

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER – III • EXAMINATION – SUMMER 2015

Subject Code: 3331602

Date: 06- 05- 2015

Subject Name: COMPUTER GRAPHICS

Time: 2:30 pm to 5:00 pm

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of programmable & Communication aids are strictly prohibited.
5. Use of only simple calculator is permitted in Mathematics.
6. English version is authentic.

- Q.1** Answer any seven out of ten. દશમાંથી કોઇપણ સાતના જવાબ આપો. **14**
1. List the different application of Computer Graphics.
 ૧. Computer Graphics ના એપ્લિકેશન ની યાદી આપો.
 2. Define: Resolution.
 ૨. Resolution વ્યાખ્યા આપો.
 3. What is bitmap & pixmap?
 ૩. Bitmap અને Pixmap શું છે?
 4. What is View port?
 ૪. View port શું છે?
 5. What is Bar code reader?
 ૫. Bar code reader શું છે?
 6. What is flat panel display?
 ૬. Flat panel display શું છે?
 7. Write the advantages of DDA.
 ૭. DDA ના ફાયદાઓ લખો.
 8. Define: Inverse Transformation.
 ૮. Inverse Transformation વ્યાખ્યા આપો.
 9. Define: Projection.
 ૯. Projection વ્યાખ્યા આપો.
 10. What is Zooming and Jaggies?
 ૧૦. Zooming અને Jaggies શું છે સમજાવો
- Q.2** (a) Difference between Raster scan and Random scan system. **03**
- પ્રશ્ન. ૨ (અ) Raster scan system અને Random scan system વચ્ચે નો તફાવત લખો. **03**
- OR
- (a) Explain Sutherland Hodgeman polygon clipping. **03**
- (અ) Sutherland Hodgeman polygon clipping સમજાવો. **03**
- (b) Explain any two applications of Computer Graphics. **03**
- (બ) Computer Graphics ની કોઈ પણ બે એપ્લિકેશનો સમજાવો. **03**

OR

	(b) Explain Shear.	03
	(બ) Shear સમજવો.	03
	(c) What is Boundary fill algorithm?	04
	(ક) Boundary fill algorithm શું છે સમજાવો.	04
	OR	
	(c) Explain any two types of Printer.	04
	(ક) Printer ના બે પ્રકાર સમજાવો.	04
	(d) Explain Sutherland Cohen line clipping.	04
	(ડ) Sutherland Cohen line clipping સમજાવો.	04
	OR	
	(d) Describe Orthographic Projection.	04
	(ડ) Orthographic Projection વર્ણન કરો.	04
Q.3	(a) What is Shadow mask method?	03
પ્રશ્ન. 3	(અ) Shadow mask method શું છે?	03
	OR	
	(a) Describe Convex and Concave Polygons.	03
	(અ) Convex and Concave Polygons વર્ણન કરો.	03
	(b) Describe Bresenham line drawing algorithm.	03
	(બ) Bresenham line drawing algorithm સમજાવો	03
	OR	
	(b) Explain Parallel Projection.	03
	(બ) Parallel Projection સમજાવો	03
	(c) Explain Midpoint circle algorithm.	04
	(ક) Midpoint circle algorithm સમજાવો	04
	OR	
	(c) Describe Perspective Projection.	04
	(ક) Perspective Projection વર્ણન કરો.	04
	(d) What is 3-D Translation?	04
	(ડ) 3-D Translation શું છે સમજાવો.	04
	OR	
	(d) What is Viewing Pipeline?	04
	(ડ) Viewing Pipeline શું છે?	04
Q.4	(a) Explain Munsell color classification?	03
પ્રશ્ન. 4	(અ) Munsell color classification સમજાવો.	03
	OR	
	(a) Describe in brief Text Clipping.	03
	(અ) Text Clipping શું છે વર્ણન કરો.	03
	(b) Explain 2-D Rotation.	04
	(બ) 2-D Rotation સમજાવો	04
	OR	
	(b) Explain 3-D Scaling.	04
	(બ) 3-D Scaling સમજાવો	04

	(c) Explain CRT with its terms.	07
	(ક) CRT અને તેની ટર્મ્સ સમજાવો	09
Q.5	(a) Explain 2-D Translation.	04
પ્રશ્ન. ૫	(અ) 2-D Translation શું છે સમજાવો.	04
	(b) Describe Raster scanning.	04
	(બ) Raster scanning શું છે સમજાવો	04
	(c) Explain 2-D scaling.	03
	(ક) 2-D scaling સમજાવો	03
	(d) Write note on LED.	03
	(ડ) LED વિસ્તાર થી સમજાવો.	03
