

*"Do not write anything on question-paper except Roll Number, otherwise it shall be deemed as an act of indulging in unfair means and action shall be taken as per rules."*

Roll No. ....

**B.C.A. (III)**

**1731**

**Java Prog.**

**B.C.A. Part-III EXAMINATION - 2022**

**Paper - I**

**BCA 301 - Java Programming**

Time Allowed : **Three** Hours

Maximum Marks : **80**

**Note :** 1. Question No. 1 is Compulsory. Attempt any four from the remaining questions.

2. All questions carry equal marks.

1. (i) What is JVM?

2×8=16

(ii) Define the term variable?

(iii) What is an abstract class?

(iv) What do you mean by Statement?

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- (v) What is an Object?
  - (vi) What is an Applet Tag?
  - (vii) How to create an object in a Java?
  - (viii) What is Loop?
2. (a) Describe the structure of a java program with the help of suitable example.
- (b) Describe Java Environment in detail.  $8 \times 2 = 16$
3. (a) Write a java program to calculate a factorial of a given Number by the user.
- (b) What is an Operator? Explain Increment and Decrement operator and Bitwise operator with the help of examples.  $8 \times 2 = 16$
4. (a) What is Constructor overloading? Explain with suitable example.
- (b) What is Method? Explain the term method overloading with the help of suitable java program.  $8 \times 2 = 16$
5. Differentiate between the following:  $8 \times 2 = 16$
- (a) Overloading v/s Overriding
  - (b) Class v/s Interface.

6. (a) Explain the life cycle of applet with the help of examples.
- (b) Write a java program to perform an addition of two 2D matrix and Result will be store in another 2D matrix.  $8 \times 2 = 16$
7. (a) What is an exception? Explain the following term.
- (i) Thread exception
- (ii) ERROR
- (b) Write a java program to implement a single-level inheritance.  $8 \times 2 = 16$
8. Write short notes on the following :  $4 \times 4 = 16$
- (i) Symbolic Constant
- (ii) Wrapper class
- (iii) Visibility control
- (iv) Getting input from the user.

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