## THE

## COCHIN EDUCATION CODE

## volume ï

## CURRICULUM OF STUDIES

(Curriculum for the Upper Secondary Department isued separately)


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## CURRICULUM OF STUDIES FOR BOYS' SCHOOLS

# General and Literary-Primary and Lower Secondary Classes 

ARTICLE 13
ENGLISH

## INTRODUCTION

The basis of all language teaching is a scheme of Grammar: The following scheme outlines the main forms necessary to correct speech and writing. It indicates colloquial contraction, which certainly should be taught, as well as the fuller written forms.

The chief difficulties for Indian pupils are perhaps 1. the use of the articles, 2 . the number of the tenses with specific meanings, 3. the English Passive voice, 4. the English subordinate clauses. 1,3 and 4 have no parallels in the Dravidian languages; in regard to 2, the Dravidian tenses are much fewer, and the difficulty of pupils is to acquire a feeling for the force of the more numerous and complicated English tenses.

English accidence is very simple; its syntax is somewhat complex. This scheme insists on the close relationship between accidence and syntax, or between form and usage. It is arranged for convenience in a concentric fashion by years and terms, long and short. It indicates what is considered possible to teach within a period of five years, but leaves the order of teaching within the limits of each term and year to the judgment of the individual teacher, assuming that he will not forget the principles learned under training and that he will proceed from the simple to the less simple.

In regard to the medium of instruction, it will probably be found that where explanation is necessary, or where comparison with some Indian usage helps, the mother-tongue should be used in the first two years, wholly followed by a gradual use of more simple English in the succeeding years. Where comparison is made since the English here set forth is current English, the comparison must be with current Vernacular.

While using the Vernacular for explanation and comparison, there is no necessity to use Vernacular technical terms, which would be misleading and inadequate. It is enough to use the broad terms,
'noun', 'adjective', etc., and, it will be observed that, while in the scheme, which is for teachers' guidance, elaborate terms, such as 'Personal Pronoun', 'Indefinite Pronoun', etc., occur, they need not be taught to the pupils till later-say, in Form I.

The general methods would be for the teacher first to drill the forms in connection with some topic of 'conversation' or 'reading' and then get the class to formulate a rule ; and in so doing to recall instances that have occurred in the reader, or to frame varied instances with known vocabulary. Subsequently as opportunity occurs, the teacher would give fresh oral practice in points of grammar learnt, be always on the watch to correct errors of usage, and either prescribe specific written exercises in grammar, or ask for the inclusion of certain forms in continuous written narrative or description. The main thing to remember is that grammar is not a thing apart from vocabulary; it is the frame-work of all vocabulary.

## CLASS I

Conversation.-To converse in simple English on subjects connected with the objects in the class room and school; parts of the human body, familiar domestic objects, animals and plants, flowers and fruits, father, mother, brother, sister, etc.

NOTE.-The object of instruction in this class should be to supply the pupils with a vocabulary of the simplest nature. Short sentences expressing familiar action need alone be insisted on.

Recitation-15 lines from easy action song.
Books recommended- "Sounds of spoken English" by Reppman, "New Recitations for infants, 1st and 2nd Series" by Louis Bate's (Longmans), "Clean Speaking and Cood Reading" by Brewell (Longmans).

## CLASS II

Conversation-As in class I-to deal with more subjects under the various heads mentioned therein in all the three important tenses. Only the most familiar verbs need be attempted.

Recitation-25 lines as in Class I.
Books recommended-As in Class I.
Writing-Copy book to be prescribed.
CLASS III
Reading-Text-book to be prescribed-20 pages.
Recitation-30 lines of easy poetry.

Books recommended-As in Class II.
Conversation-Subject matter of the reader.
Spelling and Writing-Transcription and Dictation from the Text-book. Printed copy-book to be prescribed. Neatness and methoi should be carefully attended to. Teachers will regularly examine, correct, initial and date all exercises done by pupils.

Grammar and Composition-
N. B.-No text-book on Grammar should be used. The teaching to be based as far as possible on the Reader used.
(i) The chief parts of a sentence, i. e., the Subject, Predicate and Object.
(ii) The eight simple parts of speech without any attempt at definitions.
(iii) Number and case of Nouns and Pronouns and the Cender of very familiar words.
N.B.-No formal rules of Grammar to be taught.
(iv) Verbs-The three important Tenses, the Present, Past and Future.
(v) Simple forms of Affirmation, Negation and Interrogation may be taught by the end of the year.

CLASS IV
Reading-Text-book to be prescribed-30 pages.
Recitation- 40 lines of easy poetry.
Books recommended-As in Class III.
Conversation-Besides the subjects of Class III, simple stories.
Spelling and Writing-As in Class III.
Printed copy-book to be prescribed.
Grammar and Composition.-
N. B.-No text-book should be used. The teaching of Grammar to be based as far as possible on the Reader used.

## First Term

Revision of the portions done in Class III and classification of No'ms and Pronouns with Gender and Number in greater detail.

## Second Term

Classification of Adjectives and Adverbs. Their degrees of comparison.

## Third Term

Verbs-Transitive and Intransitive. The Indefinite Imperfect and Perfect forms of three important Tenses. Active and Passive Forms. More advanced exercises in Affirmation, Negation and Interrogation and simple forms of Exclamation.

FIRST FORM
Reading-Text-book to be prescribed- 50 pages.
Extra Reading- do. 30-pages of Prose.
Recitation-60 lines from the Text.
Conversation-On subject matter of Reade and Extra Reader and on the various subjects taught in the class.

Spelling and Writing - As in Class IV.
Copy-book to be prescribed.
Grammar and Composition-

## First Term

(i) C. L. S. Grammatical Primer-Pages 1 to 29 (up to verbs) or some other suitable book.
(ii) Analysis of simple sentences intoSubject, Predicate and Object with their attributes.

## Second Term

(i) Pages-30-35 (both inclusive) of the same.
(ii) Distinction between a Phrase and a Clause.

Third Term
(i) Revision of the above and
(ii) the following additional exercises and Transformation of sentences:-
(a) 1. More advanced exercises in Affirmation, Negation, Interrogation and Exclamation.
2. Active and Passive forms.
(b) Very simple exercises in Degrees of Comparison.

## SECOND FORM

Reading-Text-book to be prescribed- 60 pages.
Extra Reading- do. 50 pages.
Recitation-75 lines from the text.
Conversation-As in Form I.
Copy-book to be prescribed.

Grammar and Composition.-
First Term
(i) Manual of English Grammar-Pages 1-45 (up to verbs) or some other suitable book.
(ii) Analysis of easy Compound and Complex sentences.

## Second Term

(i) Pages 45--90 of the same book.
(ii) Simple exercises in Direct and Indirect forms of narration.
(iii) General rules relating to Sequence of Tenses.

Third Term
(i) Revision of the portions done in the 1 st and 2 nd terms.
(ii) Detailed exercises in the Transformations already taught.

THIRD FORM
Reading-Text-book to be prescribed-70 pages.
Extra Reading- do. 70 pages.
Recitation-90 lines from the text.
Conversation-As in Form II.
Spelling and Writing-As in Form II.
Copy-book to be prescribed.
Grammar and Composition.-
First Term
Syntax (Manual of English Crammar)-Pages 91-123. (Rules 1-25 inclusive) or some other suitable book.

Second Term
Pages 123-160 (incl isive) and Rules 26-44 of the same book. Third Term
(i) Revision of the whole syntax.
(ii) Exercises in the Direct and Indirect forms of narration.
(iii) Analysis of Simple, Complex and Compound sentences of a more advanced type.
(iv) Conversion of easy simple sentences into complex and compound and vice versa.
N. B.-A clear and intelligent teaching of English Crammar is what is aimed at.

## MALAYALAM
















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## FORM II




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## FORM II










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## FORM III







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## FRENCH

## FORM I

1. Text-Longman's French Course (Bertenshaw) Book I. Ist 10 lessons.
2. Grammar-As given in the text in the lessons prescribed.
3. Translation-Easy Translation of sentences into English.

FORM II.

1. Text-same as in Form I-Revision of Form I portions and the next 15 lessons in addition.
2. Grammar-As given in the text in the lessons prescribed.
3. Trănslation-Easy Translation of sentences into English (seen and unseen).

FORM III

1. Text-same as in Form II-whole book.
2. Grammar-As given in the text.
3. Translation-(a) Unprepared passages for translation into English.
(b) Easy English sentences for translation into French.
(c) Translation of passages from the text into English.

## TAMIL

## FIRST STANDARD

Reading and Recitation-Nagoji Rau's "Primer" and "Standard I Reader," or Chellappa Sastri's "1st Reader," or Doraswami Ayyengar's "Standard I Reader." (Longman's) or some other suitable book.

Meaning of the subject matter to be given in English and Tamil up to and inclusive of Standard IV.

Recitation as in English. 50 Stanzas "Attisudi."
Spelling and Handwriting.-Dictation throughout as in English.
Longman's Tamil Copy Books, or any other graduated Series to be used to Form III inclusive.

SECOND STANDARD
Reading and Recitation-Nagoji Rau's "Standard II Reader" or Chellappa Sastri's "2nd Reader," or Doraswami yyengar’s "Standard II Reader" or some other suitable book.

Meaning of the subject matter to be given in English and Tamil up to and inclusive of Standard IV.

Recitation as in English. 50 Stanzas "Konreiventhan."
Spelling and Handwriting-Dictation throughout as in English.
Longman's Tamil Copy Books, or any other graduated Series to be used to Form III inclusive.

Grammar and Composition.-(1) Parts of Speech. (2) Oral composition based on the text.

THIRD STANDARD
Reading and Recitation.-Nagoji Rau's "Smard III Reader," or Chellappa Sastri's "3rd Reader," or Doraswami dyyengar's "Standard III Reader" or some other suitable book.

Meaning of the subject matter to be given in English and Tamil up to and inclusive of Standard IV.

Recitation as in English. "Vettiverkei."
Spelling and Handwriting-Dictation throughout as in English.
Longman's Tamil Copy Books, or any other graduated Series to be used to Form III inclusive.

Grammar and Composition-(1) Gender, number and case of Nouns and Pronouns. Subject, Predicate and Object, as in Pope's "First Catechism of Tamil." (2) Reproduction in the pupils' own words of the stories in the text-book.

## FOURTH STANDARD

Reading and Recitation-Nagoji Rau's "Standard IV Reader" or Chellappa Sastri's "4th Reader," or Duraiswami Ayyengar's "Standard IV Reader" or some other suitable book.

Meaning of the subject matter to be given in English and Tamil up to and inclusive of Standard IV.

Recitation as in English. "Muthurei."
Spelling and Handwriting-Dictation throughout as in English.
Longman's Tamil Copy Books, or any other graduated Series to be used to Form III inclusive.

Grammar and Composition-(1) Finite verbs, Transitive, Intransitive, Active and Passive, Affirmative, Negative, Tenses and incomplete verbs.

Reproduction and summary of the stories in the text book. FIRST FORM
Reading and Recitation-Subramania Ayyar's Fifth Reader Prose-pages 1-96. "Nalvali" or some other suitable book.

Meaning of the subject matter to be given as in English.
Spelling and Handwriting-Longman's Tamil Copy Books, or any other graduated Series to be used.

Dictation and Handwriting to be carefully attended to. SECOND FORM
Reading and Recitation-Chellappa Sastri's Sixth Reader Prose -pages $9-100$, "Nunneri", or some other suitable book.

Meaning of the subject matter to be given as in English.
Spelling and Handwriting-Longman's Tamil Copy Books, or any other graduated Series to be used.

Dictation and Handwriting to be carefully attended to.
Grammar and Composition-(1) Analysis, complex and com pound sentences and transformation.
(2) Reproduction of stories and simple narrative essays. THIRD FORM
Reading and Recitation-Chellappa Sastri's Seventh Prosepages 9-103, "Nitinerivilakham," or some other suitable book.

Meaning of the subject matter to be given as in English.
Spelling and Handuriting-Longman's Tamil Copy Books, or any other graduated Series to be used.

Dictation and Handwriting to be carefully attended to. Grammar and Composition-(1) Mahalinga Ayyar's Grammar.
(2) Reproduction of stories, narrative and descriptive essays. Letter writing.

MARATHI
FIRST STANDARD
Reading and Recitation-Bombay Government's MarathiReaders Series, by Major Candy, the "Infants' Primer" or "Balabodh Primer" and First Book.

Recitation to be with proper Indian ragams, and reciting too fast should be discouraged by the teacher.

Spelling and Handwriting-Dictation throughout as in English.
Longman's Marathi Copy Books, or any other approved graduated Series to be used up to Form III inclusive.

SECOND STANDARD
Reading and Recitation-Bombay Government's Marathi Readers Series, by Major Candy, Second Book.

Recitation to be with proper Indian ragams, and reciting too fast should be discouraged by the teacher.

Spelling and Handwriting-Dictation throughout as in English.
Longman's Marathi Copy Books, or any other approved graduated Series to be used up to Form III inclusive.

Grammar and Composition-Parts of Speech.
Oral composition based on the text book used.

> THIRD STANDARD

Reading and Recitation-Bombay Government's Marathi Reader Series, by Major Candy, Third Book.

Recitation to be with proper Indian ragams and reciting too fast should be discouraged by the teacher.

Spelling and Handwriting-Dictation throughout as in English.
Longman's Marathi Copy Books, or any other approved graduated Series to be used up to Form III inclusive.

Grammar and Composition-Gender, Number and Case of Nouns and Pronouns. Subject, Predicate and Object.

Reproduction in the Pupils' own words of the stories in the text book.

## FOURTH STANDA.RD

Reading and Recitation-Bombay Government's Marathi Readers Series, by Major Candy, Fourth Book.

Recitation to be with proper Indian ragams, and reciting too fast should be discouraged by the teacher.

Spelling and Handwriting-Dictation throughout as in English.
Longman's Marathi Copy Books, or any other approved graduated Series to be used up to Form III inclusive.

Grammar and Composition-Finite verbs, Transitive, Intransitive, Active, Passive, Affirmative, Negative, Tenses and incomplete verbs.

Reproduction and summary of the stories in the text book.

## GUZARATI

## FIRST STANDARD

Reading and Recitation-The series of Guzarati Readers published by Longman's may be used. Other approved Series of text books will be announced later on. Portions to be done, etc., same as for Marathi.
$\left.\begin{array}{l}\text { Spelling and Handwriting. } \\ \text { Crammar and Composition. }\end{array}\right\}$ Same as for Marathi. SECOND STANDARD
Reading and Recitation The series of Cuzarati Readers published by Longman's may be used. Other approved Series of text books will be announced later on. Portions to be done, etc., same as for Marathi.
$\left.\begin{array}{l}\text { Spelling and Handwriting. } \\ \text { Grammar and Composition. }\end{array}\right\} \quad$ Same as for Marathi.
THIRD STANDARD
Reading and Recitation-The series of Guzarati Readers published by Longman's may be used. Other approved Series of text books will be announced later on. Portions to be done, etc., same as for Marathi.

