

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -I EXAMINATION- 2023

M.Tech-I Semester (ECE)

COURSE CODE(CREDITS): 21M11EC113 (3)

MAX. MARKS: 15

COURSE NAME: Object Oriented Programming

COURSE INSTRUCTORS: Dr. Emjee Puthooran

MAX. TIME: 1 Hour

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*Note: (a) All questions are compulsory.*

*(b) Marks are indicated against each question in square brackets.*

*(c) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems*

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Q1.(a) What is Object Oriented Paradigm? How does it differ from procedure oriented programming? [CO1, 2M]

(b) Explain the concept of encapsulation and how it is implemented in Object Oriented Programming. Why is encapsulation important for software design? [CO2, 3M]

Q2.(a) Differentiate between the operators 'is' and '==' in Python. Give an example where each one will be used. [CO4, 2M]

(b) Explain the difference between Python's list and tuple data types. When would you choose one over the other in your code? [CO4, 3M]

Q3.(a) Write a program in Python to find the sum of natural numbers up to N. The program should take N from the user and print the sum. [CO4, 2M]

(b) Write a program in Python to print the roots of a quadratic equation. The program should take the coefficients a, b, and c from the user, check if the roots would be complex and print a message saying so if they are. [CO4, 3M]

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