

Adarsh Shikshan Sanstha Beed.
Kalikadevi Arts, Commerce & Science College,
Shirur (Ka), Tq. Shirur (Ka), Dist. Beed.

DEPARTMENT OF MATHEMATICS
Soft Skill Development Course

SUMMARY

Course Title :- **“Basic Mathematics for Different Competitive Examination”**

- Duration :- Six Months (July to December)
- Periods :- 40
- Implementation :- Two Day in a week (Monday, Tuesday)
- Syllabus :- 15 Chapters

The design of syllabus of Soft Skill Course is Oriented to Various Competitive Examinations.

- Teaching Staff :- 1) Mr. Ghadge R.B.

Number of Students Benefited :

Sr.No.	Academic Year	Number of Students
1	2015-16	20
2	2016-17	32
3	2017-18	30



H.O.D

ASST prof Ghadge R.B
(Dept of Mathematics)


Principal

Kalikadevi Arts, Comm. & Sci. College,
Shirur (Ka.), Dist. Beed.

Academic Year 2015-2016

Student of List

Sr. No.	NAME OF STUDANT	Class
1	BADE ARCHANA VINAYAK	B.Sc F.Y
2	DARADE ADINATH BABASAHEB	B.Sc F.Y
3	GHORPADE MANGESH BABAN	B.Sc F.Y
4	LATPATE POOJA BABASAHEB	B.Sc F.Y
5	NETKE RANI HARERAM	B.Sc F.Y
6	NAGRE SARIKA PANDURANG	B.Sc S.Y
7	INGALE SMITA NARAYAN	B.Sc S.Y
8	DHAIFALE GANESH AJINATH	B.Sc T.Y
9	PAWAR BHAGWAN DNYANDEV	B.Sc T.Y
10	GANDAL ASHA KRUSHANT	B.Sc T.Y
11	AGLAVE SATISH SITARAM	B.Sc T.Y
12	BANKAR VISHAL BHAUSAHEB	B.com F.Y
13	BEADRE KOMAL SOPAN	B.com F.Y
14	CHAVHAN SACHIN DILIP	B.com F.Y
15	DHAKANE ANIL RAMESH	B.com S.Y
16	JOSHI AMOL VILAS	B.com S.Y
17	DHAKANE AMOL NAMDEORAO	B.com T.Y
18	AUSARMAL SONI UTTAM	B.com T.Y
19	BHOSALE DADASAHEB RAJENDRA	B.A T.Y
20	LATE ASHOK SHAHADEO	B.A T.Y



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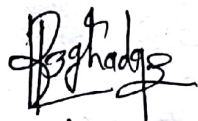

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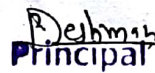
Academic Year 2016-2017

Student of List

Sr. No.	NAME OF STUDANT	Class
1	ARAK SHITAL JIVAN	B.com F.Y
2	BADE RAM BABASAHEB	B.com F.Y
3	BHOSALE SOMNATH KAKASAHEB	B.com F.Y
4	AKHADE GANESH BHARAT	B.com S.Y
5	BORDE RENUKA SHASHANK	B.com S.Y
6	BORGE RENUKA BHAGWAN	B.com S.Y
7	GAT AVINASH BAPPA	B.com S.Y
8	FUNDE ASHOK BALU	B.com T.Y
9	DHAKANE ANIL RAMESH	B.com T.Y
10	KEDAR NAGESH ASHOK	B.com T.Y
11	CHOVRE AMOL RAJENDRA	B.A S.Y
12	DONGRE PRADIP SHANKAR	B.A S.Y
13	KEDAR RAVINDRA SUNIL	B.A S.Y
14	DARUNKAR POOJA ASHOK	B.A F.Y
15	DOLE UTKARSHA MAHADEV	B.A F.Y
16	DHOTRE VAISHALI SARJERAO	B.sc F.Y
17	GHORPADE MANGESH BABAN	B.sc F.Y
18	MORE SWATI ASHOK	B.sc F.Y
19	GARJE SWATI PRAKASH	B.sc S.Y
20	JAYBHAYE AMOL SARJERAO	B.sc S.Y
21	GAIKWAD AMOL ARJUN	B.sc S.Y
22	BADE BHAGYSHRI RAJENDRA	B.sc T.Y
23	BADE RAVINDRA SUBHASH	B.sc T.Y
24	PATHAN ALTAB ABDUL	B.sc T.Y
25	DATOLE JYOTI NAVNATH	B.sc T.Y
26	WANVE DIPAK KISANDEV	B.sc T.Y
27	RAUT BABU MANJABHPU	B.sc T.Y
28	SHAIK MUBARAK TAHER	B.sc T.Y
29	MULE SHITAL RAJENDRA	B.sc T.Y
30	NETKE RANI HARERAM	B.sc T.Y
31	PATHAN ALTAB ABDUL	B.sc T.Y
32	TAMBE BHAKTARAJ NAVNATH	B.A T.Y



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Principal

Kalikadevi Arts, Comm. & Sci. College,
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Academic Year 2017-2018

