



**BBK-003-1074001**

Seat No. \_\_\_\_\_

**M. C. A. (Sem. IV) (CBCS) (W.I.F. 2016) Examination**

**July - 2021**

**P - 4010 : Advanced Java**

*(New Course)*

**Faculty Code : 003**

**Subject Code : 1074001**

Time :  $2\frac{1}{2}$  Hours]

[Total Marks : 70

**Attempt any five of the following**

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|---|----|
| 1 (a) Attempt the following   | 04 |
| (1) Which packages should be imported to use swing components in program?   |    |
| (2) What is the use of JFrame?  |    |
| (3) What is the use of JPopupMenu?  |    |
| (4) Write any one method of JPasswordField.   |    |
| (b) Why swing components are known as light weight components?  | 02 |
| (c) Explain JCheckBox with appropriate example  | 03 |
| (d) Explain JButton with its event handling and appropriate example.  | 05 |
| 2 (a) Attempt the following   | 04 |
| (1) What is swing in Java?  |    |
| (2) What is the use of JApplet?   |    |
| (3) Write any one method of JList.  |    |
| (4) What is the use of JScrollPane?   |    |
| (b) Explain key features of swing.  | 02 |
| (c) Explain JTextField with appropriate example   | 03 |
| (d) Explain JComboBox with its event handling and appropriate example.  | 05 |
| 3 (a) Attempt the following   | 04 |
| (1) Which method of ResultSet is used to bring cursor to the first row?   |    |
| (2) What is the use of executeQuery()?  |    |
| (3) Which method of ResultSet is used to get integer column value?  |    |
| (4) Which package should be imported to use JDBC classes?   |    |
| (b) Explain in brief Type-1 JDBC-ODBC Bridge Driver.  | 02 |
| (c) Write a code snippet to delete record from database using JDBC classes. [Assume suitable database and table structure.] | 03 |
| (d) Explain step-by-step process to connect java with any database using JDBC.  | 05 |
| 4 (a) Attempt the following   | 04 |
| (1) Which method of ResultSet is used to bring cursor to the previous row?  |    |
| (2) What is the use of createStatement()?   |    |
| (3) Which method of ResultSet is used to get value for string column?   |    |
| (4) Which exception database connectivity code can throw?   |    |

- (b) Explain in brief Type-4 Pure Java Driver. 02
- (c) Write a code snippet to insert record into database using JDBC classes. [Assume suitable database and table structure.] 03
- (d) Explain fetching records from database table using appropriate JDBC classes. [Assume suitable database and table structure.] 05
- 5 (a) Attempt the following 04
- (1) How to create object of ServerSocket?
  - (2) What is socket?
  - (3) What is DNS?
  - (4) What is stub in RMI?
- (b) Explain any one method of Socket class. 02
- (c) What is object serialization? 03
- (d) Write simple client server program using UDP. 05
- 6 (a) Attempt the following 04
- (1) How to create object of Socket?
  - (2) What is port?
  - (3) What is RMI?
  - (4) What is skeleton in RMI?
- (b) Explain any one method of ServerSocket class. 02
- (c) How RMI is useful? 03
- (d) Write simple client server program using TCP. 05
- 7 (a) Attempt the following 04
- (1) What is Servlet?
  - (2) What is the use of <url-pattern>?
  - (3) Which packages should be imported to run servlet?
  - (4) Explain in brief getWriter().
- (b) Explain in brief getServletName(). 02
- (c) Explain getInitParameterNames() with example. 03
- (d) Explain lifecycle of servlet. 05
- 8 (a) Attempt the following 04
- (1) What is HttpServlet?
  - (2) What is the use of <servlet-class>?
  - (3) Which packages should be imported to run HttpServlet?
  - (4) Explain in brief getServletInfo().
- (b) Explain in brief getServletContext(). 02
- (c) Explain getAttributeNames() with example. 03
- (d) Explain creating and reading cookies using servlet. 05
- 9 (a) Attempt the following 04
- (1) What is JSP?
  - (2) What is the use of <jsp:useBean>?
  - (3) What is the use of page directive?
  - (4) What is scriptlet?

- (b) Explain `jsp:setProperty` with example. 02
  - (c) Explain JSP scripting element – declaration with example. 03
  - (d) Explain `<jsp:include>` with example. 05
  - 10 (a) Attempt the following 04
    - (1) Which symbols are used to do code comment in JSP?
    - (2) What is the use of `<jsp:plugin>`?
    - (3) What is the use of taglib directive?
    - (4) What is the use of page directive?
  - (b) Explain `jsp:getProperty` with example. 02
  - (c) Explain JSP scripting element – expression with example. 03
  - (d) Explain `<jsp:forward>` with example. 05
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