Reg. No. ☐☐☐☐☐☐

**BCACAC 314**

**V Semester B.C.A. Degree Examination, October/November 2019**

*(Credit Based Semester Scheme)*

*(Common to All Batches)*

**Java Programming**

Time : 3 Hours]                                                                                [Max. Marks : 100

**Note :** *Answer any TEN questions from Part-A and ONE full question from each Unit in Part-B.*

### PART – A

1. Answer **any ten** of the following :                                    **(10 × 2 = 20)**

   (a) Mention two ways of writing comments in Java.

   (b) What is Java Bytecode?

   (c) Differentiate character and byte stream.

   (d) What is garbage collection?

   (e) What is the purpose of the keyword extends?

   (f) Write the syntax for defining a one dimensional array in Java.

   (g) List any four API packages in Java.

   (h) How to assign priority to thread? What is the default priority?

   (i) What is an Interface? How it differs from a class?

   (j) Write the syntax of applet tag.

   (k) Differentiate components and containers.

   (l) What is an Applet? Name two ways to create an applet.

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PART – B

UNIT – I

2. (a) Explain the while and do .. while statement with syntax and example.

   (b) Explain the process of reading a character from the keyboard with suitable example.

   (c) Explain any six features of Java. **(8 + 6 + 6)**

3. (a) Explain any three forms of for loop with suitable example.

   (b) List and explain primitive data types available in Java.

   (c) Explain java's contribution to the Internet. **(6 + 8 + 6)**

UNIT – II

4. (a) Explain the use of command-line arguments in Java with suitable example.

   (b) What are arrays? Explain the different ways of declaring, instantiating and initializing one dimensional array with example.

   (c) Explain any five string methods with syntax and example.

   (d) With an example explain the use of super with example. **(5 + 5 + 5 + 5)**

5. (a) With an example, explain the different types of constructors supported by Java.

   (b) Explain method overloading. Explain with suitable example.

   (c) Explain single inheritance with example.

   (d) Write a note on static variable and static method. **(6 + 4 + 6 + 4)**

UNIT – III

6. (a) Explain how to create and use a package in Java with suitable example.

   (b) What are exceptions? Explain with an example the mechanism of Exception handling.

   (c) What is a Thread? List and explain any five thread methods. **(6 + 8 + 6)**

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7. (a) How do you create and implement an interface in Java?

(b) Explain the life cycle of a thread with a neat diagram.

(c) Define synchronization. With an example explain how synchronization is achieved in multithreaded environment using synchronized method. **(6 + 8 + 6)**

## UNIT – IV

8. (a) List and explain the components of Delegation Event Model.

(b) Write a note on :

(i) JButton

(ii) JtextField

(c) Explain the methods of Applet. **(6 + 7 + 7)**

9. (a) With an example explain how the parameters are passed to an applet.

(b) What is the purpose of MouseListener interface? With the syntax and example explain any five methods of MouseListener interface.

(c) Mention the purpose of different layout managers available in Swing. **(6 + 8 + 6)**