Q-1. Explain any 3 of the following. (30)

a) Briefly explain Servlet life cycle.

b) What do you mean by Session ? Briefly describe HttpSession interface.

c) What do you mean by implicit objects of JSP ? Explain request and response as implicit objects.

d) Explain basic JSP Life cycle.

e) What is scope of variable ? Explain different scopes of JSP variables in context of Page, Request, Session and Application.

f) What is Database Meta Data and ResultSet Meta Data. Explain briefly.

Q-2. Explain any 6 of the following. (30)

a) What do you mean by ServletContext ? Explain Briefly.

b) Explain Stubs and Skeleton in RMI.

c) Briefly explain Types of JDBC Drivers.

d) What is ResultSet. Explain related methods.

e) Explain Architecture styles. (2-Tier, 3-Tier and N-Tier)

f) What do you mean by scripting elements in JSP. Explain in detail.

g) What is Cookies ? Explain how cookie management is done in J2EE.

h) Describe URL Rewriting and Hidden Form Fields with approach to Session tracking.

i) Explain page directive in JSP.

j) What is the use of RequestDispatcher interface. Describe briefly.

k) Explain <jsp:include> and <jsp:forward> Action elements.

Q-3. Describe following. (Any 6) (18)

1) service() of servlet 7) getParameterNames() of servlet

2) application object in JSP 8) getWriter() of response

3) setAttribute() of session 9) isNew() of session

4) removeAttribute() of Servlet context 10) Tomcat as Web Container

5) exception object in JSP 11) Comments in JSP

6) <jsp:plugin> 12) EL in JSP

Q-4. Write any 2 programs from the following. (20)

a) Write one HTML code to input login details. i.e. user name and password.
Process login details in a JSP file. If username is your name and password is
HNS, JSP file should show success message, else control should be transferred
to Error.JSP file. Show appropriate message in Error.jsp file.
b) Create a view servlet which will show all the Cookies stored in client's pc as well
as all the current session attributes stored.
c) Create a Login page using JSP and one controller servlet which will process the
username and password. If username is your name and password is HNS,
control should be transferred to another servlet called success, else transfer
control to error servlet. (You have to just assume success servlet and error
serlet, not write)
d) Consider student table having 5 colums. (studid, name, sex, age, city). Write a
JDBC program to input one row (insert) by giving 5 parameters and values.
Assume that there is one ODBC connection created named HNS.

Q-5. Find out Following method / term / meaning (Any 2) (2)

1. The method executed by first when Servlet is compiled and executed first time.
2. A type of statement of JDBC which allows you to give parameterized query.
3. A method of session which destroys all server variables and removes the
session.
4. An important Deployment Descriptor file of J2EE Web Application.