



BHARATIYA VIDYA BHAVAN'S
SARDAR PATEL INSTITUTE OF TECHNOLOGY

MUNSHI NAGAR, ANDHERI (WEST), MUMBAI - 400 058, India
(Autonomous College Affiliated to University of Mumbai)

End Semester Examination

Max. Marks: 100

Class: FY MCA

Course Code: MC506

Subject: JAVA Programming

Semester: II

Date: 24/05/2024

Time: 180 minutes

Instructions: (1) All questions are compulsory.
(2) Assume any necessary data but justify the same.

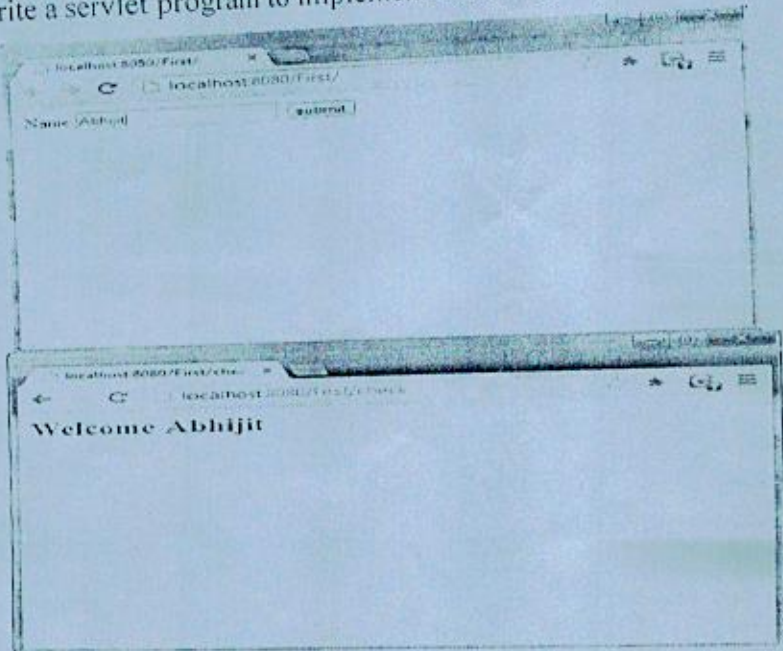
Q. No.	Questions	Marks	CO	BL																														
		20																																
Q. 1	Attempt any Five		CO1	L4																														
A.	Differentiate between OOP and POP		CO1	L4																														
B.	Difference between scanner and bufferreader		CO1	L4																														
C.	Fill the gaps <table><thead><tr><th></th><th>Private</th><th>Protected</th><th>Public</th><th>No Modifier</th></tr></thead><tbody><tr><td>Same class</td><td>Yes</td><td>Yes</td><td>Yes</td><td>Yes</td></tr><tr><td>Same package subclass</td><td><input checked="" type="checkbox"/></td><td>Yes</td><td>Yes</td><td>Yes</td></tr><tr><td>Same package non-subclass</td><td><input checked="" type="checkbox"/></td><td>Yes</td><td>Yes</td><td>Yes</td></tr><tr><td>Different package subclass</td><td>No</td><td><input checked="" type="checkbox"/></td><td>Yes</td><td><input checked="" type="checkbox"/></td></tr><tr><td>Different package non-subclass</td><td>No</td><td><input checked="" type="checkbox"/></td><td>Yes</td><td><input checked="" type="checkbox"/></td></tr></tbody></table>		Private	Protected	Public	No Modifier	Same class	Yes	Yes	Yes	Yes	Same package subclass	<input checked="" type="checkbox"/>	Yes	Yes	Yes	Same package non-subclass	<input checked="" type="checkbox"/>	Yes	Yes	Yes	Different package subclass	No	<input checked="" type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	Different package non-subclass	No	<input checked="" type="checkbox"/>	Yes	<input checked="" type="checkbox"/>		CO1	L2
	Private	Protected	Public	No Modifier																														
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D.	What is a constructor in Java?		CO1	L2																														
E.	Explain the the IS-A relationship in JAVA		CO1	L3																														
F.	What is polymorphism? write with an example?		CO1	L2																														
G.	Write the rules for Rules for abstract class																																	
Q. 2	Attempt any Four	20																																
A	Why use custom exceptions in java? write a User-Defined Exception for Validating Login Credentials. assume appropriate data. Should we make our exceptions checked or unchecked?		CO 2	L4																														
B	Write a java program with Java SequenceInputStream class used to read data from multiple streams. It reads data sequentially (one by one). It reads the data from two files and writes into another file		CO 2	L4																														
C	What are the different states in the life cycle of Thread? What if we call run() method directly instead start() method?		CO 2	L2																														
D	List and explain Components of JDBC.		CO 2	L2																														
E	Differentiate between callable and prepared statements used in JAVA for database connectivity		CO 2	L3																														



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F	To execute a query, what are the different ways to call an execute method in java?		CO 2	L2
Q. 3 A	Write the working of following function w.r.t. Servlet Life cycle 1. init() 2. service() 3. ddestroy()	05	CO3	L3
Q. 3 B	write a servlet program to implement following output 	05	CO3	L4
Q. 3 C	Compare between Context Init parameters Servlet Init parameter used in servlet	05	CO3	L3
Q. 3 D	Which one is preferable Generic servlet and Web servlet in implementing dynamic web pages	05	CO3	L2
Q. 4 A	Write the steps to implement JSP Processing.. Explain The following are the paths followed by a JSP – • Compilation • Initialization • Execution • Cleanup	07	CO4	L2
Q. 4 B	Write an example on Classification of The JSTL Tags	06	CO4	L2
Q. 4 C	Write different methods for maintaining Session Between Web Client And Server in JSP	07	CO4	L3
OR				
	Write different methods for Deleting Session Data options in JSP			



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Q. 5 A	Comment on “POJO is an object which encapsulates Business Logic” Write the benefits of POJO. List the properties of POJO Class	10	CO4	L3
Q. 5 B	Write the importance of Spring. Also Write the importance of <ul style="list-style-type: none">• JNDI Registry• Inversion of Control• Dependency Injection <p>OR</p> <p>Comment on “All JavaBeans are POJOs but not all POJOs are JavaBeans”. Write different ways to implement the life cycle of a bean</p>	10	CO4	L2