

- Q.4 (a) Prove that general perspective projection transformation is obtain by the composition of shear and scaling operation and shows the matrix formulation for the both operations. 8
- (b) Explain the parallel and perspective projection techniques to project 3D object onto 2D view plane. 6
- Q.5 (a) Classify the visible surface detection algorithms and explain one of the image-space based algorithm. 8
- (b) Explain following color model 6
1. XYZ color model.
  2. RGB Color model.
- OR
- Q.5 (a) Explain the property of light using electromagnetic spectrum. Also explain following terms 8
1. dominant frequency
  2. purity
  3. luminance
- (b) Explain following color model 6
3. YIQ color model.
  4. CMY Color model.

\*\*\*\*\*