

AP DSC 2014 SGT Syllabus - AP TET Cum TRT SGT Syllabus. The Detailed syllabus for Written exam of AP DSC 2014 SGT Posts released officially. Candidates can now prepare according to the syllabus given for SGT posts in AP DSC 2014. There will be VI Parts in SGT Written Exam in AP DSC 2014 (TET CUM TRT). It doesn't matter whether It is depending on Old Text Books or New Text Books but Candidates have to be thorough all the Syllabus mentioned below.

APDSC 2014 SGT Syllabus

Sl.No	Content	No. of Multiple Choice Questions	Marks
i.	General Knowledge and Current Affairs	10 MCQs	10 Marks
ii.	Child Development and Pedagogy	30 MCQs	30 Marks
iii.	Language I (Opted by the candidate)	35 MCQs	35 Marks
iv.	Language II (English) (Content & Methodology)	35 MCQs	35 Marks
v.	Mathematics (Content & Methodology)	30 MCQs	30 Marks
vi.	Environmental Studies (Content & Methodology)	40 MCQs	40 Marks
	TOTAL	180 MCQs	180 Marks

Part - I

GENERAL KNOWLEDGE AND CURRENT AFFAIRS (Marks: 10)

Part – II CHILD DEVELOPMENT AND PEDAGOGY (Marks: 30) SYLLABUS

1.DEVELOPMENT OF CHILD

- -Development, Growth & Maturation – Concept & Nature
- - Principles of Development
- - Factors influencing Development – Biological, Psychological, Sociological
- - Dimensions of Development and their interrelationships – Physical & Motor, Cognitive, Emotional, Social, Moral, Language relating to Infancy, early Childhood, late Child hood.
- - Understanding Development – Piaget, Kohlberg, Chomsky, Carl Rogers
- - Individual differences – Intra & Inter Individual differences in the areas of Attitudes, Aptitude, Interest, Habits, Intelligence and their Assessment
- - Development of Personality – Concept, Factors effecting development of Personality
- - Adjustment, Behavioral problems, Mental Health
- - Methods and Approaches of Child Development – Observation, Interview, Case study, Experimental, Cross sectional and Longitudinal
- - Developmental tasks and Hazards

2. UNDERSTANDING LEARNING

- Concept, Nature of Learning – Input – Process – Outcome
- Factors of Learning – Personal and Environmental
- Approaches to Learning and their applicability – Behaviorism (Skinner, Pavlov, Thorndike), Constructivism (Piaget, Vygotsky), Gestalt (Kohler, Koffka) and Observational (Bandura)
- Dimensions of Learning – Cognitive, Affective and Performance
- Motivation and Sustenance –its role in learning.
- Memory & Forgetting
- Transfer of Learning

3. PEDAGOGICAL CONCERNS

- - Teaching and its relationship with learning and learner
- - Learners in Contexts: Situating learner in the socio-political and cultural context
- - Children from diverse contexts – Children With Special Needs (CWSN), Inclusive Education
- - Understanding of Pedagogic methods – Enquiry based learning, Project based learning, Survey, Observation and Activity based learning

- - Individual and Group learning: Issues and concerns with respect to organizing learning in class room like Study habits, Self learning and Learning to learn skills
- - Organizing learning in heterogeneous class room groups – Socio-economic background, Abilities and Interest
- - Paradigms of organizing Learning - Teacher centric, Subject centric and Learner centric
- - Teaching as Planned activity – Elements of Planning
- - Phases of Teaching – Pre active, Interactive and Post active
- - General and Subject related skills, competencies required in teaching and attributes of good facilitator
- - Learning resources – Self, Home, School, Community, Technology
- - Class room Management: Role of student, teacher, Leadership style of teacher, Creation of non-threatening learning environment, Managing behavior problems, Guidance & Counseling, Punishment and its legal implications, Rights of a child, Time Management.
- - Distinction between Assessment for Learning & Assessment of Learning, School based Assessment, Continuous & Comprehensive Evaluation : Perspective & Practice
- - Understanding teaching & learning in the context of NCF, 2005 & Right to Education Act, 2009

Part – III Language – I Content and Methodology) (Marks: 35)
Optional by the Candidate: Telugu/Urdu/Hindi/Tamil/Kannada/Oriya

TELUGU SYLLABUS FOR SGTs

Part – III

Language – I Content and Methodology) (Marks: 35)

