

Syllabus

**BASIC MATHEMATICS & STATISTICS**



Offered by

**MORIGAON COLLEGE, MORIGAON**

**2020-2021**

**Department of Mathematics**



Proposed syllabus for Certificate Course  
on  
**Basic Mathematics and Statistics**  
by  
DEPARTMENT OF MATHEMATICS  
MORIGAON COLLEGE  
Duration: *30 hours*

**Aims:**

- To recognize that Mathematics permeates the world around us.
- To develop an understanding of Mathematical concepts and their application to further studies in Mathematics and Science.
- To develop skills to apply Mathematical knowledge to solve real life problems.
- To develop an interest in Mathematics.

**Unit 1.** Mathematical Aptitude: Fraction, Time and distance, Ratio, Proportion and Percentage, Profit and loss, Interest (simple and compound) and discounting, Average.

**Unit 2.** Different number systems, properties, Divisibility rules, Factorization, Concepts of HCF and LCM, finding remainders, unit digits and last two digits, base systems.

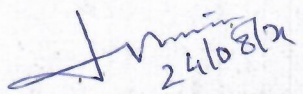
**Unit 3.** Logarithms: Logarithmic form vis-a-vis exponential form, interchanging, Laws of Logarithms and their uses, antilogarithm, logarithmic table.

**Unit 4.** Mensuration: Area, Perimeter, Volume and Surface Area of geometric shapes.

**Unit 5.** Theory of Equations: Equation formation (Linear and quadratic) and different methods to solve them.

**Unit 6.** Classification and representation of Data, Tabulation, Mean, Median, Mode, Pi-diagram, Bar diagram.

**Unit 7.** Share and stock, preliminary ideas, Profit and Loss, Percentage.

  
24/08/22  
Principal & Secretary  
Morigaon College

Yours faithfully  
Profulla K. Bora  
HOD, Math  
Morigaon College.