

BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT

(Autonomous Institute under Visvesvaraya Technological University, Belagavi)

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Course Code

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Third Semester MBA Degree Examinations, April 2023

PYTHON PROGRAMMING FOR MANAGERS

Duration: 3 hrs

Max. Marks: 100

*Note: 1. Answer any FOUR full questions from Question No. 1 to 7.**2. Question No. 8 is compulsory**3. Missing data, if any, may be suitably assumed*

<u>Q. No</u>	<u>Question</u>	<u>Marks</u>	<u>(RBT:CO:PO)</u>
1.	a. Write any three Decision tree structures.	03	(1 : 1 : 2)
	b. Give the diagrammatic representation of Perceptron, also mention strength and weakness of neural networks as a classifier.	07	(2 : 1 : 2)
	c. Explain the following terms with respect to confusion matrix: i) Accuracy ii) Sensitivity iii) Specificity iv) Precision	10	(2 : 1 : 2)
2.	a. Mention any three applications of Data Mining.	03	(1 : 1 : 2)
	b. Explain overview of Decision Tree Algorithm.	07	(2 : 1 : 1)
	c. Explain K-means and K-Medoids clustering algorithms.	10	(2 : 1 : 1)
3.	a. Write syntax of IF and IF ELSE conditional statements.	03	(1 : 2 : 1)
	b. Mention the rules to declare variables with example in python.	07	(2 : 2 : 1)
	c. Write a python program to calculate Employ_Salary=Basic_Salary+Travel_Allowance+Dearnessness_Allowance using appropriate input, output, and arithmetic statements.	10	(2 : 2 : 1)
4.	a. List all the operators in python.	03	(1 : 2 : 1)
	b. Write Program statements for the following a) "Welcome to Python Course" b) Perform the addition of two values a=45 and b=64 and print the message as "Addition of a and b is : 109"	07	(2 : 2 : 1)
	c. Explain the Computer Hardware Architecture with neat block diagram.	10	(3 : 2 : 1)
5.	a. Define Tuple with example.	03	(1 : 3 : 2)
	b. Explain usage of break and continue statements in Loops with example and flowchart.	07	(1 : 3 : 2)
	c. Write a program to Filter elements which are greater than 20 in the given values of [13, 47, 21, 8, 77, 15] using for loop.	10	(2 : 3 : 2)

6. a. Define Dictionaries with example. **03** (1 :4 : 1)
- b. Explain Type Conversions of String, Integer and Float with an example. **07** (2 :4 : 1)
- c. Write a program using function to greet in Telugu (Namaskaram), Tamil (Vanakkam) and in English (Hello). Function Name “greet” taking “languages” as input. **10** (2 :4 : 1)
7. a. Define string and indexing in string with example. **03** (1 :5 : 2)
- b. Explain any three string operations with example. **07** (1 :5 : 2)
- c. Explain the features of NUMPY and PANDAS. **10** (1 :5 : 2)

8. **Case Study**

- a. Apply Decision Tree Algorithm for the following table and construct the Decision Tree. **10** (3 :1 : 2)

Race	Income	Child	Insurance
black	high	no	yes
white	high	yes	yes
white	low	yes	yes
white	low	yes	yes
black	low	no	no
black	low	no	no
black	low	no	no
white	low	no	no

- b. With the help string module “*replace*” replace “o” with “X” in “Hello james”. **10** (1 :4 : 1)

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