Optional by the Candidate: Telugu/Urdu/Hindi/Tamil/Kannada/Oriya

Language – I Telugu (Content and Methodology) (Marks: 35)

తెలుగు

A విషయం:

1. అ) అపరిచిత గద్యం ఆ) అపరిచిత పద్యం
 2. కవులు - రచయితలు - కావ్యాలు - రచనలు
ప్రక్రియలు
ఇతిహాసం, పురాణం - ప్రబంధం - శతకం - కథ - కథానిక - గల్పిక - వ్యాసం - లేఖ-
సంపాదకీయం - వార్తావ్యాఖ్య - విమర్శ - ఆత్మకథ - జీవిత చరిత్ర.
 3. క్రియలు - సమాపక, అసమాపక క్రియలు, అకర్మక, సకర్మక క్రియలు, వాక్య భేదాలు,
రకాలు, వాక్యరీతులు, కర్తృత్వక, కర్మణ్యార్థక వాక్యాలు - ప్రత్యక్ష - పరోక్ష వాక్యాలు, వాక్య
నిర్మాణం, వాక్యక్రమం, సంఘటనాక్రమం, ఆధునిక భాష మార్పిడి, ప్రామాణిక లేఖన రూపాలు,
మాండలికాలు, అర్థవిపరిణామం.
 4. భాషారూపాలు: గ్రాంథిక భాష - వ్యావహారిక భాష, మాండలిక భాష, ఆధునిక
ప్రామాణిక భాష.
 5. పద్యములు: ధ్వని, ధ్వన్యత్పత్తిస్థానాలు, పద్యమాల, కళలు, దృత ప్రకృతాలు, పరుషాలు,
సరళాలు, భాషాభాగాలు, పచనాలు, కాలాలు, లింగం, విభక్తులు, విరామ చిహ్నాలు, అర్థం,
నానార్థాలు, పర్యాయపదాలు, ప్రకృతి-వికృతులు, వ్యతిరేక పదాలు వ్యుత్పత్త్యర్థాలు, పొడుపు
కథలు, సామెతలు, జాతీయాలు, ఛందస్సు, అలంకారాలు.
- బి. బోధనా పద్ధతులు
1. భాష, మాతృభాష, మాతృభాష బోధన లక్ష్యాలు
 2. భాషా నైపుణ్యాలు
 3. బోధన పద్ధతులు
 4. ప్రణాళిక రచన, వనరుల వినియోగం, సహపాఠ్య కార్యక్రమం
 5. బోధనాభ్యసన ఉపకరణాలు, ఆంధ్రసాహితీ సంగ్రహం
 6. మూల్యాంకనం.

Urdu Syllabus

Language – I Urdu (Content and Methodology) (Marks: 35)

Content

۱۔	ادب اور معاشرہ کی وابستگی اور ادبی کارنامہ۔
II۔	ادب اور معاشرہ (تجزیہ)
III۔	ادب اور زبان کے تعلق
کلیں۔	ادب اور معاشرہ کے تعلق
جملہ۔	ادب اور معاشرہ کے تعلق
ذکر محاورے۔	ادب اور معاشرہ کے تعلق

Methodology

۱۔	ادب اور معاشرہ کے تعلق
۲۔	ادب اور معاشرہ کے تعلق
۳۔	ادب اور معاشرہ کے تعلق
۴۔	ادب اور معاشرہ کے تعلق
۵۔	ادب اور معاشرہ کے تعلق
۶۔	ادب اور معاشرہ کے تعلق

Language – I Hindi (Content and Methodology) (Marks: 35)

Content

1. रचनाकार /रचनाएँ विषयवस्तु , चित्र-चित्रण, भाषा शैली आदि।
2. साहित्यक विधाएँ और उनकी विशेषताएँ
3. भाषा तत्व और व्याकरण
 - शब्द विचार : अपसर्ग –प्रत्यय
 - शब्द भेद
 - लिंग , बचन कारक ,काल
 - शब्द रूपान्तर
 - शब्द – अर्थ , भिन्न – भिन्न अर्थ , पर्यावाची शब्द और विलोम शब्द
 - शब्द परिचय – तत्सम , तदभव, देशज और विदेशी

Part – IV Language II - English (Content and Methodology) (Marks: 35)

