

**P.D.E.A.'s COLLEGE OF ENGINEERING MANJARI (BK), PUNE.**  
**COMPUTER DEPARTMENT**

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**Mock PR/OR (A.Y.-2018-19) SEM-I**

**SE Computer**  
**TIME TABLE**

**Date: 05/10/2018**

| Day/Time             | Subject | Internal/<br>External | Supporting<br>Staff | Batch | Lab Assigned       | Time       |
|----------------------|---------|-----------------------|---------------------|-------|--------------------|------------|
| 11/10/18<br>Thursday | OOP     | PPB/BSK               | CAK                 | S1    | Microprocessor Lab | 10.00-1.00 |
|                      | OOP     | PPB/BSK               | CAK                 | S2    | Design Lab         | 12.00-3.00 |
|                      | OOP     | PPB/BSK               | CAK                 | S3    | Microprocessor Lab | 2.00-5.00  |
| 12/10/18<br>Friday   | DEL     | BSK/MCH               | SBB                 | S1    | Hardware Lab       | 10.00-1.00 |
|                      | DEL     | BSK/MCH               | SBB                 | S2    | Hardware Lab       | 12.00-3.00 |
|                      | DEL     | BSK/MCH               | SBB                 | S3    | Hardware Lab       | 2.00-5.00  |
| 15/10/18<br>Monday   | DSL     | SMB/NDS               | CAK                 | S1    | Microprocessor Lab | 10.00-1.00 |
|                      | DSL     | SMB/NDS               | CAK                 | S2    | Project Lab        | 12.00-3.00 |
|                      | DSL     | SMB/NDS               | CAK                 | S3    | Microprocessor Lab | 2.00-5.00  |

**Note : The marks obtain from mock exam will be consider in term work .**

TW 25 Marks = Practical Assessment 15 M + subject attendance 5M + PR/OR Mock Exam 5 M

**Exam I/C**  
**Prof. A.A. Bamanikar**

**HOD**  
**Dr. R.V.Patil**

**P.D.E.A.'s COLLEGE OF ENGINEERING MANJARI (BK), PUNE.**  
**COMPUTER DEPARTMENT**

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**Mock PR/OR (A.Y.-2018-19) SEM-I**

**TE Computer**  
**TIME TABLE**

**Date: 05/10/2018**

| Day/Time             | Subject | Internal/<br>External | Supporting<br>Staff | Batch | Lab Assigned | Time       |
|----------------------|---------|-----------------------|---------------------|-------|--------------|------------|
| 15/10/18<br>Thursday | CNL     | RBR/AAB               | CAK                 | T1    | Software Lab | 10.00-1.00 |
|                      | CNL     | RBR/AAB               | CAK                 | T2    | Project Lab  | 12.00-3.00 |
|                      | CNL     | RBR/AAB               | CAK                 | T3    | Software Lab | 2.00-5.00  |
| 12/10/18<br>Friday   | DBMSL   | NDS/SVS               | SBB                 | T1    | Project Lab  | 10.00-1.00 |
|                      | DBMSL   | NDS/SVS               | SBB                 | T2    | Design Lab   | 12.00-3.00 |
|                      | DBMSL   | NDS/SVS               | SBB                 | T3    | Project Lab  | 2.00-5.00  |
| 13/10/18<br>Monday   | SDL     | SVP/MCH               | CAK                 | T1    | Project Lab  | 10.00-1.00 |
|                      | SDL     | SVP/MCH               | CAK                 | T2    | Project Lab  | 12.00-3.00 |
|                      | SDL     | SVP/MCH               | CAK                 | T3    | Project Lab  | 2.00-5.00  |

**Note : The marks obtain from mock exam will be consider in term work .**

TW 25 Marks = Practical Assessment 15 M + subject attendance 5M + PR/OR Mock Exam 5 M

**Exam I/C**  
**Prof. A.A. Bamanikar**

**HOD**  
**Dr. R.V.Patil**

**P.D.E.A.'s COLLEGE OF ENGINEERING MANJARI (BK), PUNE.**  
**COMPUTER DEPARTMENT**

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## Mock PR/OR (A.Y.-2018-19) SEM-I

### BE Computer TIME TABLE

Date: 05/10/2018

| Day/Time           | Subject | Internal/<br>External | Supporting<br>Staff | Batch | Lab Assigned       | Time       |
|--------------------|---------|-----------------------|---------------------|-------|--------------------|------------|
| 12/10/18<br>Friday | LP-I    | SVS/SVP               | SBB                 | B1    | Microprocessor Lab | 10.00-1.00 |
|                    | LP-I    | MCH/SVP               | SBB                 | B2    | Software Lab       | 12.00-3.00 |
|                    | LP-I    | MCH/SVP               | SBB                 | B3    | Microprocessor Lab | 2.00-5.00  |
| 15/10/18<br>Monday | LP-II   | AAB/RBR               | CAK                 | B1    | Software Lab       | 10.00-1.00 |
|                    | LP-II   | AAB/RBR               | CAK                 | B2    | Design Lab         | 12.00-3.00 |
|                    | LP-II   | AAB/RBR               | CAK                 | B3    | Software Lab       | 2.00-5.00  |

**Note : The marks obtain from mock exam will be consider in term work .**

TW 25 Marks = Practical Assessment 15 M + subject attendance 5M + PR/OR Mock Exam 5 M

**Exam I/C**  
**Prof. A.A. Bamanikar**

**HOD**  
**Dr. R.V.Patil**

Poona District Education Association's  
College of Engineering, Manjari(Bk) Pune  
**Department of Information Technology**  
**Acad. Year : 2018-19 ( Sem-I)**

**Subject: MACHINE LEARNING**  
**Subject Teacher: Prof Niraja Jain**  
**Lectures: 4 Hours/Week**

**Subject Code: 414455**  
**Theory: Phase I – 30 Marks**  
**Phase II – 70 Marks**

**Prerequisites : Linear Algebra and Calculus, Probability Basics**

**Course Objectives :**

1. Understanding Human learning aspects.
2. Understanding primitives in learning process by computer.
3. Understanding nature of problems solved with Machine Learning.

**Course Outcomes :**

1. Students will be able to model the learning primitives.
2. Students will be able to build the learning model.
3. Student will be able to tackle real world problems in the domain of Data Mining, Information Retrieval, Computer vision, Linguistics and Bioinformatics.

**Text Books**

1. Peter Flach: Machine Learning: The Art and Science of Algorithms that Make Sense of Data, Cambridge University Press, Edition 2012.
2. Hastie, Tibshirani, Friedman: Introduction to Statistical Machine Learning with Applications in R, Springer, 2nd Edition-2012.

**Reference Books**

1. C. M. Bishop : Pattern Recognition and Machine Learning, Springer 1st Edition-2013.
2. Ethem Alpaydin : Introduction to Machine Learning, PHI 2nd Edition-2013.
3. Parag Kulkarni : Reinforcement and Systematic Machine Learning for Decision Making, Wiley-IEEE Press, Edition July 2012.

