AIDS/IVP

## K. J. Somaiya Institute of Technology, Sion, Mumbai-22 (Autonomous College Affiliated to University of Mumbai)

Nov - Dec 2024

(B. Tech) Program: AIDS

Scheme:IIB

Regular Examination: TY Semester: V

Course Code: AIDLC5052 and Course Name: Image and Video Processing

Date of Exam: 2/12/24

Duration: 02.5 Hours

Max. Marks: 60

Q. No.	Question	Ma x. Ma rks	CO	BT level
Q1	Solve any two questions out of three: (05 marks each)	10	265	
a)	Calculate city block distance chess board distance and Euclidian distance when the $P(x,y) = (4,2)$ and $Q(x,y)=(1,4)$		CO1	Ap
b)	1       1       1       1         1       1       1       1         1       1       1       1         1       1       1       1         1       1       1       1         1       1       1       1         1       1       1       1         2       1       1       1         3       1       1       1         4       1       1       1         4       1       1       1         4       1       1       1         4       1       1       1         4       1       1       1         4       1       1       1         4       1       1       1         5       1       1       1         6       1       1       1         7       1       1       1         8       1       1       1         9       1       1       1         1       1       1       1         1       1       1       1         1       <		CO2	Ap
c)	Apply erosion and dilation on given image A using structuring element    B =		CO3	Ap
Q 2	Solve any two questions out of three: (05 marks each)	10		
a)	Explain variable length coding with example		CO4	U
b)	How the analog video is different from digital video		CO5	U
c)	Explain splitting Techniques used in segmentation with suitable example		CO3	U
Q.3	Solve any <b>two</b> questions out of three. (10 marks each)	20	30	

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a)		t is ho			form	? ho	w to ı	ise it f	or edg	ge detection	explain	in detail			CO3	U
b)	Expl	ain sn	nooth	ning	shar	penir	ig and	l medi	an filt	ering of ima	ige with	example	е		CO2	U
c)	Disc	uss th	e tec	hniq	ues in	nvolv	ed in	shot b	ound	ary detection	and tra	cking.			CO6	U
Q.4	Solve	e any	two	ques	tions	out o	of thre	ee. (10	mar	ks each)				20		
a)	Expl	Explain predictive coding in detail with block diagram								J.		CO4	Ap			
b)	Apply Histogram equalization method on given image										10		CO2	Ap		
	4	4	4	14	4	7							100			
	3	4	5	4	3								E		STEL	
	3	5	5	5	3				2 100							
	3	4	5	4	3											
	4	1		4	- 4											
	4	4	4	4	4								riji (		ds pla	
c)						form	on in	nage I	using	structuring	element	В			CO3	Ap
c)			and r			form	on in	nage I	using	structuring	element	В			CO3	Ap
c)			and r	niss	trans	1	on in	nage I	using	structuring	element	В			СОЗ	Ap
c)			and r	niss	trans	1		nage I	using	structuring	element	В	ally i		CO3	Ap
c)			and r	niss	trans	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	nage I	using	structuring	element	В	aun i		CO3	Ap
c)			and r	miss	trans	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	× = +:	mage I	using	structuring	element	В			CO3	Ap
c)			and r	niss	trans	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	mage I	using	1	element	В			CO3	Ap
c)			and r	miss	trans	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	× = +:	mage I	using	structuring	element	B and a second			CO3	Ap

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