

Name:

Enrolment No:



## UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, Dec 2022

Program Name : B.Tech. CSE (All Branches)

Semester : III

Course Name : Object Oriented Programming

Time : 3 hrs

Course Code : CSEG 2020

Max. Marks : 100

Nos. of page(s) : 01

Instructions : Answer all the Questions

### SECTION A (5Qx4M=20Marks)

| Q. No. |  | Marks | CO  |
|--------|--|-------|-----|
| 1      | What is the difference between byte and char data types in Java?                     | 4     | CO1 |
| 2      | Formulate when to use abstract classes and interfaces. (min. 4 usage scenarios each) | 4     | CO2 |
| 3      | How can we rethrow an exception? Demonstrate the use of the finally block.           | 4     | CO3 |
| 4      | Contrast the features of the different types of Inner classes.                       | 4     | CO4 |
| 5      | Illustrate the use of different JSP scripting elements.                              | 4     | CO5 |

### SECTION B (4Qx10M= 40 Marks)

|   |   |    |     |
|---|---|----|-----|
| 6 | What is Overloading? Demonstrate Constructor and Function Overloading with suitable code.         | 10 | CO1 |
| 7 | Interpret the use of the 'final' keyword with variables, methods, and classes with relevant code. | 10 | CO2 |
| 8 | Appraise five methods to implement string concatenation with suitable code.                       | 10 | CO3 |
| 9 | Write a detailed note on thread scheduling.   | 10 | CO4 |

### SECTION-C (2Qx20M= 40 Marks)

|    |   |    |     |
|----|---|----|-----|
| 10 | (a) Discuss establishing JDBC Connection in Java. (10 marks)<br>(b) Explain the different types of JDBC drivers. (10 marks)                   | 20 | CO4 |
| 11 | (a) Sketch and explain the life cycle of a Servlet. (8 marks)<br>(b) Describe the techniques used in Session tracking in Servlets. (12 marks) | 20 | CO5 |