Content

- 1. Parts of Speech
- 2. Tenses
- 3. Types of Sentences

- 4. Articles and Prepositions
- 5. Degrees of Comparison
- 6. Direct Speech and Indirect Speech
- 7. Clauses
- 8. Voice – Active and Passive Voice
- 9. Use of Phrases
- 10. Comprehension of a Prose Passage
- 11. Composition
- 12. Vocabulary

Methodology

- 1. Aspects of English:- (a) English language – History, Nature, Importance, Principles of English as Second Language (b) Problems of Teaching / Learning English.
- 2. Objectives of Teaching English.
- 3. Phonetics
- 4. Development of Language skills:- (a) Listening, Speaking, Reading & Writing (LSRW) (b) Communicative skills.
- 5. Approaches, Methods, Techniques of teaching English: Introduction, Definition and Types of Approaches, Methods and Techniques of Teaching English, Remedial Teaching.
- 6. Teaching of Structures and Vocabulary items.
- 7. Teaching Learning Materials in English
- 8. Lesson Planning
- 9. Curriculum & Textbooks
- 10. Evaluation in English language

Part – V Mathematics (Content and Methodology) (Marks: 30)

Content

1. Number System (Elementary Number Theory):

1. Number system (N,W,Z,Q,R) Numeration and Notation, Representation of numbers on Number Line, place value and four fundamental operations , properties of numbers, squares, cubes, square roots (R) and their extraction square roots of real numbers and cube roots, factorization method, types of surds conjugation and rationalization of surds, Prime and composite numbers, types of prime numbers (co, twin, relative etc.),Fermat number, even and odd numbers, prime factors, LCM, GCD and Theorem of Gauss on relative primes, Roman Numerals, Test of divisibility. International System, Concepts and types of fractions, decimal fractions, rational and irrational numbers, decimal representation, writing pure recurring decimal / mixed recurring decimal with integral part their fundamental operations and their use in daily life.

2. Arithmetic:

1. Length, weight, capacity, Time and Money their standard unit and Relation between them, and their use in daily life. Unitary method, Ratio and proportion, Inverse Proportion, Percentages, trade discount, Average, profit – loss, Simple interest, compound interest, Partnership, time-distance and work. Problems pertaining to Clocks.

3. Simple Equations:

1. Properties of Equality, Equations, Solving in-equation using their properties, Linear in-equations and their graphs, System of in equations. Linear equations in two variables, System of linear equations and their graphs, Simultaneous equation in two variables, Dependant equations, System of equations, Linear functions.

4. Algebra:

1. **Basic** Concepts of Algebra, Algebraic expressions and their Fundamental operations, Degree of a monomial, polynomial, Zero of a polynomial, Fundamental operations of Polynomials, Value of expression, Solving Equations. Properties of Polynomials (Commutative etc) and fundamental operations of polynomials. Factorization, Polynomials over integers, Simplification of polynomials, Some special products, Square roots of algebraic expressions, Equations

with rational and decimal coefficients, Set – concept – types – Set building form, roster’s form, equality, cardinal and ordinal number, Representation of sets with Venn diagrams , Basic set operations , Compliment of a Set, Laws of set operations, principal of duality, Relations, Cartesian product of two sets, Applications of set theory, inverse relation, types of relation, Multiplication of a multinomial by a monomial, Binomial expansions, Identities, Division Rule (Remainder Theorem) Factorization GCF/HCF, Factors of multinomial, Common binomial factor, Division of a monomial by a monomial, Factorization of quadratic expression, Exponents and powers, Laws of indices, powers with exponent zero, Formula and their uses, Changing the subject of the formulae, Remainder theorem, Horner’s method of synthetic division, The problem leading to quadratic equations, Laws of rational indices, Modulus of a real number.

5. Geometry:

1. Structure of geometry and Historical back ground, Geometry in Real Life, Fundamentals in Geometry, Method of proof, concept of converse, Rotation of an angle, Types of angles, Construction and measurement of angles, Line, axis, shapes, reflections. Symmetry – line of symmetry, point of symmetry, reflection, image of an angle. Construction of Different Angles, line segments, midpoint, etc. Triangles, its properties, Inequalities in a triangle, Types of Triangles, Parts of triangle, special cases like unique triangle, concurrency, Similar triangle and their properties, Theorems on similar triangle Congruency of triangles, SAS/ASA/SSA Axioms , Some theorems, Construction of triangles, harder cases, different types, concurrent lines in triangles (some theorems) Median, altitudes of a triangle the circum centre, in centre, the ex-centres, the centroid, orthocentre (Concurrency of triangles).Circles and its parts, Locus, Congruency of Circles, Cyclic Quadrilaterals, Axioms, Straight line, basic axioms parallel lines, Some theorem based on Parallel lines, Angles of a polygon, theorems based on polygons, Similar polygons Parallelogram and its properties, Geometric inequalities, Quadrilaterals , exterior and interior and convex and their constructions.

