COMBINED COMPETITIVE EXAMINATION SYLLABUS

I. Syllabus for Principals in Morarji Desai / Kittur Rani Chennamma/Ekalavya Model Residential Schools.

Syllabus for Paper-1: General Studies (नमूना पेपर-1 मुख्य अध्ययन)

Objective type Multiple Choice Questions on General Awareness, General Intelligence and Reasoning, Numerical Ability, Mental Ability, Teaching aptitude, General English, General Kannada, and General Knowledge.

The General Paper on General English and General Kannada to normally conform to minimum standard expected student who has passed the Bachelor Degree Examination of a University. It is intended to test candidate’s knowledge of English and Kannada in Grammar, Vocabulary, Spelling, Synonyms, his power to understand and comprehend English and Kannada Languages and his ability to discriminate between correct and incorrect usages etc.,

Syllabus for Paper-2: Education -1
(স্যাল্যাবাস -2: শিক্ষা-1)

Educational Administration
➢ Constitutional provisions and directive principles for education in—, the Indian Constitution, measures for fulfilling the Constitutional obligations;
➢ Role of different agencies (society, home, school) and their interrelationship— in the administration of Education;
➢ Education in relation to fundamental rights, democracy,—, secularism and social justice;
➢ A critical analysis of the aims of Education in relation to national— understanding.
   a) Content and methodology changes on
   b) Educational Administration and Educational Planning
➢ School- community
➢ Relationship in relation to quantitative and qualitative— development in education.
➢ Role of Head of the Educational Institution as an Administrator, Academic Leader and Leader for the Development of the Institution.
➢ Class room organization and Management, Physical facilities in a school, school environment teacher role Leadership style of head master and its influence on teacher role performance.
➢ Class room management; Mechanisms for coordinated functioning in school.

Psychological foundations
➢ Child development-Physical, intellectual, emotional and social;
➢ Problems of adolescence-role of home-school and society in dealing with them.
Learning;
  a) Concept;
  b) Factors affecting learning
  c) Motivation and measures for creating effective learning situation

New Initiatives in Karnataka

➢ Quality improvement programme in Education
➢ Compulsory Primary Education and Incentive scheme for
➢ compulsory Primary Education
➢ Incentive Programmes of Department of public Instruction and—
   Social Welfare Department for the children of Primary and Secondary
   Education-Text-books,-Uniforms-midday meals, Residential Schools
   etc.,
➢ School development and monitoring committees
➢ Systems of Examination
➢ Computer education in schools
➢ Sarva Shiksha ASbhiyan (SSA) and Ratriya Madyamika Shiksha—
   Abhiyan (RMSA) goals/objectives.
➢ In-service Teacher training programmes
➢ Role of District Teacher Institute of Educational Training (DIET)—
   and College for Teacher Education(CTE)
➢ Student/Teacher Welfare Programmes.
➢ Examination reforms-efforts to improve quality
➢ Action research
➢ Innovative experiments in distance EDUCATION
  1.Keli Kali 2) Edusat etc.,

➢ Inclusive education programme
➢ Environment education and Health education in schools
➢ Recent programmes to promote.

  a) Universal access
  b) Universal enrollment
  c) Universal retention
  d) Universal achievement
Syllabus for Paper -3: Education -2  

Education for National Development. 
Emerging Interface between Political Process & Education. 
Right of Children for Free and Compulsory Education Act. 
Implementation of an educational policy-political will and effort, macro level requirements; action plans and programme guidelines as tools for implementation and essentiality of political support; State and Centrally Sponsored Schemes of Education 
Education and Economic Development 
Education and Individual Development 
Education and Socio-Cultural Context 
Learning Environment: the changing scenario 
Systems & Structures in School Education 
Universalisation of Secondary Education 
Impact of realizing the UEE on Secondary Education: access, enrolment, participation and achievement: status of USE. USE: issues and concerns Lessons from implementation of UEE Strategies for realization of targets.

❖ Equity & Equality in Education, Quality in Education

What is ‘Quality Education’?

❖ Education for Conservation of Environment

Conservation of environment an imminent need for sensitizing learns towards concerns of environmental conservation. Integration of environmental concerns in curriculum Role of teacher in promoting conservation
❖ Nature of the Learner: Child and Adolescent
❖ Organization learning: Issues and Concerns Understanding Teaching
❖ Teaching as a planned activity
  ➢ Elements of Planning Assumptions underlying teaching and their Influence on the planning for teaching.

Phases of teaching:

a) Pre-active, Interactive and Post-active. Proficiency in teaching: meaning, and place of awareness, skills, competencies and commitment.
b) The general and subject related skills and competencies required in teaching. Impact of one’s own socialization processes, awareness of one’s own shifting identities as ‘student’, ‘adult’ and ‘student teacher’ and their Influences on ‘becoming a teacher’
c) Teacher’s professional identity. What does it entail?
  ➢ Assessment & Evaluation
  ➢ Perspectives on Assessment & Evaluation
  ➢ Assessment of Learning Assessment for Learning
1. Syllabus for Paper-2: Optional Papers

1. Syllabus for Kannada Language Teacher

2. Syllabus for English Language Teacher


3. Syllabus for Hindi Teacher

1. Bhasha Vignan
2. Sahityaka Ithihas
   a) Adikal
   b) Bhakthikal
   c) Reetikal
   d) Adhunik kal(Gadhya)
   e) Adhunik Kal[Padhya]

