

PRN No.	
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PAPER CODE	U124-333
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May 2024 (ENDSEM) EXAM

F.Y.B. TECH. (SEMESTER - II)

**COURSE NAME: Computer  
Programming and  
Problem Solving-II**

Branch: Computer Engineering

COURSE CODE: CS12233

(PATTERN 2023)

Time: [1Hr. 30 Min]

[Max. Marks: 40]

Instructions to candidates:

- 1) Figures to the right indicate full marks.
- 2) Use of scientific calculator is allowed
- 3) Use suitable data wherever required
- 4) All questions are compulsory. Solve any one sub question from each Question 1 and 2 and any three sub questions each from Questions 3 and 4.

Q. No.	Question Description	Max. Marks	CO mapped	BT Level
Q.1	a) Describe the use of tuples and dictionary with example.	[5]	CO1	Understand
	b) Elaborate the following operations on set with wxample 1. Union 2. Intersection 3. Difference 4. Symmetric difference 5 Subset	[5]	CO1	Understand
Q2	a) Apply for and if to find those numbers which are divisible by 7 and 5, between 1500 and 2500 (both included).	[5]	CO2	Apply
	b) Use python program to find number is prime or not use suitable conditional statement .	[5]	CO2	Apply
Q.3	a) Use python program to Create the child class Bus that inherit the properties of Baseclass Vehical. The provider will charge the amunt as capacity*100. Include extra 10% as Driver Charges on total amount and calculate final amout to be paid.	[5]	CO3	Apply
	b) Apply Polymorphisum to write a program using operator overloading __sub__() to perform subtraction of numbers.	[5]	CO3,	Apply
	c) How would you apply the method overriding to create base class Animal with method make_sound(self) having two derived class's Dog and Cat with their own methods aaccess the properties of base class.	[5]	CO3	Apply

	d) How would you use the encapsulation to manage bank accounts. create class "Bank" with encapsulated attributes like balance, account number.	[5]	CO3,	Apply
Q.4	a) Apply the module Panda with example to perform operations on files.	[5]	CO4 , CO6	Apply
	b) Create an ndarray of given list,tuples and access element in python using Numpy. 1. ((1, 2, 3, 4, 5)) 2. (("Ram","Krushana"),("Sham",Mohan")) 3. a=[1,2,3,4] 4. b=[[1,2,3,4,5],[4,5,6,7]] 5. b=[[1,2,3,4,5],[4,5,6,7,6],[1,1,1,1,1]]	[5]	CO4, CO6	Apply
	c) Compute factorial,Sqrt,Pow, log and gcd of any number using math module.	[5]	CO4, CO6	Apply
	d) How would you use the slicing ,indexing on one and two dimensional array with Numpy.	[5]	CO4, CO6	Apply