6. Mensuration:

1. Perimeter and Area of Triangle, Quadrilateral, Sector, Circle, different types of paths and polygons. Perimeter and Area of four walls of room, Surface Area and Volumes of Cubes and Cuboids, conversion of units.

7. Data Handling and Statistics:

1. Introduction to data, data presentation, diagrammatic presentation of data, Guidelines for constructing a diagram, Constructions of Pictographs, Bar-graphs, Pie diagram, Frequency distribution table, frequency graphs (curves, polygon), Ogive curves, Average, Median, Mode.

Methodology

- 1. Meaning, Nature and Definitions of Mathematics
- 2. Correlation with other school subjects and daily life.
- 3. Aims, values and instructional objectives of teaching Mathematics
- 4. Child Centered and Activity Based Approaches in Teaching Mathematics
- 5. Methods of Teaching & Remedial measures in Mathematics
- 6. Instructional Material, TLM and Resource Utilization in Mathematics
- 7. Curriculum, Text Book & Instructional Planning
- 8. Evaluation, tools of evaluation and Continuous Comprehensive Evaluation

Part – VI ENVIRONMENTAL STUDIES (Content and Methodology) (Marks: 40)

ENVIRONMENTAL STUDIES – I

Content

Geography :

1. **1. The Solar System and the Earth:** Origin and Evolution of the Solar System – Galaxy, The Earth as a member of the Solar System, Origin of the Earth, Interior of the Earth, Rotation and Revolution of the Earth and its effects., Latitudes

- and Longitudes – Standard time – International date line.
2. **2. Major Land forms:** Mountains, plateaus and plains, Classification and Distribution of Mountains in the World, Origin and distribution of plateaus in the World, Classification of plains, Geomorphic process :Rock weathering, mass-wasting, erosion and deposition, Formation of soil and its distribution.
 3. **3. Climatology (Weather and Climate):** Atmosphere – composition and structure, Insolation – Factors influencing insolation, Temperature – Factors controlling temperature, distribution of temperature and inversion of temperature, Pressure – Global pressure belts, Winds – Planetary, Seasonal & Local, Humidity and Precipitation – Rain – types and distribution of rainfall.
 4. **4. Hydrosphere :** Oceans, the temperature of ocean waters and the factors influencing distribution of temperature, Ocean currents, waves, tides.
 5. **5. Natural Hazards :** Floods, Drought, Cyclones, Tsunamis, Tornadoes, Volcanoes, Earthquakes, Landslides.
 6. **6. Major Natural Regions of the World:** The Equatorial Regions, The Tropical Hot Desert Region, The Savannas or the Tropical Grasslands, The Temperate Grassland Region, The Monsoon Lands, The Mediterranean Region, The Taiga Region, The Tundra Region
 7. **7. Continents:** Asia, Africa, Europe, North America, South America, Australia & Antarctica - with reference to location and extent, physical features, climate, Natural Vegetation & Wild life, population, Agriculture, Minerals & Industries, Transportation and Trade.
 8. **8. Geography of India and Andhra Pradesh:** Location and extent, physical features – relief and drainage, climate, natural vegetation, soils, irrigation, power, population, minerals and industries, Transport and Communication, Seaports and Towns, places of Interest.

History :

