

# REVISED SYLLABUS

FOR

## Junior Basic Teachers Training Course



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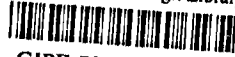
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**SYLLABUS FOR JUNIOR BASIC TEACHERS  
TRAINING COURSE**

The duration of the Course will be two years. Trainees must put in atleast 75 per cent of the total number of working days. The Principal/Head of the institution can condone up to 5 per cent shortage of attendance and D. P. I. up to 10 per cent.

**SCHEDULE OF THE EXAMINATION**

A. Departmental Examination will be conducted at the end of each year for Part I and Part II as detailed below. The Principal, however, shall have the authority to send down candidates who are found unsuitable for the profession after two successive internal Terminal Tests.

**SCHEDULE OF EXAMINATION AND INTERNAL  
AND EXTERNAL ASSESSMENT**

**PART I (EXAMINATION AT THE END OF I YEAR)**

	<i>External</i>	<i>Internal</i>	
A. Theory	350		
B. Skill in Teaching		25	
C. Crafts and Art	50		Major Craft .. 25 Minor Craft .. 15
D. Sessional work		25	Art .. 10
Total	350	100	
Grand Total (Part I)	450		

**PART II (Examination at the end of II Year)**

	<i>External Internal</i>			
A. Theory	300			
B. Skill in Teaching including Recreational activities and games	250	75	2 lessons .. Organisation of games and Recreational Activities	<i>Ext. Int.</i> 200 75 50 ..
C. Crafts and Art	150	100	Major Craft .. Minor Craft .. Art	75 50 45 30 30 20
D. Sessional work		75		
Total	700	250		
GRAND TOTAL (Part II)	950			
Total for the entire course	1,400			

### INTERNAL AND EXTERNAL ASSESSMENT

The Internal and External Assessment will be shown in the result sheet and the certificates to be issued. The detailed result in each Part of this course should be indicated in the result sheet as well as in certificates. Trainees must pass separately in both the External and Internal Sections.

### MEDIUM OF EXAMINATION

The medium of examination shall be Hindi, Punjabi or Urdu.

### PASS MARKS

Forty per cent in each paper of theory, practical skill in teaching in Crafts and Art and Sessional work both in Internal as well as External Assessment. Candidates securing 60 per cent marks or above will be placed in the first division, those securing 50 per cent but less than 60 per cent will be placed in the second division and those securing below 50 per cent, but above 40 per cent or above will be placed in the third division.

### COMPARTMENT

A candidate who fails in three papers of theory, but passes in all the other theory papers and various other sections of a particular examination will be placed in Compartment in those papers provided he/she has obtained 30 per cent in the aggregate. If a candidate fails only in the External Examination of Practical Skill in Teaching or Crafts, he/she should appear next year in the External Examination of that section only. If he/she fails in any section of the Internal Assessment only, he/she should make up his/her deficiency in that institution till he/she satisfies the Head of the Institution.

### DETAILS OF THEORY PAPERS

**PART I—(EXAMINATION AT THE END OF I YEAR) 7 PAPERS EACH CARRYING 50 MARKS.**

**PAPER I—Principles and Methods of Basic Education.**

**PAPER II—Health Education and Recreational Activities.**

**PAPER III—History of National Movement.**

**PAPER IV—Second regional language (Hindi or Punjabi) and English.**

*Note.*—This paper will have two parts :—

- (a) Second regional Language, Hindi or Punjabi—25 marks.
- (b) English—25 marks This will hold good in the case of those students who have passed Matriculation/Higher Secondary Examination with Hindi/Punjabi as first language or have passed Honours Examination (Giani or Prabhakar) in the language concerned. Those who have not studied either Hindi or Punjabi as first language in Matriculation/Higher Secondary, will have to appear in a composite paper in Hindi, Punjabi and English. The distribution of marks will be as under :—

Hindi	..	16
Punjabi	..	16
English	..	18

**PAPER V—Mathematics (Content Portion).**

**PAPER VI—General Science (Content Portion).**

**PAPER VII—Social Studies (Content Portion).**

**PART II—(EXAMINATION TO BE HELD AT THE END OF THE SECOND YEAR).**

**6 PAPERS—300 marks (each carrying 50 marks).**

**PAPER I—Elementary Child Psychology.**

**PAPER II—School Organisation and Community Development.**

**PAPER III—Methods of Teaching Mother Tongue, second Language and English (Mother Tongue 20 marks).**

(Second Language 15 marks).

(English 15 marks).

**PAPER IV—Methods of teaching Mathematics.**

**PAPER V—Methods of teaching General Science.**

**PAPER VI—Methods of teaching Social Studies.**

## DETAILED SYLLABUS (THEORY)

### PART I SECTION A

1st year

#### PAPER I—PRINCIPAL AND METHODS OF BASIC EDUCATION.

Max. Marks—50

1. Aims and agencies of Education.

2. *Birth of Basic Education.*—Fundamentals of Basic Education, Free, Compulsory Universal Education for the age group (6—14) through the medium of the mother tongue; co-related with life and its activities—purposeful, creative and productive work; field surveys in Natural and Social Environments; Self-sufficiency and its implications. Moral Instructions, Principles underlying the Selection of a Basic Craft.

3. Changing concepts of Basic Education.

4. *Maxims and Class-room Methods.*—Aims, Techniques and Significance of co-related teaching, Forced and natural Co-relation. Is co-relation indispensable? Centres of co-relation craft Natural and Social Environments; Active out-door surveys for educational purposes, and collection and record of statistical data. Types of co-relation (a) co-relation of one subject with one centre (b) co-relating more subjects than one with one centre and (c) co-relating one subject with more centres than one.

5. *Types of lessons.*—Knowledge, Skill, Appreciation and Revision steps and methods suited to each. Preparation of co-related lessons-notes and teaching plans.

6. *Special devices and aids in Teaching.*—Questioning, Class-discussions, story-telling, descriptions, expositions, playway illustration, individual and group teaching, Use of text-books and libraries, field explorations and surveys, Audio-visual aids and evaluation, visits to places of interest and follow-up.

#### PAPER II—(HEALTH EDUCATION)

##### AND RECREATIONAL ACTIVITIES

Max. Marks—50

1. Human Machine, its needs and care, general structure of human body, important organs and their functions, digestion circulation, respiration, excretion, nervous system. Health and disease—Different kinds of diseases, Bacteria, useful and harmful, prevention of diseases, Food in relation to health—its constituents; balanced diet.

*Personal Hygiene.*—Need for rest and exercise, correct breathing and posture.

*Clothing.*—Basic material of clothing through the ages. Our special requirements.

*Social Hygiene.*—Planning a house ventilation and lighting, cleanliness in the house and the surroundings, village and town sanitation, water-supply in towns and villages.

## SIMPLE FIRST-AID

2. Games and physical training to keep good health, Scouting, Cubbing, Bulbuls and Girl Guide, N. C. C. ; indigenous games—Kabaddi, Wrestling, guli-danda, etc., and other games like football, hockey.

