

**BCA-16**  
June - Examination 2016  
**BCA Pt. III Examination**  
**Programming in JAVA**  
**Paper - BCA-16**

**Time : 3 Hours ]**

**[ Max. Marks :- 100**

**Note:** The question paper is divided into three sections A, B and C. Write answers as per given instructions.

**Section - A**

**10 × 2 = 20**

(Very Short Answer Questions)

**Note:** Answer **all** questions. As per the nature of the question delimit your answer in one word, one sentence or maximum upto 30 words. Each question carries 2 marks.

- 1) (i) How does JAVA achieve platform independence?
- (ii) Write the syntax of prefix and postfix increment operator and write the difference between them.
- (iii) What are the commands used to compile and run the JAVA Programs.
- (iv) Determine the value of each of the following logical expressions if  $a = 5$ ,  $b = 10$  and  $c = -6$ 
  - a)  $a > b \ \&\& \ a < c$
  - b)  $a < b \ \&\& \ a > c$
  - c)  $a == c \ || \ b > a$
  - d)  $b > 15 \ \&\& \ c < 0 \ || \ a > 0$

- (v) Explain any three string functions used in JAVA.
- (vi) Explain the difference between do-while statement and while statement.
- (vii) Define an abstract class.
- (viii) What is the difference between the String and StringBuffer classes?
- (ix) How does Java programming language support robustness?
- (x) What is the Java virtual machine (JVM)?

**Section - B****4 × 10 = 40**

(Short Answer Questions)

**Note:** Answer **any four** questions. Each answer should not exceed 200 words. Each question carries 10 marks.

- 2) Explain characteristics of Object Oriented Programming.
- 3) Explain Logical (Boolean) operators in JAVA with example.
- 4) Write a program to find average of all the numbers stored in an array.
- 5) What is 'this' and what are different uses of it? Explain with example.
- 6) Compare and contrast abstract class and interface.
- 7) Write a short note on Wrapper class.
- 8) Differentiate between checked and unchecked exception.
- 9) Write a short note on byte stream and character stream.

**Section - C****2 × 20 = 40**

(Long Answer Questions)

**Note:** Answer **any two** questions. You have to delimit your each answer maximum upto 500 words. Each question carries 20 marks.

- 10) What is Swing in JAVA? Explain hierarchy of swing classes.
  - 11) Explain life cycle of thread with an example.
  - 12) Explain types of inheritance with example.
  - 13) What is exception and exception handling? How can we declare our own exception? Explain.
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