Spelling and Handwriting. $\}$ Same as for Marathi.
Grammar and Composition.
FOURTH STANDARD
Reading and Recitation-The series of Guzarati Readers published by Longman's may be used. Other approved series of text
books will be announced later on. Portions to be done, etc., same as for Marathi.

Spelling and Handwriting. $\}$ Same as for Marathi. Grammar and Composition. )

## ARITHMETIC

## For full-time schools. <br> FIRST STANDARD

1. Ideas of the first ten numbers to be imparted by the actual presentation of groups of similar objects.
2. Detailed treatment of numbers from $I$ to 10 .

Composition and decomposition of numbers, e. g.,
$6=5+1=4+2=3+3=2+2+2$, etc.,
3. Counting a given number of things not exceeding 100. Counting backwards and forwards between 1 and 100 by tens, fives and twos.
4. Addition tables.
5. Notation and numeration up to 100 .
6. Simple addition of numbers of not more than two digits, the number of lines not to exceed 5 and the result not to exceed 100 .
7. Subtraction of numbers not exceeding 100 each digit of the subtrahend being less than the corresponding digit of the minuend.
8. Mental addition up to 20 and corresponding subtraction.
9. Multiplication as repeated addition, to be taught with refer ence to concrete objects, up to 5 times 5 .
N.B.-In problems the writing of steps is not expected; nor should they involve more than one operation or more than one rule.

## SECOND STANDARD

Notation and numeration up to 10,000 . Local values and the decomposition of numbers.

Counting backwards and forwards by fixed increments and decrements not exceeding 5 .
2. Simple addition of numbers of not more than four figures, the number of times not to exceed 5 and the total not to exceed 10,000. (For half-time schools not to exceed 1,000).
3. Subtraction of numbers not exceeding 10,000 checking by addition. (For half-time schools not to exceed 1,000).
4. The signs of operation for addition and subtraction. The sign of equality.
5. Multiplication tables up to $12 \times 12$ to be constructed by the pupils themselves. The sign of multiplication.
6. Multiplication of numbers by factors not exceeding 12, the result not exceeding 10,000 .
7. The idea of $\frac{1}{2}$ and $\frac{1}{4}$ to be given with the help of actual objects. Oral addition of these fractions.

Multiplication tables of these up to 10 times each.
8. Easy problems, involving the process of addition, subtraction and multiplication.
9. Pie, quarter of an anna, half an anna, three quarters of an anna and one anna; para, edangazhi and nazhi; yards, feet, inches and cubits; year, month, week and day. The relation between them to be studied.
10. Mental sums connected with the above.

THIRD STANDARD

1. Notation and numeration up to $1,00,000$. Local values and the decomposition of numbers.
2. Multiplication tables up to $16 \times 16$.
3. (a) Addition and subtraction.
(b) Multiplication of two numbers, the multiplier containing not more than three digits.
(c) Division by numbers not exceeding 16.
(Omit for half-time schools).
4. Indian money and the first two rules applied to the same.
5. The measures of capacity and length in actual use in the locality and the first two rules applied to them.
6. Ideas of $\frac{1}{2}, \frac{1}{4}, \frac{3}{4}, \frac{1}{8}$, with the help of objects and paper folding. Oral addition of these fractions and their multiplication tables up to 16 times each.
7. Easy problems involving:-
(a) Simple bazaar and household accounts.
(b) Profit and lcss.
(c) The measures of length and capacity.
8. Mental Arithmetic connected with the above.

FOURTH STANDARD

1. Notation, numeration and local values.
2. The four simple rules.
(1) From a given number to subtract the sum of a given group of numbers (in one step).
(Omit for half-time schools).
(2) From a given number to subtract the product of two numbers one of which is less than 16 (in one step).

> (Omit for half-time schools).
3. Factors.-Multiplication and division by factors. (In division there should not be more than two factors).
4. The four rules.-Indian and English money. The first two rules applied to $£$. sh. d., Rs. as. ps., weights and measures in use in the locality of the school. English linear measure English time and Madras and Imperial weights and measures of capacity.
(Omit English money and Madras and Imperial weights and measures of capacity for half-time schools).
5. House-hold and bazaar bills.
6. Multiplication tables of $\frac{1}{2}, \frac{1}{4}, \frac{3}{4}$ and $\frac{1}{8}$ from 1 to $10,20,30$, etc., to $100,200,300$, etc., to 1,000 .
7. Simple problems involving:-
(a) Profit and loss.
(b) Measures of length, time and capacity.
8. Mental Arithmetic connected with the above.
9. Measurement with the foot rule and drawing to scale.
(Omit for half-time schools).
N. B. -(1) Whatever is omitted for half-time schools from the portions for the corresponding classes in full-time schools is to be done in the next higher class of half-time schools.
(2) Addition of numbers written in a row instead of in a column should receive adequate attention.
(3) Pupils should be trained to perform addition without mentioning the numbers to be added.
(4) Problems involving heavy drill work should be avoided. Mental work should precede written work at every stage.

## ELEMENTARY MATHEMATICS

## FORM I

1. Revision of the four simple rules, special attention being paid to multiplication and division by factors. The four rules in English and Indian money, weights and measures in use in the locality of the school, English linear measure, and measures of time, English and Indian.

Revision of compound rules and problems thereon.
2. Factors and multiples. Common factors and common multiples. G. C. M. and L. C. M. by prime factors.
3. Vulgar fractions. Graphic representations.
(Complicated fractions to be avoided).
4. Multiplication and division of compound quantities by vulgar fractions.
5. Reduction of concrete vulgar fractions.
6. Bills of parcels.
7. Simple problems.-
(1) Unitary method.
(2) Fractional parts.
(3) Profit and loss.
(4) Income-tax.
(5) Division of property.
8. Mental Arithmetic.
9. Measurement of straight lines in inches and tenths of an inch, in centimetres and millimetres-Drawing to scale.

FORM II

1. Revision of portions done in Form I.
2. Decimals and the metric system of length.
3. Reduction of concrete decimals.
4. Simple practice: number of aliquot parts not to exceed four.
5. Ratio ; simple proportion by the unitary method.
6. Square measure-Rectangular areas. Area of the four walls of a room, Practical work. (Inverse problems involving the finding out of any of the three dimensions to be avoided).
7. Easy problems:-
(1) Division of property involving ratios also.
(2) Groups and multiples.
(3) Fractional parts.
(4) Income-tax.
(5) Time and work and time and distance.
(6) Profit and loss without percentages.
8. Mental Arithmetic.

## PRACTICAL GEOMETRY

1. Instances of parallels and perpendiculars. Use of the set squares and the ruler to draw parallels and perpendiculars.
2. Rectangles and squares. Drawing the same to given measurements by using the set squares and the ruler.
3. Use of Compasses. The circle, radius, diameter and circumference.
4. Triangles, construction of triangles of given sides.
5. Drawing to scale.

## FORM III <br> ARITHMETIC

1. Revision of portions done in Forms I and II.
2. Simple and compound proportion by the fractional method.
3. Averages.
4. Easy and direct applications of the term "per cent" including simple interest and profit and loss.
5. Square measure and rectangular areas. Area of the faces of a rectangular block. Metric system of areas.
6. Simple problems:-
(1) Division of property.
(2) Time and work:
(3) Time and distance.
(4) Fractional parts.
(5) Income-tax.
(6) Groups and multiples.
7. Construction and use of ready reckoners in simple cases such as wages, pay, scholarships, etc.
N. B. -(1) Application of the methol of prattice should be insisted on
(2) Symbols should be used wherever necessary.

## GEOMETRY

1. Revision of 1,2 and 3 of Form II.
2. Angles and their measurement. The use of the protractor. The angle between the hands of a clock.
3. Bisection of a given straight line and of a given angle by using the compasses and the straight edge.
4. Use of the compasses and the straight edge to construct angles of $30^{\circ}, 45^{\circ}, 60^{\circ}, 75^{\circ}, 90^{\circ}$ and $120^{\circ}$.
5. Experimental investigation of the elementary properties of triangles.
6. Construction of triangles, having given:-
(1) Two sides and the included angle.
(2) Two angles and a side.
7. Drawing to scale.
8. Graphical representation of different magnitudes, by proportional heights.

## GEOGRAPHY

THIRD CLASS

1. The four cardinal points-the compass.
2. Idea of a plan, a picture, a scale and its use.
3. The plan of the school house to scale with its boundaries.
4. The town or village.
(a) Its map.
(b) Its physical features.
(c) Climate.
(d) Productions.
(e) Trade and industries.
(f) Modes of life.
(g) Visits to the chief physical features and anything note-worthy in the neighbourhood.
5. Cochin State.-
(a) Regions-high and low, slope.
(b) Physical features-mountains, forests, rivers and backwaters.
(c) Climate.
(d) Productions - Vezetables - Animals peculiar to the State - stories connected with the habits of animals not found in Cochin.
(e) Trade and trade-routes.
(f) Railway, Postal and Telegraph communications.
(g) Government-the 'Ruler'-the Diwan - the Heads of Departments-the Resident-Town Council Government.
(h) The political divisions - the Taluks - the principal towns.
(i) Visits to places of importance in the neighbourhood.
6. Practical work.-Maps-Village or town-Taluks- the State.
7. History of the Cochin State in narrative form up to the time of Sakthan Raja.

FOURTH CLASS
(a) The Globe-

1. The sphere-the circle-the smaller and larger circles-the equator, the tropics-the arctic and antarctic circles-the polesdistance from the equator and distribution of heat.
2. The movements of the Earth-daily-yearly.
3. Simple notions regarding the Sun, Moon and Earth.
4. The solar system-greater planets.
5. The position of the Earth-Eclipses-Full Moon-New Moon.
6. Unequal distribution of land and water-continents and oceans-comparison of continents with one another in area and population-continents and some countries in each-oceans and some seas in each.
(b) Hemispheres-Northern, southern, eastern and western with continents and oceans in each.
(c) Peninsulas, islands, capes, bays, gulfs, straits, etc.Illustrations from India.
(d) The Madras Presidency-
7. Its position and boundaries.
8. Physical features-Chief mountains and the ghats-passes-hills-plateaux-river-valleys-deltas-courses of the rivers-coastal plains-coast line and coastal features-islands-straits-capes, etc.
9. Altitude and climate-prevailing winds-position of mountains and rainfall.
10. Productions -
(i) Vegetables-
(a) Moist lands-rice, sugar-cane, oil-seeds, etc.
(b) Dry lands-cotton, etc.
(c) Forest-timber, spices, etc.
(d) Mountains-coffee, tea, etc.
(e) Coastal-palms.
(ii) Minerals-Iron, gold, salt, pearls.
(iii) Animals-Wild elephant, tiger, bear; domestic; buffalo cow, goat, sheep-uses (Describe hippopotamus, puma and jaguar).
11. Trade--Home and foreign-Exports-Cotton, rice, spices, hides, skin and leather, bones, oil-seeds (to be inferred as far as possible from products). Imports-Cottons, Books, Woollens, Irons, and Stationery-Classware-Railways-Roads-Seaports.
12. Occupation and modes of life-to be inferred from products, climate and physical features.
13. Population-race, religion, language-reasons for considerable variety in population.
14. Districts-Coastal and inland-Important towns (causes of their rise should, as far as possible, be pointed out).
15. Government - Governor of Madras--Board of RevenueTaluk Board-Collectors Judges - Subordinate Officers-the courts Lower courts-High court-Municipal Government.

Practical work-
(a) Drawing-the plants and animals found in the different districts of the Presidency.
(b) Map Drawing-Map of the Presidency. Map of the several districts.
10. History-of the Cochin State in narrative form, the whole of the remainder and revision of the earlier portion.

## FORM I

1. Movements of the Earth;Rotation-Day and Nights; Revolution-Year and Seasons.
2. The Solar System- greater planets.
3. The position of the Earth--Eclipses-Full Moon-New Moon.
4. The Hemispheres-eastern and western; cortinents and oceans in each; unequal distribution of land and water.
5. India-
(a) Position-Natural boundaries-size in regard to the Madras Presidency.
(b) Coast line-paucity of inlets and harbours; Islands on the coasts.
(c) Physical Features-(i) Mountains-the Himalayas, peaks and passes ; other mountains-the Vindhyas and the Ghats, eastern and western ; the Palghat Gap ; Hill Stations.
(ii) Rivers; the two main systems according to their source; A contrast between the North Indian and South Indian Rivers; the Indian Rivers have Deltas.
(d) (1) Climate (i) The Sun's apparent movement and the three seasons-Hot, Rainy and Cool.
(ii) Summer rains-Monsoons-south-west and northeast ; Regions of heavy, moderate and scanty rainfall.
(iii) Dams and Irrigation.
(2) Vegetation-(i) Agricultural regions-Products - Rice, wheat, millet, maize, oil-seeds, sugar, tea, coffee, tobacco, opium, cotton and jute-conditions favouring their growth.
(ii) Forests-Conservation-their products-teak, bamboo, sandal-wood-their localities and their uses.
(iit) Animal life-wild and domesticated; Tiger, Elephant, Cattle, Camel, Horse, Sheep-Relations to contrasted geographical conditions.
(e) Broad Natural Regions-1. the Himalayan; 2. the IndoGangetic plain; 3. the Deccan Plateau; 4. the eastern and western coasts ; 5 . North-western India.
(f) (1) Human activities-(i) Agricultural and Pastoral work.
(ii) Hunting and fishing-(coral fishing).
(iii) Mining-(coal, iron, gold, mica, manganese).
(2) Industries-Cottage and factory.
(i) Spinning, weaving, coir, beedi.
(ii) Cotton, steel, iron, wool, leather, cement, soap, sugar, matches-Industrial centres.
(g) Communication and Trade-
6. (i) Trunk roads; (ii) Railways; (iii) Steamer routes to west and east ; (iv) Rivers and canals.
7. Telegraph-cable-wireless-aeroplane.
8. Chief exports and imports-raw materials exported to Europe and Japan, and finished goods imported; the Industrial future of India-healthy signs.
(h) 1. Distribution of population-areas of concentration : Race, language and religion.
9. Provinces and important towns; Native States, Foreign Possessions.
10. Government-a general idea to be given.