3. *Motion stories and imitative exercises, Children's tournaments, athletics*—Inter-school matches, Mass drill for discipline.

4. *Recreational activities*.—Importance of recreation in Education. Meaning of recreational activities, self-expression and its place in the growth of an individual. Integration of other subjects of study with recreation teaching. Teaching made more living, formation of good tastes and sense of humour.

*Music*.—Chorus singing, individual singing, creating taste for music, Bhajan, Kirtan Songs for children—action songs, marching songs, popular songs, National Songs, folk songs, harvest songs, recitation. Use of simple indigenous and locally available instruments.

*Dances*.—Rhythmic movements, folk dances, 'Bhangras', Gidda.

*Dramatization*.—Dramatization of stories for little children ; staging scenes from lives of great men ; one act plays relating to the life of children in other lands ; Scenes from history, Educational, Social and Cultural plays.

## PAPER III

## HISTORY OF NATIONAL MOVEMENT

Marks—50

## 'HISTORY OF FREEDOM MOVEMENT IN INDIA'

1. Indian concept of motherland (Bharat Mata) as given in ancient Indian literature.
2. Idea of one Rashtra under Mauryas, Guptas and Akbar.
3. Preaching brotherhood of Man and Fatherhood of God.
4. Role of Rana Sanga, Rana Partap and the Gurus.
5. Influence of English literature and western thought under the British.
6. Indian Renaissance—Religion and Social Reforms—Social reform movements in the 19th Century.
7. India in 1957 Kuka movement, Indian Arms Act, Indian Vernacular Press Act.
8. Indian National Congress.
9. Makers of India-National architects. Heroes of the Freedom Movements—Martyrs and fighters—Lok Manya, Bal Gangadhar Tilak.

10. Swadeshi Movement and partition of Bengal.
11. World War-Indian National Movement.
12. 1919-Rawlette Act and Jallianwala Bagh.
13. Gandhi Ji—Khillafat Movement.
14. Non-Co-operation Movement.
15. Simon-Commission—Lala Lajpat Rai.
16. Lahore Congress and declaration of complete Independence.
17. Dandi March (Salt Satyagrah Movement)
18. Round-Table Conference.
19. Provincial Autonomy and Congress.
20. Second World War, Quit India Movement, Cabinet Mission.
21. 1947 partition.
22. Indian Constitution Assembly,
23. 1950—Five-Year Plans (Indian Republic)
24. Nation's Frontiers and how to guard them.
25. Chinese aggression and country's response.
26. Need for Defence—Vigilance and preparedness.

**PAPER IV.—Proficiency in second regional language (Hindi/Punjabi and English).**

**PART A—Second Regional Language.**

**PART B—English.**

The following is the suggested syllabus :—

Summarising of prose passage ; unseen passage from prose or poetry; letter-writing, simple essay, translation from Hindi to Punjabi and English and vice versa.

The Examiner will set 5 questions on part A (Proficiency in second language Hindi/Punjabi) out of which a candidate will have to do 3 questions and will set 4 questions in part B (Proficiency in English) out of which a candidate will be required to do two only.

Those students, who have not studied Hindi or Punjabi as first Language at the High and Higher Secondary School stage, will have to appear in the composite paper in 3 languages, Hindi, Punjabi and English.

So far as English is concerned, they will take the same paper as others but in Hindi and Punjabi portion, they will have to attempt two questions in one language and one in the other according to their proficiency, out of the alternative papers already set for these two languages.

### PAPER V—MATHEMATICS

Marks—50

#### *Arithmetic.*—

1. Simple and Compound—Four Fundamental Rules. 2. The Decimal system (3) G. C. M. and L. C. M. by factors. (4) Id of Vulgar and decimal fractions—four fundamental rules, Numeration and Notation. (5) Simple practice. (6) Unitary Method.—(7) Profit and Loss. (8) Area of Rectangular Square and Circular plots. (9) Ratio and proportion and proportional division. (10) Partnership. (11) Percentage. (12) Simple Interest—Simple cases, compound interest. (13) Time and Work (14) Average. (15) Metric system and its use. (16) Square-root. (17) Allegation or Mixture. (18) Discount.

#### *Algebra.*—

(1) Four Fundamental Rules with terms,—simple expression and (2) Simple fractions, (3) Simple equations, (4) Simple problems involving simple equations, (5) Simple formulae and their uses.

#### *Geometry.*—

(1) *Concept of.*—Solid surface, line and point, direction, angles surface parallel figures circle. (2) Drawing of lines—angles—parallel and perpendiculars accurately. (3) Bi-section of lines and angles, making an angle equal to the given angle and divide a line in equal parts and in any ratio. (4) Simple cases of—construction of triangles. Quadrilateral and parallelograms from given data. (5) Idea of all types of angles including complementary and supplementary angles. (6) Measurement of (i) Angles at a point, (ii) Vertically opposite angles, (iii) the three angles of a triangle. (7) Phathagoras Theorem to be done experimentally and its applications.

*Elementary Mechanics.*—No need.—It is done in general science.

*Practical work.*—(1) Keeping of accounts home—school co-operative shop—stock book—Receipt and disbursement of articles surveying and measuring of rectangular, square and irregular plot, field (Field Book).

### PAPER VI—GENERAL SCIENCE

#### *Unit I.—Our Surroundings.*—

Marks—50

(a) *The earth, rocks and soil, different kinds of rocks and minerals.*—Formation of soil and its chief constituents ; different kinds of soil ; maintaining the fertility of the soil ; soil erosion and conservation:

(b) *Plants.*—Different kinds of plants, cultivated plants, cereals, legumes, vegetables, fruits and ornamental plants, timber trees, medicinal plants.



Cultivation of foodgrains, Seasonal crops rotation. Implements used.

(c) *Animals*.—General classification ; domestic and wild animals ; animals as sources of food, wool, skins and hides draught animals and pets. Insects : useful and harmful. Birds : useful and harmful. Protection of wild life.

(d) The universe around sun, planets, moon and stars ; seasons and calendar tides.

#### *Unit II.—Nature of Things—*

(a) *Air*.—The atmosphere around us ; the pressure of air syringe, syphon, pumps. Moisture in the air (rain dew, mist, fog, snow and hail). Composition of air ; Oxygen and Carbon dioxide, burning and breathing, rusting and its prevention (paints). Pollution of air and its prevention. Natural cycle of purification of air.

(b) *Water*.—Sources of water, storage and distribution, Hard and Soft water .

Physical properties of liquids, relative Density, Archimedes Principle, Floatation and Hydrometer (functional treatment only). Composition of water, Hydrogen and Oxygen.

(c) *Physical and Chemical changes*.—Mixture and compound. Separation of mixture. Acid and alkalies—their properties, neutralisation and formation of salts. Sources of common salt.

