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BCA(VI) — Comp. Graph. (602) Core – 14

2020

Time: 3 hours

Full Marks: 70

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer from all the Groups as directed.

Group - A

(Compulsory)

- Choose the correct answer from the following
 objective type questions: 2×10 = 20
 - (a) Heat supplied to the cathode by directing a current through a coil of wire is called:
 - (i) Electron Gun

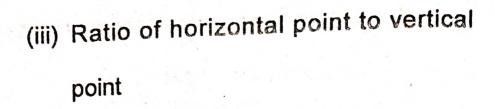
(Turn over)

XU - 2/3

	(ii) Electron Beam
	(iii) Filament
	(iv) Anode and Cathode
(b)	stores the picture information as a
	charge distribution behind the phosphor
	coated screan.
	(i) Cathode ray tube
	(ii) Direct view storage tube
	(iii) Flat pannel display
· .	(iv) 3D viewing
(c)	The device which converts the electrical
	energy into light is called:
	(i) Liquid crystal display
100	(ii) Non emitters
	(iii) Plasma pannel
	(iv) Emmitters
- 2/:	3 (2) Contd.

XU

			•
(d)	In w	hich system, the shadow	mask methods
	are	commonly used:	
	(i)	Raster scan system	
(2) (P(+ x - 2)	(ii)	Random scan system	
	(iii)	Only (ii)	
	(iv)	Beth (i) and (ii)	
(e)	The	primary output device i	n a Graphics
	Syst	teme:	
	(i)	Scanner	
· · · · · · · · · · · · · · · · · · ·	(ii)_	Vid eo Monitor	
	(iii)	Nither (i) nor (ii)	
	(iv)	Printer	
(f)	Asp	ect ratio means :	the transfer of the transfer o
	(i)	Number of Pixels	
	(ii)	Ratio of vertical Point to he	orizontal point
XU – 2/	3	(3)	(Turn over)



(iv) Both (ii) and (iii)

- (g) _____ is used for detecting mouse motion.
 - (i) Optical sensor
 - (ii) Roller on the bottom of mouse
 - (iii) Both (i) and (ii)
 - (iv) Sensor
- (h) The cartesian slope intercept equation for a straight line is:

$$+$$
 (i) $y = m \cdot x + b$

(ii)
$$y = b \cdot x + m$$

(iii)
$$y = x \cdot x + m$$

(iv)
$$y = b + m \cdot m$$

(i)	Expansion of line DDA algorithm is:
	(i) Digital Difference Analyzer
	(ii) Direct Difference Analyzer
	(iii) Digital Differential Analyzer
Ev.	(iv) Data Differential Analyzer
(j)	The basic parameter to curved attribute
a on land	are:
	(i) Type
•	(ii) Width
	(iii) Color
	(iv) All of these
さまて	Group - B
A	nswer any four questions of the following:
	5×4 = 20
2. W	hat is Computer Graphics ? Explain its
a	oplication.
XU –	2/3 (5) (Turn over)

- 3. What do you mean by 3D rotation?
- 4. What are the various area filling techniques?
- 5. Define translation.
- 6. What is a B-spline Curve? Describe the various type of B-spline.
- Explain Cohen Suther land clipping algorithm for 3D clipping.

Group - C

Answer any two question of the following:

 $15 \times 2 = 30$

- 8. Explain the architecture of a Raster Scan Display with the help of diagram.
- 9. What are the various transformation possible in2D ? Discuss it.

- 10. Explain DDA line drawing algorithm? If a line drawn from (2, 3) to (6, 15) with use of DDA. How many points will be needed to generate such line.
- 11. Apply the cohen suther land line clipping algorithm to clip the line segment with coordinates (30, 60) and (60, 25).