

Enrollment No. \_\_\_\_\_


**NAVVRACHANA  
UNIVERSITY**
*a UGC recognized University*

**School:** School of Engineering and Technology  
**Program:** BCA  
**Year:** 2<sup>nd</sup> **Semester:** 4<sup>th</sup>  
**Examination:** End Semester Examination  
**Examination year:** May-2023

**Course Code:** CA222 **Course Name:** J2EE Technologies  
**Date:** 17.05.2023  
**Time:** 10:00 am to 12:00 pm

**Total Marks:** 40  
**Total Pages:** 1

**Instructions:**

→ Write each answer on a new page.

		Marks	COs*	BTL#
<b>Q.1</b>	<b>Attempt Any four. [4X5]</b>			
[a]	List various Collections of Spring framework with examples.(any five)	[5]	CO4	2,3
[b]	Explain different scopes in the context of JSP : session, application,page.	[5]	CO3	2
[c]	Explain the concept of Dependency Injection and Inversion of Control	[5]	CO4	2
[d]	Differentiate between createStatement and preparedStatement	[5]	CO2	2,3,4
[e]	Explain the concept of Object Relational Mapping with an example.	[5]	CO2, CO4	2,3
<b>Q.2</b>	<b>Attempt Any two. [2X10]</b>			
[a]	Explain different modules of Spring framework in detail.(any five)	[10]	CO4	2,3,6
[b]	Explain the page directive with an example.	[10]	CO3	2,3,6
[c]	Write a short note on Servlet Life Cycle	[10]	CO1	2,3

\*\*\*\*\*End of Question Paper\*\*\*\*\*