

- (vii) Application is instance of which class?
(a) javax.servlet.Application (b) javax.servlet.HttpContext
(c) javax.servlet.Context (d) javax.servlet.ServletContext
- (viii) Which one is the correct order of phases in JSP life cycle?
(a) Initialization, Cleanup, Compilation, Execution
(b) Initialization, Compilation, Cleanup, Execution
(c) Compilation, Initialization, Execution, Cleanup
(d) Cleanup, Compilation, Initialization, Execution
- (ix) Which of the following is true about entity bean?
(a) Stores data of a particular user for a single session.
(b) Invoked by EJB container when it receives a message from queue
(c) Represent persistent data storage
(d) None of the above.
- (x) Which of the below is not a session tracking method?
(a) URL rewriting (b) History
(c) Cookies (d) SSL sessions.

Group- B

2. (a) Differentiate between applet and swing. [(CO1) (Analyze/IOCQ)]
(b) Implement a java swing program which will accept two values in text boxes and display the addition result in third text box. [(CO1) (Apply/IOCQ)]
(c) With the help of an example explain HTML frame. State the disadvantages of using HTML frame. [(CO1) (Understand/LOCQ)]
3 + 4 + (3 + 2) = 12
3. (a) Justify the significance of the name HTML. [(CO1) (Create/HOCQ)]
(b) Design a java swing programme where there will be three buttons; red, green and blue. Clicking on these buttons, the background colours will be changed accordingly. [(CO1) (Create/HOCQ)]
(c) Explain different selectors present in CSS. Give example.
(CO1)(Understand/LOCQ)]
3 + 4 + 5 = 12

Group - C

4. (a) Explain with example the purpose of following expressions in the context of JavaScript.
(i) Function Definition Expression
(ii) Property Access Expression
(iii) Conditional Property Access. [(CO1) (Remember/LOCQ)]

- (b) Describe with example the purpose of for/of and for/in loop statements in JavaScript. [(CO1) (Understand/LOCQ)] **(2 × 3) + (3 × 2) = 12**
5. (a) Define Servlet. [(CO2) (Understand/LOCQ)]
(b) Describe life cycle of Servlet with diagram. [(CO2) (Understand/LOCQ)]
(c) Implement concept of cookie using Servlet. [(CO3)(Apply /HOCQ)] **2 + 4 + 6 = 12**

Group - D

6. (a) Draw and explain JSP lifecycle. [(CO4) (Understand/LOCQ)]
(b) Design a page with the help of JSP which is used to read the value of check boxes from an HTML page and display the value. Write all necessary assumptions. [(CO4) (Create/HOCQ)] **(2 + 4) + 6 = 12**
7. (a) Using JSP and JDBC technology design a student registration form which will be submitted after clicking submit button. If the entry is duplicate it will generate an error message else it will supply user name and password for respective student. [(CO4) (Apply/IOCQ)]
(b) Write a JSP to display the Fibonacci series for a given term. [(CO3) (Apply/IOCQ)] **7 + 5 = 12**

Group - E

8. (a) Explain the concept of Abstract Schema and Persistence in the context of Entity Bean's Container Managed Persistence. [(CO5) (Remember/LOCQ)]
(b) Describe the architecture of Remote Method Invocation (RMI) technology with diagram. Define marshalling and unmarshalling in the context of RMI. [(CO6) (Understand/LOCQ)]
(c) Define Java Native Interface (JNI). [(CO5) (Understand/LOCQ)] **4 + (4 + 2) + 2 = 12**
9. (a) Differentiate between XML and HTML. [(CO6) (Analyze/IOCQ)]
(b) Explain with example the purpose of XML elements and attributes. [(CO6) (Understand/LOCQ)]
(c) Create a XML file for book related informations (title, author, price, publisher) and validate it using DTD and XML Schema separately. [(CO6) (Create/HOCQ)] **2 + 4 + 6 = 12**

Cognition Level	LOCQ	IOCQ	HOCQ
Percentage distribution	52.10%	21.90%	26.00%

Course Outcome (CO):

After the completion of the course students will be able to

INF03101.1. Design web pages using HTML, Java Script and CSS and compare between Applet and swing.

INF03101.2. Distinguish between Servlet and CGI technology.

INF03101.3. Explain the relationship between JSP and Servlet.

INF03101.4. Implement server side program using servlet and JSP to a DBMS and perform insert, update and delete operations on DBMS table.

INF03101.5. Analyze J2EE architecture.

INF03101.6. Describe EJB, RMI and XML and relate them with J2EE.

*LOCQ: Lower Order Cognitive Question; IOCQ: Intermediate Order Cognitive Question; HOCQ: Higher Order Cognitive Question

Department & Section	Submission Link
IT	https://classroom.google.com/c/NDA1MjEwMjMwOTQ1/a/NDYzNjAzMzQxNTk4/details