School of Engineering
Continuous Internal Assessment-I

Even Sem. 2025-26

Name of Program: B. Tech (CSE)-AI **Year:** Third Year **Semester:** Six

Name of Course: Computer Vision **Course Code: NPEC43922**

(To be filled by the student) **Total Time:** 01 Hour

Univ. Roll No.										
Name										
Section										
Date	D	D	/	M	M	/	Y	Y	Y	Y
Sign of Student										
Sign of Invigilator										

Max Marks:	
Marks Obtained:	
Name & Sign of Evaluator	

Attempt all questions.

Section-A (Multiple Choice Questions) (1×5=5 Marks)

Q1. The smallest element of a digital image is called:
a) Cell b) Pixel c) Bit d) Frame **(CO1)**

Q2. 3A digital image is composed of:
a) Vectors b) Pixels c) Frames d) Segments **(CO1)**

Q3. Grayscale images typically have how many intensity levels?
a) 2 b) 16 c) 128 d) 256 **(CO1)**

Q4. The Hough Transform is mainly used for:
a) Image smoothing b) Feature extraction c) Shape detection d) Image compression **(CO1)**

Q5. Computer vision differs from image processing because it focuses more on:
a) Image enhancement b) Image compression c) Image understanding d) Image storage **(CO1)**

Answers: (Please write the correct option below.)

Q1 [ ] **Q2** [ ] **Q3** [ ] **Q4** [ ] **Q5** [ ]

Section B (Short Answer Questions)

Q6. What is the difference between Perspective and Orthographic projection ? **(CO1)** **(5 Marks)**

Q7. What are the applications of Computer Vision in real life ?. **(CO1)** **(5 Marks)**

Q8. Define Hough Transform. How Hough Transform detects a line ? **(CO1)** (**5 Marks)**

Section C (Long Answer Questions)

Q9.Explain the Sobel operator used in linear filtering for edge detection with an example.
(a) Gradient magnitude (b) Gradient direction
(CO2) **(10 Marks)**

Course Outcome (CO) Mapping

CO Number	Question Numbers	Marks
CO1	Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8	20
CO2	Q9	10