FORM II

1. The hemispheres-eastern and western and northern and southern, Continents in each and comparison with regard to size.
2. The revolution of the Earth-distribution of the Sun's heat over land-perpendicular and oblique rays ; the five circles and zones.
3. The revolution of the Earth round the Sun once a yearthe Moon round the Earth;Full Moon and New Moon-the tides-their uses in navigation.
4. (a) Eurasia-as one land mass-the Ural Mountains only a political boundary.
(b) Asia-Comparative size; Coastline-striking contrast with that of Europe; Important openings, Festoons of Volcanic islands in the east-the Malay Archipelago.
5. (a) Surface-the Pamir Knot and mountain running on all sides like the spokes of a wheel ; A few enclosed basins and Plateaux -Tibet the Heart of Asia.
(b) Plains and drainage-
(i) The broad northern plain.
(ii) The Aral-Caspean low-land region of inland drainage.
(iii) The river plains in the east and south.
6. (a) Climate-the extent of the continents-the position of the mountains and the land mass in the west influence the climate. Broad climatic divisions-(i) the cold north, (ii) the extreme centre, (iii) the monsoon type in the east and south-east, (iv) Hot and dry south-west.
(b) Vegetation depends on climate, contrast of the northern plain with the Malay Peninsula, and south-west Asia with southeast Asia.
(i) Siberia-North to south, Tundra, Forest and Steppe.
(ii) The monsoon vegetation of-India, Burma, Indo-

China, China.
(iii) The Archipelago-'The East Indies'-Hot and moist, luxuriant tropical vegetation-products.
(ii) South-west Asia-Deserts and oases-Plateaux of Iran, Asia Minor and Arabia-Wandering tribes-Sheep farming.
7. Industries and Industrial centres-
(i) Agriculture in monsoon lands.
(ii) Sheep farming in dry areas.
(iii) Hunting in the north and centre and fishing in the east ; Industrial centre-Japan.
8. Trade and communication.
(a) Trade between Asia and Europe, Export of raw materials and import of finished goods, Japan a rival of Britain.
(b) Railways-Trans-Siberian Railway, the Orient Express Line-Basra to Constantinople-etc., and the Arabian Railways. The Caravan routes and the Imperial Canals of China.
9. Population-
(a) Density in China, India, Japan-Thin in South-west Asia.
(b) Religion-Asia the mother of religions.
10. (a) Important political divisions and towns.
(b) China-her natural resources, Japan-her industrial greatness.

## Europe.

I. Position and size-the centre of the land masses-the smallest continent.
2. Coastline-broken; a few important openings; Importance in commerce; The Grecian Archipelago and the British Isles; Three peninsulas in the south corresponding to the three in Asia; the straits of Constantinople, Cibraltar and Suez as gateways.
3. Surface-i. The Scandinavian mountains (north).
ii. The Alpine system joined to Cantabrians and the Caucasus in the south.
iii. The central European Plain; Two minor systemsthe Valdai and the Urals. The Russian, German and Alpine Lakes.
4. Climate and Rainfall-i. Warm south; ii. Moderately warm centre; iii. Cold north; iv. Mild warm northwest; The influence of the Gulf Stream during winter; Extremes in the interior; Rain all the year, Europe
being in the Belt of the Westerlies; The Mediterranean shores have only winter rains; The west wetter than the east.
5. Vegetation-(a) i. Mediterranean type in the south-ever-greens (Hohn-oak, myrtle, cork). ii. Deciduous trees (oak, beach) in the centre; iii. Conifers in the north; iv. Tundra on the Arctic shores; v. Grass and Scrub on the Mediterranean shores; Mountain vegetation varies.
(b) Cultivated crops-i. Fruits in the south; ii. Wheat in the centre and the south; iii. Barley, oats and rye in the north; iv. Flax and Hemp on the Baltic shores,
6. Minerals-(a) Europe very rich in minerals-Coal, Iron, Tin, Copper-Where found.
(b) Industrial Europe-What it means-Principal industries -Machinery, Cotton, Woollen, Wine, etc., and their centres.
7. Railways-Radiating from Paris-Trans-Siberian and the Orient Express Railways connecting Europe and Asia-Sea-routes from the East and the West converge on Europe.
8. Principal Countries-Capital Towns-Thinly and thickly peopled regions.

## British Isles.

1. (a) Position-corresponding with Japan;
(b) Coastline,
(c) Surface-Mountainous west and north-Plain in south and east;
(d) Climate - Prevailing winds - Influence of the Gulf Stream-Warmer and wetter west-dry east-Cool or cold north.
(e) Occupation; Agricultural Ireland and Industrial England -Wheat, Oat, Potatoes.
ii. Fishing along the coasts-North-sea fisheries. iii. Mining-Coal, Iron, Copper, Tin.
(f) Commerce-World commerce-imports raw materials and exports manufactured goods.
(g) Railways Inland-Four main lines; Sea-routes - Ship canals.
(h) Towns-London the capital of the Empire-University Towns.
(i) Government-The King-The Two Houses of Parliament.

FORM III

1. Size of the Earth-Circumference-Diameter-Equatorthe Hemispheres-Axis-North Pole and South Pole-Latitudes and Longitudes.
2. (a) Air has pressure--Rotation and atmospheric collection of air at the Equator and low pressure at the Poles Sun dispelling the air at the Equator on either side.
(b) Pressure belts of air and wind systems-Trade winds and Westerlies in the Torrid and Temperate Zones respectively. Sea and Land breezes-the Sun's position and rapid change in atmospheric pressure-Monsoons of the Indian Ocean.
3. Sun's heat and displacement of sea-water; Ocean currents -Warm and cold currents-their influence on climate.
4. Winds and rainfall-
(a) Evaporation, clouds, mists lower down to the EarthDistribution of rain on the coasts and interior on the windward and lee-ward sides of Mountains-Rainless tracts.
(b) Summer rains, winter rains, and seasonal rains.
(c) Rain Gauge and its use.

Direction of the winds and the position of the mountains determine the rainfall in each separate Zone.

Africa.

1. Position with reference to Eurasia.
2. Surface and coastline-a huge Plateau-the southern half higher than the northern-series of small Plateaux-Kenya and Killimanjaro-narrow coastal plain.
3. Drainage-the Nile the longest and the Congo the largestthe Niger and the Zambazi.
4. Climate and vegetation-
(a) A hot continent-Equator cuts Africa in the middleTwo summers and two winters-Rain follows the

Sun-Rainless tracts-Sahara and Kalhari - Tropical rains in the centre.
(b) Symmetrical arrangement of natural vegetation north and south of the Equator: i. Equatorial Forests; ii. Savannas; iii. Scrub; iv. Desert; v. Mediterranean vegetation; Oasis.
5. North Africa-
(a) the Atlas region-the fertile Tell and dry shottsMorocco, Algeria, Tunis, Governed by France and Tripoli by Italy.
(b) Egypt-the gift of the Nile-Assuan Dam-Irrigation canals and crops; Cairo and Alexandria-the Suez canal and its importance.
6. Anglo-Egyptian Sudan-A land of possibilities-Future of Sudan-Position-Khartoum.
7. The Congo Basin.
8. South African Union-Plateau--the Karoos dry-mining and pastoral work; Towns.

## America (the new world).

1. Position with reference to Eurasia and the Oceans-European Colonisation and development.
2. The two Americas compared with regard to physical features-i. the western mountain system; ii. eastern highlands; iii. the central plain as the basin of the three rivers.
3. Drainage-the River systems-the Mississippi and the Amazon -the great lakes as fine waterways.
4. Climate and vegetation-(a) North America mostly within the Temperate Zone-the absence of a mountain system across the continent and the spread of summer heat and winter cold-the west warmer than the east - the influence of the Gulf Stream.
(b) South America mostly within the Tropics.
(c) The barren Tundra contrasted with the tropical Amazon basin--Relation of winds to rainfall and vegetation; the Patagonian Scrub-the plateaux among the Rockys and the Andes dry.
5. (a) Canada-Northern, central and southern-the sunny southern part comprising the maritime provinces, the Prairie provinces and the British Columbia-Occu-pations--the position of Winnipeg.
(b) U.S.A. i. The regions of mineral wealth; ii. the plantation region of the south-east; iii. the farming region in the centre; iv. the pastoral region in the high west; $v$. The Industrial Appalachian region; The position of Chicago, New Orleans, New York, Kansas City and Minneapolis.
(c) West Indies-Cuba sugar, the Panama Canal and its influence on Commerce.
6. South America-the A. B. C. States.
i. The wheat industry of Argentina (Pampas) Ranching.
ii. The plantations of Brazil.
iii. Chilian climate and Fruit farming. The Amazon and the World's greatest Forest. Australia.
I. Island continent-off the track of ships-late discoverystory of discovery.
7. Relief-three broad divisions-i. the arid western plateau; ii. the eastern mountain system-the dividing range; iii. the central plain-narrow coastal plains. Coast-line-unbroken - affecting climate and commerce adversely (c. f.) the coastline of the three southern continents-the Great Barrier Reef.
8. The Murray and Darling-Inland drainage.
9. Climate-Effect of east to west extent-position-coastal high lands.

Summer rains in the north and east and winter rains in the south-west and south-east corners; dry interior; Artesian wells and their uses.
5. Vegetation and animals -Effect of climate on both. (a) i. Wheat of the Murray-Darling basin; ii. Fruits of the winter rain areas.
(b) i. Animals peculiar to the continent; ii. Sheep, horses and catile; Fine sheep pastures.
(c) Minerals-Cold, Coal, Copper, Silver, Tin with their chief mining centres; Effect of the discovery of gold on the history of Australia.
6. (a) Political divisions and Towns-concentration of population on the coasts and towns.
(b) The Commonwealth of Australia.

> New Zeland.

New Zealand-the Britain of the south-resemblance in position, coast, climate, production and occupation.

Wheat, sheep and fruit farming centres-Export trade.

## Polynesia.

Their general geographical character.

## CIVICS

## CLASS III

I. Local school.
2. Village Parvathiam and important officials of the village.
3. Anchal peon.
4. Police man.
5. Local dispensary.
6. Village temple, church or mosque.

CLASS IV

1. Police station-maintenance of peace, detection of crimes and punishment of criminals.
2. Anchal office-Post office-Letters, Money Orders and Telegrams.
3. The Cochin State Railway and the Cochin Harbour.
4. Roads, canals, anicuts, tanks and wells.
5. Coinage-Sovereign, Rupee, Sijver, Nickel and Copper coins and Currency notes.
6. How our health is looked after by Government-Vac cination, Sanitary Inspector and Hospital.
7. Schools and Colleges.
8. The important officials of the taluk.
9. His Highness the Maharaja.

## HISTORY

CLASS II
Stories from History

1. The Pandavas and Kauravas playing with dice.
2. Krishna, the cow-herd boy
3. Dhruva, the boy sage.
4. Rama's marriage.
5. Seetha and the golden deer.
6. Bharatha, the young hero.
7. Markandaya.
8. Pakkanar and brothers.
9. Sri Parasurama and the origin of Kerala.
10. St. Thomas and the Golden Cross at Malayattur.
11. Pranjaliotu Vadhayar.
12. King Maha Bali.

CLASS III

1. The Story of the Ramayana-Rama and Viswamitra-

Rama's quest of Seeta-Rama's war with Ravana.
2. The story of Mahabharata-The boyhood of the Pandavas
-Pandavas in the forest - The Pandava-Kaurava war.
3. Harischandra the True.
4. Savitri and Satyavan.
5. Nala and Damayanti.
6. Alexander the Great and his horse.
7. Padmini.
8. Chand Bibi.
9. Sivaji and Ramdas.
10. Boadicia.
11. King Alfred and the Cakes.
12. Robert Bruce and the Spider.
13. Thiruvanchikulam.
14. Imaya Varma Perumal.
15. Thirumala Devan and his Gem.
16. Kudalmanikyam.
17. Vascodi Cama.

CLASS IV

1. Prince Sidhartha.
2. Alexander and Porus.
3. A Royal Monk-Asoka.
4. Vikramaditya.
5. Kalidasa.
6. Karikala Chola.
7. Sultan Raizia.
8. Akbar.
9. Nurjihan.
10. The Taj Mahal.
11. Sivaji.
12. Tippu Sulthan.
13. The Dutch at Cochin.
14. Sakthan Thampuran.
15. British Cochin.
16. Colonel Macaulay and the attempt to throw off the British yoke.
17. Colonel Munroe, The First European Diwan.
18. Diwan Sankara Warriar.
19. Diwan Sankunni Menon.
20. Rajagopalachari and the Cochin Railway-His Highness Sir Rama Varma, G. C. S. I., G. C. I. E.,-Cochin the Model State.
21. His Highness Sir Rama Varma, the first Maharaja of Cochin-Representative Government in Cochin.

## HISTORY OF INDIA

Aim:-An outline of the whole History of India is to be taught in the First Form in the form of stories, the interest of the pupils, being made to centre round great personages, great places or great events. The regular study of the History of India is to begin in the Second Form where the ancient and medieval periods are to be dealt with. The modern or British period is to be taught in the Third Form. In the story stage no book is to be put into the hands of the boys. In the Lower Secondary classes Vernacular must be the medium of instruction. No dictation of notes is allowed; but outlines and summaries on black-board are recommended.

FORM I

1. The story of the Ramayana.
2. The story of the Mahabharatha.

## 33

3. Mahaveera.
4. Gouthama Buddha.
5. Alexander the Great.
6. Asoka.
7. Kanishka.
8. Samudragupta.
9. Vikramaditya.
10. Harsha.
11. Chinese Pilgrims.
12. The Rajaputs-their origin and characteristics.
13. Sankaracharya.
14. Chenkuttuvan (Chera).
15. Rajaraja (Chola).
16. Nedunchelia (Pandaya King).
17. Muhammad Nabi.
18. Muhammad Chazni.
19. Muhammad of Chor.
20. Balban.
21. Alaudin.
22. Muhammad Tughlak.
23. Timur.
24. The Bhamini Kingdom.
25. Krishnadevaraya,

FORM II

1. Babar.
2. Humayun and Sher Shah.
3. Akbar the Great.
4. Shah Jehan.
5. Aurangazeb.
6. Nanak and the Sikhs.
7. Chaitanya.
8. Ramadas and Tukkaram.
9. Shivaji
10. The Peshwas.
11. Dupliex and Clive.
12. Warren Hastings.
13. Hyder and Tippu.
14. Nana Farnavis.
15. The story of Bala Bhadra Singh-the Nepalese Commander.
16. Ram Mohan Roy, and Bentinck.
17. The Golden King-Annexation of Burma.
18. The Valley of Death-the first Afghan War.
19. Ranjit Singh.
20. The Rani of Jansi.
21. Hume and the Indian National Congress.
22. The Indian Renaissance-(a) the Arya Samaj; (b) the Ramakrishna Mission; (c) the Theosophical Society.
23. Curzon.
24. George $V$ and the Delhi Durbar.
25. India and the Great War.
26. Representative Indians-(To be dealt with very briefly)
(a) Education-Sir Syed Ahmed Khan-Malavia-Sir Ashutosh Mukerjee.
(b) Social-Ranade Gokhale-Servants of India SocietyCandhi.
(c) Literary-Bankim Chandra Chatterjee-Sarojini-Tagore
(d) Science--J. C. Bose-P. C. Ray-C. V. Raman.
(e) Journalism-Tilak-Sir S. N. Banerjee.
(f) Industry-The Tatas. FORM III
27. The early Trade Routes between the Indies and the west.
28. The Portuguese in the East.
29. The English and the French East India Companiestheir history till 1744-the settlement of Madras, Bombay, Calcutta and Pondichery.
30. The Anglo-French struggles in India-1744 to 1763.
31. Plassey-Clive's Double Government-its failure.
32. Warren Hastings-his work as Governor-the Regulating Act-his achievements as Governor-General-Pitt's India Bill.
33. Cornwallis-his Reforms-War with Tippu.
34. Sir John Shore and the Non-intervention Policy.
35. Wellesley-the Subsidiary System and its effects-War with Mysore and the Maharattas-Map of British India in 1805.
36. The Final shaping of the Map of British India-the work of the Marquis of Hastings-Lord Amherst and the First Burmese War
37. Rectification of Social Evils-Bentinck and Ram Mohan Roy-Relations with Coorg and Mysore under Bentinck.
38. The Frontier Problem-The First Afghan War-Annexation of Sind,
39. Wars with the Sikhs-Annexation of the Punjab.
40. The formation of British Burma.
41. Dalhousie and the Doctrine of Lapse-AnnexationsMeasures for the Moral and Material Progress of India.
42. The Great Sepoy Mutiny-Its causes, course and consequences.
43. The Queen's Proclamation.
44. India under the Crown-
(a) Defence of the Frontiers-Afghanistan and Burma.
(b) Material Progress-Famine Relief-Financial and Educational Reforms.
45. Lord Curzon and the partition of Bengal.
46. India's part in the Great War.
47. The Montford Reforms and after.