(d) *Common metals*.—Iron, copper, aluminium, zinc, gold, silver, lead, tin and their important uses, common alloys, brass, bronze, bell, metal, German silver, solder, solder type metal, stainless steel.

*Non-metals*.—Carbon and coal ; different kinds of Carbon ; product of distillation of coal and their uses.

*Sulphur*.—Properties and uses.

*Sulphuric acid*.—Important properties and uses.

*Phosphorus*.—Red and yellow ; important properties and uses.

*Chlorine*.—Disinfecting and bleaching properties and uses.

(c) Common things we use : paper, matches, soap, glass, ink. Use of sodium carbonate, sodium bicarbonate (washing soda and baking soda) epsom salt, alum, potassium nitrate, copper sulphate, limestone (Marble, Chalk ; fertilizers—natural and artificial ; insecticides and disinfectants ; phenyle, D.D.T., Detol, Lysel, bleaching powder, potassium permanganate, iodine, sulphur dioxide lime, hydrogen peroxide.

#### *Unit III—Energy and work—*

(a) *Heat*.—Sources of heat ; sun, fuels, electricity and friction ; sun is the prime source of all energy on earth.

*Heat and temperature—*

Effects of heat, Expansion of solids, liquids and gases and their applications. Thermometers ; simple ideas of different scales ; Maximum and minimum thermometer, clinical thermometer. Heat transmission : conduction, convection, radiation their common applications, Domestic heating, air condition.

*Thermos flask—*

Melting point, boiling point, specific heat and qualitative study of latent heat ; boiling, evaporation and condensation ; simple applications in daily life.

(b) Light ; Luminous and non-luminous bodies ; rectilinear propagation and speed of light ; reflection plane and curved mirrors ; periscope, kaleidoscope and their uses. Refraction through glass and water, Lenses and their use. Camera, microscope and telescope, magic lantern, motion picture, Prism : colour and rain-bow.

(c) Sound ; production by a vibrating body ; material medium necessary, simple musical instruments stringed, wind, reed and percussive instruments. Reflection of sound, echo ; toy telephone and phonograph.

(d) Magnetism ; natural and artificial ; properties of magnets ; earth as a magnet, magnetic needle and its use for navigation and sea and in air ; Mariner's compass.

(e) Electricity production ; Frictional electricity (Positive and Negative). Primary cells ; Voltaic cell. Leclanche cell. (Wet and Dry), storage cell.

Distribution of electricity, insulators and conductors.

Effect of electric current ; heating, lighting, magnet and chemical, Domestic uses of electricity ; electric heater, electric iron, electric lights, electric bell, electric fan, loudspeaker, microphone and radio.

(f) Atomic energy ; constitution of an atom, production of atomic energy.

Simple machines ; Levers, weighing machines ; gears, wheel and axle, pulleys.

Wind's and water mills, Engines, steam and internal combustion.

*Unit IV—Life*

Living and non-living objects

The basis of life ; cell protoplasm and tissues, Simple forms of life—bacteria, protozoa and moulds

Parts of a flowering plant

Nutrition in plants and animals. Carbon and nitrogen cycles. Growth and reproduction in plants, Simple ideas of re-production in animals including man.

Changing pattern of life organic evolution.

PAPER VII—SOCIAL STUDIES

Maximum Marks—50

PART A

1. *Our Economic Needs*—

- (a) Agricultural activities ;
- (b) Industrialization ;
- (c) Other occupations ;
- (d) Trade and foreign trade ;
- (d) Interdependence of the communities of the world ;
- (f) Means of communications and transport ;

2. *Conquest of Nature by man*—

- (a) Conquest of physical nature ;
- (b) Conquest of Labour machine age.

3. *Local Government.*—Local Government—, structure of Local Government and its functioning. How we participate in Local Government, Local taxes and elections, Relationship of the local administration to the District and State Administration.

The need for a National Government.

The National and the State Government have certain functions that they can discharge better than the local and district administration. Study in outline of the Indian Constitution and its relationship to other administrative units. Fundamental rights and the role of the judiciary.

4. *The task of National Reconstruction.*—

- (a) Feeding India's increasing millions. Need of self-sufficiency in food and its proper distribution. Bringing new land under cultivation. Irrigation and multipurpose projects, intensive agriculture and increase in yield by new methods, consolidation of holdings, abolition of Zamindar, credit facilities to cultivators and encouraging farmers co-operatives ;
- (b) Industrial Development for raising standard of living. The progress of heavy industries, small scale and cottage industries, Educational, Social and cultural development.

Broad Features of Five-Year Plans. World Peace.

5. *League of Nations.*—U. N. O. and its Agencies ; India's contribution towards peace.

Reading of political maps.

*B.—Geography*

## (i) Earth as a planet :—

The solar system, the sun, the planets, Eclipses, Solar and Lunar.

Shape and size of the earth (with proofs).

Motions of the earth—Rotation and Revolution (their proofs, velocity and effect).

Agents of change external and internal.

Such as rivers, glaciers, winds waves, tides, under ground water, earth quake, folding and faulting, etc.

**ROCKS AND THEIR CLASSIFICATION**

## (ii) Regional Geography—

Major Natural Regions of the world with special reference to .—

- (a) Factors determining Major Natural Regions ;
- (b) Classification of the major Natural Regions ;
- (c) A brief account of each major natural region with special emphasis on the correlation between man and his environments.

## (iii) Detailed Geography of India with special reference to Punjab and its borders.

## (iv) Map Work—

- (i) Symbols used in maps ;
- (ii) Scale ;
- (iii) Relief and contours ;
- (iv) Local Geography.

**PART II—(II Year)****PAPER I.—ELEMENTARY CHILD PSYCHOLOGY**

*Maximum Marks—50*

1. Importance of the study of child psychology for the teacher and methods of psychology.

2. Development of the child. Physical, intellectual and emotional development in various stages, i.e., infancy, childhood and adolescence.

3. A simple description of the human nervous system and ductless glands and their functions.

4. Basic human urges and their characteristics. Economic urge (food seeking), self-assertion, self-submission, curiosity, construction, gregariousness hoarding, sex, parental, escape, repulsion, laughter, combat and appeal. Emotions with special reference to fear, anger and tender emotion.

5. *General Tendencies.*—Sympathy, suggestion and imitation.

6. Learning in the home and in the school, rewards and punishment, formation of habits, socialization of the child ; learning through radio, film, press and television work and fatigue.

7. *Attention*.—Laws of attention, types of attention. Attention and interest.

8. *Memory*.—Methods of memorizing ; forgetfulness.

9. Perception, observation, imagination and reasoning.

10. Formation of character and personality.

11. A simple description of the unconscious mind and the formation of complexes.

12. Abnormal behaviour of children ; shyness, aggressiveness stealing, lying, truancy, thumb sucking, nail biting and night terror.

13. Individual differences among children. The slow learner—the gifted one—backward and handicapped children. I. Q. (intelligence quotient).

