

Fifth Semester B.E. Makeup Examination, January 2020
ADVANCED JAVA

e: 3 Hours

Max. Marks: 100

- Instructions:**
1. Answer any one full question from each unit.
 2. Use suitable diagrams wherever applicable.

UNIT - I

L CO PO M

- a. Define collections. Write a program using collections to insert 5 elements into the array list and remove the second and fourth element from the list. (3) (2) (3) (10)
- b. Explain the Map and Sorted Map interface in detail. (2) (2) (1) (10)

OR

- a. Explain any two collection interfaces in detail. (2) (2) (1) (10)

- b. Write a program to demonstrate the use of storing user defined classes in collections. (3) (2) (3) (10)

UNIT - II

L CO PO M

- 3 a. Define thread. Write a program to create multiple threads. (3) (1) (3) (10)
- b. What is the need of Synchronization? Explain with an example how synchronization is implemented in Java. (2) (1) (1) (10)

OR

- 4 a. Explain the thread model. Write a program to create a simple thread in java. (3) (1) (3) (10)

- b. What is thread priority? Write a program to demonstrate thread priority in java. (3) (1) (3) (10)

UNIT - III

L CO PO M

- 5 a. With a code example, explain the usage of JTabbedPane and JScrollPane. (3) (3) (1) (10)
- b. Write a Java program to demonstrate event handling in Java Swing. (3) (3) (3) (10)

OR

- 6 a. Explain the different Swing buttons and their usage with code snippets. (2) (3) (1) (10)

- b. What is Swing? Describe the key features of Swing. (2) (3) (1) (05)

- c. What are containers and components in Java Swing? (2) (3) (1) (05)

UNIT - IV

L CO PO M

- 7 a. Explain the architecture of JDBC with a neat diagram. (2) (4) (3) (10)
- b. What is transaction processing? Write a program to show how the transaction processing is done in java database connectivity. (4) (4) (3) (10)

OR

- 8 a. Write the code snippets for Java database connectivity. (4) (4) (3) (10)
b. Discuss with examples what are prepared statements and stored procedures and how to use them. (2) (4) (1) (10)
L CO PO M

UNIT -V

- 9 a. What is a Servlet? Write a program for creating a simple servlet. (3) (4) (3) (10)
b. Explain the Tomcat web server with an example. (2) (4) (5) (10)

OR

- 10 a. Explain the lifecycle of a Java servlet. (2) (4) (1) (06)
b. Explain the Servlet interfaces and Servlet exception classes. (2) (4) (3) (08)
c. Write a short note on handling HTTP requests and responses. (2) (4) (1) (06)

Fifth Semester B.E. Semester End Examination, Dec./Jan. 2019-20
ADVANCED JAVA

Time: 3 Hours

Max. Marks: 100

Instructions: 1. Answer any one full question from each unit.

UNIT - I

1. a. Briefly describe the collection framework. Write a Java program to insert 4 objects of type Employee in a Linked List and display them in ascending order of their names. Insert two more employees at the third and fifth position. (3) (2) (3) (10)
- b. Write a Java program to illustrate the usage of the Comparator interface. (3) (2) (3) (10)

OR

2. a. Describe the usage of Map and Map. Entry interfaces with code examples. (2) (2) (1) (10)
- b. What is an iterator? Write a Java program to illustrate the difference in accessing the collections using an iterator and a for-each loop. (3) (2) (1) (10)

UNIT - II

3. a. Describe the two ways of creating threads in Java with code examples. (2) (1) (1) (10)
- b. Write a program to show how wait and notify can be used to solve the Producer-Consumer problem. (3) (1) (3) (10)

OR

4. a. Write a Java program to create two threads, one which prints odd numbers and the other prints even numbers. The output should be in sequential order (1, 2, 3, 4....) (3) (1) (3) (10)
- b. Describe the Java Thread model. (2) (1) (1) (05)
- c. With a code example, explain thread priority. (2) (1) (1) (05)

UNIT - III

5. a. Explain the different types of Swing buttons and how to use them with examples. (2) (3) (5) (10)
- b. Write a program to create two text fields "Java" and "Advanced Java" and add the event handler to both the buttons. (4) (3) (5) (10)

OR

6. a. Write a program to create a JTabbedPane and JScrollPane. (3) (3) (5) (10)
- b. What is Swing? Explain the main features of Swing. (2) (3) (3) (05)
- c. Explain components and containers in java (2) (3) (3) (05)

UNIT - IV

7. a. Explain the architecture of JDBC with a neat diagram. (2) (4) (1) (10)

- b. What are prepared statements? Write a Java program to illustrate the usage of PreparedStatement.
(3) (4) (1) (10)

