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| Lesson plan of Mathema**tics** session (2020-21)  **Biotech -2nd sem (Biostatistics)** |  |
| **WEEKS** |  **Chapter**  |  |
| 1 | Relations between roots and coefficients of algebraic equations, Solution of cubic equations |  |
| 2 | Permutation and Combination, Binomial theorem of integer, Logarithm (definition and laws of logarithm, use of log table), |  |
| 3 | Trigonometric Identities. Matrices and their elementary operations. |  |
| 4 | Functions, Limits of functions, (basic idea of limits of functions without analytic definition), derivatives of functions, |  |
| 5 | differentiation, integration (general introduction, significance and application for simple algebraic  |  |
| 6 | ). Applications of Differentiation |  |
| 7 | Types of Data, Collection of data; Primary & Secondary data, Classification and Graphical representation of Statistical data. |  |
| 8 | Measures of central tendency and Dispersion. Measures of Skewness and Kurtosis. Probability (classical & axiomatic definition of probability, |  |
| 9 | Theorems on total and compound probability), Elementary ideas of Binomial, Poisson and Normal distributions |  |
| 10 | Methods of sampling, ,confidence level, critical region, testing of hypothesis and standard error, |  |
| 11 | large sample test and small sample test. Problems on test of significance, |  |
| 12 | t-test, chi-square test for goodness of fit and analysis of variance (ANOVA) |  |