## PART II—(II Year)

*Maximum Marks—50*

### SCHOOL ORGANISATION AND COMMUNITY DEVELOPMENT (INCLUDING PANCHAYATI RAJ)

1. Basic School building, furniture and equipment.

2. Flexible nature of the basic school, time-table, organising school activities and projects on periodical basis, viz., weekly monthly, etc., Time-table in a single teacher school.

3. *Co-operative movement in schools*.—Use of school products in the school, sale of school products in the community. Setting up of a shop and other educational projects like setting up a post office, children's bank.

4. Students discipline, discipline and order, self-government in schools ; various societies like dramatic, literary, sports, etc. and different clubs of students.

5. Classification of pupils for better education—relation of Junior Basic School with Pre-Basic and Senior Basic.

6. Role of the headmaster, qualities of a good teacher, role of subject teachers and class teachers, role of supervision in Basic Education, guidance and consultation.

7. How to eradicate irregular attendance, stagnation and wastage in the Junior Basic School. Techniques of evaluation, principles governing the promotion of pupils, terminal report cards, place of weekly and monthly tests ; objective type tests and achievement tests.

8. School registers and records, Log Books and Diaries attendance registers, admission forms, transfer, certificates progress records, health records, acquittance rolls, pay bills conduct registers, visitors book, important Education Department Code Rules.

9. Health and physical education and recreational activities.
10. Organising Bal Sabhas, morning assemblies, literary societies, hobbies, etc. Cubbing and Bulbul work.
11. Beautifying the class-room, school building and surroundings.
12. *Community Development*.—Basic School as a Community Centre; surveys of the community and its needs, Role of the school in the programme of community reconstruction, organising community activities in the school compound and at places of interest for the community, celebration of festivals, fairs, days of national and international importance and other activities in co-operation with the local Community Organisation of Educational Melas, Health work in the Community, Social education for parents and other adults; Co-operation with Government and private agencies in meeting community needs ; training for citizenship ; self-government in school.
13. *Democratic Decentralization (Panchayat Raj)*.—Need, meaning and aims of Panchayati Raj, structure of Panchayati Raj in Punjab; Broad functions of a Panchayat, a Panchayat Samiti and Zila Parishad, Panchayat Raj as a school for citizenship education ; village school teachers, role in Panchayati Raj ; three Basic Village Institutions—a school, a Panchayati and a co-operative and their inter-relationship.

### PAPER III.—(II Year)

#### METHODS OF TEACHING LANGUAGES (MOTHER TONGUE, SECOND LANGUAGE AND ENGLISH)

*Maximum Marks—50*

(Mother Tongue—20 marks)

(Second Language—15 marks)

(English—15 marks)

1. The place and importance of the Mother Tongue and other languages at the Junior Basic Stage.
2. Speaking and listening as complementary skills. Speech as a mode of free self expression and as a means of communication.

*Rudiments of speech :—*

- (a) *Physical aspects*—Breathing, posture, gesture.
- (b) *Voice Production*—Ease, power, flexibility, pitch pleasantness.
- (c) *Enunciation*—Articulation, intonation, stress, phrasing speed, pronunciation.
- (d) *Vocabulary*—Range and appropriateness to subject matter and to the audience.

*Oral activities*.—Assembly group discussions, reading aloud recitation,

story telling, choral speaking, dramatisation, miming (action without speech) etc.

Common physical defects in speech like stammering.

3. *Reading*.—*Pre-reading period*, reading readiness, mental and environmental factors of reading ability (level of general intelligence, mental ability for visual and auditory discrimination of words, language background and attitude of interest and confidence, comparative study of the different methods of teaching.

Use of the library, reading for information and reading for pleasure selection and use of suitable reader the use of reference books and dictionary, children's magazines, wall magazines.

#### *B.—Writing*

Preparatory period, posture, proper holding of the pen, proper spacing, formation of words, transcription dictation . The use of diaries or pencil work books, the preparation of an outline or plane ; construction of paragraphs ; writing of letters, invitations applications and simple receipts,- correction work ; teaching of spellings.

5. *Audio Visual Aids*.—Charts, models, flashcards, pictures, radio gramophone trips, excursions, etc.

6. Backwardness in Reading and writing ; causes and remedies.

7. Evaluation in Languages.

### PAPER IV

#### METHODS OF TEACHING MATHEMATICS

*Maximum Marks—50*

(II Year)

1. The place of Mathematics in every day life and in the school curriculum.
2. The educational value of teaching Mathematics.
3. The relation of Mathematics to other branches of study.
4. Co-relation of the different branches of Mathematics, and of Mathematics with Basic Craft chosen to suit that particular locality.
5. Different methods of teaching of Mathematics.
6. Principles of curriculum construction in Maths. and organisation of the curriculum of Maths.
7. Mental work, its place and value.
8. Text books—the placed value.
9. Lesson notes co-related with crafts, physical and social environments.

10. Methods of teaching any topic in Mathematics prescribed for the Junior Basic School Course.
11. Aids to the teaching of Mathematics.
12. Evaluation in Mathematics.

**PAPER V**  
**(II Year)**

**METHODS OF TEACHING GENERAL SCIENCE**

*Marks—50*

GENERAL SCIENCE

**I. Aim.**—(Disciplinary information to create interest in the environments. Social Aim, Cultural Aim to create Scientific habit of mind counting measuring, weighing, practical aim, vocational aim, intellectual aim).

(Moral aspect of Science teaching, to create habit of observation exciting interest and curiosity).

**II. Methods.**—Method of observation (Nature study) Demonstration methods, project method, heuristic method, the Dalton plan. The topic method. The co-ordination of the theoretical and practical work, organisation of syllabi and course unit method and co-relation.

**III. Certain aims of teaching methods.**—

- (1) From known to unknown ;
- (2) From particular to general ;
- (3) From the simple to the complex.

**IV. Laboratory work.**—Maintenance of the laboratory up-keep of the apparatus.

**V. Teaching of Science in the Elementary Classes :—**

- (1) What is Science ;
- (2) Scope of Science ;
- (3) Scientific method ;
- (4) Reasons for the teaching of science in the elementary classes ;
- (5) Nature study ;
- (6) Scope of nature-study ;
- (7) Teaching of science according to mental work of student.
- (8) How children learn science (practical method) by reading method observation, excursions, Audio-Visual Aids.

**VI. Practical work and its importance.**—

- (1) What is practical work ;
- (2) Specimen collection ;
- (3) Nature study corner ;
- (4) Experiments ;
- (5) Field Trips excursions ;
- (6) Practical work for children (observation) birds and animals, sun and earth its shape, flower, fruit, seed leaves.



VII. *Life History of Scientists.*—

- (1) Newton ;
- (2) Edison ;
- (3) Sir Jagdish Chander Bose ;
- (4) Madam Curie ;
- (5) Dr. Home Jahangir Bhabha ;
- (6) Marconi ;
- (7) Alexander Graham Bell.

