

COMBINED COMPETITIVE EXAMINATION SYLLABUS

1. Syllabus for Paper-2: Optional Papers

1. Syllabus for Kannada Language Teacher

ಘಟಕ-1 - ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ

ಹಳಗನ್ನಡ ಕಾಲ, ನಡುಗನ್ನಡ ಕಾಲ, ಹೊಸಗನ್ನಡ ಕಾಲ - ಕವಿಗಳು, ಕೃತಿಗಳು

ಘಟಕ-2 - ಕಾವ್ಯ ಮೀಮಾಂಸೆ ಮತ್ತು ಛಂದಸ್ಸು

ಘಟಕ-3 - ಕನ್ನಡ ಭಾಷೆ ಮತ್ತು ವ್ಯಾಕರಣ

2. Syllabus for English Language Teacher

ENGLISH : Pronunciation, Spelling, Parts of Speech, Time and Tense, Modals, Prepositions, Articles, Phrasal Verbs, Reported Speech, Agreement, Grammar and Usage, Functional English, Synonyms, Antonyms, Idioms and Phrases, Prefixes and Suffixes, Error Detection, Comprehension, Cloze, Shuffling Sentence Parts, Shuffling sentences in Paragraphs, Testing and Evaluation, Methods/Techniques, ELT Terms

3. Syllabus for Hindi Teacher

1. Bhasha Vignana

2. Sahitya Ithihas

a) Adikal

b) Bhakthikal

c) Reetikal

d) Adhunik kal (Gadhya)

e) Adhunik Kal (Padhya)

4. Syllabus for Mathematic Teacher

PHYSICS: Mechanics, Properties of matter, Heat and Thermodynamics Waves, Sound, Light, Optics, Electricity and Magnetism, Electronics and modern physics Theory of active and passive networks and devices, filters, power supply. Digital electronics. Atomic Spectroscopy, Atomic structure,

charge, mass and e/m . Molecular spectra, Lasers and masers. X-rays and crystal structure. Free electronic theory, semiconductors-Band theory. Magnetic materials. Quantum mechanics:- Wave mechanics, matter waves, Eigen functions, Schrödinger wave function. Special theory of relativity, Lorentz contraction, time dilation, Doppler effect, Ultimate speed. Aberration, variation of mass. Properties of nucleus, detectors, accelerators, nuclear decays, Nuclear models, Fission and Fusion, Nuclear reactions-binding energy, Cosmic rays, fundamental particles.

MATHEMATICS: Numbers and Numerals-Number systems, Number sets, Basic operations, Properties, Square numbers and Square roots, Cube numbers, and cube roots, Irrational numbers, Sets, Matrices, Mathematics in day today activities, Statistics, 4. Permutations and Combinations, 5. Modular arithmetic 6. Algebra-Basic concepts, operations and properties, Exponents, Factors and Factorization Surds 7. Equations-Linear and Quadratic equations, 8. Geometry-Basic concepts, Axioms and postulates, Theorems, 9. Triangles, Circles, Quadrilaterals and polygons - definitions, properties and theorems 10. Mensuration, 11. Polyhedra and Network.

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, tyhelminthes, 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, Reptilla, 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

Protista, Viruses, Bacteria, Physiology Mycology, Bryophytes, Hepaticae, Anthocerotae, Musci, Pteridophytes, Gymnosperms, Plant Anatomy, Tissues, Embryology, Ecology, Plant succession, Plant communities, Phytogeography, Taxonomy of Angiosperms, Families, Economic botany, Plant propagation, Cytology, Chromosomes, Cell division, Polyploidy, Genetics, Evolution, Plant physiology, Enzymes, Xerox synthesis, Respiration, Protein synthesis, Growth, Xerox periodism, Plant Biotechnology

6. Syllabus for Social Science Teacher

HISTORY: Medieval India, Religious & Social reform movements, Delhi sultans, Bhakthi movement, Vijayanagar empire, Bahamani Sulthans, Great mughals, Marathas, Renaissance, Reformation, Geographical discoveries, foreign invasion, Rise of English, Mysore sulthans, Wodeyars of Mysore, First war of Independence, National movement -Gandhian Era & partition & Independence, Geographical features on history, Pre-historic period, Ancient civilizations , Vedic age, Birth of new religions, Mauryans, Kushans, Gupthas, Vardhana dynasty, Southern dynasties, Rise of Christianity & isiam, Mediavai Europe, Rajputs, Rise of Revolutions & equality, Constitution development in India, Modern world - First & Second World war, Contemporary world

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.

GEOGRAPHY: Physical Geography, Environment, Layers of the Earth, Resources, Natural Regions of the earth, World climate, World Natural Vegetation, Human occupations, Human interaction with environment, India & Asia, Africa, North America, South America Australia ,Europe & Antarctica -Physical divisions, Climate, Natural vegetation and animal life, Resources, Agriculture, Mineral and power resources, Industrial Development, Transport and Communication, Layers of atmosphere, Universe

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

Scientific foundation of Physical Education, History of Physical Education, Anatomy, Physiology, Health Education, Safety Education and First Aid, Organisation and Administration in physical Education, Tests and measurements in physical Education, Psychological principles in Physical Education, Major Games and Sports- Principles of officiating in major games like Foot ball, Hockey, Kho-Kho, Kabaddi, Basketball, Volleyball, T.T. Shuttle Badminton, Cricket, Recreation and Camping and minor games, Yoga, Individual Special Activities, National Ideals, Integration, Sports Current affairs.

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**

Definition. 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 Tree 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.

Process Concept, Process control Block, Process Scheduling, CPU Scheduling, Basic Concepts, Scheduling Algorithms, FIFO, RR

❖ Storage Management

❖ File System

❖ Input/Output Systems

OOPS using C++

Software Engineering, System

Basic Java and UNIX Programming, Internet Lab

Scanned with CamScanner

ಕಾರ್ಯದರ್ಶಿಯ ಅಧೀನದಲ್ಲಿ,
ವಿವರಣೆ ಮತ್ತು ವಿಶ್ಲೇಷಣೆ ಮಾಡಿ
ವಿವರಿಸಿ.

Syllabus for Graduate drawing teacher,

Paper-II: ಸಂವಹನ/ Communication.

- (a) ಸಾಮಾನ್ಯ ಕನ್ನಡ/General Kannada (ಗರಿಷ್ಠ ಅಂಕಗಳು/Maximum marks-70)
- (b) ಸಾಮಾನ್ಯ ಇಂಗ್ಲಿಷ್/General English (ಗರಿಷ್ಠ ಅಂಕಗಳು/Maximum marks-70)
- (c) ಗಣಕಯಂತ್ರ ಜ್ಞಾನ/Computer Knowledge (ಗರಿಷ್ಠ ಅಂಕಗಳು/Maximum marks-60)

Syllabus for Diploma drawing teacher

Paper-II: ಸಂವಹನ/ Communication.

- (a) ಸಾಮಾನ್ಯ ಕನ್ನಡ/General Kannada (ಗರಿಷ್ಠ ಅಂಕಗಳು /Maximum marks-70)
- (b) ಸಾಮಾನ್ಯ ಇಂಗ್ಲಿಷ್/General English (ಗರಿಷ್ಠ ಅಂಕಗಳು /Maximum marks-70)
- (c) ಗಣಕಯಂತ್ರ ಜ್ಞಾನ/Computer Knowledge (ಗರಿಷ್ಠ ಅಂಕಗಳು /Maximum marks-60)


Executive Director
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