## GENERAL SCIENCE

FORM I

## I. The earth on which we live.

1. The Earth-shape, rotation and revolution ; day and night.
2. (a) The Sun; (b) The Moon-phases of the Moon.
3. Stars--Some important Star groups.
4. Soils-How formed.
II. The air we breathe.
(a) Air and breathing-i. Essential to all living things; changes produced in the air breathed.
ii. Breathing and burning.
(b) Air and Air Pressure-Air-a real substance having weight-Calileo.
III. The water we drink.

How used by living beings-Drinking water-Sources and possible impurities; Hard and soft waters.
IV. The food we eat.

Food for Home-i. Food useful to plants and animals for growing and doing work.
ii. Common sources of food; Vegetarian and non-vegètarian

Digestion and Absorption-
i. The method of taking food (in broad outlines), its digestion, absorption, assimilation and excretion of wastes.
ii. Care of the teeth.
iii. Food habits of local animals from the point of view of structural adaptation of Cat, Dog, Horse and Cow.

## V. The fire we use.

1. Fire and its relation to our lives-a short history from how the Primitive man made fire up to the present time.
2. Fuels-wood, coal, kerosene, crude oil and gas.
3. How to put out fires by using sand, water, etc.
VI. Plants that make food for us.
4. Parts of a common plant of the locality like the bean (in broad outlines)-the function of the parts.
5. How to grow plants-(a) Proper cultivation of the soil ;
(b) Clean methods like weeding, watering, etc.
(c) The need of manures.
VII. The house we live in.
(a) Building of homes-
6. Shelter of animals, birds and early men.
7. The modern home-parts, foundation, floor, walls, roof, etc.
(b) Lighting our home-
8. Artificial lights-candle-light, kerosene lamp, gaslight and electric light ; the work of Edison.
VIII. The dress we wear.
(a) Clothing in relation to climate-

The purpose of clothing- $(i)$ in cold weather ;
(ii) in warm weather. Clothes as conductors of heat.
(b) Clothing materials-

Cotton, linen, fur and silk; choice for season and climate.
IX. The movements we see.

1. Different types of locomotion of animals-walking, running, jumping, creeping, swimming, flying, etc. Advantages of a joined skeleton.
2. Movements of plants-roots moving towards moisture; shoots shooting upwards and towards light; weak plants climbing up; and sleep movements of leaves.
X. Harnessing forces of nature for doing our work.
(a) Work with every day machinesThe lever-its principles; the common balance.
(b) Transportation
3. Land-Animal power compared with steam and electric power.
4. Rapid travelling of man through land, air and water.
XI. Employing products of Nature for comfort and convenience.
Physical properties of metals-such as malleability, ductility, lustre, fusibility, conductivity, etc.-their relation to uses.

## XII. Fundamental conceptions of Science.

Matter-General properties ; three states of matter. XIII. Life and its betterment.

1. Different stages in birds and insects.
2. Life history of a plant from seed to seed.

## FORM II

## I. The Earth on which we live.

1. Seasons; variations of day and night.
2. Eclipses-Solar and Lunar.
3. Common rocks-laterite, granite, lime-stone, slate, sandstone, etc.

## II. The air we breathe.

I. Breathing organs in man-the process of breathing in general out-line.
2. Air and air pressure-Torricelle; the barometer-how used.
3. Air and health-impurities of air in towns, streets and crowded rooms ; the value of fresh air and need for ventilation.

## III. The water we drink.

(a) How used by living beings-Purification of water-decantation, filtration and distillation; Sand; and carbon filters.

## (b) Water and Weather--

1. How water gets into the soil; evaporation and the laws governing it ; conception of latent heat.
2. Dew, mist, clouds and rain--the water cycle.
3. Wind (a) Expansion of gases, liquids and solids, (b) Land and sea breeze ; conception of specific heat.

## IV. The food we eat.

1. Carbo-hydrates, proteids, fat, mineral matter and vitaminstheir importance.
2. Food-tube of man and its parts-(treatment in a greater detail than in Form I of how the body deals with the food taken in).
3. Food habits of local animals from the point of view of structural adaptation-Frog, Butterfly, Grasshopper, Squirrel.

## V. The house we live in.

## (a) Building a home-

1. Building stones-varieties in the locality.
2. Clay-its use in making bricks, tiles and porcelains.
3. How bricks and tiles are made-Tile Factories.
4. Paints, varnishes, oil and enamel.
(b) Lighting a home-
5. Colours in sunlight-the rainbow-Newton's disc.
VI. The dress we wear.

Care of clothing-
(i) Cleanliness-laundry ; the removal of grease and inkstains; dry washing -the use of soaps.
ii. How to guard clothes from moths, damp, etc.
VII. Movements we see.

1. Normal movements in man; bones and their chief uses ; joints and the nature of movements permitted by them.
2. Malpostures in standing and sitting.
3. Precautions in walking and driving through highways.
4. Adaptations for movements in fishes and frogs.

> viII. Harnessing forces of Nature for
> doing our work.
(a) Work with everyday machines-

Types of levers-mechanical advantage; how to find weight with a false balance.
(b) Magnetism-

1. Properties of loadstone, magnetic properties of iron and steel; attraction and repulsion.
2. The Mariner's Compass.
(c) Communicating with our neıghbours-
3. Nature and transmission of sound through air and other substances.
4. Noise and music.
(d) Transportation-Water-Why some substances float? Principle of Archimedes and specific gravity.
IX. Employing Products of Nature For Comfort and Convenience.

Characteristics and uses of important minerals and metals like chalk, glass materials, carbon, gold and silver.

## X. Life and Its Betterment.

Life history of Frog, housefly and mosquitoes.
FORM III

## I. The Air We Breathe.

(a) Air and Breathing.-Breathing in plants-Experimental proof that germinating seeds give out carbon-di-oxide.
(b) What the air is made of.-

1. Gases in the air-Oxygen Nitrogen and Carbon-di-oxide and water vapour.
2. Preparation and properties of Oxygen, Nitrogen and Carbon-di-oxide. Effect of exposing crystals.
3. Elements, Compounds and mixture-air a mixture.
4. Physical and chemical changes.
(c) Air and health-Factors which control ventilation(i) Temperature of air-Thermometers-maximum and minimum and clinical, (ii) Circulation of air-Convection currents, (iii) water vapour in the air, (iv) Dust and impure gases.

## II. The Water We Drink.

1. Solvent power of water; solution and crystallisation.
2. Water supply of towns: Spirit level and water level.
3. Water in the soil-How plants use water; Passage of water through plants.
4. How water rises in the soil.

## III. The Food We Eat.

1. Digestive juices and their action.
2. Absorption and assimilation.
3. Circulation of blood with special reference to how the tissues get food. Mechanism of circulation; blood and its important uses; heart and blood vessels-uses of circulation.
4. Food habits of birds with special reference to their beaks.

## IV. The Fire We Use.

1. Air and fire-slow oxidation; cumbustion ; flame.
2. The fire-place-how it heats the room-conduction, convection and radiation.

## V. Plants That Make Food For Us.

(a) Food-making activities of plants-

1. From where plants get their food.
2. Absorption of food from the soil in the form of very dilute solutions (structure of root hairs is not necessary).
(b) How to grow plants-
l. The home garden-its care.
3. Potting of plants.
VI. The House We Live In.

Building our home-Wood-Common types of the localityhard wood and soft wood.

## viI. Movements We See.

I. The part played by muscles in bringing about movements of animals.
2. Adaptations for movements in birds, bats and insects.
3. First aid in fractures.

## VIII. Harnessing Forces Of Nature For Doing Our Work.

(a) Putting force of air and water to use-

1. Air pump-water pump.
2. Cycle pump-Syringe.
3. Siphon and medicine bottles.
4. Lift pump.
5. Hydraulic Press.
6. Wind mill and water wheels.
(b) Generating and using Electricity-
7. Ways of producing electricity-(i) by friction-Static ; (ii) by chemical action-Current ; (iii) by using Magnet-Dynamic.
8. Conductors and insulators ; the lightning conductor.
(c) Transportation-
9. The floating of iron ships and submarines.
10. Laws of floatation-Hydrometers and life-belts.
IX. Employing Products of Nature For Comfort and Convenience.
11. Characteristic properties and uses of Copper, Lead, Zinc, Tin, Aluminium and Mercury.
12. Common acids-their properties, methods of production and uses in life and industries.
13. Common alkalies-Caustic Soda, Caustic Potash and Ammonium Hydroxide.

## X. Fundamental Conceptions of Science.

Energy-kinds-Kinetic and Potential.

## XI. Life And Its Betterment.

1. Passive and active weapons of offence and defence in animals.
2. Warning colouration and mimicry.

## DRAWING

I. Free hand and outline drawing.
2. Object Drawing.
3. Nature Drawing.
4. Design.

CLASSES I AND II

1. Figures composed of lines, curves, etc.
2. Object Drawing from simple objects.
3. Modelling in clay.
4. Action Drawing.

CLASSES III AND IV

1. As in previous classes.
2. As in previous classes, but a little more advanced (object drawing).
3. Modelling in clay, memory drawing and uses of scale.

## FORMS I AND II

1. Object drawing, memory drawing, and drawing connected with nature, 2. clay modelling slightly advanced, 3 . instrumental drawing consisting of scale drawing, simple geometrical figures, patterns and simple lettering. 4. Simple designing.

FORM III

1. Object drawing, 2. Free hand and free arm drawing, 3. Brush-work design and nature drawing, 4. Instrumental drawing, i. e., plain geometry by means of simple instruments and scale drawing.

## PHYSICAL TRAINING FOR SCHOOLS. CLASS I

## Fundamental positions-

-. "Fall in", attention ; Dressing; Numbering ; Saluting; Stand at ease ; Stand easy : Dismiss; Story plays; Action Songs; Simple informal game ; Sand pit activities.

CLASS II
As in class I, and Turning, Numbering in twos, threes, etc., Cubbing.

CLASS III
As in class II, and add 'open Order' in threes and fours, Close Order. Simple calisthenics involving free leg and arm movements. Marking time, Marching in single file, informal games, breathing exercises, Indoor games, Dance Irish Liet. (1st four steps).

CLASS IV'
Same as in class III ; and the following:-
Leg, arm and trunk movements. Figure marching, Double time marching.

Indoor games.-Mass ${ }^{\text {' }}$ inging, Dance Irish Liet. (last four steps).

Reference.-A syllabus of Physical Activities for Indian Elementary Schools for primary classes by. H. C. Buck. Price 4 as. Printed and published by Government Press, Madras.

FORM.I
Free movements of Head, Trunk and limbs and combined movements of any two of them. Thirty exercises in all.
$\sigma^{*}$. Elementary marching movements as Double File, Column left; Column right, Column left-about and Column right-about. . 'School Boys Frolic.

Indigenous exercises such as Bhaskies from kneeling position A, $B$ and C.

Tumbling,Athletic coaching in High Jump, Long Jump, Sprinting 50 yards.

Informal Games.-Volley ball No. 1 and Badminton Efficiency tests and scouting.

FORM II
Thirty free hand exercises including Corrective exercises.
Marching.-Twos left; Twos right; Fours left; Fours:right Squad marching; Rear marching. School Boys' Frolic. (whale s̀eries with Grand Circle.)

Informal Cames and Volley Ball. Catch and Pass and Badminton Athletic coaching in Hurdles, 60 yards dash, Standing Long Jump, Standing High Jump, Throwing The Cricket Ball, Bhaskies D, E and F. (From kneeling position).

Group competitions and Efficiency tests, Scouting. FORM III
As in Form II. And also Bhaskies from Quadruped position. Athletic coaching in Hop Step and Jump, Pole Vault and Relay Race.

Special Activities for Lower Secondary Classes:-
I. Wand Drill; Toe touching and stepping series.
2. Dumb-bell drill; Roberts' Second series. Toe touching and Stepping series.
3. Pole Drill.
4. Pyramid building.
5. Major games as•Football, Base Ball, Hockey. MORAL INSTRUCTION.

LOWER PRIMARY

Personal Habits.
Order-around us.
Order-at home.
Order-at school.
Order-in the street.
Order-in person and work.
Order-in time-Punctuality and Regularity.
Cleanliness-in Person, habits. speech.

Human affections-The feelings.
Children and parents.
Parental kindness.
Love-kindness.
Children's love.
Family affections-Brothers and Sisters.
Kindness at school.
Kindness to school-mates.

Industry.
Human affection-for those in distress.
The highest love.
Kindness to animals.
N. B.-The educational system of Japan-Occasional Reports No. 3-may be consulted, para 560 and anwards.

UPPER PRIMARY.

Regard for others.
Lessons taught us by animals.
Kindness to animals.
Unkindness.
Centleness.
Practical kindness.
Kindness in forgiving.

Respect for ourselves.
Self-denial.
Selfishness.
Good manners-Politeness.
Conceit, Vanity, pride.
Temperance.
Truthfulness
Industry.
LOWER SECONDARY.
Perseverance.
Patience.
Cultivation of disposition, cheerfulness, hope, con-. tentedness.
Hospitality and Friendship.
Faithful service.
Mercy and Justice.
Miscellaneous Rules of conduct.
Ambition.
Courage.
Sorrow for wrong-doing.
TRAINING SCHOOL COURSE.

## ARTICLE 99.

A-Elementary.-

1. An advanced study in Malayalam.
2. Method including principles of Education and child Psychology.
3. Organisation including Discipline.
4. Kindergarten occupations.
5. Drawing including blackboard work.
6. Agriculture (for men only) or Handicrafts.
7. Nature study.
8. Geography and Civics.
9. Domestic Economy including Needle-work (for women only).
10. Physical Education including Hygiene, Physiology and Drill (for men) or Calisthenics (for:women).
11. History of Education, Social service, Religion and Cochin History.
B. Secondary.-As in the Elementary grade, but more advanced.