VIII. *Home made and improvised Scientific apparatus.*

IX. *Hobbies.*

X. *Audio-Visual Aids.*—

- (1) Audio Aids ;
- (2) Visual Aids ;
- (3) Audio-Visual Aids.

PAPER VI

METHODS OF TEACHING SOCIAL STUDIES  
(II YEAR)

Marks—50

1. *Definition and nature of Social Studies.*—(Erroneous Assumptions—Correct Conception—Why not separate subjects ; Social Studies and Social Science differentiated. Two sides of Social Studies).

2. *The Aims and Values.*—(Aims and Values, Differentiated. Aims—Values—Psychological Reasons. New functions of the School—Sociological Reasons—Practical Reasons, Worthwhile knowledge—International understanding).

3. *Social Studies Curriculum.*—(Wide scope—Principles of Criteria for Selecting Material organising the Content—Development of Attitudes and skills.)

4. *Methods of Teaching.*—(General Principles—Text Book Method, Lecture Method—Discussion Method—which is the best of three—Methods to develop Attitudes and skills. Project Methods, Problem Methods, Unit Method, Socialized Recitation).

5. *Some Teaching Aids.*—(Advantages—Excursions and Field Surveys—Radio, Films and Film Strips—Diagrams and Charts—News papers and Magazines, Study of current events, Social Studies, Magazine Historionies—Globe—Museum Maps and Pictures—Library Facilities, Fairs, Festivals and National Days).

6. *The Social Studie—Teachers.*—(His functions—His Professional and Academic equipment—His attitude—His Vital Role in Experimental Learning, Keeping Professionally Alive).

7. *Social Studies Text Book.*—(Necessity of the Text Book—Criteria for writing or selecting a Text Book—Unit Books).

8. *Evaluation in Social Studies.*—(Values of Evaluation—Oral Test—Short Answer—Type Test—Types of items, Easy—Type—Test—Testing through Assignments—Diagnastic Testing—Measuring the Development of Desirable Attitudes and Social Skills—Cummulative Records—Attitude Tests).

## SECTION B

## (Skill in Teaching)

The Practical skill in teaching will comprise of the following :—

- (a) Observation of lessons given by regular staff. At least one lesson should be given on each of the teaching subjects, correlated with the craft/Practical activities, social environment and Physical environment.
- (b) *Apprenticeship under the staff of the practising school.*—Trainees would be required to do an apprenticeship to the regular staff of the practising Institution for at least one week during the first year. Here they will have to do some teaching as well. According to the instructions given by their regular teachers but more stress would be on observation and discussion after the lessons. The staff of the training Institution would supervise apprenticeship work.
- (c) Demonstration lessons would be completed during the first year of the training. These should start not later than two months from regular admission. The candidates would be required to maintain observation notes of their lessons delivered by their staff.
- (d) *Discussion Lessons.*—Each candidate would be required to give during the course of training 6 lessons out of which three will be in the 1st year and three in the 2nd year. These three discussion lessons will be correlated with craft practical activities, social environment and physical environment. Discussion and observation notes maintained of these lessons would be properly assessed and categorized by the school training staff.
- (e) *Sessional teaching.*—It will last for six weeks. Two weeks immediately after the examination in part I, i.e. in the month of April, after the 1st Year Examination and four weeks during the course of the 2nd Year but in no case later than the month of January, preceding the examination of the 2nd year. Regular record of the sessional teaching would be done. During the sessional teaching practice, the candidates must deliver about 108 lessons at the rate of 6 per day in the four weeks.
- (f) *Final Examination.*—It will consist of two lessons of class teaching and are lessons in organisation of games and recreational activities. The two lessons on teaching will be correlated as under :—
  - (i) With craft/practical activities.
  - (ii) With natural and social environment.

## (1st Year)

*Assessment—*

- (a) On the basis of the record maintained by the candidates for observation of demonstration lessons, notes on apprenticeship and discussion lessons given in the 1st year, the Head of the Institution would send interns assessment out of maximum of 25 marks to Assistant Director Examinations.

## (2nd Year)

In the examination for Part II, the internal assessment out of 75 marks would be sent to the Assistant Director Examinations. It would cover all the items under this head. In the final examination, at the end of the second year, the test in practical skill in teaching would be conducted by two External Examiners and a candidate would deliver two correlated lessons of 100 marks each.

(b) The test in assessment of games and recreational activities would be applied by a single examiner out of 50 marks.

### SECTION C (PRACTICAL TRAINING IN ART AND BASIC CRAFTS)

The trainees will receive training in this section under the following heads:—

(1) Art i.e. drawing and painting.

(2) One of the following major crafts :—

- (i) Gardening (flowers and vegetables)
- (ii) Spinning and Weaving.
- (iii) Wood-work
- (iv) Home Craft.

(3) One of the following minor crafts :—

- (i) Card-board Modelling.
- (ii) Poultry Farming.
- (iii) Bee-keeping.
- (iv) Sericulture.
- (v) Bamboo Work.
- (vi) Clay Modelling.
- (vii) Papier-machie
- (viii) Toy-making.
- (ix) Leather work.
- (x) Making of Achars, Chutneys, Murabbas, Sharbats.
- (xi) Any other craft suited to the locality which may be selected and got approved from the Department.

The proper organisation of these crafts should include the following features :—

- (a) "Shops" for sale of products (attractive arrangement, grading of products, price levelling, advertising, weighting and selling, making bills, keeping accounts, salesmanship, politeness to customers, etc.) ;

The shop is not primarily intended to sell products to the public but it is intended as an educative project for the pupils. The operations of the shop should vividly illustrate the operations carried in a real shop but money and goods displayed for 'sale' may be intimations of real money and goods to some extent, if real money and goods are not sufficiently available.

- (b) Care of livestock, plants and equipment ;
- (c) Making and repair of equipment in workshop as far as possible especially, cages, store-boxes, shop-equipment, show-cases, sign boards.
- (d) Reading Library books and reference books pertaining to the craft.
- (e) Systematic collection of statistics related to the craft, especially quantities of products per square yard or acre, or per head of poultry, or hour ; average size or weight of products, number of seedlings, which flourish and numbers which do not flourish ; their weekly rate of growth and construction of graphical charts to illustrate these fields observations. Statistical and History sheets for each article or plot. Costs of raw material seed, manure, feeding, etc ; History-ca'endar or History sheets of each plot showing dates of digging, sowing, watering, hoeing, flowering, harvesting, etc.).
- (f) Preparation of tables showing feeding, manuring, watering, and other treatment of live stock-flowers, vegetables and fruits, in order to create a systematic and scientific habit of doing things.
- (g) Making of preserves, bottling, labelling, pricing and putting things in shop ; allied projects for products, e.g. setting up a tomato-juice bar mid-day meals.
- (h) Co-relating the craft with knowledge in the field of Science economic life, health, and people of other lands.

*Note.*—(1) Subjects which cannot be easily and naturally correlated with the craft, should not be attempted.

