University of Mumbai
Examination 2020

Program: Electronics and Telecommunication Engineering
Curriculum Scheme: Rev2016
Examination: Third Year Semester VI
Course Code: ECC604 and Course Name: Image Processing and Machine Vision
Time: 1 hour Max. Marks: 50

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

Q1.	The spatial coordinates of a digital image (x,y) are proportional to:
Option A:	Position
Option B:	Brightness
Option C:	Contrast
Option D:	Noise
Q2.	Among the following image processing techniques which is fast, precise and flexible.
Option A:	Optical
Option B:	Digital
Option C:	Electronic
Option D:	Photographic
Q3.	An image is considered to be a function of a(x,y), where a represents:
Option A:	Height of image
Option B:	Width of image
Option C:	Amplitude of image
Option D:	Resolution of image
Q4.	What is pixel?
Option A:	Pixel is the elements of a digital image
Option B:	Pixel is the elements of an analog image
Option C:	Pixel is the cluster of a digital image
Option D:	Pixel is the cluster of an analog image
Q5.	The range of values spanned by the gray scale is called:
Option A:	Dynamic range
Option B:	Band range
Option C:	Peak range
Option D:	Resolution range
Q6.	Which is a color attribute that describes a pure color?
Option A:	Saturation
Option B:	Hue
Option C:	Brightness
Option D:	Intensity
Q7.	Which gives a measure of the degree to which a pure colour is diluted by white light?

Option A:	Saturation
Option B:	Hue
Option C:	Intensity
Option D:	Brightness
Q8.	Which means the assigning meaning to a recognized object.
Option A:	Interpretation
Option B:	Recognition
Option C:	Acquisition
Option D:	Segmentation
Q9.	A typical size comparable in quality to monochromatic TV image is of size.
Option A:	256 X 256
Option B:	512 X 512
Option C:	1920 X 1080
Option D:	1080 X 1080
Q10.	The number of grey values are integer powers of:
Option A:	4
Option B:	2
Option C:	8
Option D:	1
Q11.	What is the first and foremost step in Image Processing?
Option A:	Image restoration
Option B:	Image enhancement
Option C:	Image acquisition
Option D:	Segmentation
Q12.	In which step of processing, the images are subdivided successively into smaller regions?
Option A:	Image enhancement
Option B:	Image acquisition
Option C:	Segmentation
Option D:	Wavelets
Q13.	What is the next step in image processing after compression?
Option A:	Wavelets
Option B:	Segmentation
Option C:	Representation and description
Option D:	Morphological processing
Q14.	What is the step that is performed before color image processing in image processing?
Option A:	Wavelets and multi resolution processing
Option B:	Image enhancement
Option C:	Image restoration

Option D:	Image acquisition
Q15.	How many number of steps are involved in image processing?
Option A:	10
Option B:	9
Option C:	11
Option D:	12
Q16.	What is the expanded form of JPEG?
Option A:	Joint Photographic Expansion Group
Option B:	Joint Photographic Experts Group
Option C:	Joint Photographs Expansion Group
Option D:	Joint Photographic Expanded Group
Q17.	Which of the following step deals with tools for extracting image components those are useful in the representation and description of shape?
Option A:	Segmentation
Option B:	Representation & description
Option C:	Compression
Option D:	Morphological processing
Q18.	In which step of the processing, assigning a label (e.g., “vehicle”) to an object based on its descriptors is done?
Option A:	Object recognition
Option B:	Morphological processing
Option C:	Segmentation
Option D:	Representation & description
Q19.	What role does the segmentation play in image processing?
Option A:	Deals with extracting attributes that result in some quantitative information of interest
Option B:	Deals with techniques for reducing the storage required saving an image, or the bandwidth required transmitting it
Option C:	Deals with partitioning an image into its constituent parts or objects
Option D:	Deals with property in which images are subdivided successively into smaller regions
Q20.	What is the correct sequence of steps in image processing?
Option A:	Image acquisition->Image enhancement->Image restoration->Color image processing->Compression->Wavelets and multi resolution processing->Morphological processing->Segmentation->Representation & description->Object recognition
Option B:	Image acquisition->Image enhancement->Image restoration->Color image processing->Wavelets and multi resolution processing->Compression->Morphological processing->Segmentation->Representation & description->Object recognition
Option C:	Image acquisition->Image enhancement->Color image processing->Image restoration->Wavelets and multi resolution processing->Compression-

	>Morphological processing->Segmentation->Representation & description->Object recognition
Option D:	Image acquisition->Image enhancement->Image restoration->Color image processing->Wavelets and multi resolution processing->Compression->Morphological processing->Representation & description->Segmentation->Object recognition
Q21.	To convert a continuous sensed data into Digital form, which of the following is required?
Option A:	Sampling
Option B:	Quantization
Option C:	Both Sampling and Quantization
Option D:	Neither Sampling nor Quantization
Q22.	To convert a continuous image f(x, y) to digital form, we have to sample the function in _____
Option A:	Coordinates
Option B:	Amplitude`
Option C:	All of the mentioned
Option D:	None of the mentioned
Q23.	For a continuous image f(x, y), how could be Sampling defined?
Option A:	Digitizing the coordinate values
Option B:	Digitizing the amplitude values
Option C:	All of the mentioned
Option D:	None of the mentioned
Q24.	For a continuous image f(x, y), Quantization is defined as
Option A:	Digitizing the coordinate values
Option B:	Digitizing the amplitude values
Option C:	All of the mentioned
Option D:	None of the mentioned
Q25.	Assume that an image f(x, y) is sampled so that the result has M rows and N columns. If the values of the coordinates at the origin are (x, y) = (0, 0), then the notation (0, 1) is used to signify :
Option A:	Second sample along first row
Option B:	First sample along second row
Option C:	First sample along first row
Option D:	Second sample along second row