

Reg. No. :

--	--	--	--	--	--	--	--	--	--

**Question Paper Code: 39410**

B.E. / B.Tech. DEGREE EXAMINATION, AUGUST 2021

Elective

Electronics and Communication Engineering

01UEC910 - DIGITAL IMAGE PROCESSING

(Regulation 2013)

Duration: 1:45 hour

Maximum: 50 Marks

PART A - (10 x 2 = 20 Marks)

**(Answer any ten of the following questions)**

1. Define Mach band Effect.
2. The observer is looking at tree 15m height at a distance of 100m. Find the size of the retinal image.
3. Define Homomorphic filtering.
4. Define smoothing.
5. Record the Linear and Non linear Filters.
6. List the short comings of histogram equalization.
7. Why edge detection is most common approach for discontinuities?
8. State the condition to be met by the partitions in region based segmentation.
9. State Hit or Miss transform.
10. What is chain codes?
11. Compare sampling and quantization.
12. Write the advantages of transforms.
13. What is the effect of size and shape of the mask on the filtering process?

14. What would be the effect of repeated application of histogram equalization to an image?

15. Record the Linear and Non linear Filters.

PART – B (3 x 10= 30 Marks)

**(Answer any three of the following questions)**

16. Explain in detail elements of visual perception (10)
17. Define 2D DFT pair and discuss any three properties of it. (10)
18. Give an algorithm for obtaining the average of four images of same size and explain it. (10)
19. How do you link pixels through global processing ? How do you perform edge detection? Give suitable algorithm and discuss how the edge points are linked. (10)
20. Formulate the Chain codes & Skeletons. (10)