- **1. Study of the past - Pre-Historic and Proto – Historic Period**
- a) Bronze Age Civilization , b) Early Iron Age Societies – Impact of Iron Age and the growth of civilization, Early Iron Civilization in India, The Ancient Chinese Civilization, The Persian, Greek and the Roman Civilization, Judaism and Christianity . c) The Ancient Indian Civilization: Indus Valley Civilization, Aryan Civilization – Early Vedic and Later Vedic Civilization
- 2. Religious Movements of 6th Century B.C. – Jainism & Buddhism
- 3. India from 200 B.C. to 300 A.D.: The Mauryas, Andhra Satavahanas, The Persian and Greek Invasion, Magadha, Sangam and Kushans
- 4. India from 300 A.D. to 800 A.D.: The Gupta Empire, The Pushyabhuthi Dynasty (Harshavardhana)
- 5. Deccan and South Indian Kingdoms: The Chalukyas, the Pallavas, the Cholas, the Rashtrakutas, the Yadavas and the Kakatiyas
- 6. The Muslim Invasions in India: The Condition of India on the eve of Arab Invasion, Turkish invasions, Ghaznavids raids and its results, Effects of Muslim invasions
- 7. Delhi Sultanate: The Slaves, the Khiljis, the Tughluqs, the Sayyids and the Lodis, Downfall of Delhi Sultanate, The Sufi Movement and Bhakthi Movement, Influence of Islam on Indian Culture
- 8. The South Indian Kingdom: The Kakatiya, the Vizianagaram and the Bahman Kingdom.
- 9. Mughal Empire: The condition of India on the eve of Babur’s invasion, Babur, Humayun, Shersha, Akbar, Jahangir, Shahjahan, Aurangajeb, The reasons for the downfall of the Mughal Empire, The Rise of Marathas, History of the Sikhs
- 10. Advent of Europeans : Portuguese, Dutch, French & English: Anglo – French rivalry – Carnatic wars, Establishment of British rule in India,
- The first war of Indian Independence, The Governor Generals and the Viceroy, The Socio – Religious movements, Movements among Muslims for social reforms.
- 11. Cultural Heritage of India and Intellectual awakening: Art and Architecture, Development of Education, Cultural Unity and Bhakthi movement .
- 12. India Between 1858 – 1947: Political, Economic and Social Policies of British in India, The British Policy towards Indian princess, British policy towards neighbouring countries
- 13. Changes in Economic and Social Sectors during the British period: Agriculture, Famines in India in between 1858 – 1947, Transport facilities, Beginning of Modern Industries, Rise of new classes in Indian Society
- 14. Rise of Nationalism – Freedom Movement: Causes for the rise of Nationalism, The Birth of Indian National Congress, The Age of Moderates and Extremists, Vandemataram Movement, Home Rule Movement, Mahatma Gandhi & Indian National Movement, Quit India Movement, Mountbatten plan, Integration of Princely States, liberation of French and Portuguese colonies.
- 15. The Modern World: Beginning of Modern Age, Renaissance, Development in Science, The Reformation Movement, Rise of Nation States
- 16. World Wars: The First World War, League of Nations, The Second World War, The World after Second World

Civics :

1. 1. Family, Occupations, Our House & Our Shelter, Community – Types, Community development, Civic life, Social evils in our Society, Our Government: Local Self – Government, Rural, Urban, Decentralization of powers, District administration, Government at the Centre, State with reference to: Executive – Executive council in the Union Govt. and State Govt., Legislative – Indian Parliament, State Legislative Assembly, Legislation and Judiciary and interpretation of laws, Independent Judiciary Judicial system in the country and State, Courts as Watch dogs of Citizens Rights, Lok Adalats
2. 2. Indian Constitution: India as a Nation – Preamble, Salient Features of Indian Constitution, Fundamental Rights and Directive Principles, Fundamental Duties, India as a federation and Unitary State, Unity in Diversity & National Integration. Indian Democracy: Meaning, Nature, Elections and Election process, Major Political parties, Role of Political Parties in democracy, Presidential and Parliamentary democracy, Information awareness – Right to Information Act. Socialism: Meaning, Definition, Characteristics of Socialism, Social barriers in India, Socialism in Practice – Challenges facing in our country - Illiteracy, regionalism, communalism, child rights, law, society and individual, anti social practices. Secularism: Need and importance, India – religious tolerance, Promotion of Secularism in India
3. 3. World Peace and Role of India: India in the international era, Foreign Policy, Non-Alignment Movement Policy (NAM), India and Common Wealth, India's Relations with Super Powers, India and Neighbours, India and SAARC, India's leading role in the World. UNO and Contemporary World Problems: UNO - Organs and specialized agencies, functions, achievements, India's Role in U.N., Contemporary World problems, New International Economic order, Environmental Protection, Human Rights
4. 4. Traffic Education / Road Safety Education.

