22CAP317N

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MCA DEGREE EXAMINATION MAY 2025
(Third Semester)

Branch – **COMPUTER APPLICATIONS**

PYTHON FOR MACHINE LEARNING

Time: Three Hours Maximum: 75 Marks

SECTION-A (10 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	How many open-source tools that can be readily used in the _____workflow. a) data science b) data scientist c) data mining d) deep learning	K1	CO1
	2	_____is more of an art than a science, but an important one nonetheless. a) Data visualization b) Data representation c) Data modeling d) Data hiding	K2	CO1
2	3	Find the numbers used in the example are integers, Python recasts them as floating-point numbers to suit the complex number _____ a) object b) class c) string d) datatypes	K1	CO2
	4	Classify the elementary control flow structures in _____, it can start combining them into logical blocks to carry out specific tasks. a) Python b) Object c) Class d) string	K2	CO2
3	5	Find _____aims to make machines carry out tasks associated with intellect. a) Artificial intelligence b) Machine learning c) Deep learning d) Data science	K1	CO3
	6	Classify _____is a subfield of artificial intelligence focused on improving the performance of an intelligent agent. a) Machine learning b) Deep learning c) Data science d) Data mining	K2	CO3
4	7	Match in that sense a _____is a case where we have incorrectly classified an observation as belonging to the class of interest. a) false positive b) true positive c) false negative d) true negative	K1	CO4
	8	Explain the _____similarity is given by the distance between data instances. a) KNN b) k-means c) ROC d) AUC	K2	CO4
5	9	Find the hierarchical clustering _____is a task whose goal is to build a hierarchy of data groups. a) unsupervised learning b) supervised learning c) semi-supervised learning d) reinforcement learning	K1	CO5
	10	Classify the SVR (Support Vector Regression) is a Gaussian kernel, also known as a _____kernel. a) radial basis function (RBF) b) Support Vector Machine (SVM) c) SVM algorithm d) Support Vector Machine classification	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Find the data science tools.	K1	CO1
		(OR)		
	11.b.	Classify the data science applications.	K2	
2	12.a.	Outline an stings of python.	K2	CO2
		(OR)		
	12.b.	How do apply in NumPy arrays and metrics?	K1	
3	13.a.	Choose the learning, predicting and classifying.	K5	CO3
		(OR)		
	13.b.	What is the difference between training and testing?	K1	
4	14.a.	Choose the confusion matrices.	K3	CO4
		(OR)		
	14.b.	Explain the classification with Naive Bayes.	K2	
5	15.a.	Examine the hierarchical clustering in action.	K4	CO5
		(OR)		
	15.b.	Extend the kernel trick in support vector machine.	K2	

SECTION -C (30 Marks)

Answer **ANY THREE** questions

ALL questions carry **EQUAL** Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Identity the open-source tools in data science.	K3	CO1
2	17	Compare the metric manipulation and linear algebra.	K4	CO2
3	18	Compare to artificial intelligence and machine learning.	K2	CO3
4	19	Evaluating the classification with KNN.	K5	CO4
5	20	Elaborate the deep learning for computer vision.	K6	CO5

Z-Z-Z END