Poona District Education Association's  
College of Engineering, Manjari(Bk) Pune  
Department of Information Technology  
Acad. Year : 2018-19 ( Sem-I)

**Subject: MACHINE LEARNING**  
**Subject Teacher: Prof Niraja Jain**  
**Lectures: 4 Hours/Week**

**Subject Code: 414455**  
**Theory: Phase I – 30 Marks**  
**Phase II – 70 Marks**

**Teaching Plan**

| Sr No | Unit                        | Topic To Be Covered                                                                                                           | Planned Date | Actual Date | Reference         |
|-------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------|--------------|-------------|-------------------|
| 1.    | <b>Unit I<br/>7 Hours</b>   | <b>Introduction To Machine Learning</b><br>Why Machine Learning, Examples Of Machine Learning Problems, Structure Of Learning | 18/6/2018    |             | T1,T2<br>R1,R2,R3 |
| 2.    |                             | Learning Versus Designing, Training Versus Testing                                                                            | 19/6/2018    |             | T1,T2<br>R1,R2,R3 |
| 3.    |                             | Characteristics Of Machine Learning Tasks, Predictive And Descriptive Tasks                                                   | 22/6/2018    |             | T1,T2<br>R1,R2,R3 |
| 4.    |                             | Machine Learning Models: Geometric Models                                                                                     | 23/6/2018    |             | T1,T2<br>R1,R2,R3 |
| 5.    |                             | Logical Models, Probabilistic Models                                                                                          | 25/6/2018    |             | T1,T2<br>R1,R2,R3 |
| 6.    |                             | Features: Feature Types, Feature Construction And Transformation,                                                             | 26/6/2018    |             | T1,T2<br>R1,R2,R3 |
| 7.    |                             | Feature Selection                                                                                                             | 29/6/2018    |             | T1,T2<br>R1,R2,R3 |
| 8.    | <b>Unit II<br/>8 Hours</b>  | <b>Classification And Regression</b><br>Classification: Binary Classification- Assessing Classification Performance           | 30/6/2018    |             | T1,T2<br>R1,R2,R3 |
| 9.    |                             | Class Probability Estimation- Assessing Class Probability Estimates,                                                          | 2/7/2018     |             | T1,T2<br>R1,R2,R3 |
| 10.   |                             | Multiclass Classification                                                                                                     | 3/7/2018     |             | T1,T2<br>R1,R2,R3 |
| 11.   |                             | Regression: Assessing Performance Of Regression- Error Measures, Overfitting- Catalysts For Overfitting,                      | 6/7/2018     |             | T1,T2<br>R1,R2,R3 |
| 12.   |                             | Case Study Of Polynomial Regression                                                                                           | 7/7/2018     |             | T1,T2<br>R1,R2,R3 |
| 13.   |                             | Theory Of Generalization: Effective Number Of Hypothesis, Bounding The Growth Function,                                       | 9/7/2018     |             | T1,T2<br>R1,R2,R3 |
| 14.   |                             | Vc Dimensions,                                                                                                                | 10/7/2018    |             | T1,T2<br>R1,R2,R3 |
| 15.   |                             | Regularization Theory                                                                                                         | 13/7/2018    |             | T1,T2<br>R1,R2,R3 |
| 16.   | <b>Unit III<br/>7 Hours</b> | <b>Linear Models</b><br>Least Squares Method, Multivariate Linear Regression                                                  | 14/7/2018    |             | T1,T2<br>R1,R2,R3 |
| 17.   |                             | Regularized Regression                                                                                                        | 16/7/2018    |             | T1,T2<br>R1,R2,R3 |
| 18.   |                             | Using Least Square Regression For Classification. Perceptron                                                                  | 17/7/2018    |             | T1,T2<br>R1,R2,R3 |
| 19.   |                             | Support Vector Machines                                                                                                       | 20/7/2018    |             | T1,T2<br>R1,R2,R3 |
| 20.   |                             | Support Vector Machines ,SOFT Margin Svm                                                                                      | 21/7/2018    |             | T1,T2             |

|     |                            |                                                                                                                              |           |  |                   |
|-----|----------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------|--|-------------------|
|     |                            |                                                                                                                              |           |  | R1,R2,R3          |
| 21. |                            | Obtaining Probabilities From Linear Classifiers                                                                              | 23/7/2018 |  | T1,T2<br>R1,R2,R3 |
| 22. |                            | Kernel Methods For Non-Linearity                                                                                             | 24/7/2018 |  | T1,T2<br>R1,R2,R3 |
| 23. | <b>Unit IV<br/>6 Hours</b> | <b>Logic Based And Algebraic Models</b><br>Distance Based Models: Neighbours And Examples, Nearest Neighbours Classification | 27/7/2018 |  | T1,T2<br>R1,R2,R3 |
| 24. |                            | Distance Based Clustering-K Means Algorithm, Hierarchical Clustering                                                         | 28/7/2018 |  | T1,T2<br>R1,R2,R3 |
| 25. |                            | Rule Based Models: Rule Learning For Subgroup Discovery                                                                      | 30/7/2018 |  | T1,T2<br>R1,R2,R3 |
| 26. |                            | Association Rule Mining                                                                                                      | 31/7/2018 |  | T1,T2<br>R1,R2,R3 |
| 27. |                            | Tree Based Models: Decision Trees, Ranking And Probability Estimation Trees,                                                 | 3/8/2018  |  | T1,T2<br>R1,R2,R3 |
| 28. |                            | Regression Trees, Clustering Trees.                                                                                          | 4/8/2018  |  | T1,T2<br>R1,R2,R3 |
| 29. | <b>Unit V<br/>6 Hours</b>  | <b>Probabilistic Models</b><br>Normal Distribution And Its Geometric Interpretations                                         | 6/8/2018  |  | T1,T2<br>R1,R2,R3 |
| 30. |                            | Naïve Bayes Classifier                                                                                                       | 13/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 31. |                            | Discriminative Learning With Maximum Likelihood                                                                              | 14/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 32. |                            | Probabilistic Models With Hidden Variables: Estimation-Maximization Methods                                                  | 17/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 33. |                            | Gaussian Mixtures                                                                                                            | 18/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 34. |                            | Compression Based Models                                                                                                     | 20/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 35. | <b>Unit VI<br/>8 Hours</b> | <b>Trends In Machine Learning</b><br>Model And Symbols- Bagging And Boosting,                                                | 21/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 36. |                            | Multitask Learning                                                                                                           | 24/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 37. |                            | Online Learning                                                                                                              | 25/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 38. |                            | Sequence Prediction                                                                                                          | 27/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 39. |                            | Data Streams And Active Learning                                                                                             | 28/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 40. |                            | Deep Learning                                                                                                                | 31/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 41. |                            | Reinforcement Learning                                                                                                       | 3/9/2018  |  | T1,T2<br>R1,R2,R3 |
| 42. |                            | Reinforcement Learning                                                                                                       | 4/9/2018  |  | T1,T2<br>R1,R2,R3 |

**Prof Niraja Jain**  
Subject Teacher

**Prof Niraja Jain**  
Head of Department



Pune District Education Association's  
**College of Engineering, Manjari (Bk.) Pune**  
 (Information Technology Department)  
 Academic Year:- 2018-19 (Semester -2)