Economics :

1. 1. Economics – Meaning , Definition, Scope, importance – Classification of Economics (Micro & Macro) – Concepts of Economics – different types of goods, wealth, income, utility, value, price, wants and welfare. Basic elements of Economics – Types of utility, consumption, production, distribution, scarcity, Economic agents. Factors of production – Land, Labour, Capital and organization – forms of Business Organization.
2. 2. Theory of Demand: Meaning, determinants of demand, demand schedule – individual & market demand schedule, the law of demand, demand curve, demand function.
3. 3. Supply: Meaning, determinants of supply, supply schedule, Individual and market supply schedule, law of supply, supply curve.
4. 4. Theory of Value: Classification of markets, perfect competition features, price determination.
5. 5. Theory of Distribution: Distribution of income – determination of factor prices – rent, wage, interest and profit.
6. 6. Types of Economics – Capitalistic, Socialistic & Mixed Economy.
7. 7. National Income: Definition of National Income – Concepts – Gross National Product, Net National Product – National Income at factor cost – personal income – disposable income – per capita income – nominal and real G.N.P., National income and distribution – Standard of living, Human development Index – Economic inequalities and poverty line.
8. 8. Budget: Meaning, definition, central and state budgets, Types of budget – Surplus, balanced & deficit, Types of Revenue – Taxation – direct and indirect taxes, Classification of revenue & expenditure in budget, Types of deficits
9. 9. Money: Definition – functions of money, Classification of money, supply of money.
10. 10. Banking: Commercial banks – Functions, Central Bank – origin and functions, Reserve Bank of India.
11. 11. Economic Growth and Development: Economic Growth, Economic development – concept, indicators, Factors influencing Economic Development, Economic Development in A.P. & India.
12. 12. Indian Economy: Characteristic of Indian Economy before Independence: Indian Economy since independence – organized and unorganized Sectors. Population: Population in India and Andhra Pradesh – birth and death rate – occupational distribution of population in India and Andhra Pradesh. Human Resource Development: Meaning of Human Resource Development – Role of Education and Health in Economic development – Human Development Index. Agriculture Sector in India: Importance – Characteristics of Indian agriculture, causes for low productivity, measures to increase agriculture productivity in India, Land reforms in India & Andhra Pradesh – Green Revolution. Industrial Sector: Role of Industrial Sector in Indian Economy – Classification of Industries. Tertiary Sector: Role and importance of Service Sector in Indian Economy. Problems of Indian Economy: Poverty, unemployment and regional disparities. Planning: Meaning and definition – Five Year Plans in India.
13. 13. Andhra Pradesh Economy : Characteristics of A.P. Economy at the time of formation, Agriculture Sector, Industrial Sector and Tertiary Sector, Irrigation – power and electricity – Health – Education – Transportation – Housing –

Methodology

1. Nature and Scope of Social Studies
2. Aims, Objectives and Values of Teaching Social Studies
3. Methods of Teaching Social Studies
4. Resource Utilization, Content Enrichment material
5. Curriculum, Text Book and Instructional Planning
6. Evaluation and Continuous Comprehensive Evaluation

ENVIRONMENTAL STUDIES – II

Content

- 1. Science in Everyday life : Scientists – Science Institutes – Branches Role of Science in daily life and its contribution to human welfare Contribution of Scientists, National Institutes of Science, Different Branches of Science
- 2. Living World: Classification of Plants and Animals; Plant & Animal life a) Plant Life: Parts of Typical Plant, Photosynthesis, Reproduction, Economic Importance of Plants, Plant diseases, Wild and Cultivated Plants, Transfer of desirable traits in Plants b) Animal Life: Wild and Domestic animals, their food and Arrangement of teeth in Animals, Life history of Mosquito, Housefly and Frog, Economic Importance of Animals c) Microbial World: Virus, Bacteria, Fungi and Protozoan, Useful and Harmful Micro-organisms
- 3. Human body – Health –Hygiene –Safety and First aid: External and internal parts of Human body, Bones, Muscles, Sense Organs
- Human Systems: Digestive, Respiratory, Excretory, Nervous and Reproductive
- Accidents – Safety and First aid, Diseases in man – Viral, Bacterial, Deficiency diseases, Causes, Prevention and Control of diseases
- 4. Agriculture and Animal Husbandry : Agricultural Operations, Crop diseases and Pest Control measures, Sericulture, Pisciculture, Breeding of Cows and Buffaloes

