

B3.3-R5 : WEB TECHNOLOGIES

NOTE :

1. Answer question 1 and any FOUR from questions 2 to 7.
2. Parts of the same question should be answered together and in the same sequence.

Total Time : 3 Hours

Total Marks : 100

1.
 - (a) Explain the step by step process of creating and executing a JAVA program.
 - (b) Differentiate between Class and Interface.
 - (c) What are the differences between Type-1 and Type-2 JDBC Drivers ?
 - (d) What are the stages in the Servlet Life Cycle ? How can a JAVA class become a Servlet ?
 - (e) Describe the phases in the life cycle of Java Server Pages.
 - (f) What is the role of Hibernate in the Java based web development ?
 - (g) What are the components of MVC Design pattern ? Explain in brief. (7x4)
2.
 - (a) What is Object Relational Mapping ? Explain how O/R Mapping is performed in Hibernate ? Elaborate.
 - (b) What is Dependency Injection Technique ? How is it different from Constructor Injection ? (9+9)
3.
 - (a) What are Java Collections ? What all collections can play important role in the web development ? Briefly explain.
 - (b) Elaborate the various object oriented principles used in designing a web application. Briefly explain. (9+9)
4.
 - (a) What are Java Lambda expressions ? Describe the different usage of lambda expressions in web application development.
 - (b) What are DDL and DML operations ? How JDBC supports the DDL and DML operations. Explain with an example. (9+9)
5.
 - (a) What do you understand by session management in web applications ? Describe some of the ways by which sessions are tracked in the application.
 - (b) What role is played by Servlet Context and Servlet Config in the Servlet Life Cycle during web application development ? (9+9)
6.
 - (a) What is a Custom tag library ? How do you create JSP standard tag library ? Briefly explain.
 - (b) What are different directives that can be used on Java Server Pages ? Give one example and discuss the utility of any one directive in the web development. (9+9)
7. Write short notes on the following :
 - (a) URL Rewriting
 - (b) JSP Exception Handling
 - (c) Spring Annotations (3x6)

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