

**DEPARTMENT: COMPUTER SCIENCE AND ENGINEERING**

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| *Internal Assessment* | **II** | *Academic Year/Semester* | **2024-25 / ODD S3** |
| *Course Code and Name* | CST 205 OBJECT ORIENTED PROGRAMMING USING JAVA | *Branch* | **CSE** |
| *Date of Exam* | 13/9/2024 | *Duration* | **90 Min** |
| *Starting time* | 9.30 am | *Max. Marks* | **50** |

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| **PART-A (*Answer all questions, Each carries 5 marks*) Max Marks: 20** | | | | |
| ***Q.No*** |  | ***Marks*** | ***CO*** | ***Level*** |
| **1** | **Differentiate** between checked and unchecked exceptions in Java, providing relevant examples. | **5** | III | L2 |
| **2** | **Explain** access specifiers in Java and their impact on the accessibility of class members within the same package and across different packages, considering inheritance. | **5** | III | L2 |
| **3** | **Illustrate** the working of two methods of the String class that compare strings. | **5** | IV | L2 |
| **4** | **List and describe** any 4 methods defined by the List interface in Java. | **5** | IY | L2 |

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| **PART-B (*Each question carries 15 marks)* Max Marks: 30** | | | | | |
| **5** | a. | **Demonstrate** the significance of the keywords try, catch, finally, throw, and throws in Java exception handling using appropriate examples | **8** | III | L3 |
| b. | **Define** interfaces and **explain** how they are used in Java. | **7** | III | L2 |
| **OR** | | | | | |
| **6** | a | **Create** two user-defined exceptions, EvenNumberException and OddNumberException, and write a Java class with a method that checks if a given number is even or odd. The method should throw EvenNumberException or OddNumberException based on the result, and illustrate exception handling with code examples. | **8** | III | L3 |
| b | **Discuss** what packages are and **describe** how packages are created and used in Java. | **7** | III | L2 |
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| **7** | a | **Write** a Java program that creates two threads: one to write odd numbers and another to write even numbers up to 100 into two different files. | **8** | IV | L3 |
| b | **How are** mouse events handled in Java? Provide suitable Java source code. | **7** | IV | L3 |
| **OR** | | | | | |
| **8** | a | **Develop** a Java program that creates multiple child threads to print odd and even numbers from 50-100 on separate lines.  Output:  Even numbers from 50 to 100:  50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100  Odd numbers from 50 to 100:  51 53 55 57 59 61 63 65 67 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97 99 | **8** | IV | L3 |
| b | **Explain** the event-handling mechanism in Java using the Delegation Event Model. | **7** | IV | L2 |

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| **Course Outcomes (CO):** |
| **CO3: Illustrate how robust programs can be written in Java using exception handling**  **mechanism** |
| **CO4: Write application programs in Java using multithreading and database connectivity** |
| **Bloom’s Taxonomy Level:** |
| L1: Remember, L2: Understand, L3:Apply L4:Analyze |



**INTERNAL EXAM QUALITY ASSESSMENT FORM**

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| --- | --- | --- |
| 1 | CO’s assessed in the question paper | CO3, CO4 |
| 2 | Blooms taxonomy levels assessed in the question paper | L2, L3 |
| 3 | Syllabus/units for the test (Modules) | 2 modules |
| 4 | Level of question paper as assessed by the faculty: (Tick Appropriate level)  DIFFICULT MODERATELY DIFFICULT EASY | |
| 5 | Marking criteria/scheme of valuation is attached with the question paper. YES / NO | |

**CHECK –LIST**

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| ***Sl No.*** | ***Particulars*** | ***Yes/No*** | | ***Remarks*** |
| **Whether the question paper has the following titles correctly marked:** | | | | |
| 1 | Name of the subject and subject code |  |  | |
| 2 | Date and time of the exam |  |  | |
| 3 | Year and Semester |  |  | |
| 4 | Branch Name |  |  | |
| 5 | Duration of the exam |  |  | |
| **Whether the content of the question paper has the following correctly marked:**  **(Mark ‘NA’ if any of the title is not applicable for the question paper)** | | | | |
| 6 | Format of the question paper |  |  | |
| 7 | Page numbers have been provide in the footer |  |  | |
| 8 | Necessary and sufficient instructions have been provided at the beginning of the question paper |  |  | |
| 9 | Questions have numbered correctly |  |  | |
| 10 | Sub-questions have been numbered correctly |  |  | |
| 11 | Total marks assigned for sub questions tallies with mark allocated for the question |  |  | |
| 12 | Questions have been set for the max. marks |  |  | |
| 13 | Blooms taxonomy against each question have been set correctly taking into account the expected levels |  |  | |
| 14 | Figures are clear in the print-out |  |  | |
| 15 | COs and Knowledge level have been provided at the end of the question paper |  |  | |
| 16 | Grammatical errors have been checked |  |  | |

**CO ASSESSMENT**

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| **CO Assessed** | **CO \_1\_\_\_\_\_** | **CO \_II\_\_\_\_\_** | **CO 3\_\_\_\_\_\_** | **CO 4\_\_\_\_\_\_** | **CO \_\_\_\_\_\_** |
| **Marks** |  |  | 40 | 40 |  |
| **Weightage** |  |  | 50% | 50% |  |

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| Name and dated signature of the faculty | Prof. Sumesh Raman |
| Name and dated signature of the Stream Coordinator with recommendation | Prof. Nikhil N |
| Name and dated Signature of Academic Head | Prof. Divya K S |
| Name and dated Signature of Head of Department | Dr. Ramani Bai V |