**Class:- TE (IT)**

**Subject:- SL-IV Termwork (25)**

| Sr. No. | Seat No    | Roll No. | Name                        | Avg Att | Marks (5) | Mock Exam Marks (5) | Ass. Total (12*5) | Marks (15) | Total (25) |
|---------|------------|----------|-----------------------------|---------|-----------|---------------------|-------------------|------------|------------|
| 1       | T150268501 | 1        | BHOR VIBHA BALASAHEB        | 75      | 1         | 4                   | 51                | 13         | 18         |
| 2       | T150268502 | 2        | CHAUDHARI VRUSHALI DIGAMBAR | 83      | 2         | 5                   | 52                | 13         | 20         |
| 3       | T150268504 | 4        | GAIKWAD MOHINI SANJAY       | 75      | 1         | 4                   | 50                | 13         | 18         |
| 4       | T150268505 | 5        | KALBHOR SUPRIYA NARAYAN     | 93      | 4         | 4                   | 56                | 14         | 22         |
| 5       | T150268506 | 6        | KAMBLE ANKITA SHANTARAM     | 88      | 3         | 5                   | 56                | 14         | 22         |
| 6       | T150268508 | 8        | KHOT PRITAM APPASAHEB       | 75      | 1         | 4                   | 49                | 12         | 17         |
| 7       | T150268509 | 9        | KOLATE RUSHIKESH DATTATRAYA | 78      | 1         | 4                   | 54                | 14         | 19         |
| 8       | T150268510 | 10       | KSHIRSAGAR SHUBHAM SAMBHAJI | 91      | 4         | 4                   | 56                | 14         | 22         |
| 9       | T150268511 | 11       | NALBAND SUMAIYA SHAUKAT     | 91      | 4         | 4                   | 56                | 14         | 22         |
| 10      | T150268512 | 12       | PATHAN AFRIN GIYASUDDIN     | 91      | 4         | 4                   | 56                | 14         | 22         |
| 11      | T150268513 | 13       | PATIL PRAGATI PRAVIN        | 78      | 1         | 4                   | 53                | 13         | 18         |
| 12      | T150268514 | 14       | PATIL SHUBHAM MALLIKARJUN   | 75      | 1         | 4                   | 51                | 13         | 18         |
| 13      | T150268516 | 16       | SANKPAL AMOL SURESH         | 75      | 1         | 4                   | 52                | 13         | 18         |
| 14      | T150268517 | 17       | SHAIKH AMMARA IMTIAZ        | 81      | 2         | 5                   | 54                | 14         | 21         |
| 15      | T150268518 | 18       | SHIVANK KUMAR SHARMA        | 77      | 1         | 5                   | 52                | 13         | 19         |
| 16      | T150268519 | 19       | TIKONE AMRUT BALASAHEB      | 76      | 1         | 4                   | 54                | 14         | 19         |
| 17      | T150268520 | 20       | ZENDE PRACHI SHANKAR        | 97      | 5         | 4                   | 56                | 14         | 23         |
| 18      | T150268521 | 21       | MORE ROHIT MARUTI           | 76      | 1         | 4                   | 55                | 14         | 19         |
| 19      | T150268522 | 22       | PATIL OMKAR SUNIL           | 81      | 2         | 4                   | 50                | 13         | 19         |

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Date:-07/04/2019

Subject Teacher  
 (Prof. R. M. Kawale)

H. O. D.  
 (Prof. Niraja Jain)



Pune District Education Association's  
**College of Engineering, Manjari (Bk.) Pune**  
 (Information Technology Department)  
 Academic Year:- 2018-19 (Semester -2)

**Class:- TE (IT)**

**Subject:- SL-V Termwork (50)**

| Sr. No. | Seat No    | Roll No. | Name                        | Avg Att | Marks (5) | Mock Exam Marks (5) | Ass. Total (12*5) | Marks (15) | Total (25) |
|---------|------------|----------|-----------------------------|---------|-----------|---------------------|-------------------|------------|------------|
| 1       | T150268501 | 1        | BHOR VIBHA BALASAHEB        | 75      | 1         | 4                   | 51                | 13         | 18         |
| 2       | T150268502 | 2        | CHAUDHARI VRUSHALI DIGAMBAR | 83      | 2         | 5                   | 52                | 13         | 20         |
| 3       | T150268504 | 4        | GAIKWAD MOHINI SANJAY       | 75      | 1         | 4                   | 50                | 13         | 18         |
| 4       | T150268505 | 5        | KALBHOR SUPRIYA NARAYAN     | 93      | 4         | 4                   | 56                | 14         | 22         |
| 5       | T150268506 | 6        | KAMBLE ANKITA SHANTARAM     | 88      | 3         | 5                   | 56                | 14         | 22         |
| 6       | T150268508 | 8        | KHOT PRITAM APPASAHEB       | 75      | 1         | 4                   | 49                | 12         | 17         |
| 7       | T150268509 | 9        | KOLATE RUSHIKESH DATTATRAYA | 78      | 1         | 4                   | 54                | 14         | 19         |
| 8       | T150268510 | 10       | KSHIRSAGAR SHUBHAM SAMBHAJI | 91      | 4         | 4                   | 56                | 14         | 22         |
| 9       | T150268511 | 11       | NALBAND SUMAIYA SHAUKAT     | 91      | 4         | 4                   | 56                | 14         | 22         |
| 10      | T150268512 | 12       | PATHAN AFRIN GIYASUDDIN     | 91      | 4         | 4                   | 56                | 14         | 22         |
| 11      | T150268513 | 13       | PATIL PRAGATI PRAVIN        | 78      | 1         | 4                   | 53                | 13         | 18         |
| 12      | T150268514 | 14       | PATIL SHUBHAM MALLIKARJUN   | 75      | 1         | 4                   | 51                | 13         | 18         |
| 13      | T150268516 | 16       | SANKPAL AMOL SURESH         | 75      | 1         | 4                   | 52                | 13         | 18         |
| 14      | T150268517 | 17       | SHAIKH AMMARA IMTIAZ        | 81      | 2         | 5                   | 54                | 14         | 21         |
| 15      | T150268518 | 18       | SHIVANK KUMAR SHARMA        | 77      | 1         | 5                   | 52                | 13         | 19         |
| 16      | T150268519 | 19       | TIKONE AMRUT BALASAHEB      | 76      | 1         | 4                   | 54                | 14         | 19         |
| 17      | T150268520 | 20       | ZENDE PRACHI SHANKAR        | 97      | 5         | 4                   | 56                | 14         | 23         |
| 18      | T150268521 | 21       | MORE ROHIT MARUTI           | 76      | 1         | 4                   | 55                | 14         | 19         |
| 19      | T150268522 | 22       | PATIL OMKAR SUNIL           | 81      | 2         | 4                   | 50                | 13         | 19         |

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Date:-07/04/2019

Subject Teacher

H. O. D.  
(Prof. Niraja Jain)

Pune District Education Association's  
**College of Engineering, Manjari (Bk.) Pune**  
 (Information Technology Department)  
 Academic Year:- 2018-19 (Semester -2)

**Class:- TE (IT)**

**Subject:- SL-IV Termwork (25)**

| Sr. No. | Seat No    | Roll No. | Name                        | Avg Att | Marks (5) | Mock Exam Marks (5) | Ass. Total (12*5) | Marks (15) |
|---------|------------|----------|-----------------------------|---------|-----------|---------------------|-------------------|------------|
| 1       | T150268501 | 1        | BHOR VIBHA BALASAHEB        | 75      | 1         | 4                   | 51                | 13         |
| 2       | T150268502 | 2        | CHAUDHARI VRUSHALI DIGAMBAR | 83      | 2         | 5                   | 52                | 13         |
| 3       | T150268504 | 4        | GAIKWAD MOHINI SANJAY       | 75      | 1         | 4                   | 50                | 13         |
| 4       | T150268505 | 5        | KALBHOR SUPRIYA NARAYAN     | 93      | 4         | 4                   | 56                | 14         |
| 5       | T150268506 | 6        | KAMBLE ANKITA SHANTARAM     | 88      | 3         | 5                   | 56                | 14         |
| 6       | T150268508 | 8        | KHOT PRITAM APPASAHEB       | 75      | 1         | 4                   | 49                | 12         |
| 7       | T150268509 | 9        | KOLATE RUSHIKESH DATTATRAYA | 78      | 1         | 4                   | 54                | 14         |
| 8       | T150268510 | 10       | KSHIRSAGAR SHUBHAM SAMBHAJI | 91      | 4         | 4                   | 56                | 14         |
| 9       | T150268511 | 11       | NALBAND SUMAIYA SHAUKAT     | 91      | 4         | 4                   | 56                | 14         |
| 10      | T150268512 | 12       | PATHAN AFRIN GIYASUDDIN     | 91      | 4         | 4                   | 56                | 14         |
| 11      | T150268513 | 13       | PATIL PRAGATI PRAVIN        | 78      | 1         | 4                   | 53                | 13         |
| 12      | T150268514 | 14       | PATIL SHUBHAM MALLIKARJUN   | 75      | 1         | 4                   | 51                | 13         |
| 13      | T150268516 | 16       | SANKPAL AMOL SURESH         | 75      | 1         | 4                   | 52                | 13         |
| 14      | T150268517 | 17       | SHAIKH AMMARA IMTIAZ        | 81      | 2         | 5                   | 54                | 14         |
| 15      | T150268518 | 18       | SHIVANK KUMAR SHARMA        | 77      | 1         | 5                   | 52                | 13         |
| 16      | T150268519 | 19       | TIKONE AMRUT BALASAHEB      | 76      | 1         | 4                   | 54                | 14         |
| 17      | T150268520 | 20       | ZENDE PRACHI SHANKAR        | 97      | 5         | 4                   | 56                | 14         |
| 18      | T150268521 | 21       | MORE ROHIT MARUTI           | 76      | 1         | 4                   | 55                | 14         |
| 19      | T150268522 | 22       | PATIL OMKAR SUNIL           | 81      | 2         | 4                   | 50                | 13         |