- 5. Our Environment: Biotic and Abiotic factors, Conservation of Environment
- 6. a) Food: Different types of food and Nutrients of Food, Storage of Grains and Vegetables, Storage of Food b) Shelter: Need, Different types of houses, Electrical Appliances – Their use, Social life in Ants and Honey bees, Animal Shelter variation .c) Work and Play: Occupations and Child Labour, Games – Local, National and International, Effects of games on Respiration and Breathing, Marshal Arts, Fairs and Circus
- 7. Our Universe: Constellations, Zodiac, Solar System Stars, Meteors and Comets
- 8. Measurement: Systems of Measurement, Units of Measurements, Measurement of Length, Triangulation Method of measuring long distances, Measuring Instruments, Vernier calipers, Measurement of Area, Volume, Time, Measurement of Mass and Density
- 9. Natural Resources- Air and Water: Air its Composition, Measurement of Atmospheric Pressure , Air Pollution, Green House Effect, Volumetric Composition of Water, Hardness of Water, Drinking Water, Water Pollution, Wind, Rainfall, Cyclones, Pascal’s Law, Archimedes Principle, Boyle’s Law, Bernouli’s Principle
- 10. Natural Phenomena: Light: Sources & Nature of Light, Propagation of Light, Reflection, Refraction, Laws of Reflection, Image formed by a Plane Mirror, Reflection on Spherical Mirrors, Refraction.
- Sound: Sound-kinds of waves, Propagation of sound, Sound Reflection, Sound Pollution, Transmission of Sound, Musical Instruments.

- Heat: Sources of Heat, Transmission of Heat, Heat and Temperature, Units & their Measurement, Measuring Instruments, Effects of Heat- Expansion of solids, liquids, gases, Change of State
- 11. Mechanics, Kinematics and Dynamics: Motion-Types of Motion, Speed, Velocity, Scalars and Vectors, Acceleration, Newton’s law’s of Motion, Centre of Gravity, Stability, Applications
- 12. Magnetism: Natural Magnets and Artificial Magnets, Properties of Magnets, Magnetic Induction.
- 13. Electricity: Static Electricity, Primary Cells, Electric circuits, Torch Light, Effects of Electric Current, Magnetic, Chemical & Heating Effects of Electric Current
- 14. Modern World – Instruments: Computer-Parts & Uses, Telephone, Wireless System-Radio Broad Casting, Television, Recording and Reproduction of Sound, Magnetic Recording and Reproduction, Cine projector

- 15. Action of Heat on Substances & Types of Chemical changes: Action of Heat , Differences between Physical and Chemical change, Types of chemical changes
- 16. Symbols, Formulae and Equations: Symbols and formulae, Radicals and their formulae, Chemical equation, Meaning, Calculations based on equations and relationship of reactants and products by weights.
- 17. Laws of Chemical Combination: Law of conservation of mass, Law of definite proportions, Law of multiple proportions.
- 18. Water and its Constituents: Volumetric composition of water, Industrial and other uses of water, Laboratory preparation of Hydrogen, Properties of Hydrogen, Uses of Hydrogen, Laboratory preparation of Oxygen, Properties of Oxygen, Uses of Oxygen.
- 19. Sulphur and its Compounds: Extraction of Sulphur, Its Allotropic forms, Physical and Chemical properties & Uses, Preparation of Sulphur dioxide, Manufacture, Properties & Uses of Sulphuric acid, Laboratory preparation of Hydrogen Sulphide, Properties of Hydrogen Sulphide.
- 20. Nitrogen and its Compounds: Manufacture of Nitrogen gas from Air, Laboratory preparation, Properties & Uses of Nitrogen, Compounds of Nitrogen: Ammonia, Ammonium Salts, Nitric Acid, Properties & Uses of Nitric Acid, Fixation of Nitrogen and Nitrogen cycle, Tests for Nitrates.
- 21. Phosphorus and its Compounds: Occurrence of Phosphorus, Electrical Process, Properties & Uses of Phosphorus, Compounds of Phosphorus.
- 22. Common Salt and its Constituents: Common Salt, Electrolysis of brine, Chlorine, Properties of Chlorine, Uses of Chlorine, Hydrogen Chloride

Methodology

1. Nature and Scope of Science
2. Aims, Objectives & Values of Teaching Science
3. Correlation of Science with other School Subjects
4. Instructional Material, TLM and Resource Utilization in Science
5. Curriculum and its Transaction
6. Evaluation and Continuous Comprehensive Evaluation

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