SIDDHARTH GROUP OF INSTITUTIONS :: PUTTUR
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QUESTION BANK (DESCRIPTIVE)

Subject with Code : PYTHON AND R PROGRAMMING (17IT603) **Course & Branch**: B.Tech - CSIT
Year & Sem: III-B.Tech & I-Sem **Regulation:** R16

UNIT-1

1.	Demonstrate about a) Input-Output functions	6M
	b) Assignment statement	6M
2.	Discuss about a) the history and evolution of python.	6M
	b) REPL	3M
	c) Type ()	3M
3.	Explain in detail about keywords along with examples.	12M
4.	a) Justify the need of python programming	6M
	b) Explain the applications of python programming	6M
5.	Write about variables and the data types.	
6.	Discuss about a) Running Python scripts	6M
	b) Indentation	6M
7.	Explain in detail about a) Arithmetic Operators.	6M
	b) Membership and Identity operators.	6M
8.	Demonstrate about the evaluation of expressions.	12M
9.	Write about a) Comparison operators	6M
	b) Assignment Operators	6M
10.	Write about if-elif-else construct with an example.	12M
11.	Explain about a) for construct	6M
	b) Break	6M

UNIT-2

1.	Explain about Lists and its methods.	12M
2.	Explain about the dictionaries and its methods.	12M
3.	Discuss about a) Sequences	6M
	b) Logical Operators	6M

4. Discuss about tuples and its methods. 12M

5. Explain about bitwise operators in detail. 12M

6. Explain about passing arguments to a function 12M

7. Explain about calling functions with suitable example. 12M

8. Write about scope of variables in python with suitable example. 12M

9. Describe about functions that return values with an example. 12M

10. Discuss about from import statement with detailed example. 12M

UNIT-3

1. Discuss about a) try except block 6M
   b) user defined Exceptions 6M

2. Explain method overriding with an example 12M

3. Discuss about a) Constructor Method 6M

   b) Self variable 6M

4. Explain in detail about class and objects with an example. 12M

5. Explain the inheritance with an example. 12M

6. Demonstrate how to create user defined exceptions 12M

7. Explain the importance of the except block and finally block. 12M

8. Describe about built in exceptions. 12M

9. Demonstrate an example for raising the exception. 12M

10. a) Differentiate between error and exception. 6M

    b) Write about self argument with suitable example 6M

UNIT-4

1. a) Write installation steps of R-software. 6M

   b) Describe about command packages. 6M

2. Explain the procedure and concepts for reading data in R 12M

3. Demonstrate about writing data in R 12M

4. Explain about types of data items in R 12M

5. Describe about a) Matrix	6M
b) Data Frame	6M
6. Explain how to save the data in R	12M
7. Demonstrate about a) Viewing Named Objects in R	6M
b) Manipulating Objects	6M
8. a) Justify objects within objects in R	12M
b) Describe how to create objects in R	12M
9. Explain the forms of data objects in detail.	12M
10. Explain about a) List	6M
b) Vector	6M

UNIT-5

1. Explain in detail about Descriptive Analysis	12M
2. Describe about a) Students t-test	6M
b) Wilcoxon U-test	6M
3. Demonstrate about Correlation and Co-Variance	12M
4. Demonstrate about a) Box-Whisker Plots	6M
b) Scatter Plots	6M
5. Explain in detail about multiple Correlation Plots.	12M
6. a) Describe about adding elements in existing plots.	6M
b) Justify about matrix plot.	6M
7. Explain about creating functions in R	12M
8. Explain in detail about drawing multiple plots in one window.	12M
9. Demonstrate about paired t and u – tests.	12M
10. a) Write briefly about Line Charts.	6M
b) Describe about Bar Charts.	6M