

Course Name –
**PYTHON
FOR
MACHINE LEARNING**

Course Code –
INT 215

Continuous Assessment - III

IMPORTANT GUIDELINES:

1. All questions in this Academic Task are compulsory.
2. For every question attempted, write the question no. , complete question and the solution of the question in a jupyter notebook (.ipynb file).
3. After attempting the questions, convert the .ipynb file into a single pdf format document (can be done with many free online available converters).
4. This PDF file should be uploaded onto the UMS interface on or before the last date of the submission.
5. Refrain from indulging into plagiarism as copy cases will be marked zero.
6. This Document contains multiple sets of papers. The allocation sheet is also attached in the CA file. All the students are advised to attempt the Set allocated to him/her.
7. If any student found indulge in malpractices like plagiarism from internet or classmates, attempting wrong set of question paper or any other, will be awarded with zero (0) marks in CA.

PYTHON FOR MACHINE LEARNING (INT-215)

CA-III

Set-1

1. You are building a program that takes user input and checks if it is a prime number. Write a function that to achieve this and test with examples. Write comments and docstring to explain the code.
2. You are building a program that reads data from a CSV file and writes it to an Excel file. How would you accomplish this task? Write the function for that. Test the code with examples. Write comments and docstring to explain the code.
3. You have a list of tuples containing student names and their scores. Write a function that sorts the list based on the scores, and then converts it to a dictionary. Test the code with examples. Write comments and docstring to explain the code.
4. You are given a string that contains a mixture of alphanumeric characters and symbols. Write a function that removes all symbols from the string using Python Regular Expressions. Test the code with examples. Write comments and docstring to explain the code.
5. Write a function that asks the user to enter a string, removes a specific character from the string, and then prints the modified string. Test the code with examples. Write comments and docstring to explain the code.

PYTHON FOR MACHINE LEARNING (INT-215)

CA-III

Set-2

1. You have a list of integers, and you want to check if any of the numbers are even. Write a function to accomplish this task. Test the code with examples. Write comments and docstring to explain the code.
2. Write a function that asks the user to enter a number and then prints the number with commas. Test the code with examples. Write comments and docstring to explain the code.
3. You are building a program that takes user input and checks if it is a palindrome. Write a function to achieve this. Test the code with examples. Write comments and docstring to explain the code.
4. Write a function that asks the user to enter a number, checks if it is prime, and then prints a message informing the user of the result. Test the code with examples. Write comments and docstring to explain the code.
5. You are building a program that reads data from a text file and writes it to a new text file, with each line of the original file concatenated with the line number. Write a function to accomplish this task. Test the code with examples. Write comments and docstring to explain the code.

PYTHON FOR MACHINE LEARNING (INT-215)

CA-III

Set-3

1. You are tasked with building a program that reads a text file and counts the occurrence of each word. Write a function to accomplish this task. Test the code with examples. Write comments and docstring to explain the code.
2. You are building a program that takes user input and checks if it is a valid email address. Write 2 different functions and ways to accomplish this task. Test the code with examples. Write comments and docstring to explain the code.
3. You have a list of integers, and you want to find the sum of all the even numbers in the list. Write a function for that. Test the code with examples. Write comments and docstring to explain the code.
4. You are given a string that contains a mixture of uppercase and lowercase characters. Write a function that converts all the lowercase characters to uppercase characters. Test the code with examples. Write comments and docstring to explain the code.
5. You are building a program that takes user input and checks if it is a valid phone number. Use Regex and a function to accomplish this task. Test the code with examples. Write comments and docstring to explain the code.

