

### Lesson Plan

| <b>Name of the Faculty:</b>                          |             | <b>Ms. Prachika</b>  |  |
|--|-------------|--|--|
| <b>Discipline:</b>                                   |             | <b>BCA</b>   |  |
| <b>Semester:</b>                                     |             | <b>2<sup>nd</sup></b>  |  |
| <b>Subject:</b>                                      |             | <b>Mathematical Foundations for Computer Science-II(B23-CAP-204)</b>                           |  |
| <b>WorkLoad(Lecture/Practical) perweek(Inhours):</b> |             | <b>Lecture-3</b>   |  |
| S.No   | Lecture No. | Theory   |  |
|  |             | Topic(IncludingAssignment/Test/Quiz)   | Pedagogy ( PPT/Chalk and Board/Video Recording /Activity/Case Study) |
| 1.   | L1.         | Introduction,Integration of simple algebraic, trigonometric, and exponential functions.        | Chalk and Board  |
| 4.   | L2.         | Presentation of data: Frequency distribution and cumulative frequency distribution,            | Chalk and Board  |
| 5.   | L3.         | Diagrammatic and graphical presentation of data,   | Chalk and Board  |
| 7.   | L4.         | Construction of bar, Pie diagrams, Histograms, Frequency polygon, Frequency curve, and Ogives. | Chalk and Board  |
| 6.   | L5.         | Introduction,Measures of central tendency: Arithmetic mean, Median, Mode,                      | Chalk and Board  |
| 7.   | L6.         | Geometric mean and Harmonic mean for ungrouped and grouped data.                               | Chalk and Board  |
| 8.   | L7.         | Measures of dispersion: Concept of dispersion, Mean deviation and its coefficient,             | Chalk and Board  |
| 9.   | L8.         | Range, Variance and its coefficient, Standard deviation.                                       | Chalk and Board  |
| 10.  | L9.         | Introduction, Correlation: Concept and types of correlation, Methods of finding correlation    | Chalk and Board  |
| 10.  | L10.        | Scatter diagram, KarlPearson'scoefficients of correlation,                                     | Chalk and Board  |
| 11.  | L11.        | Rank correlation   | Chalk and  |

|     |      |   |                 |
|-----|------|---|-----------------|
|     |      |   | Board           |
| 12. | L12. | Introduction, Linear regression: Principle of least square      | Chalk and Board |
| 13. | L13. | Fitting of a straight line                                      | Chalk and Board |
| 14. | L14. | Two lines of regression   | Chalk and Board |
| 15. | L15. | Regression coefficients.  | Chalk and Board |
|     |      | <b>Assignment</b>   | <b>On Paper</b> |
| 17. | L16. | finding integration of simple functions                         | Chalk and Board |
| 18. | L17. | Representation of data using Bar and pie diagrams.              | Chalk and Board |
| 19. | L18. | Representation of data using Histogram                          | Chalk and Board |
| 20. | L19. | Representation of data using Frequency polygon                  | Chalk and Board |
| 21. | L20. | Representation of data using Frequency curves                   | Chalk and Board |
| 22. | L21. | Representation of data using Ogives.                            | Chalk and Board |
| 23. | L22. | Problems to compute measures of central tendency                | Chalk and Board |
| 24. | L23. | Problems to calculate measures of dispersion                    | Chalk and Board |
| 25. | L24. | Problem to calculate Karl Pearson's coefficient of correlation. | Chalk and Board |
| 26. | L25. | Problem to fit the straight line for the given data.            | Chalk and Board |
| 26. | L26. | Problem to find lines of regression.                            | Chalk and Board |