2014

(Fifth Semester)

MASTER OF COMPUTER APPLICATIONS

Paper No: MCA 529

(Pattern Recognition)

Full Marks : 60

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer Question No 1 and **any four** from the rest

1. Answer **briefly** the following questions: (2x6=12)

   a) Explain *preprocessing.*

   b) What is priori probability?

   c) What is supervised learning?

   d) What is *likelihood ratio*?

   e) What do you mean by *segmentation*?

   f) What is *feature extraction*?

2. What is Pattern Recognition? What are the applications of pattern recognition? (4+8=12)

3. What is Bayesian decision theory? Explain Two Category Classifications. (6+6=12)

4. What is Gaussian density? Explain K-means Clustering (4+8= 12)

5. What is Maximum Likelihood estimation? Explain in details. (12)

6. Describe Hidden Markov Model (HMM) giving examples. (12)

7. What is K-nearest classification? Explain Fuzzy Classification. (6+6=12)

8. What is hierarchical clustering? Explain Bayes Decision for missing and noisy features. (4+8=12)