PYTHON FOR MACHINE LEARNING (INT-215)

CA-III

Set-4

1. You have a list of strings, and you want to concatenate all the strings into a single string. Write a function to accomplish this task? Test the code with examples. Write comments and docstring to explain the code.
2. You are given a list of tuples containing student names, their scores, and their grades. Write a function that calculates the average score and grade for each student. Test the code with examples. Write comments and docstring to explain the code.
3. You are building a program that takes user input and checks if it is a valid password. Write Python function for that. Use Regex and one more way to solve this. Test the code with examples. Write comments and docstring to explain the code.
4. You have a list of strings, and you want to remove all duplicates from the list. Write a function to accomplish this task? Test the code with examples. Write comments and docstring to explain the code.
5. You are given a list of dictionaries containing information about employees, including their name, salary, and department. Write a function that calculates the total salary for each department and prints the result. Test the code with examples. Write comments and docstring to explain the code.

PYTHON FOR MACHINE LEARNING (INT-215)

CA-III

Set-5

1. You are building a program that takes user input and checks if it is a valid date. What Python concepts would you use to validate the input, and how would you ensure that the date is in the correct format? Write the necessary function for that. Test the code with examples. Write comments and docstring to explain the code.
2. You have a list of integers, and you want to find the highest and lowest values in the list. Write a function to accomplish this task? Test the code with examples. Write comments and docstring to explain the code.
3. You are given a string that contains a list of words separated by commas. Write a function that converts the string into a list of words using Python string methods and Python list methods concepts. Test the code with examples. Write comments and docstring to explain the code.
4. You are building a program that takes user input and checks if it is a valid credit card number. What Python concepts would you use to validate the input, and how would you ensure that the credit card number is in the correct format? Write the necessary function for that. Test the code with examples. Write comments and docstring to explain the code.
5. You have a list of strings, and you want to sort the list in alphabetical order. Write the necessary function to accomplish this task? Test the code with examples. Write comments and docstring to explain the code.

PYTHON FOR MACHINE LEARNING (INT-215)

CA-III

Set-6

1. You are building a program that takes user input and checks if it is a valid URL. What Python concepts would you use to validate the input, and how would you ensure that the URL is in the correct format? Write the necessary function for that. Test the code with examples. Write comments and docstring to explain the code.
2. You have a list of tuples containing product names and their prices. Write a function that calculates the total cost of all the products. Test the code with examples. Write comments and docstring to explain the code.
3. You are given a string that contains a mixture of letters and numbers. Write a function that separates the letters and numbers into two separate lists. Test the code with examples. Write comments and docstring to explain the code.
4. You are building a program that takes user input and checks if it is a valid ISBN number. What Python concepts would you use to validate the input, and how would you ensure that the ISBN number is in the correct format? Write the necessary function for that. Test the code with examples. Write comments and docstring to explain the code.
5. You are building a program that reads data from a CSV file and outputs it to a new CSV file. Write a function to accomplish this task? Test the code with examples. Write comments and docstring to explain the code.

ROLL NO. WISE QUESTION SET ALLOCATION

S.No.	Reg. No	Name	Roll Number	Set No.
1	12113608	Adhwaith S	RK21MPA01	Set-1
2	12106692	Garvit Joshi	RK21MPA02	Set-2
3	12106965	Gelli Adithya	RK21MPA03	Set-3
4	12106905	Anshuman Behera	RK21MPA04	Set-4
5	12106309	Munzir Hassan	RK21MPA05	Set-5
6	12107194	Jyotiraditya Banshtu	RK21MPA06	Set-6
7	12107783	Kopparapu Surya Bhargav	RK21MPA07	Set-1
8	12108436	Saksham Parasher	RK21MPA08	Set-2
9	12108472	Gopidesi Vinod Kumar	RK21MPA09	Set-3
10	12108522	Shivam Patidar	RK21MPA10	Set-4
11	12109200	Vemula Sahith Reddy	RK21MPA11	Set-5
12	12112268	Chhavinath Yadav	RK21MPA12	Set-6
13	12109514	Nikhil Singh	RK21MPA13	Set-1
14	12109643	Vikram singh Ghatala	RK21MPA14	Set-2
15	12110145	Prathipati Venkatesh	RK21MPA15	Set-3
16	12103466	Amirineni Lakshman	RK21MPA16	Set-4
17	12100401	Anushree Chandrakar	RK21MPA17	Set-5
18	12101692	Gurram Karthik	RK21MPA18	Set-6
19	12106636	B Rohith	RK21MPA19	Set-1
20	12106971	Jas Makhija	RK21MPA20	Set-2