OR

- 8 a. Write a Java program to illustrate the usage of the RowSet interface.
(3) (4) (1) (10)
- b. Write a Java program to insert, update and display records using the statement interface of JDBC.
(3) (4) (3) (10)

UNIT -V

- 9 a. Write a Java program to illustrate the reading of Servlet parameters using the ServletRequest interface.
(3) (4) (1) (10)
- b. What is a session? With an example show how sessions can be tracked.
(2) (4) (1) (10)

OR

- 10 a. Describe the lifecycle of a Java Servlet.
(1) (4) (1) (06)
- b. Write a Java program to demonstrate the working of a simple Servlet.
(3) (4) (1) (06)
- c. With a Java program, explain the usage of cookies.
(3) (4) (1) (08)

USN

--	--	--	--	--	--	--	--

15IS5L

Fifth Semester B.E. Fast Track Semester End Examination, July/August 2019
ADVANCED JAVA

Time: 3 Hours

Max. Marks: 100

Instructions: 1. **UNIT 1 & UNIT 2 are Compulsory.**
 2. **Answer any one full question from remaining each UNITS.**

UNIT - I (Compulsory)

- 1 a. What is an Iterator? Write a program to access a collection using an Iterator. (1) (1) (1) (10)
 b. What is the need of Synchronization? Explain with an example how synchronization is implemented in Java. (2) (1) (1) (10)

UNIT - II (Compulsory)

- 2 a. Discuss the different types of swing buttons with syntax. Write a program to create four types of buttons. Use suitable events to show actions on the buttons and use JLabel to display the action invoked. (2) (2) (2) (10)
 b. What is a Javabean? Explain the properties of JavaBean with example. (1) (2) (1) (05)
 c. What is Swing? Explain the main features of Swing. (1) (2) (2) (05)

UNIT - III

- 3 a. Explain the architecture of JDBC with a neat diagram. (2) (3) (3) (10)
 b. Write the code snippets for Java database connectivity. (4) (3) (3) (10)

OR

- 4 a. Explain with code how the transaction processing is done in java database connectivity. (4) (3) (3) (10)
 b. Discuss with examples what are prepared statements and stored procedures and how to use them. (2) (3) (1) (10)

UNIT - IV

- 5 a. What is a Servlet. Write a program for creating a simple servlet. (3) (3) (3) (10)
 b. Explain the lifecycle of a Java servlet. (2) (3) (1) (10)

OR

- 6 a. Explain the Tomcat web server with a example. (2) (3) (5) (10)
 b. Explain the Servlet interfaces and Servlet exception classes. (2) (3) (1) (10)

UNIT - V

- 7 a. What is URL? Explain the URL connection steps with an example. (2) (4) (1) (10)
 b. Explain the Java Socket programming with an example. (3) (4) (3) (10)

Note: L (Level), CO (Course Outcome), PO (Programme Outcome), M (Marks)

OR

- 8 a. Write a simple client server application in Java. (3) (4) (3) (10)
b. Discuss with an example how remote method invocation works in Java. (2) (4) (3) (10)

Fifth Semester B.E. Makeup Examination, January 2019

Time: 3 Hours

ADVANCED JAVA

Max. Marks: 100

Instructions: 1. Units I and III are compulsory
2. Answer any one full question from remaining each UNITS.

- UNIT - I** L CO PO M
- 1 a. Briefly describe the collection framework. Write a program to insert 5 objects of type Student in an ArrayList and display them in ascending order of student name. (3) (2) (3) (10)
- b. What is an iterator? Write a program to access a collection using an iterator. (2) (2) (1) (06)
- c. Explain the usage of Comparator with an example. (2) (2) (1) (04)
- UNIT - II** L CO PO M
- 2 a. Write a program to create two threads, one which prints odd numbers and the other prints even numbers. The output numbers have to be in sequential order (1,2,3,4,...) (3) (1) (3) (10)
- b. Describe the two ways of creating Thread in Java with examples. (2) (1) (1) (10)
- OR**
- 3 a. Describe the usage of isAlive() and join() methods with examples. (2) (1) (1) (10)
- b. Describe the Java Thread model. (2) (1) (1) (05)
- c. With a code example, explain thread priority. (2) (1) (1) (05)
- UNIT - III** L CO PO M
- 4 a. Explain the different types of Swing buttons and how to use them with examples. (2) (3) (1) (10)
- b. What is Swing? Explain the main features of Swings. (2) (3) (1) (05)
- c. Describe the top level container panes. (2) (3) (1) (05)
- UNIT - IV** L CO PO M
- 5 a. Write a Java program to insert, update and delete records using the Statement interface. (3) (4) (1) (10)
- b. Explain the architecture of JDBC with a neat diagram. (2) (4) (1) (10)
- OR**
- 6 a. Explain the RowSet Interface with an example. (2) (4) (1) (10)
- b. Explain with examples what are prepared statements and how to use them. (2) (4) (3) (10)
- UNIT - V** L CO PO M
- 7 a. With an example explain the steps for creating a Java servlet. (2) (4) (1) (10)

b. Explain the javax.servlet package.

