

**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY,
LONERE – RAIGAD – 402 103
Summer Semester Examination, May 2018**

Branch: M.Tech. (CE / CSE / CS / CS&IT)

Semester: II

**Subject with Subject Code: Pattern Recognition
[MTCE1205D]**

Marks: 60

Date: 23 / 05 / 2018

Time: 3Hrs.

Instructions to the Students

1. Each question carries 12 marks.
2. Attempt any five questions of the following.
3. Illustrate your answers with neat sketches, diagram etc., wherever necessary.
4. If some part or parameter is noticed to be missing, you may appropriately assume it and should mention it clearly.

- Q.1. a) With neat diagram, explain Pattern recognition system in detail. (6)
b) Explain the concept of Probability theory. (6)
- Q.2. a) Explain in detail about Bayes Decision Rule. (8)
b) Give short notes on K-NN classifier. (4)
- Q.3. a) How minimum spanning tree used in clustering? (6)
b) Write and explain the DBSCAN algorithm. (6)
- Q.4. a) How can you determine distance between two separable classes? (8)
b) Describe about sequential forward selection algorithms. (4)
- Q.5. a) Explain in detail about principal component analysis. (6)
b) Write short notes on kernel principal component analysis. (6)
- Q.6. a) Explain about support vector machine in detail. (6)
b) Write FCM algorithm with example. (6)