Student of List

Sr. No.	NAME OF STUDANT	Class
1	AREKAR KARTIK VINAYAK	B.com F.Y
2	BAHIR ASHVINI MAHADEV	B.com F.Y
3	DAGADE SHIVANI ANIL	B.com F.Y
4	GADEKAR RAHUL SUBHASH	B.com S.Y
5	INGALE MAHAVIR AJINATH	B.com S.Y
6	KHEDKAR POOJA BHAGWAN	B.com S.Y
7	BORGE REVNATH BHAGWAN	B.com T.Y
8	TAMBAT SHUBHAM RATAN	B.com T.Y
9	NANNAWARE KOMAL PANDIT	B.com T.Y
10	NETKE JAYASHRI BHIMARAO	B.com T.Y
11	BHASMARE AJEET BHASKAR	B.A F.Y
12	CHEMTE SWATI POPAT	B.A F.Y
13	DHAKANE SEEMA VISHNU	B.A F.Y
14	BADE ROHINI ANIL	B.sc F.Y
15	DEOKAR MONIKA BABASAHEB	B.sc F.Y
16	FUNDE SANTOSH PRALHAD	B.sc F.Y
17	KEKAN ASHISH AJINAT	B.sc F.Y
18	PAWAR KOMAL VIJAY	B.sc F.Y
19	BHOSALE SANDIP ASHOK	B.sc S.Y
20	BADE PUJA NARAYAN	B.sc S.Y
21	BADE AVINASH NAMDEO	B.sc S.Y
22	JADHAV GANESH ASHOK	B.sc S.Y
23	KHOLE KALYAN ABASAHEB	B.sc S.Y
24	KOTHULE ROHINI SHRIRANG	B.sc S.Y
25	BADE ARCHANA SHIVAJI	B.sc T.Y
26	BAMDAL SNEHAL PANDIT	B.sc T.Y
27	GIRI POOJA MOHAN	B.sc T.Y
28	JADHAV KIRAN ASHOK	B.sc T.Y
29	PAWAR AKSHAY BHASKAR	B.sc T.Y
30	SHAIKH ASIF RAHIM	B.sc T.Y

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H.O.D

Asst prof G. G. G. R. B
(Dept of Mathematics)

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Principal

Kalikadevi Arts, Comm. & Sci. College,
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COMPREHENSIVE SYLLABUS

BASIC MATHEMATICS

UNIT I : ALGEBRA

(42 hrs)

CHAPTER 1. MATRICES AND DETERMINANTS

(13 hrs)

- 1.1. Introduction
- 1.2. Matrices
- 1.3. Types of Matrices
- 1.4. Algebra of Matrices
- 1.5. Determinants
- 1.6. Expansion or evaluation of a determinant
- 1.7. Properties of Determinants
- 1.8. Solution of Linear Equations – (Cramer's Rule / det method)
- 1.9. Minors and Cofactor and Adjoint of a square matrix
- 1.10. Singular and non-singular Matrices
- 1.11. Inverse of a Matrix
- 1.12. Solution of system of Linear Equations by Matrix method
- 1.13. Application Problems to Commerce

CHAPTER 2. PERMUTATIONS AND COMBINATIONS

(08 hrs)

- 2.1. Introduction
- 2.2. The Factorial
- 2.3. Fundamental Principle of Counting
- 2.4. Permutation vs. Combination
- 2.5. Permutations
- 2.6. Types of Permutations
- 2.7. Circular Permutations
- 2.6. Combinations

CHAPTER 3. PROBABILITY

(05 hrs)

- 3.1. Introduction
- 3.2. Definitions and some important terms
- 3.3. Three systematic approach
- 3.4. Classical or Mathematical approach

- 3.5. Addition Theorem
- 3.6. Conditional Probability
- 3.7. Multiplication theorem

CHAPTER 4. BINOMIAL THEOREM (06 hrs)

- 4.1. Introduction
- 4.2. Binomial Theorem
- 4.3. General Term in the Binomial Expansion
- 4.4. Middle Term in the Binomial Expansion
- 4.5. Term independent of 'x' in the Binomial Expansion
- 4.6. Co-efficient of a particular power of x in the Binomial Expansion
- 4.7. Application Problems

CHAPTER 5 PARTIAL FRACTIONS (04 hrs)

- 5.1. Introduction
- 5.2. Rational Fractions
- 5.3. Proper and Improper Fractions
- 5.4. Reduction of Improper Fraction to the sum of a polynomial and a proper rational fraction
- 5.5. Partial Fractions

CHAPTER 6. MATHEMATICAL LOGIC (06 hrs)

- 6.1. Introduction
- 6.2. Proposition and Truth Values
- 6.3. Logical Connectives
- 6.4. Tautology and Contradiction
- 6.5. Logical Equivalences
- 6.6. Converse, Inverse and Contra positive of a conditional

UNIT II: COMMERCIAL ARITHMETIC

CHAPTER 7. RATIO AND PROPORTIONS (34 hrs)

- 7.1. Introduction
- 7.2. Ratio
- 7.3. Porporation
- 7.4. Properties of Proportions
- 7.5. Time and Work, Time and Distance and Mixtures

CHAPTER 8. BILL DISCOUNTING (06 hrs)

- 8.1. Bill of Exchange

CHAPTER 14. COMPOUND ANGLES, MULTIPLE ANGLES, SUBMULTIPLE ANGLES & TRANSFORMATION FORMULAE (8 hrs)

- 14.1. Introduction
- 14.2. Trigonometrically Ratios of Compound Angles
- 14.3. Multiple Angles
- 14.4. Sub multiple Angles
- 14.5. Transformation Formulae

UNIT IV : ANALYTICAL GEOMETRY (10 hrs)

CHAPTER 15. CIRCLES (6 hrs)

- 15.1. Introduction
- 15.2. Definition and Equation of a circle in different forms.
- 15.3. General Equation of a Circle
- 15.4. Length of the Chord of the Circle
- 15.5. Points of Intersection of a line and a circle (chords and tangents)

Debmis
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