



Course Title:	Computer Vision			Course Code:	CSC445	Credit	3(3,0)
Course Instructor/s:	Dr. Zeeshan Gillani			Programme	BCS, BSE		
Semester:	7 th	Batch:	SP20, SP19	Section:	A,B,C	Date:	
Time Allowed:	180 Minutes			Maximum Marks:	50		
Student's Name:				Reg.			
Important Instructions / Guidelines:							
a. Start with prayer. b. 180 Mins to solve paper c. Attempt your own exam							

Question No 1:

[CLO-2] Blooms Taxonomy Level<Applying>

The Architecture of CNN for image classification is shown below, you are required to calculate the activation size and parameters for each layer. [10]

	Activation shape	Activation Size	# parameters
Input:	(32,32,3)	3,072	
CONV1 (f=5, s=1)	(28,28,6)		
POOL1	(14,14,6)		
CONV2 (f=5, s=1)	(10,10,16)		
POOL2	(5,5,16)		
FC3	(120,1)		
FC4	(80,1)		
Softmax	(20,1)		

Question no 2

[CLO-5] Blooms Taxonomy Level<creating>

Multiple object detection is widely used in computer vision applications. Briefly discuss the difference between RCNN, FastRCNN, FaserRCNN, and yolov5. [10]

Question no 3

[CLO-2] Blooms Taxonomy Level <Applying>

Write a code in Python for the classification of gender using traditional methods of computer vision. You are encouraged to use feature extraction and machine learning libraries. [10]

Question no 4:

[CLO-4] Blooms Taxonomy Level <Analyzing>

Object trackers are an integral part of many computer vision applications that process the video stream of cameras. Design a pipeline for tracking players in the football match having similar uniforms. [10]

Question no 5:

[CLO-5] Blooms Taxonomy Level <Analyzing>

What is Transfer Learning, discuss a scenario where it is suitable to apply transfer learning. [10]