

Reg. No.

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B.E. / B.TECH. DEGREE EXAMINATIONS, MAY 2024

Second Semester

IT22252 – COMPUTER APPLICATIONS AND PYTHON PROGRAMMING*(Marine Engineering)***(Regulation 2022)****TIME: 1 HOUR 30 MINUTES****MAX. MARKS: 50**

COURSE OUTCOMES	STATEMENT	RBT LEVEL
CO 1	Understand the characteristics and data processing methodologies of a computer.	2
CO 2	Differentiate various networks and their underlying terminologies.	3
CO 3	Understand the recent advancements in computers.	2
CO 4	Develop algorithmic solutions to simple computational problems by decomposing into multiple functions.	5
CO 5	Represent compound data using Python lists, tuples, dictionaries for solving problems.	4

PART- A (10x2= 20Marks)

(Answer all Questions)

	CO	RBT LEVEL
1. What are the values of the following Python expressions? (i) $2*7\%3$ (ii) $(2+3)**2$	4	3
2. Compare entry check loop and exit check loop.	4	4
3. What will be the output of the following Python program? <code>i = 0</code> <code>while i < 5:</code> <code> print(i)</code> <code> i += 1</code> <code> if i == 3:</code> <code> break</code>	4	3
4. Which operator has more precedence in Python?	4	2
5. Write a program to find the area of triangle using Python.	4	3
6. Write a program to print your name 10 times in python.	5	3
7. Is strings mutable or immutable? Justify.	5	3
8. Differentiate List and Tuple with examples.	5	4
9. Why does mutability matter in Python?	5	3

10. Write a Python script to check whether a given key already exists in a dictionary. 5 3

PART- B (2x 10= 20Marks)

	Marks	CO	RBT LEVEL
11. (a) (i) Describe the various classifications of computers in detail.	(5)	1	2
(ii) Convert the octal number 321 into decimal, binary and hexadecimal equivalent.	(5)	1	2
(OR)			
(b) (i) Outline the advantages, disadvantages of primary and secondary memory storage.	(5)	1	2
(ii) Convert the decimal number 578 into binary, octal, hexadecimal equivalent.	(5)	1	2
12. (a) Articulate different types of transmission media and its types, advantages, disadvantages.	(10)	2	3
(OR)			
(b) Examine the role and functionality of web browsers, email, and search engines in the contemporary digital landscape.	(10)	2	3

PART- C (1x 10=10Marks)

(Q.No.13 is compulsory)

	Marks	CO	RBT LEVEL
13. Compare and contrast the characteristics of bus, star, ring, mesh, and hybrid network topologies. Assess their suitability for different types of organizations and explain how each topology affects network performance, scalability, and fault tolerance.	(10)	2	5