(2) (4) (1) (10)

OR

8 a. With a Java program, explain the usage of cookies.

(3) (4) (2) (10)

b. Describe the lifecycle of a Java servlet.

(1) (4) (1) (10)

JSN

Time: 3 P

1 a.

b.

2 a.

3



Fifth Semester B.E. Semester End Examination, Dec/Jan 2018-19
ADVANCED JAVA

Max. Marks: 100

Time: 3 Hours

Instructions: 1. Units I and III are compulsory
 2. Answer any one full question from remaining each UNITS.

UNIT - I

- | | | L | CO | PO | M |
|---|---|-----|-----|-----|------|
| 1 | a. Explain any two Collection interfaces in detail. | (2) | (2) | (1) | (10) |
| | b. Describe the usage of Map and Map.Entry interfaces with code examples. | (3) | (2) | (1) | (10) |

UNIT - II

- | | | L | CO | PO | M |
|---|---|-----|-----|-----|------|
| 2 | a. Explain how synchronization is implemented in Java with an example . | (2) | (1) | (1) | (10) |
| | b. Describe the two ways of creating Thread in Java with examples. | (2) | (2) | (1) | (10) |

OR

- | | | L | CO | PO | M |
|---|--|-----|-----|-----|------|
| 3 | a. Write a program to show how wait and notify can be used to solve the Producer-Consumer problem. | (3) | (1) | (3) | (10) |
| | b. What is thread priority? Explain the methods for handling thread priorities. | (2) | (1) | (1) | (05) |
| | c. Explain the different states that a thread can exist in during its lifetime, with a neat diagram. | (2) | (1) | (1) | (05) |

UNIT - III

- | | | L | CO | PO | M |
|---|---|-----|-----|-----|------|
| 4 | a. With an example, explain the usage of JTabbedPane and JScrollPane. | (2) | (3) | (1) | (10) |
| | b. What is Swing? Explain the main features of Swing. | (2) | (3) | (1) | (05) |
| | c. Discuss the event handling mechanism in Swing. | (2) | (3) | (1) | (05) |

UNIT - IV

- | | | L | CO | PO | M |
|---|---|-----|-----|-----|------|
| 5 | a. Write a Java program to insert, update and delete records using the Statement interface. | (3) | (4) | (2) | (10) |
| | b. Explain with examples what are prepared statements and how to use them. | (2) | (4) | (2) | (10) |

OR

- | | | L | CO | PO | M |
|---|---|-----|-----|-----|------|
| 6 | a. List and explain the steps to connect and query a database using JDBC. | (2) | (4) | (1) | (10) |
| | b. Explain the RowSet Interface with an example. | (2) | (4) | (1) | (10) |

UNIT - V

- | | | L | CO | PO | M |
|---|--|-----|-----|-----|------|
| 7 | a. With an example explain the steps for creating Java servlet. | (3) | (4) | (1) | (10) |
| | b. Show how to handle HTTP requests and responses with examples. | (2) | (4) | (3) | (10) |

OR

- 8 a. What is a session. With an example show how sessions can be tracked.
b. Describe the lifecycle of a Java servlet.

(2) (4) (1)

(1) (4) (1)

Ans:

Fifth Semester B.E. Semester End Examination, Dec/Jan 2018-19**ADVANCED JAVA**

Time: 3 Hours

Max. Marks: 100

Instructions: 1. Units I and III are compulsory
 2. Answer any one full question from remaining each UNITS.

UNIT - I

- 1 a. Explain any two Collection interfaces in detail. (2) (2) (1) (10)
 b. Describe the usage of Map and Map.Entry interfaces with code examples. (3) (2) (1) (10)

UNIT - II

- 2 a. Explain how synchronization is implemented in Java with an example. (2) (1) (1) (10)
 b. Describe the two ways of creating Thread in Java with examples. (2) (2) (1) (10)

OR

- 3 a. Write a program to show how wait and notify can be used to solve the Producer-Consumer problem. (3) (1) (3) (10)
 b. What is thread priority? Explain the methods for handling thread priorities. (2) (1) (1) (05)
 c. Explain the different states that a thread can exist in during its lifetime, with a neat diagram. (2) (1) (1) (05)