Date:-07/04/2019

Subject Teacher

H. O. |  
 (Prof. Nira

| Total<br>(25) | Sign |
|---------------|------|
| 18            |      |
| 20            |      |
| 18            |      |
| 22            |      |
| 22            |      |
| 17            |      |
| 19            |      |
| 22            |      |
| 22            |      |
| 22            |      |
| 18            |      |
| 18            |      |
| 18            |      |
| 21            |      |
| 19            |      |
| 19            |      |
| 23            |      |
| 19            |      |
| 19            |      |
| 20            |      |

D.  
ja Jain)

### 1. Curricular Aspects (100)

## 1.1 Curriculum planning and implementation

### 1.1.2 Number of certificate/diploma program

[illegible]

(20)

introduced during last five years (5)

[illegible]

IoT

# Machine Learning

## Block Chain Technology

[illegible]

[illegible]

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1.1.3 Percentage of participation of full time teachers in various bodies of the Universities/Autonomous Colleges/ Other Colleges, such as BoS and Academic Council during the last five years. (5)

| <b>Year</b> | <b>Name of teachers participated</b> | <b>Name of the body in which full time teacher participated</b>            |
|-------------|--------------------------------------|----------------------------------------------------------------------------|
| 2017        | Dr R V Patil                         | Board of Studies (Computer Engineering) University Exam (Theory/Practical) |
| 2017        | D O Patil                            | University Exam (Theory/Practical)                                         |
| 2017        | S A Patil                            | University Exam (Theory/Practical)                                         |
| 2017        | N R Jain                             | University Exam (Theory/Practical)                                         |
| 2017        | A S Deshpande                        | University Exam (Theory/Practical)                                         |
| 2017        | Bhadkumbhe Swati M                   | University Exam (Theory/Practical)                                         |
| 2017        | Phulari S V                          | University Exam (Theory/Practical)                                         |
| 2017        | Sonawane Nayana D                    | University Exam (Theory/Practical)                                         |
| 2017        | Rathod Ravindra B                    | University Exam (Theory/Practical)                                         |
| 2017        | Hingane Madhuri C                    | University Exam (Theory/Practical)                                         |
| 2017        | Bamanikar Ashwini A                  | University Exam (Theory/Practical)                                         |
| 2017        | Kankate Bharat S                     | University Exam (Theory/Practical)                                         |
| 2017        | Patil S. A.                          | University Exam (Theory/Practical)                                         |
| 2017        | Suryatal B. K.                       | University Exam (Theory/Practical)                                         |
| 2017        | Dumbre A. V.                         | University Exam (Theory/Practical)                                         |
| 2017        | Bagwan A. A.                         | University Exam (Theory/Practical)                                         |
| 2017        | Gaikwad A. D.                        | University Exam (Theory/Practical)                                         |
| 2017        | Kumbhar N. A.                        | University Exam (Theory/Practical)                                         |
| 2017        | Sirsat S. S.                         | University Exam (Theory/Practical)                                         |
| 2017        | Gadewar A. B.                        | University Exam (Theory/Practical)                                         |
| 2017        | Hirolikar D. S.                      | University Exam (Theory/Practical)                                         |
| 2017        | Kawale R. M.                         | University Exam (Theory/Practical)                                         |
| 2017        | Saraswat Shalu                       | University Exam (Theory/Practical)                                         |
| 2017        | Sahu R. M.                           | University Exam (Theory/Practical)                                         |
| 2017        | Bankar S. M.                         | University Exam (Theory/Practical)                                         |
| 2017        | Kamble S. B.                         | University Exam (Theory/Practical)                                         |
| 2017        | Moje R. K.                           | University Exam (Theory/Practical)                                         |
| 2017        | Sanamdikar S. T.                     | University Exam (Theory/Practical)                                         |
| 2017        | Borkar A. T.                         | University Exam (Theory/Practical)                                         |
| 2017        | Pande M. C.                          | University Exam (Theory/Practical)                                         |
| 2017        | Bhalerao N B                         | University Exam (Theory/Practical)                                         |
| 2017        | Kedari M S                           | University Exam (Theory/Practical)                                         |
| 2017        | Hiwarale V S                         | University Exam (Theory/Practical)                                         |
| 2017        | Mahajan V R                          | University Exam (Theory/Practical)                                         |
| 2017        | HirulkarVikas A                      | University Exam (Theory/Practical)                                         |



## 1.2 Academic Flexibility (30)

### 1.2.1 Percentage of new courses introduced of the total number of cour

| <b>Name of the new course introduced in the last 5 years</b> | <b>Program name</b>            | <b>Program code</b> |
|--------------------------------------------------------------|--------------------------------|---------------------|
| BE Mechanical Engg                                           | Mechanical Engg                | Mech                |
| BE Computer Engg                                             | Computer Engg                  | Comp                |
| BE Information Technology                                    | Information Technology         | IT                  |
| BE Instrumentation & Control Engg                            | Instrumentation & Control Engg | Instru              |
| BE Electronics Engg                                          | Electronics Engg               | Electronics         |

urses across all programs offered during the last five years (10)

Audit Courses

| <b>Course code</b> | <b>Year of introduction</b> | <b>Link of the relevant document</b>                                                          |
|--------------------|-----------------------------|-----------------------------------------------------------------------------------------------|
| Mech               | 2015                        | <a href="http://collegecirculars.unipune.ac.in/s">http://collegecirculars.unipune.ac.in/s</a> |
| Comp               | 2015                        | <a href="http://collegecirculars.unipune.ac.in/s">http://collegecirculars.unipune.ac.in/s</a> |
| IT                 | 2015                        | <a href="http://collegecirculars.unipune.ac.in/s">http://collegecirculars.unipune.ac.in/s</a> |
| Instru             | 2015                        | <a href="http://collegecirculars.unipune.ac.in/s">http://collegecirculars.unipune.ac.in/s</a> |
| Electronics        | 2015                        | <a href="http://collegecirculars.unipune.ac.in/s">http://collegecirculars.unipune.ac.in/s</a> |

sites/documents/Syllabus%202017/Forms/AllItems.aspx

sites/documents/Syllabus%202017/Forms/AllItems.aspx

sites/documents/Syllabus%202017/Forms/AllItems.aspx

sites/documents/Syllabus%202017/Forms/AllItems.aspx

sites/documents/Syllabus%202017/Forms/AllItems.aspx

1.2.2 Percentage of programs in which Choice Based Credit System (CBCS)/e

[illegible]

lective course system has been implemented (Current Year data) (10)

|                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Link of the relevant document</b>                                                                                                                                                  |
| <a href="http://www.unipune.ac.in/university_files/Syllabi-revised2015.htm">http://www.unipune.ac.in/university_files/Syllabi-revised2015.htm</a>                                     |
| <a href="http://www.unipune.ac.in/university_files/Syllabi-revised2015.htm">http://www.unipune.ac.in/university_files/Syllabi-revised2015.htm</a>                                     |
| <a href="http://www.unipune.ac.in/university_files/Syllabi-revised2015.htm">http://www.unipune.ac.in/university_files/Syllabi-revised2015.htm</a>                                     |
| <a href="http://www.unipune.ac.in/university_files/Syllabi-revised2015.htm">http://www.unipune.ac.in/university_files/Syllabi-revised2015.htm</a>                                     |
| <a href="http://www.unipune.ac.in/university_files/Syllabi-revised2015.htm">http://www.unipune.ac.in/university_files/Syllabi-revised2015.htm</a>                                     |
| <a href="http://collegecirculars.unipune.ac.in/sites/documents/Syllabus%202016/Forms/AllItem">http://collegecirculars.unipune.ac.in/sites/documents/Syllabus%202016/Forms/AllItem</a> |
|                                                                                                                                                                                       |
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1.2.3 Average percentage of students enrolled in subject related Certificate/ Diploma /Add-on programs as against the total number of students during the last five years (10)