- (2) Writing Reports and Accounts of the above.

#### ASSESSMENT—

Internal assessment will be based on the work done during the training and will be submitted at the end of 1st Year—assessment out of a total or 50 marks detailed as under will be submitted to the Assistant Director (Examination). There will be no external examination in arts and craft at the end of 1st Year.

Art—Out of 10 marks;

Major craft—Out of 25 marks ; and

Minor craft—Out of 15 marks.

During the second year, there will be internal assessment as also external examination. The internal award as detailed under will be submitted to the Assistant Director (Examination) by the Head of the Institution.

Art—Out of 20 marks ;

Major craft—Out of 50 marks; and

Minor—Out of 30 marks.

The external departmental examination at the end of the second year will be conducted by one external examiner for each part as follows :—

- (i) Art—Out of 30 marks.
- (ii) Major craft—Out of 75 marks ; and
- (iii) Minor craft—Out of 45 marks.

### Detailed Syllabus in Art and Crafts

#### I—Art

The main idea of teaching this activity is to give the trainees opportunity to develop their own self-expression and good taste to equip them to help children in the same. Items included in the syllabus under painting, drawing, clay modelling, etc ; in the curriculum of recreational activities for the Junior Basic Schools, and under drawing for the Junior Secondary or Senior Basic Schools in the detailed Syllabus of the Department must be covered while giving training in these activities.

- (1) Place of Art in Basic Education.
- (2) Importance of Creative self-expression in development personality.
- (3) Colour :—
  - (i) Colour Sense.
  - (ii) Definition of colour. Its theory and practice.
  - (iii) Form of colour. Warm, Cold.
    - (a) Primary and Basic colours. Secondary colours.
    - (b) Tone of colours.
    - (c) Colour harmony.
- (4) Copying From Black Board, poster, etc., Pencil drawing etc., Sketches, Models of vegetables, fruit craft (Spinning and gardening equipment, etc., Drawing of models and the use of colours, Elementary lessons in painting, copying from old masters posters, etc.
- (5) Free expressional drawing—
  - (i) Different designs, posters, book cover, wall papers, fabric designs, advertisements for school activities, co-operative shop cartoons, etc.,
  - (ii) Illustrating scenes from stories.
- (6) *Home decoration*.—Its aim and value in the education of a child.
- (7) *Representational Drawing*.—Drawing of a plant, building, flower cutting and tearing.
- (8) Paper cutting and tearing.
- (9) Stencilling—lettering ; pictures of birds and animals, etc.

- (10) Spray designing.
- (11) Syllabus making in art for different classes of basic schools, equipment required for the teaching of art and its provision, etc.

## 2. MAJOR CRAFTS

### (i) GARDENING (Flowers and Vegetables)

#### A. Floriculture

Each trainee will grow at least five different flowers in a plot allotted to him and will keep full record of the growth of flowers and different stages in development of plants. Each trainee will also maintain a herbarium. The Technical knowledge obtained through this practical work will be :—

- (a) *Selection of site for garden and its lay-out.*—Laying of beds, rockeries, fountains, circular stand, shades gate, flowers, cottage, lawns, etc.
- (b) *Plant Study.*—Study of plant from germination of seedling up to formation of seed and dispersal of the seed again.
- (c) *Soil.*—Kinds, composition, properties and constituents of soil Preparation of the soil for seedlings—potting and potting soil.
- (d) *Manure.*—Kinds and composition—How to prepare and store leaf mould—cowdung and urine house dung—tank mud—white anti-soil ashes—canal silt, fertilizers and liquid manure, etc.
- (e) *Irrigation.*—Need of water—methods—when and how to water and precautions.
- (f) *Setting of beds.*—Raised and hot beds, seed sowing and reproduction by cuttings, buddings, grafting and layering.
- (g) *Transplantation.*—Time-care-methods and precautions after transplantation.
- (a) *Implements.*—Knowledge of important garden implements, their construction, repairs and care.
- (i) *Growing of flowers.*—Detailed study of at least twenty summer and winter flowers, isolation and selection of good varieties.

#### (B) VEGETABLE CULTURE

*Practical work.*—Each trainee will be given a separate plot for growing at least 5 vegetables—a full record will be kept for their growth, income, expenditure and profit, etc.

Every trainee will be given facilities in the handling or various implements used for vegetable growing, preparation of seed beds in nursery-transplantation of seedling and care, seed selection-isolation and collection of good varieties and storing for next season. The technical knowledge gained through this practical work will be :—

- (a) *Lay out of vegetable area.*—Advantages of small beds.

- (b) *Preparation of plots.*—Deeping, digging—levelling—picking up foreign matter as stones, etc., pulterising and making beds fine—irrigating the beds for preparing the ridges, etc.—making ridges.
- (c) Sowing of seeds—methods—distance and depth—good seed, seed testing, etc., impressing that air, heat and moisture and necessary for the germination of seed and light necessary for growth of the plant.
- (d) Care of the plant—irrigation—weeding—hoeing mulching—applying fertilizers—spraying—dusting—fencing—shading against frost, etc.
- (e) Study of various insects and birds—foes and friends of the farmer—plant diseases and their control.
- (f) Picking vegetables, storing—selling and preparation of income and expenditure statement, co-operative shop.
- (g) *Growing of vegetables.*—Detailed study of atleast twenty-five summer and winter vegetables as regards their soil requirements, manure—time of sowing—methods of sowing—seed rate—irrigation—hoeing and weeding time of harvest—average yield, etc.
- (h) Weather study :—
- (1) Study of different weather instruments.
  - (2) Recording of daily temperature and rainfall weather chart.
  - (3) Study of clouds and winds and weather conditions in different seasons.
  - (4) Knowledge of the weather forecast.
  - (5) Crop-calendar.
- (i) Marketing—Co-operative shop.
- (ii) *Garden Mathematics.*—Land measures, acre-inch-Karam—Local measures for land and garden produce.

Statistical records, yield per plot averages, percentages, graphs.

*Preparation of Albums.*—Specimen of leaves, roots, flowers and seeds (and other parts—wherever convenient) of the main crops, vegetables and fruit plants—some diseases parts and fungi-insects. There should be a large number of such specimens in school Museum.

