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B.C.A. (PART-III) EXAMINATION, 2024-25

(V<sup>th</sup> SEMESTER)

Paper : I

(BCA 501 : INTERNET & JAVA PROGRAMMING)



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Time : Three Hours ]

[Maximum Marks : 70

- Note:** (i) Answer **five** questions in all.  
(ii) Question No. **1** is **compulsory**.  
(iii) Answer remaining four questions, selecting two from each section **A** and **B**.  
(iv) All questions carry equal marks.

1. Answer all parts of the following :
- What is the role of 'super' and 'final' keywords in JAVA ?
  - Differentiate between a Class and an Object.
  - What are the components of HTTP URL ?
  - What is difference between applet and swing ?

**Section–A**

- What is array ? Write a program to implement two-dimensional array in Java.
- Why do we use layout managers ? Explain the different types of managers.

4. Explain the different types of JDBC drivers.
5. What is servlet ? Explain the life cycle of servlet.

### **Section-B**

6. (a) Explain about Applet Lifecycle ? How Applets are prepared and executed ?  
(b) Design and write a java program using Applets.
7. (a) Discuss about exception handling and their types in Java with suitable examples.  
(b) write a java program which illustrates the try, catch and throws and finally blocks.
8. (a) What is multithreading ? Explain the lifecycle of multithread.  
(b) What is JSP ? Write the difference between JSP & servlet. Give some advantages of JSP also.
9. Write notes on any two of the following :
  - (a) RMI (Remote Method Invocation)
  - (b) Voice and video conferencing
  - (c) String and string buffer
  - (d) Variables in Java