Detailed curriculam for Covernment Training Institution.
Course 1 year.

## I. MALAYALAM. SECONDARY GRADE.

## Detailed Text Part 1.

ఎ®』 (Poetry selection).






## Part II. <br> wojo (Prose selection).









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## Elementary Grade.

(Selections) Detailed Text Part I. D3」0 (Poetry). 29780m


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(Selections) Part II. cosjo (Prose).
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## II. METHOD.

## Secondary.-

I. Principles of Education and Child Psychology.
(a) The structure of the brain, the nervous system and the sensory organs.
(b) An experimental study of.-sensation, attention, interest, memory, imagination, conception, association, reasoning and will.
(c) Intelligence.-Its nature, growth and scope of improvement. Influence of heredity and environment. Physical defects and their relation to intelligence.
(d) Infant Education.-The pre-school child, its mental and physical traits; systems of Froebel and Montessori, and instincts, emotions and habits.

## 2 Practical-

(a) Specific Teaching Methods. Inductive, deductive, Socratic, expository and heuristic.
(b) Economical factors in actual teaching and learning.
(c) Special Methods of teaching. - English, Malayalam, Arithmetic, Geography, History and nature Study up to Form II.

## Elementary.-

The same as in the Secondary but should be of a less advanced nature. Method of teaching English to be omitted. Portions in the other subjects up to class 4 only. III. ORGANISATION.

## Sacondary.-

1. Organisation.-meaning, scope, advantages.
(a) School-building.-site, requirements in planning buildings, sanitary conditions, ventilation, lighting.
(b) Furniture and fittings.-Desks-kinds of; seats-Gallery; general requirements.
(c) Apparatus.-Special appliances and materials for teaching different subjects such as black-board, slate, paper, etc.
(d) Classification.-Practical considerations-subject system class-teacher system-promotion-co-education.
(e) Staffing,-Qualification of a teacher--mental, moral and physical-conferences-the Headmaster-the nature and scopeof his work.
(f) Curriculum.-The different subjects with their relative educational values-correlacion-principles involved in drawing up syllabuses and time-tables-home-work and examinations-fatigue and its effect.
(g) General Factors.-Libraries, museums, gardens, decorations, excursions, anniversary celebrations.
(h) The Dalton Plan.-Its limitations aad adaptation:
(i) The Education Code.-Its chief features-registers-returns-Office correspondence.
2. Discipline.-The schoot and parental control-influence of suggestion and imitation-common school faults-rewards. and punishments-cultivation of useful habits-formation of character --useful employment of leisure.

## Elementary.-

The same as in the Secondary but should be of less adyanced nature.

> IV. KINDERGARTEN OCCUPATIONS.

## Secondary.-

(a) Theory.-

1. Kindergarten.-what it is-its origin, : aim and principles.
2. Play.-games and work and their relations to one another; games and their classification-their educative value; games suitable for the teaching of the different subjects.
3. Colour.-its origin and classification; how formed; how to give a lesson on colour.
4. Story-telling-why important; its classification; points to be noted in their selection; how to narrate a story to infants and adults; uses of stories and their after effects.
5. Special Methods.-
(a) How to give an abstract idea of number; analysis and synthesis of number up to 10 and their necessity for addition; 4 simple rules and their relation to one another ; proportion and fractional parts using Gift three (III).
(b) Reading.-different methods used in teaching, reading -letter-building and word-building lessons using sticks, rings, tablets, etc.
(c) Different stages in writing; their relation to one another.
(d) Geography.-how to model different kinds of geometrical forms and geographical features; how to make maps in relief.
(b) Practice-
6. Matting-practice of grassmat designs on paper in multiples of $3,5,9$, etc.-how to practice the different patterns as simple, combination and derivation.
7. Buildings.-how to build terrace and roofed buildings by means of Gift III-IV and the building box.
8. Clay-work.-different kinds of fruits-limes, oranges, pomegranates, mangoes, brinjal, etc.
9. Cutting and pasting.-easy floral designs by means of square, oblong and triangular bricks.
10. Cutting and mounting-birds, fruits, animals, flowers, etc.
11. Bead work.-fancy articles as bangles, cups and saucers, baskets, ornaments, picture and photo-frames, lights, etc.
12. Prick-work-flowers, fruits, animals etc.
13. Cardboard work(for males) -easy geometrical forms; boxes of different shapes, tables, chairs, etc.

Picture-dressing (for females).
9. Folding-articles of different shapes.

## Elementary.-

The same as in the secondary but should be of a less advanced nature.
v. DRAWING INCLUDING BLACK-BOARD WORK.

## Secondary.-

1. Theory.-
(a) The place of drawing in general Education.
(b) The purpose of teaching Drawing-in elementary and secondary schools.
(c) General principles to be observed in the course of teaching Drawing.
(d) Different kinds of drawings and their relation to one another.
2. Practice.-
3. Drawing as a means of expression.
4. How to prepare notes of lessons in teaching Drawing to infants and adults.
5. Drawing of ellipses and scales.
6. Practice in rapid sketches in elementary units of form, ovals, loops, spirals, straight lines, circles and combinations of them.
7. Drawing of familiar objects of simple form.
8. Simple measurement drawing and plan drawing.
9. Drawing of plants and their parts.
10. Drawing of animals and their parts, e. g., feet, teeth, wings, claws, etc.
11. Skeleton drawing to represent different kinds of actions required for story illustrations.
12. Free-arm drawing with coloured chalk on black-board and on brown paper.

## Elementary.-

The same as in the Secondary Grade but should be of a less advanced nature.

## VIA. AGRICULTURE.

## Secondary.-

1. Soils-origin, formation, classification and property.
2. Management of soils-tillage-objects of tillage-importance of operations like ploughing, harrowing, rolling, weeding, ett;;
tillage implements-country plough, iron plough, plank-harrow, etc.
3. Manures and manuring-objects of manuring; principal elements of plant; food and their effects upon plant growth, action of lime; classification of manures; complete and incomplete manures; direct and indirect manures; general and artificial manures; farm-yard manure-preservation and application; importance of the following to a farmer-oilcakes, bonemeal, superior phosphate, drawn fish, kailit, ammonium sulphate and potassium nitrate.
4. Rotation of crops; fallowing, green-manüring, leguminous and fodder crops.
5. Principles of irrigation and drainage-irrigation appliances
the State like pocots, basket lift, chain pump, etc.
6. Crops-paddy, sugar-cane, cocoanut, bananas, cotton, pine apple and rubber.
7. Pests and diseases-symptoms-preventive and remedial measures of the following-rice-bug, case-worm, army-worm, palmbeetles and weevals, aphis, nephantis, serinopa, mahali disease, but rot of palms and red rot of suggar-cane.
8. Animals-cause of the deterioration of the cattle of the State, and how to improve it; principles of breeding and grading up; good qualities of a working bullock, milk cow and breeding bull; infectious diseases like anthrax, rinder-pest and foot and mouth disease.
9. Horticulture-different methods of propagation of plantscuttings layering, grafting and budding; potting and repotting; importance of a school garden, kitchen-garden and flower garden.
10. Gardening-the most common crops of the locality are to be raised and attended to by students; observation of germination of seeds and gradual growth are to be recorded from time to time:

## Elementary.-

The same as in the Secondary but should be of a less advanced nature.

## VIB. HANDICRAFTS.

## Secondary.-

1. The industrial resources of the State-how to improve the earning capacities of children-practical importance of teaching handicrafts in schools-their scope and limitations.
2. Screw-pine leaf work, reed-work, spinning, book-binding, card-board cuttings, flower cuttings, picture-framing, making badminton nets, net purse, rugs, coir mats, clay models and glass bangles.

## 3. Weaving. -

(a) Description of preliminary appliances for the plain weave and the uses of each; winding machine; warping mills of various sorts etc.
(b) Different parts and the actions of primitive pitlooms and improved fly-shuttle pit-looms, fitting up of looms.
(c) Winding-bobbins and pirns.
(d) Warping by the help of heck-block.
(e) Preparation of siz-different ingredients used.
(f) Sizing.
(g) Drafting-plain.
(h) Denting-plain; adjustment of looms.
(i) Weaving earalas and singles up to $20^{\prime}$ s.
(j) Calculations-warping-ascertaining the different counts of yarn.
4. Mat weaving.-
(a) The different kinds of grass ordinarily used for matweaving; their sources of supply.
(b) The most suitable kind of kora for weaving mats; the suitable lengths for ordinary mats; distinguishing the good from the bad.
(c) Splitting and removing the pith of Kora.
(d) Drying, dyeing, preparing and sorting the split kora for weaving.
(e) Preparation of the warp threads and warp of suitable length and breadth on the loom.
(f) The loom and its accessories-fitting up of the same and method of working on it.
(g) Practical work-Plain weaving and single design weaving.
5. Rattan work.-
(a) Different kinds of local and Singapore canes and the uses to which each is generally put; their sources of supply.
(b) The methods and principles of smoothening the knots of canes before splitting; practical demonstration and individual practice.
(c) Splitting the canes; its principles and methods; practical demonstration and individual practice.
(d) Removing the pith from inside the split canes without spoiling the outside shining skin.
(e) Wire-drawing-principles and methods-instruction in special tools used for it and their application.

Practical work.-
(f) Three small models involving the elevating principles in cane weaving-box, tray and seating.
(g) Different kinds of tools used in simple rattan-work and their uses.
6. Lacquer work.-
(a) Different kinds of suitable woods-preparation of woodmethods and principles of mixing lac-methods and principles of applying lac-turning round objects of different shape- 6 models.

## Elementary.-

The same as in the Secondary. VII. NATURE STUDY.

## Secondary.-

(a) Botany.-

1. A general treatment of plant life; their kind and capability of adapting themselves to change in environments.
2. Seed and germination, study of the germination of peas, castor, mango and cocoanut.
3. General morphological characters; structure and functions of different parts of the plant such as the root, stem, leaf, flower, fruit and seed; plant nutrition.
(b) Zoology.-
4. Study of the life History of an insect-a frog and a fish, silkworms, honey-bee, mosquito and house-fly.
5. Birds and their covering, other characteristics of birds, as adapted to their habits.
(c) Elementary Science.
6. The three states of matter; transition from one stage to another--ice, water, steam, sulphur and wax.
7. Pressure of liquids-upward and downward pressurePrinciple of Archemedes; lactometer.
8. Pressure of air-experiments to show that air exerts pressure in all directions; barometer-construction and uses, syringe, waterpump and air pump.
9. Heat-expansion and contraction of solids, liquids and gases ; thermometer-construction and uses; conduction and convection ; winds and currents-drying and non-drying oils; varnishes and paints ; formation of clouds, dew and rain.
10. Study of the air - composition - simple properties of Oxygen, Nitrogen and Carbon Dioxide ; the use of copper and silver vessels-how spoiled-the difference between mixtures; alloys and compounds.

## Elementary.

The same as in the Secondary but should be of a less advanced nature.
VIII. GEOCRAPHY, CIVICS AND CO-OPERATION.

## Secondary.-

1. Geography.-

General Geography of India and Madras Presidency-the Cochin State in detail-with special reference to physical features, climate, productions, economic conditions, communications, population, Government, etc. Cochin and its relations with other districts of India-Kerala and a geographical unit.

The Solar system and the position of the earth; motions of the earth-rotation and revolution-seasons; latitude and longitude; zones of sun heat.

The earth-its formation and crust; changes in the earth's crust-external and internal agents ; the great land masses,

The great water masses-movements of the ocean-waves, currents, tides-the Guf Stream-Kurosivo - ice-bergs-infuences on climate and Commerce ; the great fishing centres.

Principles of map-making -illustrations used in teaching geo-graphy-different kinds of maps and their uses-the uses of the globe.

## 2. Civics.-

Administration as a step in social development ; different forms of administration; object of taxation-different kinds of taxes ; central Government and local Government-legislative, executive and judiciary.

Study of the administrative machinery of the Cochin Statethe Raja and the Diwan - the relations with the paramount powerthe treaty with the British-the various departments of the State,
and their functions-the Darbar-people's control-the Legislative Council-the right of citizens.

A study of the constitutions of the central and provincial Governments in India-Diarchy in the provinces-the British constitution in general-the Secretary of the State for India and the India Council-the High Commissioner for India-the place of India in the British Empire.

The Post, Telegraph and Telephone systems (including Anchal); the Police ; magistracy ; courts; local self-government ; municipalities and panchayats, the co-operative movement.
3. Cooperation.-

Co-operative work-Three kinds ; distributive, productive and credit ; their aims;

Co-operative Credit Societies ; definition; principles.
Co-operative Banks ; three classes; their methods of working.
Societies for rural areas; their characteristic features such as unlimited liability, compactness of area of operation, absence of share capital, grant of loans, management, watchfulness of Panchayat and the importance of a strong reserve.

How to finance and control society's sources of funds.
Distributive societies; general idea; different forms; principles of work and management.

Productive societies; their characteristics and constitution; division of profits and their progress.

Societies for the purchase and sale of seeds, manures, farm implements, cattle, etc., societies for rural industries; societies for house-building; societies for cattle-breeding and poultry farming.

How to form a Co-operative Credit Society in towns and villages; management of the same; registers to be maintained.

Elementary.-
The same as in the Secondary but should be of a less advanced nature.

## IX. DOMESTIC SCIENCE INCLUDING NEEDLE-WORK AND MUSIC.

## Secondary.-

## a. Dometic Economy.-

1. The main principles of house management-health-eco-nomy-happiness.
2. Practical illustrations of how to cook simple vegetables; dishes, custards, congee or gruel of barley, sago, oatmeal, etc. Toast and toast water ; simple broth for invalids; preparation of tea, coffee and cocoa.
3. Lessons on the nature of the infant and how to take care of the baby.
4. Home nursing-the sick room and its arrangementgeneral management of the sick.
b. Needle-work:-
I. To cut garments for their own use-jackets, rowkahs, bodice, shirts, babies' frocks, skirt and blouse.
5. Stitches of different kinds.
6. Darning of various kinds-calico darning, hedge-tear darn, break fast-cut darn.
7. Patching.
8. Sewing on tapes.
9. Buttonholes.
10. Simple embroidery work.
11. Simple drawn thread work.
12. .Fancy stitches.
13. Different kinds of babies' socks and caps with two needles.
c. Music:-







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## Elementary.

The same as in the Secondary but should be of a less advanced nature.

