R20 Regulation *Subject code: 3P6GC*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, April 2026

ADVANCED COMPUTER VISION

(CSE(AI&ML))

Maximum Marks: 70 Date: 18.04.2026 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.
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)		Marks	CO	BTL
1	What is computer vision?	2M	1	L1
2	What is a Point operator?	2M	1	L1
3	Define Mean shift and mode finding.	2M	2	L1
4	List some popular image segmentation techniques.	2M	2	L1
5	Define Structure from Motion with example.	2M	3	L1
6	Define Factorization.	2M	3	L1
7	Write about Image Stitching.	2M	4	L1
8	What is Parallax removal?	2M	4	L1
9	Define shape from shading.	2M	5	L1
10	What is principal component analysis (PCA)?	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	a) Explain linear filtering with examples. b) Discuss about neighbor's operators with examples.	5M 5M	1	L2
	OR			
12	Discuss about to change the resolution of an image before proceeding further using Pyramids and wavelets.	10M	1	L2
13	What is meant by Normalized cuts and give simple graph example?	10M	2	L2
	OR			
14	Explain Feature detection and matching.	10M	2	L2
15	Explain about problems of motion.	10M	3	L2
	OR			
16	Write short notes on Factorization.	10M	3	L2
17	Discuss about Compositing with example and its application.	10M	4	L2
	OR			
18	Discuss about Texture analysis and synthesis.	10M	4	L2
19	Explain types of Surface representations.	10M	5	L2
	OR			
20	Discuss about Whole body modeling and tracking with example.	10M	5	L2