

ANNA UNIVERSITY: CHENNAI – 600 025

B.E / B. Tech. Degree Examination – Dec. 2017

(Regulation 2017)

First Semester

GE8161-Problem Solving and Python Programming Laboratory

Time: 3 Hours

Maximum Marks: 100

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| 1. Write a Python program to find the factorial of given number using recursive function. | 40 |
| 2. Write a Python program to compute Greatest Common Divisor of two numbers using function. | 50 |
| Viva- Voce | 10 |
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| 3. Write a Python program to check the given number is palindrome or not. | 40 |
| 4. Write a Python program to compute the square root of a given number using Newton's method. | 50 |
| Viva- Voce | 10 |
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| 5. Write a Python program to reverse of given number using while loop. | 40 |
| 6. Write a Python program to compute exponentiation of a numbers. | 50 |
| Viva- Voce | 10 |
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| 7. Write a Python program to swap two numbers using function. | 40 |
| 8. Write a Python program to find maximum and minimum number in a list | 50 |
| Viva- Voce | 10 |
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| 9. Write a Python program to find whether the given number is positive or negative. | 30 |
| 10. Write a Python program to find maximum and minimum number in a list. | 60 |
| Viva- Voce | 10 |

11. Write a Python program to find whether the given number is even or odd.	30
12. Write a Python program to search a number in list of numbers using linear search.	60
Viva- Voce	10
13. Write a Python program to find the sum of 'N' natural number using for loop.	40
14. Write a Python program to search a number in list of numbers using binary search.	50
Viva- Voce	10
15. Write a Python program to find largest among three numbers.	30
16. Write a Python program to arrange list of numbers using selection sort.	60
Viva- Voce	10
17. Write a Python program	30
i. To calculate the length of a string	
ii. To reverse words in a string	
iii. To display same string multiple times	
iv. To concatenate two strings	
v. Str1="South India" , using string slicing to display "India"	
18. Write a Python program to arrange list of numbers using insertion sort.	60
Viva- Voce	10
19. Write a Python program	30
i. To add new elements to the end of the list	
ii. To reverse elements in the list	
iii. To display same list elements multiple times.	
iv. To concatenate two list.	
v. To sort the elements in the list in ascending order.	
20. Write a Python program to arrange list of numbers using merge sort.	60
Viva- Voce	10
21. Write a Python program for cloning the list.	30
22. Write a Python program to compute first 'n' prime numbers.	60
Viva- Voce	10

23. Write a Python program for aliasing the list.	30
24. Write a Python program to multiply the two matrices.	60
Viva- Voce	10
25. Write a Python program: "tuple1 = (10,50,20,40,30)"	30
i. To display the elements 10 and 50 from tuple1	
ii. To display length of a tuple1.	
iii. To find the minimum element from tuple1.	
iv. To add all elements in the tuple1.	
v. To display same tuple1 multiple times.	
26. Write a Python program to sum of two matrices.	60
Viva- Voce	10
27. Write a Python program	30
i. To create a dictionary	
ii. To adding an element to dictionary	
iii. To display length of the dictionary.	
iv. To updating element in dictionary.	
v. To remove all elements from the dictionary.	
28. Write a Python program word count in command line arguments.	60
Viva- Voce	10
29. Write a Python program to find largest among three numbers.	30
30. Write a Python program to find the most frequent words in a text read from a file.	60
Viva- Voce	10
31. Write a Python program to find largest among three numbers.	30
32. Write a Python program for elliptical orbits in Pygame.	60
Viva- Voce	10
33. Write a Python program to find whether the given number is even or odd.	30
34. Write a Python program for bouncing ball in Pygame.	60
Viva- Voce	10