



## **BRAINWARE UNIVERSITY**

## **Term End Examination 2022** Programme - B.Sc.(CS)-Hons-2018/BCA-2019/BCA-2020 **Course Name – Image Processing** Course Code - BCS503A/BCAD501B (Semester V)

Full Marks: 60 Time: 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

## **Group-A**

(Multiple Choice Type Question)

1 x 15=15

1	(Notice 1)  Chance the correct alternative from the following	• •	I X IS-
1.	Choose the correct alternative from the followin	g.	
(i)	Which of the following tool is used in tasks such as zooming, shrinking, rotating, etc.?		
	a) Filters	b) Sampling	
	c) Interpolation	d) None of the Mentioned	
(ii)	Textured inner region of the object produces		
	a) Good boundary extraction(	b) Excellent Boundary deletion	
	c) Good Boundary deletion	d) Poor boundary Extraction	
(iii)	Thresholding gives		
	a) Large Image	b) Gray Scale image	
	c) Color Image	d) Binary Image	
(iv)	Intensity levels in 8-bit image are		
	a) 128	b) 255	
	c) 256	d) 512	
(v)	The smallest discernible change in intensity level is called		
	a) Intensity Resolution	b) Contour	
	c) Saturation	d) Contrast	
(vi)	1024x 1024 image has a resolution of		
	a) 1048576	b) 1148576	
	c) 1248576	d) 1348576	
(vii)	M x N image has a resolution of		
	a) M*N	b) M/N	
	c) M-N	d) M+N	
(viii)	Electromagnetic wave can be viewed		
	a) Sine wave	b) Cos Wave	
<i>.</i>	c) Tangent Wave	d) None of these	
(ix)	A continuous image is digitized at		
	a) Random Points	b) Vertex Points	
	c) Sampling Points	d) Contour Points	

(x) Among the following image processing techniques which is fast, precise and flexible

(xi)	<ul> <li>a) Optica</li> <li>c) Electronic</li> <li>Assume that an image f(x, y) is sampled so that the values of the coordinates at the origin are (used to signify:</li> </ul>		lf	
(xii)	<ul><li>a) Second sample along first row</li><li>c) First sample along first row</li><li>In perspective projection, all lines of sight start</li></ul>	b) Second sample along Second row d) Second sample along last row at apoint		
(xiii)	<ul><li>a) Double</li><li>c) Tripple</li><li>The intersection point of visual rays with the PF</li></ul>	b) Single d) Multiple PP is		
(xiv	<ul><li>a) Station Point</li><li>c) Perpendicular Axis</li><li>The quality of a digital image is well determine</li></ul>	b) X-Axis d) Z-Axis d by		
•	a) Number of Samples c) Both Number of Samples and Discrete Gray Levels	b) Discrete Gray Levels d) None of these		
(xv)	When an object is viewed from different direct appearance of the object will be different. Such			
	a) Oblique Projection c) Distance View	<ul><li>b) Perspective View</li><li>d) Simple Projection</li></ul>		
<b>Group-B</b> (Short Answer Type Questions) 3				
3. E 4. C 5. C 6. E	explain Quantization method.  Explain the method of histogram equalization.  Explain the method of histogram equalization.  Explain the steps of Image processing.  Explain the steps of Image processing.  OI  Explain Image Transformation	-	(3) (3) (3) (3) (3)	
	<b>Gro</b> u (Long Answer Ty	-	5 x 6=30	
3. 9. 10. 11.	Explain Linear Stretching of histogram. How line detection is related to image segmenta Explain Histogram equalization for contrast enha Calculate 5*5 Ideal High pass filter(C) Calculate 5*5 Gaussian High pass filter List the categories of Image Enhancement.  OI Explain Point Processing Methods	tion? ncement.	(5) (5) (5) (5) (5) (5)	

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