



JV-003-003507

Seat No. _____

B. C. A. (Sem. V) (CBCS) Examination

October - 2019

CS-25 : Advance JAVA Programming (J2EE)

(New Course)

Faculty Code : 003

Subject Code : 003507

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- 1 (A) Attempt the following : 4
- (1) The _____ logic resides at the middle tier. [Applocation Logic](#)
 - (2) Which API provides server-side software component level functionality in a J2EE application? [EJB](#)
 - (3) Which package needs to be imported for implementing JDBC API in a JDBC Program? [java.sql](#)
 - (4) Which interface is used to call stored procedure in JDBC? [CallableStatement interface](#)
- (B) Attempt any **one** of the following : 2
- (1) Define the term JavaMail.
 - (2) What is a Web Container?
- (C) Attempt any **one** of the following : 3
- (1) What is J2EE? Explain J2EE Platform using J2EE APIs.
 - (2) List and explain any two types of JDBC drivers.
- (D) Attempt any **one** of the following : 5
- (1) What are Enterprise Architecture Styles? Explain N-Tier Architecture in detail using appropriate diagram.
 - (2) Explain the JDBC-MySQL connectivity stepwise in detail with example.

- 2 (A) Attempt the following : 4
- (1) A stub for a remote object acts as a client's local representative or proxy for the remote object in RMI.
 - (2) RMI stands for Remote Method Invocation
 - (3) Which package needs to be imported for a servlet? javax. servlet
 - (4) web.xml file is known as a Deployment Descriptor.
- (B) Attempt any **one** of the following : 2
- (1) Write a note on stub and skeleton.
 - (2) What is a servlet?
- (C) Attempt any **one** of the following : 3
- (1) What is RMI? Explain RMI Architecture in detail.
 - (2) Explain session mechanism in Servlet.
- (D) Attempt any **one** of the following : 5
- (1) Explain the Servlet Lifecycle in detail.
 - (2) Write a Servlet to indicate page counter or the number of times user has visited the page.
- 3 (A) Attempt the following : 4
- (1) Scriptlet tag allows to write Java code into JSP file. Scriptlet tag (<% %>)
 - (2) Which tag is used as start and end JSP in a JSP page? start with <% tag and ends with%> tag
 - (3) Which tag is used for plugin mechanism in JSP page? <jsp:plugin>
 - (4) JavaBean are special classes that are serializable having a zero-argument constructor and allow access to properties using getter and setter methods and can be reused in a J2EE application.
- (B) Attempt any **one** of following : 2
- (1) What are including and forwarding techniques of JSP Pages?
 - (2) Define: JSP Implicit Objects.

- (C) Attempt any **one** of the following : 3
- (1) List and explain JSP Action Elements.
 - (2) Write a note on JavaBean Properties and Methods.
- (D) Attempt any **one** of the following : 5
- (1) Explain Life cycle of a JSP page in detail with its methods.
 - (2) Explain Directive Elements of JSP in detail.
- 4 (A) Attempt the following : 4
- (1) The full form of EJB is enterprise java bean
 - (2) In MVC, the _____ defines java bean classes that internally define the system state and actions to change that state.
 - (3) ORM stands for Object Relation Mapping
 - (4) _____ provides mapping information in Hibernate. Hibernate mapping file
- (B) Attempt any **one** of the following : 2
- (1) Define the term MVC. bean-managed persistent
 - (2) Give the full form of BMP and CMP. Container-managed persistence
- (C) Attempt any **one** of the following : 3
- (1) Write a note on Types of EJB.
 - (2) Explain Hibernate configuration file.
- (D) Explain any **one** : 5
- (1) Explain the benefits of EJB.
 - (2) What is Annotation in Hibernate? Explain the Hibernate inheritance in detail.
- 5 (A) Attempt the following : 4
- (1) Spring is a lightweight, loosely coupled integrated framework for developing Enterprise level Java applications.
 - (2) IoC stands for Inversion of Control
 - (3) What is the full form of AOP? Aspect Oriented Programming
 - (4) Struts based applications use _____ in design pattern of an application. Front Controller

- (B) Attempt any **one** of following : **2**
- (1) Give the definition of Spring Context.
 - (2) What is Struts?
- (C) Attempt any **one** of following : **3**
- (1) Write a note on AOP in Spring.
 - (2) Write a note on the Properties File in a Struts application.
- (D) Attempt any **one** of following : **5**
- (1) Explain Spring Architecture in detail.
 - (2) Explain Struts Flow of Control.
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