

# UNIVERSITY OF MADRAS

## B.Sc. DEGREE PROGRAMME IN COMPUTER SCIENCE

SYLLABUS WITH EFFECT FROM 2023-2024

**Year: I**

**Semester: II**

<b>Quantitative Aptitude</b>	<b>125S2A</b>
Common for B.C.A. , B.Sc.-SA , B.Sc.-CSc , B.Sc.-CSc-wAI , B.Sc.-CSc-wDS	
<b>Credits 2</b>	<b>Lecture Hours: 2 per week</b>
<b>Learning Objectives:</b> (for teachers: what they have to do in the class/lab/field) To improve the quantitative skills of the students To prepare the students for various competitive exams	
<b>Course Outcomes:</b> (for students: To know what they are going to learn) CO1: To gain knowledge on LCM and HCF and its related problems CO2: To get an idea of age, profit and loss related problem solving. CO3: Able to understand time series simple and compound interests CO4: Understanding the problem related to probability, and series CO5: Able to understand graphs, charts	

Units	Contents
<b>I</b>	Numbers - HCF and LCM of numbers - Decimal fractions - Simplification - Square roots and cube roots - Average - problems on Numbers
<b>II</b>	Problems on Ages - Surds and Indices - percentage - profits and loss - ratio and proportion - partnership - Chain rule.
<b>III</b>	Time and work - pipes and cisterns - Time and Distance - problems on trains - Boats and streams - simple interest - compound interest - Logarithms - Area - Volume and surface area - races and Games of skill.
<b>IV</b>	Permutation and combination - probability - True Discount - Bankers Discount - Height and Distances - Odd man out & Series.
<b>V</b>	Calendar - Clocks - stocks and shares - Data representation - Tabulation - Bar Graphs - Pie charts - Line graphs

### **Learning Resources:**

#### **Recommended Texts**

1. "Quantitative Aptitude", R.S. AGGARWAL., S. Chand & Company Ltd.,

**Web resources:** Authentic Web resources related to Competitive examinations