

M.Sc.(IT & CA) Semester - 1 (CBCS) Examination**Nov/Dec - 2022 [NEW COURSE]****APPLICATION DEVELOPMENT USING ADVANCE JAVA(CORE)****Time: 2:30 Hours****Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

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- Q-1 (a) Answer the following questions [3]
1. Full form JSP.
 2. Full form of MVC.
 3. Full form of JDBC.
- (b) Answer the following questions (ANY TWO) [6]
1. What is Constructor-based dependency?
 2. What is setter-based dependency?
 3. Explain Dependency Injection with Factory Method.
 4. What is the use/role of IoC container in Spring Framework?
- (c) Answer the following questions (ANY ONE) [5]
1. Explain Benefits/Advantages of Spring Framework.
 2. Explain Constructor injection with Collection.
- Q-2 (a) Answer the following questions [3]
1. What is Spring JdbcTemplate?
 2. What is RowMapper?
 3. What is Spring Expression Language?
- (b) Answer the following questions (ANY TWO) [6]
1. Write advantages of JPA Template with spring framework.
 2. Explain PreparedStatement with JdbcTemplate class.
 3. Explain the flow of Web MVC in Spring Framework.
 4. Explain in brief: Spring remoting with RMI
- (c) Answer the following questions (ANY ONE) [5]
1. Explain ResultSetExtractor with JdbcTemplate class.
 2. Explain advantages of ORM framework used with spring.
- Q-3 (a) Answer the following questions [3]
1. Write a Full form of JAXB.
 2. What is Xstream?
 3. What is the role of JavaMailSender interface?
- (b) Answer the following questions (ANY TWO) [6]
1. Explain Castor with spring in brief.
 2. Explain in brief: Hibernate Framework
 3. Write spring framework and struts integration steps.
 4. Write steps to create hibernate application without IDE.
- (c) Answer the following questions (ANY ONE) [5]
1. Explain Spring Java Mail API.
 2. Write advantages of Hibernate framework.

- Q-4 (a) Answer the following questions [3]
1. Define Inheritance Mapping.
 2. What is mapping bag?
 3. What is bidirectional?
- (b) Answer the following questions (ANY TWO) [6]
1. Explain structure of XML mapping file collection mapping in hibernate.
 2. Explain Mapping List collection mapping using xml file.
 3. Explain <key> element of Collection mapping file.
 4. Explain One-to-Many mapping with Mapping Set.
- (c) Answer the following questions (ANY ONE) [5]
1. Explain Hibernate Table per Hierarchy using xml file.
 2. Explain One-to-Many mapping using List by XML.
- Q-5 (a) Answer the following questions [3]
1. What is Transaction?
 2. Full form of HQL.
 3. What is cache?
- (b) Answer the following questions (ANY TWO) [6]
1. Explain various methods of criteria interface.
 2. Explain Caching in Hibernate.
 3. Explain various methods of criteria interface.
 4. Define First Level Cache and Second Level Cache.
- (c) Answer the following questions (ANY ONE) [5]
1. Explain component mapping in detail.
 2. Explain various methods of Restrictions class.
