KARPAGAM ACADEMY OF HIGHER EDUCATION

(Deemed to be University)
(Established Under Section 3 of UGC Act 1956)
Coimbatore - 641021.
(For the candidates admitted from 2016 onwards)
DEPARTMENT OF COMPUTER SCIENCE, CA& IT

SUBJECT : **INTRODUCTION TO DATA SCIENCES – PRACTICAL** **SEMESTER**: **V**

	L	T	P	C
SUBJECT CODE: **16CSU513B** **CLASS**: **III B.Sc.CS**	**4**	**0**	**0**	**2**

Instruction Hours / week: L: 0 T: 0 P: 4 Marks: Int : **40** Ext : **60** Total: **100**

1. Write a program that prints _hello World to the screen.
2. Write a program that asks the user for a number n and prints the sum of the numbers 1 to n
3. Write a program that prints a multiplication table for numbers up to 12.
4. Write a function that returns the largest element in a list.
5. Write a function that computes the running total of a list.
6. Write a function that tests whether a string is a palindrome.
7. Implement linear search.
8. Implement binary search.
9. Implement matrices addition , subtraction and Multiplication
10. Fifteen students were enrolled in a course. There ages were: 20 20 20 20 20 21 21 21 22 22 22 22 23 23 23

i. Find the median age of all students under 22 years ii. Find the median age of all students

iii. Find the mean age of all students iv. Find the modal age for all students

v. Two more students enter the class. The age of both students is 23. What is now mean, mode and median ?

11. Following table gives a frequency distribution of systolic blood pressure. Compute all the measures of dispersion.

Midpoint	95.5	105.5	115.5	125.5	135.5	145.5	155.5	165.5	175.5
Number	5	8	22	27	17	9	5	5	2

12. Obtain probability distribution of , where X is number of spots showing when a six-sided symmetric die (i.e. all six faces of the die are equally likely) is rolled. Simulate random samples of sizes 40, 70 and 100 respectively and verify the frequency interpretation of probability.

13. Make visual representations of data using the base, lattice, and ggplot2 plotting systems in R, apply basic principles of data graphics to create rich analytic graphics from available datasets.

14. Use Git / Github software to create Github aCSUount. Also, create a repo using Github.