

**M.Sc. (MATHEMATICS WITH APPLICATIONS
IN COMPUTER SCIENCE)**

Term-End Examination

August, 2011

**MMTE-007 (P) : SOFT COMPUTING AND
APPLICATIONS**

Time : 1½ hours

Maximum Marks : 40

*Note : This question paper has one question worth 30 marks.
Remaining 10 marks are for viva-voce.*

1. Consider a data set of six points given in the following table. Each point has two features f_1 and f_2 . Assume the values of the parameters C and m as 2. Let the initial cluster centers be $V_1 = (5, 5)$ and $V_2 = (10, 10)$. 30

	f_1	f_2
x_1	2	12
x_2	4	9
x_3	7	13
x_4	11	5
x_5	12	7
x_6	14	4

Write a program in 'C' language to find the new cluster centers by applying FCM algorithm.