[illegible]

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### 1.2.3Ref

1.2.3 Average percentage of students enrolled in subject related Certificate/ Diploma /Add-on programs as against the total number of students during the last five years (10)

| Sr No | Program Title                | Date                    |
|-------|------------------------------|-------------------------|
| 1     | CE001 IoT                    | 17-03-2019 to 12-4-2019 |
| 2     | CE002 Machine Learning       | 21-01-2019 to 9-3-2019  |
| 3     | CE003 Block Chain Technology | 21-01-2019 to 9-3-2019  |
| 4     | CE002 Machine Learning       | 17-03-2019 to 12-4-2019 |
| 5     |                              |                         |
| 6     |                              |                         |
| 7     |                              |                         |
| 8     |                              |                         |
| 9     |                              |                         |
| 10    |                              |                         |
| 11    |                              |                         |
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| 14    |                              |                         |
| 15    |                              |                         |
| 16    |                              |                         |
| 17    |                              |                         |

|                                                                            |
|----------------------------------------------------------------------------|
| Short term Course on - Block Chain "at College of Engineering Manjara      |
| Short term Course on - Machine Learning "at College of Engineering Manjara |
| Short term Course on - Block Chain "at College of Engineering Manjara      |



### 1.2.3Ref

[illegible]

17

|                  |   |            |              |
|------------------|---|------------|--------------|
| anjari (BK) Pune | 6 | 21-01-2019 | to 9-3-2019  |
| ing Marjari (BK) | 3 | 21-01-2019 | to 9-3-2019  |
| ari (BK) Pune    | 4 | 17-03-2019 | to 12-4-2019 |

|                |   |            |              |
|----------------|---|------------|--------------|
| mg manjan (BK) | 4 | 17-03-2019 | to 12-4-2019 |
|----------------|---|------------|--------------|

### 1.3 Curriculum Enrichment (30)

#### 1.3.2 Number of value-added courses imparting transferable and life skills offered during

| Year                                                                                                  |                    |                         |
|-------------------------------------------------------------------------------------------------------|--------------------|-------------------------|
| <b>Name of the value added courses (with 30 or more contact hours) offered during last five years</b> | <b>Course Code</b> | <b>Year of offering</b> |
|                                                                                                       |                    |                         |
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|                                                                                                       |                    |                         |
| Year                                                                                                  |                    |                         |
| <b>Name of the value added courses (with 30 or more contact hours) offered during last five years</b> | <b>Course Code</b> | <b>Year of offering</b> |
|                                                                                                       |                    |                         |
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|                                                                                                       |                    |                         |
| Year                                                                                                  |                    |                         |
| <b>Name of the value added courses (with 30 or more contact hours) offered during last five years</b> | <b>Course Code</b> | <b>Year of offering</b> |
|                                                                                                       |                    |                         |
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|                                                                                                       |                    |                         |
|                                                                                                       |                    |                         |
| Year                                                                                                  |                    |                         |
| <b>Name of the value added courses (with 30 or more contact hours) offered during last five years</b> | <b>Course Code</b> | <b>Year of offering</b> |
|                                                                                                       |                    |                         |

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|                                                                                                       |                    |                         |
| Year                                                                                                  |                    |                         |
| <b>Name of the value added courses (with 30 or more contact hours) offered during last five years</b> | <b>Course Code</b> | <b>Year of offering</b> |
|                                                                                                       |                    |                         |
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uring the last five years (15)

**r -1**

| No. of times offered during the same year | Year of discontinuation | Number of students enrolled in the year |
|-------------------------------------------|-------------------------|-----------------------------------------|
|                                           |                         |                                         |
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**r 2**

| No. of times offered during the same year | Year of discontinuation | Number of students enrolled in the year |
|-------------------------------------------|-------------------------|-----------------------------------------|
|                                           |                         |                                         |
|                                           |                         |                                         |
|                                           |                         |                                         |
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**r 3**

| No. of times offered during the same year | Year of discontinuation | Number of students enrolled in the year |
|-------------------------------------------|-------------------------|-----------------------------------------|
|                                           |                         |                                         |
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**r 4**

| No. of times offered during the same year | Year of discontinuation | Number of students enrolled in the year |
|-------------------------------------------|-------------------------|-----------------------------------------|
|                                           |                         |                                         |

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| No. of times offered during the same year | Year of discontinuation | Number of students enrolled in the year |
|-------------------------------------------|-------------------------|-----------------------------------------|
|                                           |                         |                                         |
|                                           |                         |                                         |
|                                           |                         |                                         |
|                                           |                         |                                         |
|                                           |                         |                                         |



**Number of Students  
completing the course in the  
year**

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**Number of Students  
completing the course in the  
year**

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**Number of Students  
completing the course in the  
year**

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**Number of Students  
completing the course in the  
year**

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| <b>Number of Students<br/>completing the course in the<br/>year</b> |
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|                                                                     |

## 1.3.2Ref

## 1.3 Curriculum Enrichment (30)

## 1.3.2 Number of value-added courses imparting transferable and life skills c

| Year -1                                                                                        |             |                  |                                           |
|------------------------------------------------------------------------------------------------|-------------|------------------|-------------------------------------------|
| Name of the value added courses (with 30 or more contact hours) offered during last five years | Course Code | Year of offering | No. of times offered during the same year |
| IoT                                                                                            | CE001       | 21/01/2019       | 1                                         |
| Machine Learning                                                                               | CE002       | 21/01/2019       | 2                                         |
| Block Chain Technology                                                                         | CE003       | 17/03/2019       | 1                                         |
|                                                                                                |             |                  |                                           |
|                                                                                                |             |                  |                                           |
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offered during the last five years (15)

| <b>Year of discontinuation</b> | <b>Number of students enrolled in the year</b> | <b>Number of Students completing the course in the year</b> |
|--------------------------------|------------------------------------------------|-------------------------------------------------------------|
| NA                             | 4                                              | 4                                                           |
| NA                             | 10                                             | 10                                                          |
| NA                             | 3                                              | 3                                                           |
|                                |                                                |                                                             |
|                                |                                                |                                                             |
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|                                |                                                |                                                             |

### 1.3.3 Percentage of stud

[illegible]