21	12107057	Yaswanth Subrahmanyam Jonnadula	RK21MPA21	Set-3
22	12108866	Shubham Kumar	RK21MPA22	Set-4
23	12107223	Kurukuri Krishna Vamsi	RK21MPA23	Set-5
24	12107761	Velagala Vishnu Teja Reddy	RK21MPA24	Set-6
25	12107867	Kuppala Bharath	RK21MPA25	Set-1
26	12110761	Manish Chetla	RK21MPA26	Set-2
27	12103130	Kamarajugadda Sri Guru Charan	RK21MPA27	Set-3
28	12105231	Vaggu Arun	RK21MPA28	Set-4
29	12107627	Medam Sai Shashank	RK21MPA29	Set-5
30	12108377	Harsha Vardhan Naidu Nalli	RK21MPA30	Set-6
31	12110850	Mohammed Muneeb Kottampara	RK21MPA31	Set-1
32	12108732	Gottumukkala Jyothirlatha	RK21MPA32	Set-2
33	12108746	Virat	RK21MPA33	Set-3
34	12100789	Bethu Manohar	RK21MPA34	Set-4
35	12113879	Anushree	RK21MPA35	Set-5
36	12101499	Mahesh Babu Gonaboina	RK21MPB36	Set-6
37	12103563	Avishi Tyagi	RK21MPB37	Set-1
38	12102390	Sarabjot Singh	RK21MPB38	Set-2
39	12110812	Ashutosh Chauhan	RK21MPB39	Set-3
40	12109515	Eedupuganti Teja	RK21MPB40	Set-4
41	12109517	Adigopula Varun Kumar	RK21MPB41	Set-5
42	12109211	Karri John Pradeep Reddy	RK21MPB42	Set-6

43	12112335	Mokkarala Tejesh Chandra	RK21MPB43	Set-1
44	12112730	Mekala Ramesh	RK21MPB44	Set-2
45	12109205	Seela Srinivas Chakravarthi	RK21MPB45	Set-3
46	12108939	Angadi Krishna	RK21MPB46	Set-4
47	12108158	Jalaparthi Divya Sri Roy	RK21MPB47	Set-5
48	12108310	Mohammed Aasif	RK21MPB48	Set-6
49	12108024	Anushka Kashyap	RK21MPB49	Set-1
50	12107702	Arjun Lande	RK21MPB50	Set-2
51	12107153	Mattimadugu Sai Darahas	RK21MPB51	Set-3
52	12107302	Bari Vivek Yadav	RK21MPB52	Set-4
53	12107589	Yendava Uday Sai Kishore	RK21MPB53	Set-5
54	12106498	Jhulesh Swami	RK21MPB54	Set-6
55	12106939	Thrishul Mokthala	RK21MPB55	Set-1
56	12108197	Tarang	RK21MPB56	Set-2
57	12109290	Madrasu Venkata Manikanta	RK21MPB57	Set-3
58	12112264	Bevara Hemanth Kumar	RK21MPB58	Set-4
59	12108517	Badam Venkata Suyameendra	RK21MPB59	Set-5
60	12107747	Mahamad Suhail	RK21MPB60	Set-6
61	12107810	Kotha Surya Varshith	RK21MPB61	Set-1
62	12107896	Prabhu Varun Puppala	RK21MPB62	Set-2
63	12107378	Ballanki Tilak Muni chandra	RK21MPB63	Set-3
64	12108780	R Vishwanath	RK21MPB64	Set-4

65	12109012	Parishmita Hazarika	RK21MPB65	Set-5
66	12109553	Neelarapu Sanjay	RK21MPB66	Set-6
67	12107183	Rahul Rajput	RK21MPB67	Set-1
68	12101020	Kapil Yadav	RK21MPB68	Set-2
69	12104083	Kakarla Vamsi Krishna	RK21MPB69	Set-3