

1st P.U.C REVISED SYLLABUS ACCORDING TO NCF NORM

BASIC MATHEMATICS (CODE:75)

- 1) The Karnataka Government has revised the PUC Syllabus from the current academic year 2013-14. Consequently this text book of 1 P.U is written as per the new Syllabus incorporating new chapters like percentages, profit and loss, linear equalities with graphs.
- 2) Efforts have been made to write this book in a very lucid and unambiguous manner so that the students comprehend it.
- 3) This book is supplemented by a variety of problems from different chapters graded on 1 mark questions, 2 marks questions and 3 marks questions and 5 marks questions. It will be very useful to the students from the examination point of view. Every chapter is supplemented with plenty of worked Examples.
- 4) In addition to one model question paper (with answers), we have provided 3 additional model papers (with answers) for students to practice. And also a Blue print of the question paper pattern is provided.
- 5) Constructive Comments and suggestions are welcome and will be appreciated for the improvement of this book.

Sl.No 1	Objective 2	Unit 3	Chapters 4	No. of Teach hers 5	Expected Learning Outcomes 6	Evaluation and activity 7
1	To create an aptitude for mathematics	I (Algebra)	Number theory	08	1.Understand the terms like divisibility 2.Develops the skill to find G CD on using Euclid Algorithm 3.Appreciates the application of L.cm &H.Cf	1.To find the number of divisions and sum of divisions of some numbers
2	To develop the ability for reasoning and discrimination		2 sets, relations and functions	15	1.Recalls the language of set theory 2.Learns the concepts of relations and functions and recognizes the difference between them 3.Develops the skill of drawing graphs 4.appreciate the terms like domain, Codman of function	1.To construct relation on a set is show that reflexive, Symmetric, transitive relations are independent 2.Define one-one function. 3.Define into function 4.can you construct bijective function
3	To develop the indices and its Appln.		3. Theory of indices	. 04	1. Learn concept of base and index 2. Know the limitation of base 3.Appreciate the importance of indices and its appln.	Some specific problem involving implication of expression
4	To suggest different method for solving a given problem		4. Logarithms	05	1.Learn the conversion of index form to logarithm and visavarsa.	1.Some specific problem like finding the no. digits for a no. having (4.2)50. Also finding the no. zeros after the decimal

5	To create confidences in student for equipping them mathematics of needed for sequence and series.		5.Progresions	12.	<p>2. Known the limitation of the bases</p> <p>3. Develop the concept of using logarithmic table</p> <p>4. Appreciate the important of laws of Logarithms and its table.</p> <p>1. Learns mathematics' ,Geometrics and harmonic series and their summation.</p> <p>2.Apprecit the techniques of reducing the given series and standard series.</p>	<p>points.</p> <p>1. problems on inserting arithmetic , Geometric and harmonics means between numbers</p>
6	Enabling the students to acquire knowledge of solving simultaneous equations. Quadratic Eqtn		6.Theory of equations	12.	<p>1. Appreciate various method of solving Eqtn.</p> <p>2. Learn how to solve linear, quadratic eqtn..</p> <p>3. understand the relation between roots and coefficient</p>	<p>1. Formation of quadratic, cubic and biquadrate eqtn. when the roots are given.</p>
7	Skills of drawing no. lines, graphs and tables.		7. Linier inequalities	06	<p>1.Recognizes inequation</p> <p>2. Learn different techniques of solving inequation</p> <p>3. Appreciate its appln.to L.P.P</p>	<p>Plot the graphs of the inequalities and high light the Feasible regions</p>
8	Analysis of data judging the relative relevance, adequacy and consistency of two	II Commercial Arithmetic	8. Simple and compo-und interest	08	<p>1. Learn to calculate simple and compound interest</p> <p>2. Appreciate its</p>	<p>1.Study the problem in a particular bank</p> <p>2.To evaluate your bank pass book</p>

	type of interest				application to calculate population growth, depreciation Etc.,	
9	Understand the different types of annuities		9. Annuities.	06	1. Learn to calculate perpetuity, present worth, future value etc.. 2. Appreciate its appln.	1. To evaluate the amount to be invested for specific returns.
10	Develop the skill to find the simple average, weighted average and combined average.		10. Averages	04	1. Learn the different type of average like simple, weighted, combined average.	1. To calculate your average in the test and exam 2. conducted in the college
11	To understand the terms like percentage, profit and loss.		11. Percentage profit and loss	06	1. Learn how to evaluate percentage. 2. Learn formula for finding out profit or loss. 3. Appreciate its Applications to calculate sales tax, vat, income tax.	1. To calculate the %rise in population income 2009 to 2013 2. To find scrape value of the machine.
12	Understanding the meaning Of linear function		12. Linear function	04	1. Linear a new branch of mathematics 2. Develops the skill of drawing graphs 3. Identified linear graphs	1 To show the linear function on a graph for example $y=2x+3$..
13	To understand the concept of different measurement of angle and their relation.	III Trigonometry	13. Angles and Trigonometric ratios	06	1. linear different limits of measurement of angles and establishes relations 2. Recognizes the importance of radian	1. Familiarity with the contribution of following mathematician 1. Euclid.

14	To understand standard and allied angles and their relations		14. Standard and allied angles	04	measure 3 Understand relation between Trigonometric ratios 1. Learn about standard angles and various types of allied angles 2. Appreciate its appln. To heights and distances problems	2. S.L. Loney 3. Aryabhata 4. Pythagores 5. Bhaskara 1.Problems based on standard identities 2. Problems on height and distances involving angles
15	To familiarize with Cartesian plane	IV (co-ordinate Geometry)	15. Co-ordinate system in a plane	05	1. Learn to locate appoint in a Cartesian plane 2. appreciate the conversion of geometrical condition algebraic equtn.	1. Identify that three given points are collinear 2. find the slope of line 3. Find the area made by the line with the co-ordinate axes.
16	To understand the concept of locus and its equt..		16 Locus and its equt	03	1.Learn and understand the definition of circle and conics in term of locus and their equt.. 2. Appreciates the symmetry and acquires the skill of drawing the conics	To find the equt.to locus of a point given some geometrical conditions.
17	To understand the slope of a line. Condition for two lines to be in parallel and perpendicular		17 Straight lines	10	1.Learns the equt.a line in various forms 2. Learn about angles between the lines 3.learns about concurrency of three lines	1. To find the companied equt. of a pair of lines 2. To find the perpendicular distances between parallel lines 3 show the lines on graph sheet and measure