**Students undertaking field projects / internships (5) (current year data)**

| <b>Name of students undertaking field projects / internships</b> | <b>Link of the relevant document</b>                                                                                          |
|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Vijay Salve                                                      | <a href="http://www.pdeacoem.org/downloadpublicdocument?hdid=197">http://www.pdeacoem.org/downloadpublicdocument?hdid=197</a> |
| Supriya Waghmare                                                 |                                                                                                                               |
| Snehal Gupta                                                     |                                                                                                                               |
| Suraj Deshmukh                                                   |                                                                                                                               |
| Parul arora                                                      |                                                                                                                               |
| Sagar Kadatkar                                                   |                                                                                                                               |
| Vishal Joshi                                                     |                                                                                                                               |
| Ganesh Yuvraj Tamhane                                            |                                                                                                                               |
| Bhausahab Dighe                                                  |                                                                                                                               |
| Anant Samudre                                                    |                                                                                                                               |
| Priti Ghosh                                                      |                                                                                                                               |
| Sachin Gadekar                                                   |                                                                                                                               |
| Sunil Mengal                                                     |                                                                                                                               |
| Ketan Kakade                                                     |                                                                                                                               |
| Sachin Dahake                                                    |                                                                                                                               |
| Ajit Tamhane                                                     |                                                                                                                               |
| Heena Tayade                                                     |                                                                                                                               |
| Priyanka Choudhari                                               |                                                                                                                               |
| Sachin Kukade                                                    |                                                                                                                               |
| Vikas Pawar                                                      |                                                                                                                               |
| Aakash Bihade                                                    |                                                                                                                               |
| Aditya Kale                                                      |                                                                                                                               |
| Balasaheb Kakade                                                 |                                                                                                                               |
| Sachin Shukla                                                    |                                                                                                                               |
| Rani Shelar                                                      |                                                                                                                               |
| Nishant Patil                                                    |                                                                                                                               |
| Mayur Chavan                                                     |                                                                                                                               |
| Sharayu Katu                                                     |                                                                                                                               |
| Suyash Sathe                                                     |                                                                                                                               |
| InstChirag Gadiya                                                |                                                                                                                               |
| Sanket Yadav                                                     |                                                                                                                               |
| Somesh Suryawanshi                                               |                                                                                                                               |
| InstKetan Newaskar                                               |                                                                                                                               |
| Shivanad Jatkar                                                  |                                                                                                                               |
| InstPriyadarshini Kotagi                                         |                                                                                                                               |
| InsternshSandeep Wanchoo                                         |                                                                                                                               |
| Internship done by MBA student Aniket raul                       |                                                                                                                               |
| InsSangram Shitole                                               |                                                                                                                               |
| Rajkumar Hole                                                    |                                                                                                                               |
| Sanket Patil                                                     |                                                                                                                               |
| Dikshant Jagtap                                                  |                                                                                                                               |

## 1.3.3Ref

## 1.3.3 Percentage of students undertaking field projects / internships

| <b>Nature of linkage</b>       | <b>Title of the linkage</b> | <b>partnering institution/<br/>industry /research lab with contact details</b> | <b>Duration From</b> |
|--------------------------------|-----------------------------|--------------------------------------------------------------------------------|----------------------|
| Industry-Institute Interaction | Internship                  | Ace Kudale cars Pvt Ltd,Pune                                                   | 01/06/2018           |
| Industry-Institute Interaction | Internship                  | Vmake Visas Pvt.Ltd,Pune                                                       | 01/06/2018           |
| Industry-Institute Interaction | Internship                  | Chartered Integrity Tax and Financial Services Pune                            | 01/06/2018           |
| Industry-Institute Interaction | Internship                  | Bharat Vikas Group,Pune                                                        | 01/06/2018           |
| Industry-Institute Interaction | Internship                  | Wirtgen Group Pune                                                             | 01/06/2018           |
| Industry-Institute Interaction | Internship                  | Kutwal Foods Pvt.Ltd.Shirur,Pune                                               | 01/06/2018           |
| Industry-Institute Interaction | Internship                  | Anvi Enterprise Pune                                                           | 01/06/2018           |
| Industry-Institute Interaction | Internship                  | Bhairavnath Industries,Pune                                                    | 01/06/2018           |
| Industry-Institute Interaction | Internship                  | Microtech Project Pvt.Ltd.Pune                                                 | 01/06/2018           |
| Industry-Institute Interaction | Internship                  | Jai Malhar Rural Development Coop Bank,pune.                                   | 01/06/2018           |
| Industry-Institute Interaction | Internship                  | Log E IT solutions,Pune                                                        | 01/06/2018           |
| Industry-Institute Interaction | Internship                  | Jain Irrigation Systems Pvt.Ltd,Jalgaon                                        | 01/06/2018           |
| Industry-Institute Interaction | Internship                  | Microtech Project Pvt.Ltd.Pune                                                 | 01/06/2018           |
| Industry-Institute Interaction | Internship                  | Softic Solutions and Financial Services,Pune                                   | 01/06/2018           |
| Industry-Institute Interaction | Internship                  | Magna Cosma International India Pvt.Ltd,Pune                                   | 01/06/2018           |
| Industry-Institute Interaction | Internship                  | Sherya Infotech,Pune                                                           | 01/06/2018           |
| Industry-Institute Interaction | Internship                  | Shankson industriesWaluj,Aurangabad                                            | 01/06/2018           |
| Industry-Institute Interaction | Internship                  | SOI Industries Pvt.Ltd,Pune                                                    | 01/06/2018           |

### 1.3.3Ref

|                                |            |                                                                     |            |
|--------------------------------|------------|---------------------------------------------------------------------|------------|
| Industry-Institute Interaction | Internship | TATA Communications Ltd,Pune                                        | 01/06/2018 |
| Industry-Institute Interaction | Internship | AV Engineering Pune                                                 | 01/06/2018 |
| Industry-Institute Interaction | Internship | My World of Royal Palm,pune                                         | 01/06/2018 |
| Industry-Institute Interaction | Internship | Kadkomp systems pvt.ltd,Pune                                        | 01/06/2018 |
| Industry-Institute Interaction | Internship | Lear Automotive India Pvt.Ltd,Pune                                  | 01/06/2018 |
| Industry-Institute Interaction | Internship | Unison valves Pvt.ltd,Pune                                          | 01/06/2018 |
| Industry-Institute Interaction | Internship | Kadu Constructions Pvt.Ltd,Pune                                     | 01/06/2018 |
| Industry-Institute Interaction | Internship | Kalyani Technologies,Ltd,Pune                                       | 01/06/2018 |
| Industry-Institute Interaction | Internship | PIAGGIO Vehicles Pvt.Ltd,Pune                                       | 01/06/2018 |
| Industry-Institute Interaction | Internship | SAARLOHA Advanced Materials,Pune                                    | 01/06/2018 |
| Industry-Institute Interaction | Internship | Raje Agro Foods Pvt.Ltd                                             | 01/06/2018 |
| Industry-Institute Interaction | Internship | Bigg Bazar ,Abhiruchi Mall,Pune                                     | 01/06/2018 |
| Industry-Institute Interaction | Internship | Datwyler pharma Packaging India Kesurdi Khandala MIDC,Satara        | 01/06/2018 |
| Industry-Institute Interaction | Internship | Poona radiators and oil coolers,Pune                                | 01/06/2018 |
| Industry-Institute Interaction | Internship | Radheya Machines Pvt.Ltd,Pune                                       | 01/06/2018 |
| Industry-Institute Interaction | Internship | Kalyani Technologies Pvt.Ltd,Pune                                   | 01/06/2018 |
| Industry-Institute Interaction | Internship | Sky Integrated System,pune                                          | 01/06/2018 |
| Industry-Institute Interaction | Internship | Kirloskar Pneumatic company,Ltd,Pune                                | 01/06/2018 |
| Industry-Institute Interaction | Internship | Consulting Engineering Group Pune Consulting Engineering Group Pune | 01/06/2018 |
| Industry-Institute Interaction | Internship | TVS Kalamkar Motors,Pune                                            | 01/06/2018 |
| Industry-Institute Interaction | Internship | Viskan logistics pvt.ltd,pune                                       | 01/06/2018 |
| Industry-Institute Interaction | Internship | Finolex Pipes,Pune                                                  | 01/06/2018 |
| Industry-Institute Interaction | Internship | TVS PUNE                                                            | 01/06/2018 |



(5) (current year data)

| <b>Duration To</b> | <b>Participant</b>    |
|--------------------|-----------------------|
| 15/07/2018         | Vijay Salve           |
| 15/07/2018         | Supriya Waghmare      |
| 15/07/2018         | Snehal Gupta          |
| 15/07/2018         | Suraj Deshmukh        |
| 15/07/2018         | Parul arora           |
| 15/07/2018         | Sagar Kadatkar        |
| 15/07/2018         | Vishal Joshi          |
| 15/07/2018         | Ganesh Yuvraj Tamhane |
| 15/07/2018         | Bhausahab Dighe       |
| 15/07/2018         | Anant Samudre         |
| 15/07/2018         | Priti Ghosh           |
| 15/07/2018         | Sachin Gadekar        |
| 15/07/2018         | Sunil Mengal          |
| 15/07/2018         | Ketan Kakade          |
| 15/07/2018         | Sachin Dahake         |
| 15/07/2018         | Ajit Tamhane          |
| 15/07/2018         | Heena Tayade          |
| 15/07/2018         | Priyanka Choudhari    |