## II. Spinning and Weaving

The following processes will be taught scientifically. An effort should be made to discuss the possibilities of correlation of other subjects with this craft. The technical terms involved like "Count of Yarn" "evenness"

“strength” etc., should be explained. The activity should be introduced as a planned project and not merely as something mechanized :—

- (a) Growing of cotton (Sheep farming in wool producing areas).
  - (b) Picking and storing of cotton (collection and storing of wool).
  - (c) Cleaning of cotton or wool.
  - (d) Ginning of cotton.
    - (i) With plank and rod. Standard of attainment 5 to 7½ tolas in half-an-hour.
    - (ii) With hand Gin, Hath Omi. Standard of attainment 40 to 60 tolas per half-an-hour.
  - (e) Combing of cotton or wool.
    - (i) Fine combing with bow in case of cotton and wooden comb in case of wool. Standard of attainment 2 tolas per half-an-hour including making of slivers.
    - (ii) New Combing with fingers and Bamboo knife. Standard of attainment 1 tola per half-an-hour.
  - (f) Carding with madhayam pinjan in case of cotton only. Standard of attainment 2½ tolas in half-an-hour including making of silvers.
  - (g) Spinning on Takli with one hand only, Postures :—
    - (1) Twisting on ground and winding on ground.
    - (2) Twisting on thigh and winding on ground.
    - (3) Twisting on leg below the knee and winding on ground.
4. Twisting on sole of feet and winding on ground.

*Standard of attainment.*—Speed : 60 round in half-an-hour including winding. Count 10 to 16. Strength and evenness 70 per cent.

- (h) Spinning on Kisan or Yarveda or bamboo Charkha with one hand. Standard of attainment. Speed 120 round in half-an-hour. Count 10 to 20. Strength and evenness 70 per cent.
- (i) Introduction of spinning on Magan Charkha, Dhanus Takwa or Ambar Charkha wherever possible.
- (j) Doubling and twisting of yarn.
- (k) Simple weaving of cotton Durree and Newar or Woollen Namda and Patti.



- (l) Weaving of finer patterns of cotton or woollen fabrics.
  - (i) Durree and Newar.
  - (ii) Plain Cloth.
  - (iii) Twill with stripes and check effect and double warp weaving on loom.
  - (iv) Dasuti and Towel.

*Note 1*—Weaving will include knowledge of and practice in the various preliminary processes of weaving i.e., Reeling, piecing, warping, spreading and sizing and finishing.

- (m) Dying of yarn and cloth ; dyeing with fast colours.
- (n) Simple calico-printing—Designing of prints for cloth, Bleaching, washing, cotton textile and dyeing, cleaning of woollen garments.
- (o) Planning and simple calculation for cotton or woollen textile (Evaluation of prepared material).
- (p) Fitting and repairing of equipment used.
- (q) Khadi movement, its history, economic and present day position.
- (r) Management of Cooperative stores, making of improvised equipment, i.e., weight and measures poonsalai etc., proper up-keep of equipment.
- (s) Maintenance of records pertaining to individual and class work. Statistical records of each article (time, progress costs graphs).

## II. WOOD WORK

*Note 1*—Wood work in schools must be given due importance firstly for making various things in connection with other educational activities and projects in the school, for making and repair of simple school furniture and fittings, and most important of all, for developing the designing and inventive faculty in boys. It is, therefore, proposed that a more imaginative method of work than is at present in vogue may be introduced in carpentry classes.

Simple household articles may be placed before the class and the boys be asked to suggest alternations in design or extra fittings which would increase the usefulness of the article. For example, a chair can be made more comfortable if an adjustable foot-rest and a glass-holder are attached to it.

2. Table light and lamp stands may be designed out of wood-blocks and bamboo-pieces.

3. Small tables (or tea-poys) may be made by fixing legs to a one inch thick section of a tree-trunk (these being of irregular outline, will have an attractive look).

4. Folding and adjustable furniture designs.
5. Wooden toys with interesting mechanical features.
6. The use of bamboo-rods, Sarkanda and Vanitecord should be explored in making house hold furniture toys and other things of common use.

The idea is that apart from learning the elementary skills of wood-work, the inventive faculty should be developed, schools should get craft books which give designs of things-to-make out of simple materials. Such books may be selected at a good book-shop.

The teacher will of course have to help and guide the boys in thinking out new ideas. Carpentry activities in schools should become more imaginative and should be coupled with various other school projects. The boys should think out new designs.

*Aims of teaching wood work*—Its use in daily life, kinds of wood, wood work apparatus, colouring and polishing of wooden articles.

The making of following models will also be taught :—

1. Salai for making slivers.
2. Slivers pressing board.
3. Sliver Board.
4. Takli and Charkha Winder.
5. Plain and folding pages.
6. Carding Bow.
7. Joints of different types.
8. Adda Niwar.
9. Adda Darri.
10. Adda Nara.
11. Small table.
12. Rack.
13. Book-shelf.
14. Trays.
15. Small Desks.
16. Black board and its stand.
17. Repairing of simple articles.
18. Waste paper basket.
19. Flower stand.
20. Any other model needs for work in schools or home by the child.

#### IV. HOME CRAFT

Under this major craft the following activities will be taught :—

1. *House-keeping*.—Arrangement of rooms in home—bed room, dining-room, sitting room—bath room, kitchen, etc., keeping the house neat and clean, dusting and decorating, arranging flowers, learning to make use of table cloth, curtains, chinks, etc. Arrangement of utensils, photo and other household objects, digging a pit for waste material, rubbish, etc. to be turned into compost, cleaning and polishing of furniture, door windows, metal cases, etc., indoor games.

2. *Cooking*.—Cooking of ordinary daily meals—vegetables, dals, rice, sweet dishes of various types, milk product, use of spices, knowledge of

balanced diet, use of raw-vegetables and salads, making of pickles, jams, jelly, marmalades, sauces, economical use of vegetables and fruits, Cooking of diet for sick persons-soups, dalia, suji, corn flour boiled vegetables, extraction of fruit juices, etc.

Serving of meals.

Cleaning of utensils.

Making of economic and smokeless chullahs. Calculating cost of meals.

3. *Laundry*.—Washing of cotton, silk and woollen garments protecting coloured cloth while washing, Removing of stains of different kinds.

4. *Sewing, Needle work, Embroidery and Knitting* :—Plain needle work use of different kinds of stitches such as hem, back stitch, seams, button holes, etc.

Mending of clothes, such as darning (round, rectangular holes and torn slits). Patches (round, triangular, rectangular and plain, flowered cloth). To cut and sew simple garments of every day use jangias, Kurta, pajamas, potticat, kamiz salwar, etc., with machine.

*Embroidery*.—Different types of stitches such as long and short stitches, chain stitches, laizy and daizy stitches, button hold stitches, lanket stitches and shadow work on table cloth, handkerchiefs and garments, glass work, choosing of coloured thread.

Knitting of socks and repairing them, sweaters, jerseys, shawls, crocket work, lace and edging.

### 3. MINOR CRAFTS

(I) Card Board Modelling :—

(i) Cutting of card board.

(ii) Use of knife Iron foot rule, right-angle.

(iii) Smoothing of edges.

(iv) Making of abri, from oil and water colours designing in abri making.

(v) Pasting of abri on models.

The following models will be made :—

Office Pad, Files of various type, Tray, Box-small, Time pice case, Letter, Box, Flower Vase in different shapes, Models of Primary School Buildings, Picture Stands, Suitcases, etc.

(II) *Poultry Farming*—

(1) Purpose.

(2) Different breeds of fowls.

