Enterprise Java

Instructions : (1) All **questions are** compulsory.

(2) **Make suitable assumptions** wherever **necessary** and **state the assumptions** made.

(3) **Answers** to the **same questions** must be **written together**.

(4) **Numbers** to the **right indicate marks**.

(5) Draw **neat** labeled **diagrams wherever necessary**.

(6) Use of **Non-programmable** calculators is **allowed**.

1. Attempt the following (any **THREE**)   **[15]**

(a) What is an Enterprise Application? Explain architecture of an enterprise application.

(b) What are different technologies provided by Java EE platform?

(c) Explain life cycle of servlet with diagram.

(d) Develop simple servlet question answer application.

(e) Explain different types of JDBC drives.

(f) Write a program to accept details of a person & using servlet store those details in database.

2. Attempt the following (any **THREE**)   **[15]**

(a) Index.html file with two text boxes to enter username and password and a login button. Login.java servlet class to process the response. If the password is "servlet" it should forward the request to Welcomeservlet.java which displays "Welcome <username>". If the password is not "servlet", login.java should display "sorry username or password error!!!".

(b) Explain different constructors & methods of cookie class.

(c) Create a servlet that uses cookies to store number of times an user has visited servlet.

(d) Explain lifecycle of Http Session.

(e) Write a program to create to servlet application to upload a file.

(f) Write a program to create a servlet application to download a file.

3. Attempt the following (any **THREE**)   **[15]**

(a) Distinguish between JSP and Servlets.

(b) Explain different types of JSP tags with example.

(c) Explain different JSP action elements with example.

(d) Create a registration and login.jsp application to register and authenticate the user based on username and password using JDBC.

(e) Write a short note on expression language in JSP.

(f) Create a JSP application to demonstrate the use of JSTL.

4. Attempt the following (any **THREE**)   **[15]**

(a) Explain different types of EJB.

(b) Create a currency converter application using EJB.

(c) Explain lifecycle of stateful session beans.

(d) Develop simple EJB application to demonstrate servlet hit count using singleton session beans.

(e) What different things an interceptor can do with request, also explain defining and interceptor.

(f) What is JNDI?

5. Attempt the following (any **THREE**)   **[15]**
   (a) Explain persistence in java.
   (b) Why ORM is used? Explain ORM.
   (c) Explain how JPA works.
   (d) Explain architecture of hibernate.
   (e) Explain structure of guestbook.hbm.xml file (Hibernate mapping file).
   (f) Explain structure of hibernate.sfg.xml file (Hibernate configuration file).

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Paper Discussion Schedule for all Subjects

Date	Day	Timing	Centre
12 Nov. 2018	Monday	9.00 a.m. to 11.00 a.m.	Nerul
12 Nov. 2018	Monday	12.00 p.m. to 2.00 p.m.	Thane
12 Nov. 2018	Monday	3.00 p.m. to 5.00 p.m.	Dombivli
13 Nov. 2018	Tuesday	9.00 a.m. to 11.00 a.m.	Ghatkopar
13 Nov. 2018	Tuesday	12.00 p.m. to 2.00 p.m.	Andheri
13 Nov. 2018	Tuesday	3.00 p.m. to 5.00 p.m.	Borivali
14 Nov. 2018	Wednesday	9.00 a.m. to 11.00 a.m.	Dadar