Sanjay Ghodawat University, Kolhapur

2020-21

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EXM/P/09/00

Year and Program: TY B. Tech	**School of Technology**	**Department: Electronics**
Course Code: ECE3081	**Course Title: Digital Image Processing**	**Semester : VI**
Day and Date:	**End Semester Examination**	**Time:2 Hrs.** **Max Marks:50**

Instructions: 1) All Questions are compulsory.

Q.1		**Answer the following (any Two)**	**Marks**	**Bloom's Level**	**CO**
	a)	Explain image sensing and acquisition with suitable diagrams	8	L2	CO1
	b)	Illustrate color transformations in detail	8	L2	CO1
	c)	What is meant by histogram processing? Describe Histogram equalization	8	L1	CO2
Q.2		**Answer the following (any two)**			
	a)	AnalyzeHaar transform with necessary calculation for N=4.	8	L4	CO3
	b)	Explain block transform coding with transform selection, sub image size selection and bit allocation.	8	L3	CO3
	c)	Describe Arithmetic coding. If a1=0.2, a2=0.5, a3=0.3, calculate the final sequence interval for a1a2a3	8	L3	CO4
Q.3		**Answer the following (any two)**			
	a)	Summarize Hit-or-Miss Transform.	9	L2	CO5
	b)	Explain the following morphological algorithms with suitable example i) Hole filling ii)Boundary extractioniii) Thickening	9	L3	CO5
	c)	Describe region segmentation using clustering	9	L2	CO6

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