## X. PHYSICAL EDUCATION.

## Secondary.-

General-I. The body and exercise.-
(a) Anatomy.-The bony structure.
(b) Physiology.-Respiration, circulation, digestion, exertion and the muscular system.
2. (a) Principles of Physical Education.-What Physical education includes-its aim and purpose-its necessity-effective and ineffective types of work-organic education-how to develop organic vigour-syste ms of physical training.
(b) Methods of Physical Training-Theory of teaching Calisthenics, Gymnastics, Games and Athletics-how to organise and conduct classes-how to advise regarding individual exercisetypes of exercise for different age and sex groups-how to organise and conduct tournaments, sports, group contests, etc.-methods of co-operation with schools and institutions of local public.
(c) Theory of play and Conduct of Play-grounds.Theory and meaning of play-its promotion, organisation, operation and administration-play-ground equipments and activities.
3. Hygiene and Health Education.-Hygiene-Personal, community, school and sex hygiene. Sanitation and modern methods of health campaigns-vital statistics-baby week-mothers' day.

Practical.-

1. For men only.-
(a) Physical drill-hygiene and corrective exercises.
(b) Activities for schools-informal games-group com-petitions-efficiency tests-marching-dumb bells--Indian clubs-poles-wands-indigenous games-field games-base ball-volley ball-foot-ball-badminton.
(c) Scouting.-A short history of the Movement and its achievements. Its aims. Organisation of Scouting. Boy mind and his inclinations.

## Sections.

Cubbing.-The Cub way. Jungle and animal stories and how they appeal to boys.

Story telling and play acting.

Cub Promise and Law.
The Cubmaster.
Scouting.-Patrol System. Court of Honour. Law and Pro mise. Religion behind it.

Nature Lore and how to get boys interested in it:
Service.-Individual.
Community.
The Scoutmaster. His relations with other officers of the group.
Need for parental co-operation and public opinion.
Cames and how to play them.
Ceremonies in Scouting programme.
Camps and Hykes (outings).
Hobbies.
Rovering. - What it stands for. How it differs from other sections and how it works.

Rovering in service.
Scope for Rovering in villages.
2. For women only.-
(a) Calisthenics-hygiene and corrective exercises,':
(b) Activities for school--informal games-group competi-tions-marching-dumb bell-Indian clubs-rings-wands-hoops -fancy drill-flag-scarf-tambourines-field sports-badminton -indigenous games.
(c) Girl-Guiding-The main features underlying the movement-practical adaptations.

## Elementary.-

The same as in the Secondary but should be of a less advanced nature.

> XI. •HSTORY OF EDUCATION ETC.

## Secondary.--

1. Education-Biographical sketches of-

Socrates, Pestalozzi, Herbart, Froebel, Montessori, Mrs. Parkhurst and Tagore.
2. Social Service-Biographical sketches of-.

William Wilberforce (abolition of slavery), John Howard (prison reforms) Florence Nightingale (hospital nursing), Raja Ram Roy (social reforms) and Candhi (political reforms).
3. Religion-Biographical sketches of-

Manu, Budda, Krishna, Zoroaster, Moses, Christ and Muhammad.
4. Cochin History-

- Modern period-Relations with the British-A detailed study of the historical development of Cochin under the administration of eminent persons such as Saktan Thampuran, Col. Monroe, Diwans Nanjappayya, Sankara Wariar, Sankunny. Menon, Rajagopalachari and Banerji.


## Elementary.-

The same as in the Secondary but should be of a less advanced nature.

## BOOKS RECOMMENDED.

## Method.-

1. Practical School-Method by Boardman.
2. Essentials of Teaching by Burnette.
3. Psychology of learning by Pyle.
4. Psychology-Briefer Course-by James.
5. Dullness and Brightness of Children by Woodrow.

Kindergarten.- .

1. Kindergarten Guide by Bates:

Organisation. -

1. School Organisation by Boardman.
2. Lessons in Organisation by T. P. Verghese, B. A., \& L. T.

Physiology and School Hygiene:-
I. Physiology and Hygiene by Cathcart.
2. Bank's Hygiene.

## Historical Course--

1. Great educators of three centuries by Graves:

Grouping of subjects.


Candidates who get 40 per cent in $A, B$ and $C$ separately and 35 per cent in $D$, E, F and G either separately or together may be considered as having completed the T. T. C. course.

NICHT SCHOOL CURRICULUM FOR ADULTS
Night School time.-7-9 P. M. (two hours). or 7-30 to 9-30 P. M.
The course runs for four years of 180 working days in each. The school time is divided into two 45 minute periods for Malayalam and Arithmetic and one 30 minute period for general subjects. The classes should begin with songs or prayers. The general subjects include (1) Hygiene (2) Religion (3) Cochin History (4) Geography (5) Civic and Social education wherever possible, practical appliances, pictures, etc., should be freely employed. In Geography and Hygiene magic lantern slides should be made use of.

1. MALAYALAM

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class III and 200 for class IV.
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## 2. ARITHMETIC

The main purpose in Arithmetic is concrete, direct, practical and applied. It is the business of Arithmetic to enable one to do the ordinary numbering and computing required in the common economic and social relations.

## For Class I

(a) How to count objects of all kinds. How to count by twos, threes, etc.
(b) How to read and write numbers of 3 to 5 digits.
(c) The tables and processes involved in addition, subtraction, multiplication and division of whole numbers.

## For Class II

(a) Revision work.
(b) Common fractions and their addition, subtraction, multiplication and division with the use of such denominations as are commonly used in business.
(c) The common tables and measures employed in the ordinary routine of the average man or woman These are measures of length and surface, volume and capacity, quantity and weight, time and money.

## For Class III

(a) Revision work.
(b) Our monetary system, denominations and the business practices including the calculation of interest, use of notes, mortgages, etc.
(c) Percentage and its simpler applications to practical business uses.

## For Class IV

(a) Revision work.
(b) The keeping of accounts of all personal or household receipts and expenditure.
(c) Keeping records of profits or losses from the different enterprises of farms, shops or business.

## 3. GENERAL SÜBJECTS

## (a) Hygiene.

$\therefore$ For Classes I and II-15 lessons in each.
A. Foods-

1. When, what, and how to eat and drink.
2. Alcohol, tobacco and narcotics.
3. Indiscriminate drugs.
4. Elimination.
5. Preparation of wholesome meals.
B. Clothing -
6. Purpose.
7. Nature.
8. Disadvantages.
9. . Making of hygienic clothes.

For Classes III and IV-15 lessons in each.
A. Revision work
B. Housing -

1. Ventilation.
2. Light and heat,
3. Water supply.
4. Furniture.
5. Surroundings.
C. Cleanliness-
6. Care of skin, hair, teeth and nails.
7. Care of eyes, nose, ears, mouth, lungs, alimentary canal and genito-urinary systems.
8. Bacteria and communicable diseases.
D. Work, Play, Rest and Sleep-
I. Kinds of
9. Purpose of
10. Dangers of
11. Time for

Effect upon circulatory, respiratory, muscular and nervous systems.
E. First aid and injuries-

Including the making of bandages and dressing of various kinds.

## (b) Religion

For Classes I and II-8 lessons in each class.
Biographical sketches of -
(a) Sree Rama.
(b) Budha.
(c) Christ.
(d) Mohammad.

For Classes III and IV-8 lessons in each.
Biographical sketches of -
(a) Zoroaster.
(b) Moses.
(c) Sreekrishna.
(d) Reading in the class select passages from the Bible, the Koran and the Ramayana to impress upon the minds of the pupils the trend of each religion.. Ex; planations and interpretations to be avoided.
(c) Cochin History

Sketches of notable historical personages connected with the administration of the Cochin State.

For Classes I and II-7 lessons in each class.
I. Saktan Thampuran.
2. Colonel Munroe.
3. Nanjappaya.
4. Sankara Warrier.
5. Sankunni Menon.

For Classes III and IV-6 lessons in each class.

1. Rajagopalachari.
2. Banerji.
3. Vijayaraghavachari.
4. H. H. The Maharaja.
(d) Geography

Such facts should consist the body of geographical knowledge as are essential to create in the student a sympathetic understanding of the life problems of the peoples of other lands (India; Japan, England and America).

For Classes I and II-18 lessons in each class.
(a) How people live and work in the State and other parts. of the world.

Geographic concepts and abilities to be retained from the above study.

The earth is round. It turns upon its axis as it swings around the sun space. It is made of water and land and air. There are six large masses of land called continents and a number of smaller bodés
of land called islands. The water of the earth is called the oceans. There are five oceans.

People live upon the land. Some live where it is very hot; some where it is very cold; some where it is temperate, with a warm season and a cold season in one year.

Some folks live among high mountains; others have homes on wide plains. Some dwell on islands; some are found in dark forests; some wander about great deserts. All these people must strive for something to eat, clothes to wear, and must build houses to live in. Some work to make money to buy food, clothes and houses. Nearly every one likes to play. Nearly every one, at times, goes from place to place or travels. Many people have animals to help them do their work. Some use machines to get more work done. Some sell the goods that others make.

Some of these people live east of us, some west, some south some north. We can trace the way to their homes on a map.

A study of the countries through typical industries. A clear understanding of the geographic conditions under which the workers of our country and other countries perform their labours.

The Farmer.
" dairyman.
" fisherman.
" lumberman.
" miner.
", manufacturer.
" shipper.
" merchant.
(b) How people, plants and animals are affected by (1) changes of season, (2) The wind systems, (3) The effect upon temperature and rainfall, (4) The topography of the land and the shape of the coast line.

Geographic abilities and concepts to be retained from.the study.

An understanding of latitude and reasons why it grows colder as the distance is travelled towards the poles and hotter as one nears the equator. Causes of the change of temperature with altitude.

The fact of the wind belts, their location, their effect. Knowledge of how rainfall is conditioned by wind directions and land surface. Effect of the physical conditions of regions upon the lives of human beings, animals and plants. The physical features, industries and conditions of life in the Cochin State, India, Japan and England.

For Classes III and IV-25 lessons in each class.

1. How people are influenced by (a) the work of running water, ground water and sea; (b) the effect of earthquakes and volcanoes.
2. How men of different regions are dependent upon each other.
3. How man overcomes his geographic environments.
4. How the prosperity of people is determined by the natural distribution and by the methods of production of the world products.
5. How man is prospered or hindered by the means he has for transporting his products to markets.

Ceographic concepts and abilities to be gained by the above study.

Importance of rivers, lakes, backwater, gulfs, etc. Significance of location of cities, trade and transportation routes. Influence of natural obstacles upon the lives of the people. The resources of a country, vegetable and mineral. The products of the soil-the ways in which commodities are produced, transported and consumed. The debt we owe to the peoples of other countries for a considerable share of our everyday comforts.

## (e) Civic and Social Education.

The general aim of civic and social education is to teach the adult to assume the responsibilities of active citizenship.
N.B.-Slides and stories to be relied upon wherever possible.

For Classes I and II-15 lessons in each class.

1. To make the student to look upon the family as the basis of civilized society and enable him to realise his responsibility as a member of the family and the need of his co-operation with the other members to secure the welfare of all.
2. To show the student the dependence of the home on the community and the service which the home owes to the community and that society is built upon mutual help. The large community is called the nation.
3. To show the relation between the home, the school and the community.
4. To develop the feeling of ownership and of personal interest and pride in one's village or town.

## Elements to be stressed-

Contribution of each member to the family. Care of furniture, clothing, animals, flowers, yard, younger children, etc. Effect of good manners and quarrels. Service rendered by the store-keeper the post-man, the mason, carpenter, etc. Need for co-operation, markets, fairs, festivals, etc. Public schools and the progress of so-' ciety. Public roads, wells, tanks, etc. Dependence of home on the service of the community.

For Class III- 15 lessons.

1. To develop the student's responsibility for preventing waste in house, school, village or town.
2. To teach that true patriotism must be expressed, through daily service, as well as through special service demanded by unusual conditions.
3. To make the child realise the necessity for his contributing all he can towards the health, wealth, knowledge, beauty and protection of the community.

Elements to be stressed -
Means to help at home in saving food, clothes, lights, fuel, soap, vessels, furniture and health of other members in the family. Irnportance of patriotism. Sketches of eminent Indian patriots. Ideals for which our greatest citizens have stood. Opportunities for exercising physical, mental and moral courage, self-control, thrift and industry. The means by which the community provides health. Dependence of the citizen upon others for the wealth he uses. Value of our education to a citizen. Means for the protection of life and property.

For Class IV-25 lessons.

1. Review of the work in Class III.
2. Civics relating to Cochin. Study of the administrative machinery of the Cochin State. The Maharaja and the Diwan. The relations with the paramount power. The various departments of the State and their functions. The Durbar. The Legislative Council. The right of citizens. The Post and Telegraphic system. The Police. Magistracy courts. Local self-Government. Municipalities. Panchayats. Co-operative system. SYLLABUS.
FOR THE KINDERGARTEN CLASS
or For Children below six years.

## 1. Language.

1. Letter building and word building lessons usings and,
sticks, seeds, beads, rings, tablets, etc., specially prepared.
2. Story-telling and action of the story.
3. Conversation based on the story.
4. Recitation.
5. Action song.

## II. Arithmetic.

(To be based entirely on counting seeds, etc.)

1. Counting up to 100 .
2. Grouping by tens up to 100 .
3. Figuring in Englis' $h$ and Malayalam up to 100.
4. Splitting up of numbers up to 100 .

## III. Geography.

1. Simple notions based on observation in fields, etc., and of models.

## IV. Nature Study.

I. Domestic pets and their most familiar uses.
2. Plants and their different parts and their general uses.

## V. Drawing.

1. Familiar plants and animals.
2. Domestic pets.

## Out-door games.

1. Sand play.
2. Ball kicking.
3. ,, throwing.
4. Cames on change of balls.
5. In circles and passing.
6. Free games.
7. Family games.
8. Imitation games.
9. Dramatisation of stories narrated.
10. Hide and seek games.
11. Marching.
12. Excursions.
13. Guessing games.
14. Recitation games.
15. Garden works.

## In-door games.

1. Ring laying.
2. Seed designing.
3. Bead work.
4. Stick laying.
5. Paper folding.
6. Drawing.
7. Counting and counting
by groups.
8. Letter-building.
9. Word building.
10. Story telling.
11. Reproduction of the story.
12. Conversation.
13. Recitation.
14. Writing by tracing.
15. Number laying.

| 16. Shop keeping. | 16. Colour drawing. |
| :---: | ---: |
|  | 17. Buildings. |
| CURRICULUM FOR KINDERGARTEN. |  |

## Class I.

First and Second Terms.

## Gift I

Stick laying
Ring laying

Seed designs
Gift I
Stick laying
Ring laying
Seed designs
Paper folding
Matting
Sand modelling

Colours Primary and Secondary.
A candle stick, etc. Easy letters of the Malayalam Alphabet aiming at correct formation.
Straight edges-number teaching, etc.
.. Different motions of the ball. Third Term.
.. A chain bunch, etc.
.. As in first term.
.. Addition of numbers.
.. Preliminary stages.
.. Simple designs of 5 or 8 strips.
.. Easy geographical definitions.

## Class II.

## First and Second Terms.

.. A house, lamp, etc.
.. Stages, 1, 2 and 3.
.. Designs in multiples of 3 .
.. Higher geographical definitions.
A ball, egg, etc. Peculiarities of different forms and thin perceptible comparison.

