



R20 Regulation

Subject code: 3P6GC

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, November 2025

ADVANCED COMPUTER VISION

(CSE(AI&ML))

Maximum Marks: 70

Date: 11.11.2025

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	Write Features of computer vision?	2M	1	L1
2	Define Pyramids and wavelets.	2M	1	L1
3	What is meant by object point and background point?	2M	2	L1
4	What are the steps involved in splitting and merging?	2M	2	L1
5	What is Optical flow?	2M	3	L1
6	What is Fourier-based alignment?	2M	3	L1
7	Define Vignetting.	2M	4	L1
8	What is point spread function (PSF)?	2M	4	L1
9	Define kinematic model or kinematic chain effect.	2M	5	L1
10	What is Adaptive shape modelling?	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	Describe the fundamental steps in image processing with example.	10M	1	L2
	OR			
12	Differentiate linear spatial filter and non-linear spatial filter.	10M	1	L2
13	Discuss about the locally constrained watershed segmentation using Split and merge segmentation.	10M	2	L2
	OR			
14	Write short notes on image segmentation.	10M	2	L2
15	Discuss about parametric motion with example.	10M	3	L2
	OR			
16	Write short notes on Spline-based motion.	10M	3	L2
17	What is Blending and explain types of Blending with example?	10M	4	L2
	OR			
18	Draw Image sensing pipeline framework and explain with example.	10M	4	L2
19	What is the process of Recovering texture maps and albedos?	10M	5	L2
	OR			
20	Discuss about View interpolation with example.	10M	5	L2