## 1.3.3Ref

|            |                         |
|------------|-------------------------|
| 15/07/2018 | Sachin Kukade           |
| 15/07/2018 | Vikas Pawar             |
| 15/07/2018 | Aakash Bihade           |
| 15/07/2018 | Aditya Kale             |
| 15/07/2018 | Balasaheb<br>Kakade     |
| 15/07/2018 | Sachin Shukla           |
| 15/07/2018 | Rani Shelar             |
| 15/07/2018 | Nishant Patil           |
| 15/07/2019 | Mayur Chavan            |
| 15/07/2018 | Sharayu Katu            |
| 15/07/2018 | Suyash Sathe            |
| 15/07/2018 | InstChirag<br>Gadiya    |
| 15/07/2018 | Sanket Yadav            |
| 15/07/2018 | Somesh<br>Suryawanshi   |
| 15/07/2018 | Ketan Newaskar          |
| 15/07/2018 | Shivanad Jatkar         |
| 15/07/2018 | Priyadarshini<br>Kotagi |
| 15/07/2018 | Sandeep<br>Wanchoo      |
| 15/07/2018 | Aniket Raul             |
| 15/07/2018 | Sangram Shitole         |
| 15/07/2018 | Rajkumar Hole           |
| 15/07/2018 | Sanket Patil            |
| 15/07/2018 | Dikshant Jagtap         |

**P.D.E.A.'s COLLEGE OF ENGINEERING MANJARI (BK), PUNE.**  
**COMPUTER DEPARTMENT**

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**Mock PR/OR (A.Y.-2018-19) SEM-I**

**SE Computer**  
**TIME TABLE**

**Date: 05/10/2018**

| Day/Time             | Subject | Internal/<br>External | Supporting<br>Staff | Batch | Lab Assigned       | Time       |
|----------------------|---------|-----------------------|---------------------|-------|--------------------|------------|
| 11/10/18<br>Thursday | OOP     | PPB/BSK               | CAK                 | S1    | Microprocessor Lab | 10.00-1.00 |
|                      | OOP     | PPB/BSK               | CAK                 | S2    | Design Lab         | 12.00-3.00 |
|                      | OOP     | PPB/BSK               | CAK                 | S3    | Microprocessor Lab | 2.00-5.00  |
| 12/10/18<br>Friday   | DEL     | BSK/MCH               | SBB                 | S1    | Hardware Lab       | 10.00-1.00 |
|                      | DEL     | BSK/MCH               | SBB                 | S2    | Hardware Lab       | 12.00-3.00 |
|                      | DEL     | BSK/MCH               | SBB                 | S3    | Hardware Lab       | 2.00-5.00  |
| 15/10/18<br>Monday   | DSL     | SMB/NDS               | CAK                 | S1    | Microprocessor Lab | 10.00-1.00 |
|                      | DSL     | SMB/NDS               | CAK                 | S2    | Project Lab        | 12.00-3.00 |
|                      | DSL     | SMB/NDS               | CAK                 | S3    | Microprocessor Lab | 2.00-5.00  |

**Note : The marks obtain from mock exam will be consider in term work .**

TW 25 Marks = Practical Assessment 15 M + subject attendance 5M + PR/OR Mock Exam 5 M

**Exam I/C**  
**Prof. A.A. Bamanikar**

**HOD**  
**Dr. R.V.Patil**

**P.D.E.A.'s COLLEGE OF ENGINEERING MANJARI (BK), PUNE.**  
**COMPUTER DEPARTMENT**

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**Mock PR/OR (A.Y.-2018-19) SEM-I**

**TE Computer**  
**TIME TABLE**

**Date: 05/10/2018**

| Day/Time             | Subject | Internal/<br>External | Supporting<br>Staff | Batch | Lab Assigned | Time       |
|----------------------|---------|-----------------------|---------------------|-------|--------------|------------|
| 15/10/18<br>Thursday | CNL     | RBR/AAB               | CAK                 | T1    | Software Lab | 10.00-1.00 |
|                      | CNL     | RBR/AAB               | CAK                 | T2    | Project Lab  | 12.00-3.00 |
|                      | CNL     | RBR/AAB               | CAK                 | T3    | Software Lab | 2.00-5.00  |
| 12/10/18<br>Friday   | DBMSL   | NDS/SVS               | SBB                 | T1    | Project Lab  | 10.00-1.00 |
|                      | DBMSL   | NDS/SVS               | SBB                 | T2    | Design Lab   | 12.00-3.00 |
|                      | DBMSL   | NDS/SVS               | SBB                 | T3    | Project Lab  | 2.00-5.00  |
| 13/10/18<br>Monday   | SDL     | SVP/MCH               | CAK                 | T1    | Project Lab  | 10.00-1.00 |
|                      | SDL     | SVP/MCH               | CAK                 | T2    | Project Lab  | 12.00-3.00 |
|                      | SDL     | SVP/MCH               | CAK                 | T3    | Project Lab  | 2.00-5.00  |

**Note : The marks obtain from mock exam will be consider in term work .**

TW 25 Marks = Practical Assessment 15 M + subject attendance 5M + PR/OR Mock Exam 5 M

**Exam I/C**  
**Prof. A.A. Bamanikar**

**HOD**  
**Dr. R.V.Patil**

**P.D.E.A.'s COLLEGE OF ENGINEERING MANJARI (BK), PUNE.**  
**COMPUTER DEPARTMENT**

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## Mock PR/OR (A.Y.-2018-19) SEM-I

### BE Computer TIME TABLE

Date: 05/10/2018

| Day/Time           | Subject | Internal/<br>External | Supporting<br>Staff | Batch | Lab Assigned       | Time       |
|--------------------|---------|-----------------------|---------------------|-------|--------------------|------------|
| 12/10/18<br>Friday | LP-I    | SVS/SVP               | SBB                 | B1    | Microprocessor Lab | 10.00-1.00 |
|                    | LP-I    | MCH/SVP               | SBB                 | B2    | Software Lab       | 12.00-3.00 |
|                    | LP-I    | MCH/SVP               | SBB                 | B3    | Microprocessor Lab | 2.00-5.00  |
| 15/10/18<br>Monday | LP-II   | AAB/RBR               | CAK                 | B1    | Software Lab       | 10.00-1.00 |
|                    | LP-II   | AAB/RBR               | CAK                 | B2    | Design Lab         | 12.00-3.00 |
|                    | LP-II   | AAB/RBR               | CAK                 | B3    | Software Lab       | 2.00-5.00  |

**Note : The marks obtain from mock exam will be consider in term work .**

TW 25 Marks = Practical Assessment 15 M + subject attendance 5M + PR/OR Mock Exam 5 M

**Exam I/C**  
**Prof. A.A. Bamanikar**

**HOD**  
**Dr. R.V.Patil**

Poona District Education Association's  
College of Engineering, Manjari(Bk) Pune  
Department of Information Technology  
Acad. Year : 2018-19 ( Sem-I)

**Subject: MACHINE LEARNING**  
**Subject Teacher: Prof Niraja Jain**  
**Lectures: 4 Hours/Week**

**Subject Code: 414455**  
**Theory: Phase I – 30 Marks**  
**Phase II – 70 Marks**

**Prerequisites : Linear Algebra and Calculus, Probability Basics**

**Course Objectives :**

1. Understanding Human learning aspects.
2. Understanding primitives in learning process by computer.
3. Understanding nature of problems solved with Machine Learning.

**Course Outcomes :**

1. Students will be able to model the learning primitives.
2. Students will be able to build the learning model.
3. Student will be able to tackle real world problems in the domain of Data Mining, Information Retrieval, Computer vision, Linguistics and Bioinformatics.

