Program: BE Biomedical Engineering

Curriculum Scheme: Revised 2012

Examination: Third Year Semester VI

Course Code: BMC606 and Course Name: Digital Image Processing

Time: 1 hour   Max. Marks: 50

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Note to the students:- All the Questions are compulsory and carry equal marks .

Q1.	A continuous image is digitized at _____ points.
Option A:	random
Option B:	vertex
Option C:	contour
Option D:	sampling
Q2.	The smallest discernible change in intensity level is called _____
Option A:	Intensity Resolution
Option B:	Contour
Option C:	Saturation
Option D:	Contrast
Q3.	Spatial resolution gives us an indication of
Option A:	Quantization
Option B:	Segmentation
Option C:	Compression
Option D:	Sampling
Q4.	Which is the first element of a Image processing system
Option A:	Image Storage.
Option B:	Display.
Option C:	Image Acquisition.
Option D:	Image Processing.
Q5.	Digital Image has intensity values expressed in
Option A:	fractions
Option B:	integers
Option C:	complex numbers
Option D:	imaginary number
Q6.	In a dark image, histogram is skewed on/at?

Option A:	Left
Option B:	Right
Option C:	Equally spaced
Option D:	at the center
Q7.	Spatial domain refers to
Option A:	Manipulations on image segments
Option B:	Direct manipulation of image pixel
Option C:	Modifications on Fourier Transform of an image
Option D:	Contrast shrinking
Q8.	Salt and pepper noise contains
Option A:	White dots
Option B:	Dark dots
Option C:	White and Black dots
Option D:	Blue dots
Q9.	Which of the following is the disadvantage of using smoothing filter?
Option A:	Blur edges
Option B:	Blur inner pixels
Option C:	Remove sharp transitions
Option D:	Sharp edges
Q10.	Median filter belongs to which category of filters?
Option A:	Linear spatial filter
Option B:	Frequency domain filter
Option C:	Order static filter
Option D:	Sharpening filter
Q11.	Which expression is obtained by performing the negative transformation on the negative of an image with gray levels in the range[0,L-1] ?
Option A:	s=L+1-r
Option B:	s=L+1+r
Option C:	s=L-1-r
Option D:	s=L-1+r
Q12.	What is the name of process used to correct the power-law response phenomena?
Option A:	Gamma correction
Option B:	Alpha correction
Option C:	Beta correction
Option D:	Pie correction
Q13.	A filter that passes low frequencies is _____
Option A:	Band pass filter
Option B:	High pass filter

Option C:	Notch filter
Option D:	Low pass filter
Q14.	In a dark image, the components of histogram are concentrated on which side of the grey scale?
Option A:	Right side
Option B:	Center
Option C:	Left side
Option D:	Evenly distributed
Q15.	Improper illumination makes process of segmentation
Option A:	difficult
Option B:	easy
Option C:	No difference
Option D:	trivial
Q16.	Thresholding refers to partitioning of image based on
Option A:	intensity value
Option B:	edges
Option C:	lines
Option D:	pixel location
Q17.	Laplacian of Gaussian is
Option A:	first order derivative filter
Option B:	identity transformation
Option C:	second order derivative filter
Option D:	high boost filter
Q18.	which of the following is not an image transform technique
Option A:	haar
Option B:	prewitt
Option C:	hadamard
Option D:	walsh
Q19.	The Walsh and Hadamard transforms are _____ in nature
Option A:	Sinusoidal
Option B:	Cosine
Option C:	Non-sinusoidal
Option D:	Cosine and sine
Q20.	Which of the following is Lossy compression technique
Option A:	Huffman
Option B:	RLE
Option C:	LZW
Option D:	DCT for JPEG

Q21.	Huffman coding is an encoding algorithm used for
Option A:	Lossy data compression
Option B:	Files greater than 1 Mbit
Option C:	Lossless data compression
Option D:	Broadband systems
Q22.	Encoder is used for
Option A:	Image quantization
Option B:	Image Compression
Option C:	Image Decompression
Option D:	Image equalization
Q23.	Erosion followed by dilation is called
Option A:	Opening
Option B:	Closing
Option C:	Blurring
Option D:	Translation
Q24.	Hit-or-miss transformation is used for shape
Option A:	Removal
Option B:	Detection
Option C:	Compression
Option D:	Decompression
Q25.	Erosion is used for object
Option A:	Filtering
Option B:	Producing lines
Option C:	Blurring image
Option D:	Sharpening image

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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	D
Q2.	A
Q3.	D
Q4	C
Q5	B
Q6	A
Q7	B
Q8.	C
Q9.	A
Q10.	C
Q11.	C
Q12.	A
Q13.	D
Q14.	C
Q15.	A
Q16.	A
Q17.	C

Q18.	B
Q19.	C
Q20.	D
Q21.	C
Q22.	B
Q23.	A
Q24.	B
Q25.	D