:** This paper is of Eighty (80) marks divided into three (03) sections A, B and C. Attempt the questions contained in these sections according to the detailed instructions given therein.

#### **SECTION-A**

(Long Answer Type Questions)

**Note:** Section 'A' contains four (04) long answer type questions of Nineteen (19) marks each. Learners are required to answer any two (02) questions only.

 $(2 \times 19 = 38)$ 

**1.** What is JAVA? Differentiate between JAVA script and IAVA in detail.

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[P.T.O.

- **2.** Explain the following using suitable example :
  - (a) Abstract class.
  - (b) Keyword.
  - (c) Encapsulation.
  - (d) Polymorphism.
  - (e) File Handling.
  - (f) String buffer class.
- **3.** How can we implement multilevel inheritance in JAVA? Explain with example.
- **4.** Explain exception handling in java. What is the use of try and catch build-in exceptions in java?

#### **SECTION-B**

## (Short Answer Type Questions)

**Note:** Section 'B' contains eight (08) short answer type questions of eight (08) marks each. Learners are required to answer any four (04) questions only. (4×8=32)

**1.** Explain the java virtual machine (JVM).

- **2.** Differentiate between C, C++ and JAVA.
- **3.** What are the various looping statements available in JAVA?
- **4.** What are various advantages of using package in JAVA?
- **5.** Differentiate between JAVA applet and applications in detail.
- **6.** What are various techniques to handle exceptions in JAVA?
- **7.** Explain the use of recursive class in JAVA.
- **8.** Explain the reading console input and writing console output.

## **SECTION-C**

#### (Objective Type Questions)

**Note :** Section 'C' contains ten (10) objective type questions of one (01) mark each. All the questions of this section are compulsory.  $(10 \times 1 = 10)$ 

| 1. | What is the numerical range of a char? |
|----|--|
|    | (a) -128 to 127                        |

(b) 
$$-(2^{15})$$
 to  $(2^{15})-1$ 

## **2.** Which is a valid keyword in JAVA?

- (a) interface
- (b) string
- (c) float
- (d) unsigned.

# **3.** Which of these can be returened by the operator &?

- (a) Integer
- (b) Boolean
- (c) Character
- (d) Integer or Boolean.

| 4.   | Which of these is necessary to specify at time of array initialization? |   |  |  |
|--|---|---|--|--|
|  | (a)   | Row   |  |  |
|  | (b)   | Column  |  |  |
|  | (c)   | Both Row and Column   |  |  |
|  | (d)   | None of the above.  |  |  |
| 5.   | Decrement operator decrease value of variable by variable?              |   |  |  |
|  | (a)   | 1   |  |  |
|  | (b)   | 2   |  |  |
|  | (c)   | 3   |  |  |
|  | (d)   | 4.  |  |  |
| <b>6.</b> Which concept of java is a way of convolution objects in terms of class? |   | ich concept of java is a way of converting real world ects in terms of class? |  |  |
|  | (a)   | Polymorphism  |  |  |
|  | (b)   | Encapsulation   |  |  |
|  | (c)   | Abstraction   |  |  |
|  | (d)   | Inheritance.  |  |  |
|  |   |   |  |  |

| 7. | Wh   | What does AWT stands for?                      |  |
|----|--|--|--|
|    | (a)  | All window tools                               |  |
|    | (b)  | All writing tools                              |  |
|    | (c)  | Abstract window toolkit                        |  |
|    | (d)  | Abstract writing toolkit.                      |  |
| 8. | Which of these method of class string is used to obtain length of string object? |  |  |
|    | (a)  | get ()   |  |
|    | (b)  | Sizeof()                                       |  |
|    | (c)  | lengthof()                                     |  |
|    | (d)  | length().                                      |  |
| 9. | Wh   | ich of these are selection statements in Java? |  |
|    | (a)  | if()   |  |
|    | (b)  | for()  |  |
|    | (c)  | continue                                       |  |
|    | (d)  | break.   |  |
|    |  |  |  |

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| 10. | Which of these keywords is used to make a class? |                    |
|-----|--|--------------------|
|     | (a)  | class              |
|     | (b)  | struct             |
|     | (c)  | int                |
|     | (d)  | none of the above. |
|     |  |                    |