



MARRI LAXMAN REDDY INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(AN AUTONOMOUS INSTITUTION)

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)

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II B.Tech II Sem Regular End Examination, July 2022

Python Programming (CIVIL/ECE)

Time: 3 Hours.**Max. Marks: 70**

Note: 1. Question paper consists: Part-A and Part-B.

2. In Part – A, answer all questions which carries 20 marks.

3. In Part – B, answer any one question from each unit.

Each question carries 10 marks and may have a, b as sub questions.

PART- A**(10*2 Marks = 20 Marks)**

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|-------|---|----|-----|-----|
| 1. a) | Examine the three characteristics of all python objects? | 2M | C01 | BL3 |
| b) | Contrast Augmented, Multiple and Multiple assignments? | 2M | C01 | BL2 |
| c) | Given a pair of identically sized lists, write a code to process all that list data into a single dictionary. For example, given [1, 2, 3,...], and ['abc', 'def', 'ghi',...] generate {1:'abc', 2:'def', 3:'ghi',...}. | 2M | C02 | BL4 |
| d) | Given an integer value, return a string with the equivalent English text of each digit. For example, an input of 89 results in "eight-nine" being returned. | 2M | C02 | BL5 |
| e) | Examine the File object? | 2M | C03 | BL3 |
| f) | Name the keyword(s) which is (are) used to raise exceptions. | 2M | C03 | BL2 |
| g) | Create a function that takes a total time in minutes and returns the equivalent in hours and minutes. | 2M | C04 | BL6 |
| h) | What is the difference between a path search and a search path? | 2M | C04 | BL3 |
| i) | Which type of multithreaded application will tend to fare better in Python, I/O-bound or CPU-bound? | 2M | C05 | BL3 |
| j) | What are Tcl, Tk, and Tkinter? | 2M | C05 | BL1 |

PART- B**(10*5 Marks = 50 Marks)**

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|-------|---|----|-----|-----|
| 2. a) | When reference count of an object is incremented and decremented? How garbage collection is achieved through reference counting? | 5M | C01 | BL3 |
| b) | Create a calculator application. Write code that will take two numbers and an operator in the format: N1 OP N2, and displays the result of carrying out that operation on the input operands. Hint: You may use the string split() method, but you cannot use the eval() built-in function. | 5M | C01 | BL6 |

OR

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| 3. | Summarize the categorization of Standard types? | 10M | C01 | BL5 |
|----|---|-----|-----|-----|

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|-----------|--|-----|-----|-----|
| 4 | a) Create a pair of functions to convert Fahrenheit to Celsius temperature values. $C = (F - 32) * (5 / 9)$. | 5M | C02 | BL6 |
| | b) Write a function called <code>getfactors()</code> that takes a single integer as an argument and returns a list of all its factors, including 1 and itself. | 5M | C02 | BL5 |
| OR | | | | |
| 5 | Compare List and Tuple. Process the addition and multiplication of a pair of M by N matrices. | 10M | C02 | BL5 |
| 6 | a) Write a sample of code for the contents of the first file should be copied to the second file (use command line arguments). | 5M | C03 | BL5 |
| | b) Write a outline on Exceptions and the sys Module. | 5M | C03 | BL3 |
| OR | | | | |
| 7 | Demonstrate the creation of your own exceptions? | 10M | C03 | BL3 |
| 8 | a) Discuss on variable length arguments with example script? | 5M | C04 | BL2 |
| | b) List and Examine the module built-in functions? | 5M | C04 | BL3 |
| OR | | | | |
| 9 | Discuss on modules, namespaces and importing modules? | 10M | C04 | BL2 |
| 10 | a) Develop a GUI application using Tkinter module? | 5M | C05 | BL5 |
| | b) Develop an application using thread module. | 5M | C05 | BL5 |
| OR | | | | |
| 11 | Design a List directory GUI application using Tkinter module? | 10M | C05 | BL5 |

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