## Third Term.

Stick laying
Ring laying
Paper folding
Matting
Sand modelling
Clay works


## TRAINING SECTION.

Juniors.
Teaching of the different games and occupations for the lower classes and higher designs in Bead Work.

## Seniors.

Matting .. Forms of derivation.


## NATURE STUDY.

Class I. Lessons on nature's kindness.
Lessons on chalk, slate, board, chair, cow, cub, dog and cock.
Plants-Familiar trees of the garden.
Mixing objects of different colours and noting the effect.
Class II. Lessons on nature's kindness.
Butterfly, grasshopper, horse, rat, spider, lizard, trees of the garden.
Pepper, ginger, paddy, onions, chillie.
States of matter and illustrations thereof.
Preparing gum and ink.
Paper folding and leaf collection.
Experiments on the mixing of colours.
Class III. Lessons on nature's kindness.
Elephant, snake, fish, buffalo, parrot, kite, defensive weapons of animals. Ways by which water is rendered pure; Salt.
Seed collections, paper folding.
Class IV. Lessons on nature's kindness.
Poisonous animals, vegetal juices.
Life history of any three of the plants and animals, paper-folding and coloured drawing.
N. B.-Lessons on Nature's kindness to be illustrated in the various grades. Hints also to be given as to the methods of teaching.

## AGRICULTURE.

I. For Classes I-IV.

Observation lessons on soil, implements, tools, manures, seeds and kitchen gardening.
II. Agriculture and its importance in parctical life.

Formation of soils and their different kinds；improvement of soil．
Implements and tools－improved and country，with dia－ grams ；their uses，merits and de－merits．
Tillage and tilth with reference to field crops and garden crops．
Manuring and manures．Intensive cultivation．
Seeds，sowing and planting．
Crops and rotation of crops．
After cultivation，harvest and thrashing yard．
Marketing the produce．
Diseases of crops and remedial measures．
III．Cattle－different breeds．
Breeding and breeding bull． Cows and calving．
Working cattle．
Sheep and goat farming；poultry farming． Food，fodder and fodder crops．
IV．Cattle shed and preservation farm yard manure．
Diseases of cattle and their treatment．
Maintenance of farm accounts．
V．Gardening and garden crops．
N．B．－Heading II－V to be adjusted according to the capacity and need of the first three forms．

This subject as such to be taken only in vocational schools．Carden work in the Primary classes to b：confined to Nature Study and in the Lower Secondary classes to practical work in Elementary Science lessons．

## MUSIC．

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## CURRICULUM-GIRLS' SCHOOLS.

English-Reading and Recita-
tion
Conversation
Spelling and Handwriting Crammar and Composition

As in the curriculam for Boys.

Nature Study-As in the general curriculum.
Kindergarten-As in the general curriculum.
Calisthenics, Kolattum and Theorythm.

## Classes 1 to 4.

Books recommended-"Girls' Physical Training" by Alice R. James. (Macmillan).
"Hand-book of Physical Training for Primary Schools" by C. R. Venkiteswara Ayyar (B. V. Press, Trichur). FORMS I to III.
Books recommended-"Cirls' Physical Training" by Alice R. James. (Macmillan).

Theorythm.
Form I. Fundamental positions, fall in, attention, dressing, numbering, stand at ease, marking time. Marching in single, double and fourfiles, dismiss.

Exercises.- 12 breathing exercises with head, trunk, and limb movements; combined movements with any two of them-Relaxation exercises.

Form II. Figure marching; 15 breathing exercises as in Form I; Relaxation exercises; walking with breathing exercises and gestures.

Form III. Figure marching; 18 breathing exercises as in Form II; Relaxation exercises; walking with advanced movements.

Fancy drills with garlands, fans, scarfs, tambourines, etc., may also be introduced in the L. S. Forms. MUSIC.
As in the general curriculum. DRAWING.
As in the curriculum for boys. NEEDLE-WORK AND DRESS-MAKING.

## First Class.

1. Threading needles.
2. Simple-stitch and cross-stitch on canvas.
3. Learning back-stitching and hemming on canvas.

## Second Class.

1. Lines of more difficult patterns on canvas.
2. Back-stitching and hemming on cloth.
3. Plain knitting with two needles making garters or comforters.
4. Button-hole stitches.

Third Class.

1. Making letters on canvas and ornamental designs.
2. Learning to make feather-stitch, hem-stitch and button-holes on canvas.
3. Back-stitching and felling on cloth.
4. Boring and stitching button hole.
5. Knitting and purling, making ties or money purse.
6. Cutting out and finishing a baby's one-cut frock.

## Fourth Class.

1. Cutting out and finishing a native girls' jacket and skirt.
2. Gathering and stroking, setting in gathers, making button holes, sewing on buttons and fixing on tape.
3. A native Rowkah or bodice with low neck.
4. Knitting a baby's hood or a man's Balaclava cap (Night cap).

## First Form.

1. Cutting out and finishing a native boy's shirt, Boys' drawers, Banians.
2. Knitting a baby's bootkin with two needles.
3. Hemstitching and drawn-thread work on handkerchiefs.

## Second Form.

1. Cutting out and working a native man's shirt, trousers.
2. Knitting an infant's socks with four needles.
3. Seaming, darning and patching, button-holing and marking on cloth.

## Third Form.

1. Cutting out and finishing a child's frock, body frock and liberty frock.
2. Knitting a baby's vest or gent's socks.
3. Herring-boning, whipping, advanced drawn-thread, work on table cover, etc.

DOMESTIC ECONOMY.

## Class III.

I. Bathing.-Necessity for frequent bathing, especially in hot countries. Use of clean water and soap or other similar articles. Kecping the hair, nails and teeth clean. Bathing of young children.
2. Cleanliness of rooms.-Rooms should be well ventilated. The floors should be swept daily, and washed where possible. All mats and carpets should be taken outside and shaken so as to remove dust. Cobwebs should be removed from walls and ceilings. Children should not be allowed to play with dirty things in the house. Spitting on floors and walls should not be allowed. The walls and other parts of the house should not be soiled.
3. Kitchen.-It should be well ventilated. The floor, walls and ceilings should be cleaned daily. All refuse should be removed. Cooking vessels should be scrupulously clean. There must be a supply of good water.
4. Cooking.- All vessels should be washed before and after use. Articles should be well washed before cooking. Food should
be well cooked, freshly prepared and eaten while warm. Cooking vessels containing food should be covered. Variety of food necessary. Food should be wholesome and sufficient in quantity. Waste should be avoided. Food should be neatly served.

## Class IV.

1. Necessity.-Clothes should be comfortable and suit the climate of the place. Clothes should be frequently washed, especially in hot countries. The clothing of young children should be frequently changed. Wet clothes not to be worn.
2. Bed-room. - It should be well-ventilated and windows should be kept open at night also. There should be sufficient room without overcrowding. Precaution against mosquito sting. Sleeping on the damp floor should be avoided. Beds, pillows, and bed linen should be sunned frequently. Cots, beds and pillows should be kept clean. All vermin such as bugs should be destroyed. Bed linen should be frequently changed and washed. Special care should be taken of the bedding of infants. Regular hours of sleep. More sleep required for young children. Day sleep to be avoided, except in the case of young children and the sick.
3. Meals.- They should be served in a clean room in clean vessels. All dishes, plates, cups, etc., used should be washed after meals. Regular hours for meals. All members of the household should partake of meals at the same time, if possible. Special care to be taken in the feeding of young children. Dangers of overfeeding and under-feeding.
4. Sunlight.-With special reference to its disinfecting action, and necessity for health.
5. Water.-Need of water. Quantity required. Sources of water. Rain water. Springs. Rivers. Wells. Lakes. Characteristics of pure drinking water. Impurities of water. Purification of water. Decantation and Filtration.

## Form I.

1. Food.-General uses of food. Composition of food. Classification of food. Milk. Vegetable diet. Animal foods. Mixed diet. Beverages. Digestion of food. The digestive organs and their work. Preparation of food. Preparation of vegetables.
2. Clothing.-Uses. Properties. Materials. Errors in clothing. Amount of clothing required. Choice of clothing.
3. Furnishing rooms.-Furniture and utensils to be sufficient for the needs of the household. There should be a place for everything and everything should be kept in its place. The furniture should be dusted daily and utensils be cleaned. Furniture should be durable, but not heavy. The use of lamps and lanterns. Choice of cooking vessels. Aluminium and glazed or stone vessels to be preferred. Copper and brass vessels should be tinned frequently.
4. Ordinary accidents.-How to attend to burns and scalds, wounds and bruises.

## Form II.

1. The dwelling.-Choice of site. Drainage. Surroundings. Lighting. Ventilation. The lungs and respiration. Effects of breathing dust-laden air. Effects of breathing respired air. Quantity of air required. How to secure successful ventilation. The necessity of clean liness.
2. Domestic cleaning.-The daily routine. How to clean a room. How to dust. How to put rooms in order. How to make a bed. Periodical cleaning such as white-washing, etc.
3. Health.-Definition and value of health. Laws of health. Rules for preserving health. Formation of habit. Habits which influence health with regard to food, air, cleanliness, sleep. Personal cleanliness. The skin and its functions. Necessity for cleanliness of the skin. Baths. Care of teeth, hair, nails. Exercise, its effects and amount required. Forms of exercise. Rest. Sleep.

Form III.

1. Management of a sick room.-Qualifications of a good nurse. Characteristics of a good nurse. Health of a nurse. The patient. How to change the bed linen of a patient. How to lift a helpless patient. . How to take the temperature of a patient. How to sponge a patient. How to feed a patient. How to administer medicine to a patient. The sick room. Ventilation and furniture. How to make poultices and apply them. How to give fomentations.
2. Food for the sick-Rules for invalid cookery. Invalid zookery. Easy preparations such as barley water, lime-juice, congees, patent foods such as Mellin's Food, Benger's Food, etc.
3. Ailments and accidents.-Coughs and colds. Symptoms of cold and treatment. Cure of cough. Sore throat. Headaches. Burns and scalds and treatment. Cuts and wounds. Bites and stings. Drowning and artificial respiration.

## CURRICULUM FOR TRAINING SCHOOL

 Elementary GradeMalayalam Mathematics Nature Study
Geography $\quad$ As in the Curriculum for Civics
Kindergarten
Drawing
Calisthenics.-As in the Syllabus for Ceneral Literary Studies compressed into one year.

Music.-To sing the Sankarabharanam or diatonic scale in the ascending or descending order, the key-note being given. To name and sing from sight small groups of notes in the diatonic scale, the key-note being given and notation being taught. The easier time measures. To sing six songs learnt by imitation. To sing the notes in Kalyani and Thodi ragams (ascending and descending orders).

To sing from sight small groups of notes in these (Kalyani, Thodi) ragams, the necessary notation being taught. Additional time measures. Easy time and time exercises to be sung. To sing six songs learnt by imitation. To sing the notes in other familiar ragams. A further knowledge of notation. To sing from sight easy time and time measures in the familiar ragams. To sing six songs learnt by the ear in correct time.

Needle-Work-
(Vide Curriculum for Training School).
Domestic Economy.-
Portions prescribed for Forms I, II, III and IV.
Elocution.
Teaching Method.
Black-Board work.
Organisation.
Discipline.

## Secondary Grade

Malayalam.
English.
Mathematics.
Geography. Nature Study.

As in the Curriculum for Training School.

Civics.
Drawing.
Kindergarten.
Hygiene.
Needle-work.
Calisthenics.

As for Elementary in the Curriculum for Training School.

Domestic Economy. -
Portions prescribed for Forms V and VI and revision of the portions done in the Elementary Grade.

The Teaching of Organisation. Discipline.
Methods of Teaching.
I. The Mother-Tongue.
II. English.
III. Mathematical Studies.
IV. Nature Study.
V. Geography.
VI. History.
VII. Drawing.

Music and Needle-work.
Black-Board work.
As in the Curriculum for $\}$ Training School.

CURRICULUM FOR KINDERGARTEN
As in the general Curriculum CURRICULUM FOR NATURE STUDY
As in the general Curriculum SPECIAL EXAMINATION FOR TEACHERS SYLLABUS FOR THE SPECIAL MUSIC CLASS



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## SYLLABUS IN VEENA. First year.

I. Swaravalies.-
(a) Sware Saptakas 7
(b) Hechu Stayi Varisa 2
(c) Jemta Varisa (Double notes) 2
(d) Dhat Varisa 2
(Altogether thirteen)
II. Alankaras:-

One from each of the following Thalas:-
(a) Rupaka Thala.
(b) Adi Thala.
(c) Triputa Thala.
III. Geethas:-Of the ordinary type, five in five different Ragas.
IV. Swarajathi-12
V. Any one Keerthana or composition.
VI. Any one varna in Adi Thala.

## Second year.

I. Swaravalies in addition to those studied in the first year study.
II. Alankaras in the seven Thalas including those studied in the first year.
III. Geethas of the ordinary type including Lakshana Geethas 2.
IV. Swarajathi
4.
V. Thana Varnas in Adi Thala ... 3.
VI. Keerthanas .. 4.

Third year
I. Thana Varnas:-
(a) Two varnas in Adi Thala.
(b) Two varnas in Ata Thala.
II. Chithha Thanas:-One from each of the following ragas.
(a) Natta.
(b) Goula.
(c) Arabhi.

## (d) Sriraga.

III. Keerthanas:-

Five in number, from eminent composers in different ragas.
IV. Study of one Thillana.

## Fourth year

I. Good pieces of different compositions of different composers not less than ten in number with Chitta swaras in any three.
II. Thanas in any three of the popular ragas.
III. Study of one from each of the following types of musical compositions like
(a) Javali.
(b) Ashtapadi (padam).
(c) Thillana.
(d) Ragamalika.
IV. A limited knowledge of Alapana of ten popular ragas like
(a) Sankarabharanam.
(b) Thodi.
(c) Bhairavi.
(d) Kambhoji.
(e) Mohana.
(f) Kalyani.
(g) Saveri.
(h) Kedaragoula.
(i) Karaharapriya.
(j) Sahana.
"All practice of the above ragas must include a knowledge of the Arohanas and Avarohanas swaras" of the respective ragas.
N. B.-Keerthanas taught during the course of study will be as far as possible, from different ragas.

## CURRICULUM FOR NEEDLEWORK EXAMINATION <br> Needle-work and Dress-making

Lower Grade.
For Primary grade teachers. Three years' course.
I. Stitches.-Candidates to work at the time of examination the folllowing stitches in cottons of two colours so as to show joinings.

