SILVER OAK UNIVERSITY
EDUCATION TO INNOVATION

ज्ञानं परमं भूषणम्

College of Technology (01)
Silver Oak College of Engineering and Technology
Bachelor of Technology
Department of Information Technology (010)

Semester:	6th	Academic Year:	2023-24
Subject Name:	Advanced Java	Subject Code:	1010043339

Question Bank

Unit 1: Java Networking

Sr. No	Question
1	Difference between TCP and UDP.
2	WAP for server client connection using UDP.
3	WAP for server client connection using TCP.
4	Write an RMI application where client supplies two numbers and server response by summing it. Provide your custom security policy for this application.
5	Write a note on the Protocol handler.
6	Describe the use of URL class.
7	Explain the following classes with their use. **i.** URLConnection class **ii.** DatagramSocket and DatagramPacket class
8	Explain Socket, ServerSocket, InetAddress classes. Write a java program to find an IP address of the machine on which the program runs.
9	Difference between socket and server socket.

Unit 2: JDBC Programming

Sr. No	Question
1	What is JDBC? WAP to get data from the user & save it into the table.
2	Explain Statement in context of JDBC. Difference between prepared & callable statements.
3	Retrieve data which is stored in the database table using Resultset.
4	Explain different types of JDBC drivers.
5	What is a ResultSet in JDBC? How do you process a ResultSet?
6	Explain JDBC Architecture.
7	What are the differences between Java Bean and basic java class? Explain Java Bean Architecture
8	Explain the use of CallableStatement and PreparedStatement with example.
9	Show the use of PreparedStatement object to run precompiled SQL statement. Also write example of java snippet for PreparedStaement.
10	Explain ResultSetMetaData with suitable program.
11	Explain JDBC Transaction Management in detail
12	What is ResultSet interface. Write various method for ResultSet interface. Write a code to update record using this interface.

Unit 3: Servlet API and Overview

Sr. No	Question
1	What is a Session? How to set value and get value from session?
2	Explain Servlet life cycle.
3	Difference between servlet config and servlet context.
4	What is filter API?
5	Explain advantages of Filter API?
6	What is the difference between doGet() and doPost() methods in Servlets?

7	Discuss the use of GET and POST with example.
8	What is Filter? List the applications of filter.
9	Explain Request and Response object in Servlet
10	Write a Java Servlet to demonstrate the use of Session Management.
11	Write servlet which displayed following information of client: **I.** Client Browser **II.** Client IP address **III.** Client Port No **IV.** Server Port No **V.** Local Port No **VI.** Method used by client for form submission **VII.** Query String name and values
12	Write line(s) of code in JSP for following. **I.** Session read and write **II.** URL rewriting sending and retrieving parameter(s) **III.** URL redirection **IV.** Print "hello world" as output **V.** Include the other JSP file statically **VI.** Expression to display date as output **VII.** Method of setting the JSP parameters to use in JSTL
13	What is doFilter() method? What are its parameters? Give its use with proper example.
14	List out different types of servlet event and explain it.
15	What is servlet filters? Give the necessary API for filters and explain their use.
16	Develop any Servlet application which demonstrates use of session management.
17	Give the characteristics of the HTTP protocol and explain the GET, HEAD and PUT methods of the HTTP protocol.
18	Explain MVC architecture in detail.
19	What is Request Dispatcher? What is the difference between Request dispatcher's forward() and include() method?

Unit 4: Java Server Pages

Sr. No	Question
1	What is JSP? Explain Life cycle of JSP.
2	Write a program to create a java class and call it in the JSP page.
3	Explain Core tag library.
4	What is the difference between a Servlet and a JSP? When would you use one over the other?
5	Difference between @include and <jsp:include>
6	How do you pass data from a Servlet to a JSP page?
7	Explain Use of scriptlet and expression tag. Explain it with an example.
8	Explain Directives. Give its type and explain any one in detail.
9	Explain JSP Object scope: (i) Page (ii) Request (iii) Session (iv) Application with example.
10	Show the use of JSP page directive tag with its attributes.
11	Show the use of JSP inbuilt objects: request and response, with their use in application.
12	What is XML tag library? Explain the XML core tags and show their use.
13	Write a JSP page to display your semester mark sheet. Give the necessary files to deploy it.
14	Explain the action tags used to access the JavaBeans from a JSP page with example.
15	Show the use of JSP inbuilt objects: request and response, with their use in application.
16	Explain transaction handling using JSTL.
17	Discuss JSP Exception Handling.

Unit-5 Java Server Faces 2.0

Sr. No.	Questions
1	Draw the JSF request processing life cycle and briefly give the function of each phase
2	List the JSF validation tags and explain any two.
3	Explain JSF Event Handling and Database Access.
4	Explain JSF Libraries.
5	Explain JSF Standard Component in detail
6	Write a short note on JSF Facelets. List the JSF facelets tags and explain any two.
7	What is the JSF tag library? Explain any four html tag
8	Explain working of JSF expression language.

Unit-6 Hibernate 4.0

Sr. No.	Questions
1	Explain Hibernate Architecture and Object Relational Mapping in Hibernate with java code and required XML files
2	Explain the OR mapping in hibernate.
3	What is HQL? How does it differ from SQL? Give its advantages.
4	Give the hibernate architecture and discuss each part in brief.
5	How can you implement OR Mapping in Hibernate? Give an example.
6	Write a note on hibernate.
7	Draw and explain the architecture of Hibernate
8	What is HQL? How is it different from SQL? List its advantages.

9	What is OR mapping? Give an example of a Hibernate XML mapping file.
10	Explain use of DatabaseMetaData with an example.
11	What is ORM? Explain object/relational mappings in hibernate.
12	Discuss Hibernate Query Language.
13	What are the advantages of Hibernate over JDBC?
14	What is the difference between first level cache and second level cache?

Unit-7 Java Web Frameworks: Spring MVC

Sr. No.	Questions
1	Explain architecture of Spring MVC Framework.
2	What is Spring Web MVC framework? List its key features.
3	Write Spring bean life cycle.
4	Explain Managing Transaction.
5	Write a java bean named "student" having roll no and name having getter & setter methods. Write a JSP page to set the roll number and name for a student object and then print them by reading from object.
6	What is Spring IoC container.