R20 Regulation *Subject code:3P4GB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech IV Semester Supplementary Examinations, July 2024

Introduction to Computer Vision

(CSE(AI&ML))

Maximum Marks: 70 Date:20.07.2024 Duration: 3 hours

Note: 1.This question paper contains two parts A and B.
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X2M=20 Marks)		CO	Bloom Tx
1	What is computer vision?	1	L1
2	Define pixel and Brightness.	1	L1
3	What is region and edge?	2	L1
4	What is Dilation?	2	L1
5	What is sequence encoding?	3	L1
6	What is image acquisition?	3	L1
7	What is convolution?	4	L1
8	What is filter and name different filter names?	4	L1
9	Write about Quantizing Compression?	5	L1
10	Write about sequence encoding?	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)			
11	What is computer vision? Write in detail about Evolution of computer vision? Write about applications of computer vision (10M)	1	L2
	OR		
12	Why is computer vision so challenging? Explain Applications of Computer vision? Write about Evolution of computer vision? (10M)	1	L2
13	How the convolution results are stored and write about the different window operations? (10M)	2	L2
	OR		
14	Explain 2D Geometry operations with examples? (10M)	2	L2
15	Implement crack edge detection on an image and compare the results after a different number of iterations. Does equalization of original image affect the result? (10M)	3	L2
	OR		

16	Compare the segmentation of an image by region merging and region splitting. Suggest an iterative scheme in which both might feature to give a better segmented image. (10M)	3	L2
17	What are different approaches to the decision-making process in pattern recognition and also explain in detail about Decision functions? (10M)	4	L2
	OR		
18	Explain about the flat surface and straight edge labelling. (10M)	4	L2
19	Explain Image compression with its types and requirements. (10M)	5	L2
	OR		
20	Explain about Real time image transmission. (10M)	5	L2