

GYANMANJARI INNOVATIVE UNIVERSITY

Gyanmanjari Diploma Engineering College

Diploma Engineering End Semester Examination (ESE)-Summer - 2026

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

Date: 22/05/2026

Subject Code: DETCE14211

Semester: 4

Subject Name: Advance Object-Oriented Programming

Total Marks: 100

Time: 10:30AM To 01:30PM

Instructions:

1. Question No. 1 is Compulsory.
2. Make Suitable Assumptions wherever necessary.
3. Figures to the right indicate full marks.

	Marks
Q.1 (a) Define exception in Java. Explain types of exceptions. Java માં Exception શું છે તે વ્યાખ્યાયિત કરો.	05
(b) Write short notes on multiple catch blocks. Multiple catch blocks વિશે ટૂંકી નોંધ લખો.	05
(c) Explain servlet lifecycle with diagram. Servlet Life Cycle આકૃતિ સાથે સમજાવો.	10
Q.2 (a) Explain thread and multithreading in Java. Java માં Thread અને Multithreading સમજાવો.	05
(b) Define JDBC. JDBC શું છે તે સમજાવો.	05
OR	
(b) Explain different types of JDBC drivers. JDBC Drivers ના વિવિધ પ્રકાર સમજાવો.	05
(c) Explain different ways to create threads in Java with examples. Java માં Thread બનાવવાની વિવિધ પદ્ધતિઓ ઉદાહરણ સાથે સમજાવો.	10
OR	
(c) Explain Java file handling using stream classes with examples. Stream Classes નો ઉપયોગ કરીને Java File Handling ઉદાહરણ સાથે સમજાવો	10
Q.3 (a) Explain BufferedReader and BufferedWriter. BufferedReader અને BufferedWriter સમજાવો.	05
(b) Explain Statement, PreparedStatement, and CallableStatement. Statement, PreparedStatement અને CallableStatement સમજાવો.	05
(c) Write a Java program for TCP client-server communication. TCP Client-Server Communication માટે Java પ્રોગ્રામ લખો.	10

OR

- (a) Explain metadata handling in JDBC. JDBC માં Metadata Handling સમજાવો. 05
- (b) Explain transaction management in JDBC. JDBC માં Transaction Management સમજાવો. 05
- (c) Write a program to perform CRUD operations using JDBC. JDBC નો ઉપયોગ કરીને CRUD Operations માટે Java પ્રોગ્રામ લખો. 10
- Q.4 (a) Explain Hibernate architecture. Hibernate Architecture સમજાવો. 05
- (b) Explain Hibernate mapping. Hibernate Mapping સમજાવો. 05
- (c) Write steps to configure Hibernate and perform CRUD operations. Hibernate Configure કરીને CRUD Operations કરવા માટેના પગલાં લખો. 10
- OR
- (a) Explain O/R mapping concept. O/R Mapping ની સંકલ્પના સમજાવો. 05
- (b) Explain advantages of servlets. Servlets ના ફાયદા સમજાવો. 05
- (c) Write a servlet program to read parameters from HTML form. HTML Form માંથી Parameters વાંચે એવો Servlet Program લખો. 10
- Q.5 (a) Explain servlet architecture. Servlet Architecture સમજાવો. 05
- (b) Explain session tracking. Session Tracking સમજાવો. 05
- (c) Explain ResultSet navigation and transaction management in detail. ResultSet Navigation અને Transaction Management વિગતવાર સમજાવો. 10
- OR
- (a) Explain cookies in servlets. Cookies in Servlets સમજાવો. 05
- (b) Explain RequestDispatcher methods. RequestDispatcher ના Methods સમજાવો. 05
- (c) Explain HQL with syntax and examples. HQL Syntax અને ઉદાહરણ સાથે સમજાવો. 10