(3) Equipment.

(4) Feeding and care of the fowls.

- (5) Egg production.
- (6) Hatching.
- (7) Diseases and prevention.
- (8) Marketing.

(III) *Bee-Keeping*—

- (1) Purpose of bee-keeping ; wax and honey production pollination of blossoms and breeding for sale.
- (2) Equipment hive, brood chamber, brood bars, foundation, Queen excluder, Shallow bar racks, quilts, smokers, Carbolic cloth, feeders, perforated zinc, Woil, Hive took Chearing board.

(IV) *Sericulture*—

- (1) Purpose.
- (2) Climatic conditions favourable for rearing silk, worms.
- (3) Life history of silk worm.
- (4) Incubation and hatching.
- (5) Bearing room.
- (6) Feeding and reaping of cocoons.
- (7) Marketing.

(V) *Bamb Work*—

- (1) Kinds of Bamboos.
- (2) Selection of bamboos.
- (3) Seasoning of bamboos.
- (4) Cutting and splitting.
- (5) Equipment and instruments.
- (6) Preparing of brooms, fans, baskets, of different kinds, charis, small tables, book racks, book shelves, chick making, lamp stands.

(VI) *Clay modelling*.—Aims of clay modelling, its use in education, different kinds of clay models, vegetable, fruits, animals, birds, etc. Colouring clay models, etc. Use of Potters wheel.

(VII) *Papier Machie*.—Preparation of pottery-globe making and map making.

(VIII) *Toy making*.—Soft toys, toys from old socks, shuttle cock, toys of ply wood and card board.

(IX) *Leather work*

(X) Making of Achars, Chutneys, Murabbas, Sharbats, etc.

(XI) Any other craft suited to the locality which may be selected and got approved from the Department.

## SECTION 'D'

(Sessional Work)

## DETAILED SYLLABUS IN SESSIONAL WORK

SESSIONAL WORK CONNECTED WITH IMPORTANT PRACTICAL ASPECTS OF  
THE TRAINING*Maximum Marks—100*

(1st year—25, 2nd year—75)

1. Field exploration and collection of Field date.
  - (a) Natural Environment (20 marks)
    - (i) Collection of plants, in sects, stones, etc., for school, museum and their labelling. Their names (schools should get illustrated books about Indian Plants, insects, birds, animals, etc.).
    - (ii) Census of trees of various kinds in the neighbourhood. (Illustrated charts to be made by children).
    - (iii) Simple surveying and map-making of the neighbourhood, indicating various features on the map, e.g., various crops, trees, wells, canals, houses and roads.
  - (b) Social environments (20 marks)
    - (iv) Census of village trades and occupations, kucha and pucca houses, people, also blind, lame or sick persons, cattle, bullock-carts, tongas, bicycles ; making of illustrated charts by the children.
    - (v) Visits to local temples, tanks, ruins, old trees. Drawings of these places to be made measurements taken local folk-lore collected and diarised by the children.
2. *Note.*—Organisation of Field-Exploration in groups of 10.
3. Use of Deference Books (20 marks)
  - (i) To identify plants, insects, birds and collect information about particular specimens.
  - (ii) To prepare interesting lessons about given topics and show pictures from the books.
4. Collecting pictures and diagrams from magazines and advertisements and preparation of talks (\*10 marks).
 

\*Collections to be made under some main heads, e.g., science, Nature-study, Astronomy, Geography, History, etc., with name and date of trainee. A classified collection should also be built up by the institution.
5. Improvising costless equipment, e.g., scales for weighing. (15 marks)

6. Making private collection of teaching aids (15 marks).

Insects, Shells, fossils, plants, stones, pictures of Scientific industrial historic, Geographical and nature-study interest. These will be property of the trainee with his name and date.

### ASSESSMENT OF SESSIONAL PRACTICAL WORK

The practical part of the syllabus should be given the same importance as practical work in colleges. It will be assessed through records maintained by the students and by visits of inspecting officers during term time to ensure that these activities are being conducted efficiently and regularly.

The above items in this section of the syllabus are dealt with below.

*Item Nos. 1 and 2. Field Exploration and collection of field data.*—The students should maintain systematic records of this activity. These records should be signed and dated by the Professor Incharge as in the case of practical note in colleges.

*Item No. 4. Collection of Pictures and Diagrams.*—At the final examination, each candidate should present his collection each piece bearing his name and dated signatures of instructor (tutor).

*Item No. 5. Improvising castless equipment.*—Here also each candidate should produce at least three models made by him during the course of training.

*Item No. 6. Private Collection of teaching aids.*—This collection should also be produced by each candidate at the time of examination. Each thing should bear his name and signature of the Professor in-charge.

At the end of the 1st year, internal award will be given out of total of 25 marks and will be based on the work done during that year. It will be submitted to the Assistant Director (Examinations) immediately after the examination in theory.

At the end of the second year, the internal assessment based on the work done in during the entire course of training will be made out of a total 75 marks and submitted to the Assistant Director (Examinations).

As already indicated under practical skill in teaching, each candidate will be tested in the organisation of games and recreational activities.

In addition, each candidate will be required to compete during the course of training for the National Physical Efficiency Test (Junior/Senior-according to his/her age and a mention about the star merit Certificate won by him/her would be made in the Departmental Certificate issued for the J.B.T. Examination.

## PUNJAB EDUCATION DEPARTMENT

(Seal)

## JUNIOR BASIC TEACHERS CERTIFICATE

Session \_\_\_\_\_

This is to certify that \_\_\_\_\_

(Candidate)

son/daughter of \_\_\_\_\_

(Father's name)

born on \_\_\_\_\_ ( \_\_\_\_\_ )

(Date of birth)

(In words)

and a resident of \_\_\_\_\_

(Place, Tehsil and District).

has successfully completed the Junior Basic Teachers Course of two years duration at \_\_\_\_\_

(Institution)

Particulars	External Assessment (Departmental Examination)		Internal Assessment (School records)	
	Maximum Marks	Marks obtained	Maximum Marks	Marks obtained
<b>Part I—</b> (Examination at the end of the 1st year)				
A. Theory	..	350	..	..
B. Skill in teaching	..	..	..	25
C. Art and Crafts	..	..	..	50
D. Sessional Works	..	..	..	25
<b>Part II</b> (Examination at the end of 2nd year)				
A. Theory	..	300	..	..
B. Skill in Teaching (Including recreational activities and games)	..	250	..	75
C. Art and Crafts	..	150	..	100
D. Sessional Work	..	..	..	75
Total	..	1,050	..	350
Grand Total	..	1,400		..

\*Passed in \_\_\_\_\_ Division in External assessment and in \_\_\_\_\_ Division in Internal assessment.

He also competed in the National Physical Efficiency test (Junior/Senior) and has won \_\_\_\_\_ Star Merit Certificate).

(Sd.) \_\_\_\_\_

Assistant Director (Examination),  
for Director of Public Instruction, Punjab.