4. Syllabus for Mathematic Teacher


5. Syllabus for Science Teacher

CHEMISTRY:
- CHEMISTRY: INORGANIC CHEMISTRY: Atomic structure, periodic table, chemical bonding, metallurgy, d-block elements, f-block elements, co-ordination chemistry, industrial chemistry, analytical chemistry
- PHYSICAL CHEMISTRY: Gases, Colloids, Surface Chemistry, Thermodynamics, Nuclear Chemistry, Electro Chemistry, Indicators
- ORGANIC CHEMISTRY: Alkanes, Alkenes and Alkynes - IUPAC nomenclature, Isomerism, Functional groups Aromaticity, Vitamins, Hormones, Alkaloids, Carbohydrates

BIOLOGY: Living World, Cytology, Micro Organisms, Life Processes, Food Production & Management, Environmental Science,

NON - CHORDATA

PHYLUM: Protozoa, Porifera, Cnidaria, Acnidaria, tylemthines, Aschelminthes, Annelida, Arthropoda, Mollusca, Echinodermata

CHORDATA

Characteristic features of chordata. Outline classification and Identifying features of Prochordata (Urochordata, Hemichordata and ephalchordata) and vertebrata salient features of Agnatha with examples. Pisces, Amphibia, Reptilia, Aves, Mammalian

CELL BIOLOGY: Cell and its Organelles, Mitosis and Meiosis, Fertilization, Parthenogenesis, Sex Determination, Sex determination in Man, Genetics.
BIOCHEMISTRY AND PHYSIOLOGY: Carbohydrates, Proteins, Lipids, Vitamins, Enzymes, Physiology, Histology, Environmental Biology, Terrestrial Ecology,

Evaluation of Life, Introduction to Genetics, Biotechnology


6. Syllabus for Social Science Teacher


CIVICS: Social & Economic development, Man as a citizen, Democracy, Local Self government, Democracy at work in India, Government at state level, Government at the centre, Defense of the country, Challenges and Problems of India, India and the world, World Problems and India’s policy, Constitution of India.


ECONOMICS: Economics – Meaning and Definition, Basic concepts, National Income, Forms of Economic system, Institutional Set up, Infrastructure of Indian Economy, India – Agriculture development,
Relation between Agriculture and Industry, Trade- Domestic and Foreign Trade of India, State and Economic development, Sociology, Political Science.

7. Syllabus for Physical Education Teacher


8. Syllabus for Computer Teacher

Computer Fundamentals and C Programming

- **Introduction to C Programming:**
  - History of C, Structure of C programme. The C character set, Contents, Variables and keywords, Types of contents and variables.

- **C Instructions diocese**
  - Type declaration and arithmetic instructions, Integer and float conversions. Type conversion in assignment, Operators in C, Hierarchy of operators, control instructions, Input-Output statements in C (Formatted and Unformatted)

- **Control Structures**
  - Decision control structures, Logical operators, conditional operator and relational operators, Loop control structures - while, do-while, for loop, Break statement, Continue statement, switch-case control structure, go to statement.

- **Arrays**
  - One dimensional and multidimensional array, declaration, initialization and array manipulations, sorting (Bubble sort) Strings-Basic concepts, Library functions.

- **Functions**
  - Definition, function definition and prototyping, types of functions, types of arguments, recursions, passing arrays to functions, storage class in C-automatic, register, external and static variables.

- **Pointers**
  - Definition, notation, pointers and arrays, arrays of pointers and functions-call by value and call by reference, pointers to pointers.
• Structures and Unions
  Definitions, declaration, accessing structure elements, arrays of structure in a structure, pointers and structures, unions-definition, declaration, accessing union elements, typed of, Enum Bit fields.

• Bitwise Operators
  Bitwise AND, OR, Exclusive OR, Compliment, right shift and left shift operators.

• C Preprocessor
  Types of C Preprocessor directives, macros, file inclusion.

• Files
  File operating modes, Text and binary files, High level and low level operations on file, command line arguments

Data Structures
• Introduction to data Structures
  Definitions. Classification of data structures. Operations on data structures, Introduction to Time and space Complexity.

• Primitive Data Structures
  Integer, Character, float, strings-memory representation and primitive operations, String manipulation using pointers.

• Arrays
  Storage Representation for 1D and 2D arrays, Insertion and deletion on 1D arrays, advantages and disadvantages of arrays.

• Linked Lists
  Pointers, Dynamic Memory Allocation, singly Linked Lists, and Operations on linked lists, Insertion and deletion of a node, Introduction to circularly linked lists and doubly linked lists.

• Stacks
  Concepts, Operations, sequential and linked implementation, Application of stacks, recursion, tower of Hanoi, infix to postfix conversion, Evaluation of Postfix Expressions.

• Queues
  Concepts, operations, sequential and linked implementation, Circular queues, Priority queues and Dequeues (Introductory concepts), Application of queues.

• Trees
  Definitions and concepts - Binary trees, Sequential and Linked Representation of Binary Tree Trees, Insertion and deletion on binary trees, Binary Tyree Traversal.

• Graphs
  Concepts, Sequential and linked representation of Graphs, BFS and DFS Traversal.

• Searching and Sorting
  Linear and Binary search, Selection sort, Insertion sort, Quick sort, Merge sort.
Operating System


❖ Process Management
Process Concept, Process control Block, Process Scheduling, CPU Scheduling - Basic Concepts, Scheduling Algorithms FIFO, RR, SJF, Multi-level, Multi-level feedback.

❖ Storage Management

❖ File System

❖ Input/Output Systems
Paper II: Scheme of Study / Specific Paper Syllabus for the post of warden and first Division Assistant cum Computer Operator.

(Degree standard)

(a) General Kannada (300 marks / Maximum marks-70)
(b) General English (300 marks / Maximum marks-70)
(c) Computer Knowledge (300 marks / Maximum marks-60)