

Name:

Enrolment No:



UPES

End Semester Examination, December 2023

Course: Software System Foundation

Program: B.Tech (BE)

Course Code: CSEG1024

Semester : 1st

Duration : 3 Hours

Max. Marks: 100

Instructions: There is one choice each in Section B,C & D.

S. No.	Section A Short answer questions/ MCQ/T&F (20Qx1.5M= 30 Marks)	Marks	COs
Q 1	Find the output of the following Python Program: <pre>if x == 50: print("Yeah") else: print("Try Again")</pre>	1.5	CO3/CO4 /CO5
Q 2	Differentiate between primary and secondary memory of a computer system by taking suitable examples of each.	1.5	CO1
Q 3	Discuss the input and output units of a computer system by giving examples of it.	1.5	CO1
Q 4	Discuss about the central processing system of the computer.	1.5	CO1
Q 5	Discuss the various types of memory systems of a computer.	1.5	CO1
Q 6	Differentiate between hardware and software of a computer system.	1.5	CO1
Q 7	Find the output of the following Python Program: <pre>i=1 while i<=6: print(i, end = " ") i=i+1 print("Done")</pre>	1.5	CO3/CO4 /CO5

Q 8	Find the output of the following Python Program: <pre> if(10 == 10) and (10+20>30): print("Done") else: print("Do It") </pre>	1.5	CO3/CO4 /CO5
Q 9	Find the output of the following Python Program: <pre> num = 70 if num == 50: print("50") elif num == 10: print("10") elif num == 70: print("70") else: print("Number is not 50, 10 or 70") </pre>	1.5	CO3/CO4 /CO5
Q 10	Find the output of the following Python Program: <pre> num = 100 if (num + 1) > 100: if (num * 2) >= 200: print("You win") else: print("Try Again") </pre>	1.5	CO3/CO4 /CO5
Q 11	$(25.27)_8 + (13.2)_8 = ?_8$	1.5	CO2
Q 12	$(100101)_2 - (11011)_2 = ?$	1.5	CO2
Q 13	Convert $(1056)_{16}$ to an octal number.	1.5	CO2
Q 14	$(101011)_2 + (11001)_2 = ?$	1.5	CO2
Q 15	2's complement of "1100" is ?	1.5	CO2
Q 16	2's complement of "0111" is ?	1.5	CO2
Q 17	$(326)_8 * (67)_8 = ?_8$	1.5	CO2
Q 18	1's complement of "0111" is ?	1.5	CO2
Q 19	$(5BA9)_{16} + (D058)_{16} = ?_{16}$	1.5	CO2
Q 20	1's complement of "1100" is ?	1.5	CO2
Section B (4Qx5M=20 Marks) Attempt any four questions from the Section B.			

Q 21	Discuss by taking a suitable example ord() function in Python.	5	CO3/CO4 /CO5								
Q 22	Discuss by taking a suitable example chr() function in Python.	5	CO3/CO4 /CO5								
Q 23	Discuss Slice Operation in Python. Support your answer by taking a suitable programming example.	5	CO3/CO4 /CO5								
Q 24	Take your own example to explain Concatenating, Appending and Multiplying Strings.	5	CO3/CO4 /CO5								
Q 25	Discuss at least five Built-in String Methods and Functions of Python. Support your answer by taking a suitable programming example.	5	CO3/CO4 /CO5								
Section C (2Qx15M=30 Marks) Attempt any two questions from the Section C.											
Q 26	Discuss various bitwise operators of Python.	15	CO3/CO4 /CO5								
Q 27	Write the syntax of return statement. Support your answer by taking a suitable programming example.	15	CO3/CO4 /CO5								
Q 28	Write the syntax of Lambda function. Support your answer by taking a suitable programming example.	15	CO3/CO4 /CO5								
Section D (2Qx10M=20 Marks) Attempt any two questions from the Section D.											
Q 29	Discuss Inheritance and Polymorphism concept of OOPs.	10	CO3/CO4 /CO5								
Q 30	Q10. Write a program to check whether the last digit of a number(entered by user) is divisible by 3 or not.	10	CO3/CO4 /CO5								
Q 31	Q8. Write a program to calculate the electricity bill (accept number of unit from user) according to the following criteria : <table style="margin-left: 40px; border: none;"> <tr> <td style="padding-right: 40px;">Unit</td> <td>Price</td> </tr> <tr> <td>First 100 units</td> <td>no charge</td> </tr> <tr> <td>Next 100 units</td> <td>Rs 5 per unit</td> </tr> <tr> <td>After 200 units</td> <td>Rs 10 per unit</td> </tr> </table> (For example if input unit is 350 than total bill amount is Rs2000)	Unit	Price	First 100 units	no charge	Next 100 units	Rs 5 per unit	After 200 units	Rs 10 per unit	10	CO3/CO4 /CO5
Unit	Price										
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