



- Notes :
1. All questions carry marks as indicated.
 2. Solve Question 1 OR Questions No. 2.
 3. Solve Question 3 OR Questions No. 4.
 4. Solve Question 5 OR Questions No. 6.
 5. Solve Question 7 OR Questions No. 8.
 6. Solve Question 9 OR Questions No. 10.
 7. Solve Question 11 OR Questions No. 12.

1. a) Explain the measurements of probability of events. 7
b) Explain Joint Distribution and densities of probability. 6

OR

2. a) Explain statistical decision theory. 7
b) Define image processing and analysis. 6
3. Which are the parameters to estimates from samples? Explain? 13

OR

4. What is minimum Risk estimator? Explain in details? 13
5. a) What are the Adaptive Decision Boundaries? 7
b) Explain minimum squared Error discriminate function. 6

OR

6. a) Explain Nearest neighbor classification techniques. 7
b) What are the decision making technique? Explain. 6
7. a) Explain component Analysis and dimension reduction techniques. 7
b) Define Fisher Linear Discriminant. 7

OR

8. a) Explain principle component Analysis. 7
b) What is locally linear Embedding? Explain with Example. 7

9. a) Define the Karhunen-loeve transform. 7
b) Explain the Discrete Fourier transform 7

OR

10. a) Explain the Haar Transform. 7
b) What is independent component Analysis? Explain. 7
11. a) Explain Hierarchical clustering. 13

OR

12. b) Explain partitional clustering. 13
