

B.C.A Semester - 4 (NEP-2020) Examination**March/April-2025****Programming in Java (Theory) (Major-8)****Time: 2:00 Hours****Marks: 50****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

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| Que-1 | Answer any two:
<ol style="list-style-type: none">1. List and briefly explain various JDK Tools.2. Explain various data types available in java by giving example.3. Write a java code that shows the use of exit controlled loop.4. What is jagged array? Explain by giving example, its purpose and usefulness. | (10) |
| Que-2 | Answer any two:
<ol style="list-style-type: none">1. List and briefly explain various access specifiers by giving example.2. What is method overriding? Explain by giving example.3. Write a java code which shows the use of nested class in programming.4. Explain the concept of exception handling. Explain the need and importance of catching exceptions in programming. | (10) |
| Que-3 | Answer any two:
<ol style="list-style-type: none">1. Explain the concept and life cycle of Threads.2. What is Input stream? Explain by giving example and usefulness.3. Write a java code to create an applet which shows how to play an audio file in applet.4. Explain by giving example : GridBagLayout. | (10) |
| Que-4 | Answer any two:
<ol style="list-style-type: none">1. Differentiate between AWT and SWING.2. Explain any two swing components by giving example.3. Write a brief note on : Event Delegation Model.4. Write a java code that shows the use of methods and properties of ItemEvent class. | (10) |
| Que-5 | Answer any two:
<ol style="list-style-type: none">1. List various decision structures. Explain any one by giving example.2. Explain hybrid inheritance by giving example.3. Explain applet life cycle in detail.4. Write a java code which creates interactive input form using various swing components. | (10) |
