Reg. No. | | | | | | | | | | | | |

BCACACN 602

Sixth Semester B.C.A. Degree Examination, June/July 2025
(NEP 2020) (2023-24 Batch Onwards)
ADVANCED JAVA AND J2EE

Time : 2 Hours Max. Marks : 60

Note : *Answer* ***any six*** *questions from Part –* ***A*** *and* ***one full*** *question from* ***each*** *unit in Part –* ***B.***

PART – A (6×2=12)

1. a) Differentiate values() and valueOf() methods in Java enumerations.
   b) Write any two characteristics of a Java Bean.
   c) What is Model-View-Controller ?
   d) Differentiate Vector and Arrays.
   e) Describe the functionalities of the indexOf and lastIndexOf methods used for string manipulation.
   f) What is RMI ?
   g) With syntax write the purpose of getParameter() method.
   h) What is Java Server Pages ?

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PART – B
Unit – I

2. a) What does ordinal(), compareTo() and equals() method do in Enum ? Give an example.
   b) What are the different properties of a Java Bean ? Explain with examples. (6+6)

3. a) What are Annotations ? What are the three retention policies defined by the Retention Policy enumeration in Java ?
   b) Describe the Wrapper classes available for primitive types. (6+6)

Unit – II

4. a) What are the basic interfaces of Java Collections Framework ? Explain the appropriate use of any four interfaces.

b) Explain the flow of execution when a user interacts with an MVC-based Java web application. Walk through the steps involved, starting from the user's request, the role of the controller, the interaction with the model and view and finally, the response sent back to the user. **(6+6)**

5. a) What is an iterator ? Explain with an example.

   b) Explain the roles and responsibilities of the Model, View and Controller components in the MVC architecture. **(6+6)**

Unit – III

6. a) With syntax and example explain the following String class methods

   i) getChars() ii) replace()

   b) Explain the concept of Remote Procedure Calls (RPC) and its working mechanism with its five key elements. **(6+6)**

7. a) Explain any four string comparison methods with an example.

   b) Explain the advantages and disadvantages of distributed computing. **(6+6)**

Unit – IV

8. a) Write a Java servlet named FormProcessorServlet that can handle HTTP POST requests containing form data. The servlet should : Read Parameters : Extract the names and values of parameters submitted from the form. Process Data : Access the specific parameter values for fields like "name" and "email" (assuming those are the form field names). Generate Response : Create an HTML response that displays the submitted data back to the user in a user-friendly format.

   b) Explain the key stages involved in the lifecycle of a Java Server Page (JSP). **(6+6)**

9. a) Write the usage of any three methods of servletResponse Interface and servletRequest Interface.

   b) Explain the steps in the JDBC process. **(6+6)**

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