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MCA 4th Sem
Interactive Computer Graphics
Subject Code : MCA-403
Paper ID:

Batch:2004 onwards/2011onwards/2015 onwards[Tick Relevant] _____

Max Marks: 100

Time allowed: 3 Hrs

Important Instructions:
- All questions are compulsory
- Assume any missing data
- Additional instructions, if any

PART A (10x 2marks)

Q. 1.   Short-Answer Questions:

a) Define dot pitch and persistence.
b) What is clipping? List its types.
c) What are the applications of computer graphics?
d) Define Translation.
e) Explain the working of joystick.
f) What is scan conversion? What are its effects?
g) Define Projection and its types.
i) What do you mean by window and viewport?
j) Explain the term horizontal and vertical retrace.

PART B (4×20marks)

Q2 What is computer graphics? Explain the various application areas of computer graphics.

Q3 Explain the components and working of CRT monitors with labelled diagram.

Q4 Explain Brensenham line drawing algorithm.Trace all the intermediate points of line defined from A(0,0) to B(6,7) using Brensenham's algorithm.

Q5 What are the different area filling techniques? Explain flood fill algorithm and boundary fill algorithm in detail.

Q6 Explain various geometric 3D transformations.

Q7 a) Diffrentiate between Parallel projection and Perspective projection.

b) Differentiate between Phong shading and Gouard shading.