**Text Books**

1. Peter Flach: Machine Learning: The Art and Science of Algorithms that Make Sense of Data, Cambridge University Press, Edition 2012.
2. Hastie, Tibshirani, Friedman: Introduction to Statistical Machine Learning with Applications in R, Springer, 2nd Edition-2012.

**Reference Books**

1. C. M. Bishop : Pattern Recognition and Machine Learning, Springer 1st Edition-2013.
2. Ethem Alpaydin : Introduction to Machine Learning, PHI 2nd Edition-2013.
3. Parag Kulkarni : Reinforcement and Systematic Machine Learning for Decision Making, Wiley-IEEE Press, Edition July 2012.

Poona District Education Association's  
College of Engineering, Manjari(Bk) Pune  
Department of Information Technology  
Acad. Year : 2018-19 ( Sem-I)

**Subject: MACHINE LEARNING**  
**Subject Teacher: Prof Niraja Jain**  
**Lectures: 4 Hours/Week**

**Subject Code: 414455**  
**Theory: Phase I – 30 Marks**  
**Phase II – 70 Marks**

**Teaching Plan**

| Sr No | Unit                        | Topic To Be Covered                                                                                                           | Planned Date | Actual Date | Reference         |
|-------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------|--------------|-------------|-------------------|
| 1.    | <b>Unit I<br/>7 Hours</b>   | <b>Introduction To Machine Learning</b><br>Why Machine Learning, Examples Of Machine Learning Problems, Structure Of Learning | 18/6/2018    |             | T1,T2<br>R1,R2,R3 |
| 2.    |                             | Learning Versus Designing, Training Versus Testing                                                                            | 19/6/2018    |             | T1,T2<br>R1,R2,R3 |
| 3.    |                             | Characteristics Of Machine Learning Tasks, Predictive And Descriptive Tasks                                                   | 22/6/2018    |             | T1,T2<br>R1,R2,R3 |
| 4.    |                             | Machine Learning Models: Geometric Models                                                                                     | 23/6/2018    |             | T1,T2<br>R1,R2,R3 |
| 5.    |                             | Logical Models, Probabilistic Models                                                                                          | 25/6/2018    |             | T1,T2<br>R1,R2,R3 |
| 6.    |                             | Features: Feature Types, Feature Construction And Transformation,                                                             | 26/6/2018    |             | T1,T2<br>R1,R2,R3 |
| 7.    |                             | Feature Selection                                                                                                             | 29/6/2018    |             | T1,T2<br>R1,R2,R3 |
| 8.    | <b>Unit II<br/>8 Hours</b>  | <b>Classification And Regression</b><br>Classification: Binary Classification- Assessing Classification Performance           | 30/6/2018    |             | T1,T2<br>R1,R2,R3 |
| 9.    |                             | Class Probability Estimation- Assessing Class Probability Estimates,                                                          | 2/7/2018     |             | T1,T2<br>R1,R2,R3 |
| 10.   |                             | Multiclass Classification                                                                                                     | 3/7/2018     |             | T1,T2<br>R1,R2,R3 |
| 11.   |                             | Regression: Assessing Performance Of Regression- Error Measures, Overfitting- Catalysts For Overfitting,                      | 6/7/2018     |             | T1,T2<br>R1,R2,R3 |
| 12.   |                             | Case Study Of Polynomial Regression                                                                                           | 7/7/2018     |             | T1,T2<br>R1,R2,R3 |
| 13.   |                             | Theory Of Generalization: Effective Number Of Hypothesis, Bounding The Growth Function,                                       | 9/7/2018     |             | T1,T2<br>R1,R2,R3 |
| 14.   |                             | Vc Dimensions,                                                                                                                | 10/7/2018    |             | T1,T2<br>R1,R2,R3 |
| 15.   |                             | Regularization Theory                                                                                                         | 13/7/2018    |             | T1,T2<br>R1,R2,R3 |
| 16.   | <b>Unit III<br/>7 Hours</b> | <b>Linear Models</b><br>Least Squares Method, Multivariate Linear Regression                                                  | 14/7/2018    |             | T1,T2<br>R1,R2,R3 |
| 17.   |                             | Regularized Regression                                                                                                        | 16/7/2018    |             | T1,T2<br>R1,R2,R3 |
| 18.   |                             | Using Least Square Regression For Classification. Perceptron                                                                  | 17/7/2018    |             | T1,T2<br>R1,R2,R3 |
| 19.   |                             | Support Vector Machines                                                                                                       | 20/7/2018    |             | T1,T2<br>R1,R2,R3 |
| 20.   |                             | Support Vector Machines ,SOFT Margin Svm                                                                                      | 21/7/2018    |             | T1,T2             |

|     |                            |                                                                                                                              |           |  |                   |
|-----|----------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------|--|-------------------|
|     |                            |                                                                                                                              |           |  | R1,R2,R3          |
| 21. |                            | Obtaining Probabilities From Linear Classifiers                                                                              | 23/7/2018 |  | T1,T2<br>R1,R2,R3 |
| 22. |                            | Kernel Methods For Non-Linearity                                                                                             | 24/7/2018 |  | T1,T2<br>R1,R2,R3 |
| 23. | <b>Unit IV<br/>6 Hours</b> | <b>Logic Based And Algebraic Models</b><br>Distance Based Models: Neighbours And Examples, Nearest Neighbours Classification | 27/7/2018 |  | T1,T2<br>R1,R2,R3 |
| 24. |                            | Distance Based Clustering-K Means Algorithm, Hierarchical Clustering                                                         | 28/7/2018 |  | T1,T2<br>R1,R2,R3 |
| 25. |                            | Rule Based Models: Rule Learning For Subgroup Discovery                                                                      | 30/7/2018 |  | T1,T2<br>R1,R2,R3 |
| 26. |                            | Association Rule Mining                                                                                                      | 31/7/2018 |  | T1,T2<br>R1,R2,R3 |
| 27. |                            | Tree Based Models: Decision Trees, Ranking And Probability Estimation Trees,                                                 | 3/8/2018  |  | T1,T2<br>R1,R2,R3 |
| 28. |                            | Regression Trees, Clustering Trees.                                                                                          | 4/8/2018  |  | T1,T2<br>R1,R2,R3 |
| 29. | <b>Unit V<br/>6 Hours</b>  | <b>Probabilistic Models</b><br>Normal Distribution And Its Geometric Interpretations                                         | 6/8/2018  |  | T1,T2<br>R1,R2,R3 |
| 30. |                            | Naïve Bayes Classifier                                                                                                       | 13/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 31. |                            | Discriminative Learning With Maximum Likelihood                                                                              | 14/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 32. |                            | Probabilistic Models With Hidden Variables: Estimation-Maximization Methods                                                  | 17/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 33. |                            | Gaussian Mixtures                                                                                                            | 18/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 34. |                            | Compression Based Models                                                                                                     | 20/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 35. | <b>Unit VI<br/>8 Hours</b> | <b>Trends In Machine Learning</b><br>Model And Symbols- Bagging And Boosting,                                                | 21/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 36. |                            | Multitask Learning                                                                                                           | 24/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 37. |                            | Online Learning                                                                                                              | 25/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 38. |                            | Sequence Prediction                                                                                                          | 27/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 39. |                            | Data Streams And Active Learning                                                                                             | 28/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 40. |                            | Deep Learning                                                                                                                | 31/8/2018 |  | T1,T2<br>R1,R2,R3 |
| 41. |                            | Reinforcement Learning                                                                                                       | 3/9/2018  |  | T1,T2<br>R1,R2,R3 |
| 42. |                            | Reinforcement Learning                                                                                                       | 4/9/2018  |  | T1,T2<br>R1,R2,R3 |

**Prof Niraja Jain**  
Subject Teacher

**Prof Niraja Jain**  
Head of Department



