**POORNIMA UNIVERSITY, JAIPUR**

**END SEMESTER EXAMINATION, November 2022**

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|  | **2BC3101** | Roll No. | Total Printed Pages: 2 |
| **2BC3101** |  |
| BCA (CT, CM, CT& MO) III Semester (Back) End Semester Examination, November 2022 | |
| **BCA03101 / BCT03101 / BCM03101 / BMC03101: Advanced Java Programming** | | | |

# Time: **3** Hours. Total Marks: **60**

Min. Passing Marks: **21**

Attempt **five** questions selecting one question from each Unit. There is internal choice from Unit I to Unit V. Marks of each question or its parts are indicated against each question / parts. Draw neat sketches wherever necessary to illustrate the answer. Assume missing data suitably (if any) and clearly indicate the same in the answer.

Use of following supporting material is permitted during examination for this subject.

# **1. --------------------------Nil--------------------** **2. ------------------Nil-----------------------**

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|  |  | **UNIT-I (CO1)** | **Marks** |
| **Q.1** | **(a)** | Suppose a developer wants to make an application to be executed onto the server and the results to be displayed at the client machine. Which feature of enterprise java he could utilise for it. Also, explain how the security of this application could be implemented at each step of its lifecycle. Explain with the help of an appropriate example | **(6)** |
|  |  |  |  |
|  | **(b)** | How a web application keeps track of its different servlets and classes within a web application. How would you display a servlet through it? Take a suitable example and explain. | **(6)** |
|  |  | OR |  |
| **Q. 2** |  | Let a developer has made a complex and big web application. Now, he wants to compile all the web resources, java classes and library of his project together as a single unit for the web container. How can he do it and how the mapping is maintained by the web container? Explain the entire hierarchy by taking a suitable example. | **(12)** |
|  |  | **UNIT-II (CO2)** |  |
| **Q.3** |  | “JSPs are well suited for creating content for a dynamic website”. Define the statement by justifying the need of JSP even if we have servlet for making a web application. Also explain how the structure of JSP web application is different from a servlet application by taking a suitable example. | **(12)** |
|  |  | OR |  |
| **Q.4** | **(a)** | “The JSP uses syntax to allow java code to be embedded within the static content” How. Explain with the help of a suitable example. | **(6)** |
|  |  |  |  |
|  | **(b)** | “JSP never deals with the Http request or response “Is it true? Justify your answer by clearly mentioning the process of execution of a JSP with the help of appropriate architecture. | **(6)** |
|  |  | **UNIT-III (CO3)** |  |
| **Q.5** | **(a)** | Suppose a developer wants a proper navigation and reusability of the UI code fragment in his project. Which feature of enterprise java he could use for it. Explain with the help of an example. | **(6)** |
|  |  |  |  |
|  | **(b)** | How the assembling of dynamic web pages in JSF could enhance the modularity and extensibility with java managed bean. Explain with the help of an appropriate program. | **(6)** |
|  |  | **OR** |  |
| **Q.6** |  | Suppose a user is making a project by putting together the different components, XHTML and java Beans. Which feature of enterprise java he could use for it. How this feature could utilize the MVC architecture. Define the entire working structure by taking the example of a suitable web application. | **(12)** |
|  |  | **UNIT-IV (CO4)** |  |
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| **Q.7** |  | Let a manager of a company wants to hire a software developer and he interviewed two software developers for it. One is using JDBC and another is using Hibernate in his projects. To whom should the manager hire and why? Justify your selection by explaining the features of the working of the stratergies of both the developers and their differences with the help of an example for each | **(12)** |
|  |  | **OR** |  |
| **Q.8** |  | Suppose a developer has made a project utilising the feature of JDBC. Now for enhancing the qualities of his project he wants to change his database. Would it be possible for him easily? Why or Why not. What are the difficulties he must be facing in this case? Define any four with example | **(12)** |
|  |  | **UNIT V (CO5)** |  |
| **Q.9** | **(a)** | For injecting the dependency in any of your java project how the meta data could be provided to you. Explain with the help of an example | **(6)** |
|  |  |  |  |
|  | **(b)** | How a dependency injection is helpful to make a loosely coupled module in your Enterprise java project. Explain its benefit with the help of an example. | **(6)** |
|  |  | **OR** |  |
| **Q.10** | **(a)** | Spring framework comprises of many modules at run time. Which Container of spring framework contains JDBC, ORM, OXM and JSM transaction modules? What is the utility of this Container? Explain with the help of an appropriate example. | **(6)** |
|  |  |  |  |
|  | **(b)** | Let I am working on a project and I want to reduce the dependency of the project modules to make them loosely coupled. Which feature of java I could utilise for it. What would be the benefit of it? Explain with the help of an appropriate example | **(6)** |