UNIT - III

- 4 a. With an example, explain the usage of JTabbedPane and JScrollPane. (2) (3) (1) (10)
 b. What is Swing? Explain the main features of Swing. (2) (3) (1) (05)
 c. Discuss the event handling mechanism in Swing. (2) (3) (1) (05)

UNIT - IV

- 5 a. Write a Java program to insert, update and delete records using the Statement interface. (3) (4) (2) (10)
 b. Explain with examples what are prepared statements and how to use them. (2) (4) (2) (10)

OR

- 6 a. List and explain the steps to connect and query a database using JDBC. (2) (4) (1) (10)
 b. Explain the RowSet Interface with an example. (2) (4) (1) (10)

UNIT - V

- 7 a. With an example explain the steps for creating Java servlet. (3) (4) (1) (10)
 b. Show how to handle HTTP requests and responses with examples. (2) (4) (3) (10)

OR

- 8 a. What is a session. With an example show how sessions can be tracked. (2) (4) (1)
- b. Describe the lifecycle of a Java servlet. (1) (4) (1)

**Fifth Semester B.E. Semester End Examination, Dec/Jan 2017-18****ADVANCED JAVA**

Max. Marks: 100

Time: 3 Hours

Instructions: 1. Unit-I and Unit-IV are compulsorily Question
2. Attempt one full question from remaining units.

UNIT - I

- a. Define collection. Make use of concept of collection and write a program using collections to insert 5 elements into the array list and remove the second and fourth element from the list.
(Level [1,3], CO [1], PO [3]) 06 M
- b. What is an iterator? Write a program for accessing a collection via iterator.
(Level [1], CO [1], PO [1]) 06 M
- c. What is the need of Synchronization? Explain with an example how synchronization is implemented in Java.
(Level [2], CO [1], PO [1,3]) 08 M

UNIT - II

- a. What is a swing? List the main features of swing applications
(Level [1], CO [2], PO [2]) 05 M
- b. List the different types of swing buttons with syntax. Write a program to create four types of buttons. Use suitable events to show actions on the buttons and use JLabel to display the action invoked.
(Level [1,3], CO [2], PO [1]) 10 M
- c. List properties of Javabean. Develop a program for creating a class to be a Javabean.
(Level [1,3], CO [2], PO [3]) 05 M

OR

- a. What is a Javabean? Explain the properties of Javabean.
(Level [1], CO [2], PO [1]) 05 M
- b. Write a swing program to demonstrate event handling with two Radio buttons named CSE and ISE. Use event handler to handle suitable events when either of them is pressed.
(Level [3], CO [2], PO [3]) 10 M
- c. What is a JTabbedPane and When is it used. Explain it with an example.
(Level [2], CO [2], PO [1]) 05 M

UNIT - III

- a. Describe the various steps of JDBC with code snippets.
(Level [2], CO [3], PO [1]) 08 M
- b. Write a Java program to insert, update and delete the record into the database using statement interface.
(Level [4], CO [3], PO [3]) 08 M
- c. Explain: i. Prepared statements ii. Stored procedure
(Level [2], CO [3], PO [1]) 04 M

OR

- a. Explain the architecture of JDBC with a neat diagram.
(Level [2], CO [3], PO [3]) 08 M
- b. List JDBC API's which are generally used in the database connectivity. Explain briefly
(Level [1,2], CO [3], PO [3]) 06 M
- c. Explain DSN. Write a program to show access without DSN.
(Level [2], CO [3], PO [3]) 06 M

UNIT - IV

- a. Explain the life cycle of a servlet.
(Level [2], CO [3], PO [1]) 05 M
- b. Explain the Tomcat web server with an example.
(Level [2], CO [3], PO [5]) 05 M

- c. List the basic steps involved in creating java servlet. Develop a java program to demonstrate
java servlet. (Level [1,3], CO [3], PO [3])

10 M

UNIT -V

- 7 a. What is a socket? Explain different constructors used in TCP/IP client socket.
(Level [2], CO [4], PO[3])
- b. List and explain Java API's used in creating client-server application.
(Level [2], CO [4], PO [3])
- c. Briefly explain how remote method invocation works in Java
(Level [2], CO [4], PO [3])

04 M JSN

08 M

08 M Time: 3 Hours

OR

- 8 a. What is URL? Explain the URL connection steps with example.
(Level [1,2], CO [4], PO [1])
- b. What is RMI? Explain the server side and client side methods used in RMI application.
(Level [2], CO [4], PO [3])

10 M

10 M

a. Define

b. Explain

a. Define

b. Define

c. Define

a. Illustrate

b. Define

c. Define

1 a.

b.

5 a.

1 b.

6