1. Tacking.
2. Run stitching.
3. Hemming.
4. Seaming or top sewing.
5. Back stitching.
6. Backstitched felling.
7. Seamed felling.
8. Gathering.
9. Stroking.
10. Setting in the gathers.
11. Button holing.
12. Sewing on linen buttons pierced and unpierced.
13. Sewing on tape.
14. Marking by cross stitch.
15. French seam.
16. Counter hemming.
17. Whipping.
II. Darning and Patching.
Patching:-
18. A calico patch.
19. Print patch.
20. Flannel patch.
Darning:-
21. Darning over a thin place.
22. Straight darn.
23. Hedge tear darn.
24. Knife cut darn.
III. Cutting out:-
25. How to cut a square, a triangle, a rectangle.
26. Use of warp and weft.
27. How to measure a child under six years of age (boy or girl) and to draw diagrams based on the square or rectangle of garments required for them and to make the necessary
28. How to observe right and wrong side and the arrangement of the design in printed material when duplicating.
To cut out from measurements fit and finish:-
29. Roukey with neck band and buttons.
30. A pavadai.
31. Boy's shirt with cuff and collar.
32. A Syrian girl's jacket.
33. Indian girl's jacket.
34. Girl's frock with yoke.
35. Girl's frock with skirt set on, with tucks, lace and insertion. patterns.
36. Girl's petty coat.
37. Chemise.
38. Man's shirt.

Knitting:-(a) on two needles or pins,

1. Castings on and off.
2. Plain.
3. Purl.
4. Increasing and decreasing.
5. Picking up stitches.
6. Two or three fancy patterns.
7. Baby's hood and boot.
(b) On four needles:-
8. Castings on and off.
9. Plain and ribbed knitting.
10. Purling to mark the row.
11. Children's stockings.
(c) Crochet:-
12. Chain.
13. Double crochet.
14. Treble.
15. Long treble, three or four fancy patterns.
IV. To explain clearly correct methods of patching, darning and of each stitch in section 1 .

The examination to comprise:-
I. A written or oral examination on the various stitches in section one.
2. A practical examination:-

1. On stitches.
2. On patching and darning and
3. Of cutting out.

A man's shirt, a baby's boot and cap to be shown as exclusive certified work of candidate workmanship and finish to be studied.

Higher Grade
For Secondary grade teachers-One year's course.
I. Stitches:-As in the lower grade also.

1. Hem stitching.
2. Herring boning.
3. Chain stitching.
4. Feather stitching.
5. Blanket stitch.
6. Stem stitching.
7. Sating stitch.
8. French knots.
9. Scalloping.
10. Fixing hook and eyes, loop and eyelets for hooks.
II. Darning and Patching-As in the lower grade.
III. Cutting out:-
11. General idea for purpose of garment making on the proportions of the normal adult human figure.
12. To make the necessary paper patterns.
13. To set the paper pattern on material, cut, fit and finish the following garments.

Garments:-
Boy's shirt, man's shirt, man's coat, boy's knickers, Boy's tunic, Sailor Blouse, Girl's frock, Petticoat, Chemise, Bodice, Night dress and Indian Girl's Jackets.
IV. How to prepare work for the machine:-
V. Cost pricing a dress:-From materials, labour and task required.

Knitting and Crochet:--socks or stockings, Purse, Comforter, Vest, Petticoat, Balaklava cap and laces.

A man's shirt and a knitted and a crochet article from the above to be shown as exclusive certified work of candidates.

## CURRICULUM FOR THE PANDITS' EXAMINATION. SANSKRIT

I. The examination in Sanskrit learning will be the Bushana Titles Examination. It will consist of two divisions; a Kavya division and a Sastra division.
II. The Kavya Examination:-This is intended to test the candidates' ability in pure literature. There shall be four papers each of three hours' duration:-
(a) Prose and Poetry;
(b) Drama and elements of Alankara;
(c) Vyakarana and Nyaya; and
(d) Translation and Composition.

A candidate shall be declared to have passed this examination if he obtains not less than 30 per cent of marks in each paper and not less than 40 per cent of the aggregate total. Those who get not less than 50 per cent and 60 per cent shall be ranked in the second class and first class respectively.
III. The Sastra Examination:--This is intended to test the candidate's proficiency in any of the following Sastras:-i. Nyaya, ii. Vyakarana, iii. Vedanta, iv. Jyotisha, v. Ayurveda and any other subject that may be added to this list, and it shall consist of two parts (A) A written part and (B) A practical part.
A. Written Examination.-This shall consist of three papers, two on the Sastra offered as the special subject and one to test the candidate's general equipment.
B. Practical Examination.-- In Nyaya, Vyakarana and Vedanta and such other allied Sastras the candidate's proficiency will be tested in the Sastra Sadas which is convened in the Sanskrit College, while in the practical Sastras of Jyotisha and Ayurveda he will be tested in the practical application of his knowledge in the manner approved by the examiners concerned.

A candidate who gets not less than 30 per cent in each paper in Part $A$ and not less than 40 per cent in each part of the examination shall be declared to hare passed. Those getting 50 per cent and above and 60 per cent and above shall be ranked in the second class and first class respectively.

A candidate who has as aforesaid satisfied the examiners as regards his sastric equipment shall be given the title and diploma, Bhushana, added on to the sastra offered for the examination.
IV. (a) The Kavya Examination will be thrown open to all candidates while orly those who have passed the Kavya Examination will be permitied to sit for the Sastra Examination unless specially exempted. Those who appear from a recognised Sanskrit College or School will not be required to produce a certificate of competency to sit for the examination.
(b) The Sanskrit Schools in the State may so adapt their syllabus as to prepare their students for the Kavya Examination, while the Sanskrit College at Trippunittura, will be one of the institutions which will prepare students for both the Kavya and Sastra Examinations.
(c) Those who pass the Kavya branch may be declared eligible for service as Sanskrit Pandits in Lower Secondary Schools, and as language teachers in Sanskrit Schools; the Bhushana title holders may be declared eligible for service in the higher classes of Sanskrit Schools, as assistants in Sanskrit Colleges, as Sanskrit Pandits in High Schools and for honorarium for conducting private Sarskrit Schools.

## Syllabus for the Examination

## A. Kavya Branch

(a) Prose and Poetry:-

1. Kiratarjuniya - 1st two sargas only (Trivandrum edition).
Sisupalavadha-Magha-1st two sargas only (Nirnaya Sagara Press, Bombay).
Naisadhiyacarita-1st two sargas only (R.S. Vadhyar \& Sons, Kalpathy, Palghat).
2. Campuramayana-Aranya and Sundara Kandas only (Nirnaya Sagara Press, Bombay).
Kadambarisamgraha-by Pandit R. V.Krishnamachariya Government College, Kumbakonam.
(b) Drama and Rhetoric:-
3. Sakuntala (Mangalodayam Press, Trichur). Nagananda (Trivandrum Edition).
4. Candraloka (Chowkamba Book Dept., Benares).

Kuvalayananda by Appayya Dikshitha (Nirnaya Sagara Press, Bombay).
(c) Nyaya and Vyakarana:-

Sidhanthamukthavali by Viswanatha up to the end of Sadakhanda (Nirraya Sagara Press, Bombay).
Madhya Sidhantha Kaumudi by Varada Raja do.
(d) Translation and composition:-

The former will consist of passages from Sanskrit and Malayalam for translation into Malayalam and Sanskrit and they shall not be of a standard higher than the same now given for the School Final Examination. Composition shall be in Sanskrit and Malayalam: in Sanskrit it shall consist of the reproduction of stories consained in the prescribed text-books and in Malayalam in the writing of essays on subjects set from prescribed text books.

## B. Sastra Branch

The two papers in each Sastra will be as follows:-
(a) Nyaya.
I. Pratibandhakataghatihalakshanam - Samanyanirukti and Samsaya Pakshata till the beginning of Sarva Bhauma. $\left.\begin{array}{ll}\begin{array}{l}\text { Vyaptivada-Pancalakshini } \\ \text { Caturdasalakshini and } \\ \text { Siddhantalakshanam }\end{array}\end{array}\right\} \begin{aligned} & \text { Chowkhamba } \\ & \text { Book Depot. } \\ & \text { Benares. }\end{aligned}$
2. Vyutpathivada (Nirnaya Sagara Press, Bombay).

Avayavam-(from the beginning up to the end of Pratinja Chakravarti Ayyangar's Telugu edition, Mysore).
(b) Vedanta.

1. Upanisad bhasy-Chandogya Adhyaya VI and Brhadaranyaka Adhyaya IV only (Sri Vani Vilasam Press, Srirangam or Ananda Srama edition).

Brahmasutra bhasya by Sankara Charya (Sri Vani Vilasam Press, Srirangam).

Vedanta paribhasa (Venkateswara Steam Press, Bombay).
2. Advaita sidhi-from the beginning, Advaita Manjari seup to the end of Agamabadhoddhara. (ries. Sri Vidya Press,

Brahmanandiya (Laghucandrika) Kumbhakonam orNirfrom the beginning. naya Sagara Press.
(c) Vyakarana.

1. Praudhamanorama $\quad$ Paribhasendusekhara $\quad$ Chowkhamba Book
2. Laghusabdendusekhara-from the beginning up to the end of Karaka Vaiyakaranabbusana Sara
(d) Jyotisa.
3. Phalabhaga:-

Hora by Varahamihira (Trivandrum edition).
Jatakadesa (Pancamgam Book Depot, Kunnamkulam).
Prasnamarga Muhurtapadavi-Bharata Vilasam Press, Trichur.
2. Ganita and Silpasastra-

Panchabodha Manusyalaya ) Pancamgam Book Depot, candrika Tantrasamuccaya Kunnamkulam.
Vastuvidya (Trivandrum edition).
(e) Ayurveda.

1. Astamgahrdaya (Nirnaya Sagara Press, Bombay). Astamgasamgrah-Sutrasthanam only) Mangalodayam
2. Cikitsakrama J Press, Trichur.
Gogamrta (Bharata Vilasam Press, Trichur). Caraka-Cikitsitam only ) Nirnaya Sagara Press, Susruta-Sariram only J Bombay
The third paper will consist of translation of Sanskrit and Malayalam passages of a higher standard (which may be equivalent to the B. A. standard) and the composition in Sanskrit shall be on a
subject which comes within the purview of the subject of specialisation while in Malayalam it shall be on subjects from prescribed texts.

The following books are prescribed:-

## A. Kavya Part

Krishna Gadha by Cherusseri Namboodiri (Sri Rama Vilas Press, Quilon).
Mangala Mala (Part II Sahithyam) by His Highness Appan Thampuran. (Mangalodaya $m$ Press, Trichur).
B. Sastra Part

Prachinarya Vartham by T. K. Krishna Menon (Mangalodayam Press, Trichur).
Nadakapravesika by Mr. A. D. Hari Sarma (Vidya Vinodini Press, Trichur).
The candidates for the Kavya exa nination shall pay a fee of Rs. 3 and those for Sastra Examination a fee of Rs. 5.

MALAYALAM
Syllabus for the Malayalam Pandits' Examination.
I. A. Sanskrit Text and Translation

The following books are prescribed-

1. Kiratharjuniyam-1st three sargas.
2. Harsha Charitha Samgraham-lst half of the book.
3. Uthararama Charitham-Bhavaboothi.

A critical knowledge of the books will be required and the candidates should be able to translate into Malayalam any passage of average difficulty from Sanskrit.
B. Sanskrit Grammar and Rhetoric
I. Manideepika by A. R. Raja Raja Varma.
2. Chandraloka.
3. Sahitya Dharpanam-VI Paricheda.

Declension of ordinary nouns, conjugation of ordinary verbs, Sandhi and Samasam should be understood. A good knowledge of the portions prescribed from Sahitya Derpanam is expected by the candidates.
C. History of the Malayalam Language, Rhetoric and Prosody

1. Kerala Paniniyam (Revised and enlarged edition by A. R. Raja Raja Varma).

2．Leelathilaka．
3．Bhasha Bhooshana．
4．Sahitya Sahya．
5．Vrita Manjari．
6．Bhasha Sahitya Charitram by Narayana Panikkar．
7．Bhasha Sahitya Sangraham by P．Sankaran Nambiyar．
N．B．－Principles of Malayalam Grammar，the origin and development of Malayalam Language，Sandhi and Samasam are expected to be understood by the candidates．An intelligent study of the prescribed books for Rhetoric will be re－ quired．Candidates should be able to show a general acquaintance with the ordinary metres of Malayalam and Sanskrit．The fundamental differences between them and the principles of versifications are also expected to be understood．

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N．B．－A sound knowledge of the whole course of History is expected．

## F．Composition

No book is set．The general ability of the candidates will be tested．The standard kept in view is slightly above that for Vidwan

Examination of the Madras University with Malayalam as principal and Sanskrit as subsidiary.

## G. Translation

Translation shall be from English to Malayalam and vice versa, and the standard shall be that of the VI Form in a High School.

## II. Examination

There shall be two examinations, Written and Practical.
For the written examination there shall be seven papers in all, one on each of the seven subjects mentioned above. Each paper shall be of three hours' duration.

The candidate who secures 40 per cent of the marks in any paper shall be considered to have passed. Those who get 50 per cent in the aggregate total shall be ranked in the first class. 60 per cent in any paper shall confer a distinction on the candidate in that subject. The class and the distinction will be noted by the Secretary to the Board of Examiners in the certificate issued. Candidates are required to sit for the examination in those papers only in which they have not already passed.

## III. Fees for the examination

The fee for the examination is Rs. 5 in the case of candidates who are teachers in recognised schools in the State and Rs. 10 in the case of others.

## Curriculum for Q'ran Teachers' Examination.

The following text books are prescribed:-

1. Tahinal Kilath by Mr. Mahomed Abdul Kadir Moulvi Vakkam (Anchal), Kayikkara.
2. Tajıveetu by do. do.
3. Deeniyath by Mr. Kunhamed Haji and E. K. and T. K. Moulvi, Eriyad.
4. Analiyath by do. do.
5. Arabic Reader II by Mr. Kunhamed Haji, Tirur Angadi (Eriyad).

Or
Tareequathul Hatheesiya by Mr. Halisalama Mr. Muhamed Chula r Razal Suruti's Sons, Bindi Bazaar, Bombay.
Besides a written examination on the above texts, there will be a Viva Voce examination also in the following subjects:-

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| Reading Arabic | . | 10 | marks |
| :--- | :--- | :--- | :--- |
| Do. Malayalam | $\because$ | 10 | do. |
| Recitation Arabic | $\because$ | 10 | do. |
| Dictation Arabic | . | 10 | do. |
| Do. Malayalam | .. | 10 | do. |

N. B.-For purposes of recitation, candidates shall learn any three verses in Arabic satisfactorily. The standard of Malayalarn dictation and reading will be that of class IV of schools in the State. The Malayalam Texts of the classes 2, 3 and 4 may, therefore, be followed.

## Curriculum for the Form III Public Examination.

The subjects for the Public Examination shall ordinarily be English, a second language and Arithmetic.

Each paper shall be of two and a half hours' duration with a maximum of 100 marks.

The paper in English shall contain questions on the text books prescribed for detailed and non-detailed studies and grammar, general composition and translation. The passage for translation in the paper shall be from a vernacular to English.

The paper in the second language shall contain questions on the text books prescribed for detailed and non-detailed studies or detailed studies only, as the case may be, and grammar, general composition and translation.

The paper in Arithmetic shall be on the portions prescribed.

