QP Code: RN22BTECH311 | Reg. No | | | | | | | | | | | AR 22

Gandhi Institute of Engineering and Technology University, Odisha, Gunupur
(GIET University)

B. Tech (Fifth Semester - Regular) Examinations, November – 2024

22BCMOE35011– Advanced JAVA

(CSE/CSE-AIML/CSE-DS)

Time: 3 hrs | Maximum: 70 Marks

Answer ALL questions

(The figures in the right hand margin indicate marks)

PART – A **(2 x 5 = 10 Marks)**

Q.1. Answer ***ALL*** questions	CO #	Blooms Level
a. Explain the differences between Servlets & CGI.	CO2	K1
b. Differentiate between the sendRedirect() and forward() methods.	CO2	K1
c. Explain how ServletConfig is different from ServletContext.	CO2	K2
d. What is a cookie? Explain all the methods associated with the Cookie class.	CO3	K2
e. What is ResultSetMetaData ? Explain with an example.	CO1	K1

PART – B **(15 x 4 = 60 Marks)**

Answer ***All*** the questions	Marks	CO #	Blooms Level
2. a. Explain advantages and disadvantages of all types of JDBC drivers with neat diagram.	8	CO1	K1
b. Create a table "student" with columns empid (number) and empname(varchar) and declare empid as primary key. Create a sequence "empseq", which will generate employee ids between 100 and 200. Write a JDBC program to insert a record into "student" table by using Sequence.	7	CO1	K2
(OR)			
c. Explain the steps to connect to Oracle/MySQL database using JDBC. Write a program to insert two records into a table “Student” having columns SID,SNAME and SBRANCH by using PreparedStatement interface.	8	CO1	K1
d. Write a program to create a procedure “INSERTR” which will insert a record into a table “Department” with columns DEPT_ID, DEPT_NAME. Write a JDBC Program to execute the procedure “INSERTR” by using CallableStatement interface.	7	CO1	K2
3.a. Define a servlet. List out the advantages of servlet over applet.	8	CO2	K1
b. Create a Servlet that recognizes the first-time visitor to a web application and responds, "Welcome, you are visiting for the first time". When the page is visited for the second time, it should say 'Welcome Back'.	7	CO2	K2
(OR)			
c. Explain with a neat diagram the life cycle of a Servlet. Write a program to display “Hello Servlet” when clicking a button.	8	CO2	K1
d. Elaborate servlet chaining. Explain the usage of the forward() method with a suitable example.	7	CO2	K1
4.a. Explain the JSP Life Cycle with a neat diagram. Write a program to depict the usage of the JSP **request** object.	8	CO3	K2

b.	Explain the following JSP Scripting elements with an example of each. • Scriptlet tag • Expression tag • Declaration tag	7	CO3	K1
	(OR)			
c.	Explain JSP inbuilt objects with their use in the application.	8	CO3	K2
d.	Explain the following JSP action tags with an example of each. • jsp:forward tag • jsp:include tag • jsp:param tag	7	CO3	K1
5.a.	Explain the elements of the architecture of Hibernate with a neat diagram.	8	CO4	K1
b.	Explain the advantages of Hibernate over JDBC.	7	CO4	K1
	(OR)			
c.	Define @Autowired annotation in Spring Boot. Write down the steps to use @Autowired in Spring Boot.	8	CO4	K1
d.	Write short notes on the following: - Hibernate Query Language (HQL) - Object Relation Mapping (ORM)	7	CO4	K1

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