

2006 Paper 5 Question 5

Computer Graphics and Image Processing

- (a) Give the definition of the cubic Bézier curve. [4 marks]
- (b) Derive the conditions necessary to ensure that two cubic Bézier curves join with C^1 -continuity. [6 marks]
- (c) Describe, in detail, an algorithm for drawing a cubic Bézier curve to a given tolerance using straight lines. You may assume that you already have an algorithm for drawing a straight line. [6 marks]
- (d) Explain why and how homogeneous co-ordinates are used in computer graphics. [4 marks]