

- (d) What is for <action-mapping> sub elements in struts config file?
- (e) Explain struts-framework in detail.
- (f) Explain the format of conditional statements? Give Example.

Q:-3 Attempt any 2 questions

10X2

- (a) Write a servlet program to insert five values coming from JPS page in database?
- (b) (i) Describe session tracking for JSP pages if the browser have disabled cookies.
(ii) How can we declare methods within JSP page. Explain with example.
- (c) List all the steps of JDBC for creating connection with a database.

Q:-4 Attempt any 2 questions

10X2

- (a) Write a JSP program to insert a record into a table from form?
- (b) (i) Explain exception handling in java with a suitable example.
(ii) What is Action.execute() method?
- (c) Explain the basic steps in using JDBC. Write a program to demonstrate these steps?

Q:-5 Attempt any 2 questions

10X2

- (a) (i) Write a program that show the Threads have a independent path of execution using run and sleep method?
(ii) Compare 2-tier, 3-tier and N-tier architectures.
- (b) (i) Write the names of implicit objects in JSP. Also provide the differences among them. Why we need them?
(ii) Explain life cycle of servlet. Explain the different authentication options available in servlet.
- (c) Write a program to print name and roll number from database on JSP page?

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