



राष्ट्रीय प्रौद्योगिकी संस्थान, दुर्गापुर

महात्मा गांधी एवेन्यू, दुर्गापुर-713209

NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR

MAHATMA GANDHI AVENUE, DURGAPUR-713209

(An Institute of National Importance of the Govt. of India under Ministry of Education (Shiksha Mantralaya))

**Selection Process and Syllabus for the multiple Non-Teaching vacancies
advertised by this Institute against the
Advt. No. NITD/Estt./02/10/Non-Teaching/2022 Dated: 06.04.2022.**

1. Scheme of the Examination/ Selection Process:

- **Phase I:** Written Test: Computer based MCQs Type-(Time 90 Minutes, Maximum Marks: 75, All questions shall carry equal marks and 0.25 marks shall be deducted for each wrong answer)-**(Qualifying in nature** and Candidates qualified in this test will be called for Phase-II).*
- **Phase II:** Written Test: Computer based MCQs Type (Time: 02 Hours, Maximum Marks: 100, All questions shall carry equal marks and 0.25 marks shall be deducted for each wrong answer)-**70% weightage in final merit.** (Candidates qualified in this test will be called for Phase-III).*
- **Phase III:** Skill Test- - **30% weightage in final merit.**

* Institute reserves the right to fix the cut-off marks for qualifying in the subsequent phases.

2. Final Merit will be prepared on the basis of performance in the Phase II and Phase III.

Final Merit shall be prepared as follows:

Final Merit = 70% of marks obtained in Phase-II + 30% of marks obtained in Phase-III

- In case of tie/bunching/bracketing of candidates in the final results, the following criteria shall be adopted in the following sequential order for deciding Merit list:
 - a) The candidate with higher marks in Phase-II shall be placed higher on the merit list or
 - b) If (a) above is same, the candidate with lower negative marks in Phase-II, shall be placed higher on the merit list, or
 - c) If (a) & (b) above is same, the candidate with lower negative marks in Phase-I, shall be placed higher on the merit list, or
 - d) If (a), (b) & (c) above is same, the candidate senior in age shall be placed higher on the merit list, or
 - e) In case option at (a), (b), (c) & (d) are exhausted, it will be decided through draw.

Note:

1. The written examination for Phase-I, Phase-II and Phase-III shall be conducted on two consecutive days with suitable break/interval. The next (third) day shall be kept as reserve in case, the no. of candidates are more for phase III. The venue & date of examination and skill test will be communicated in due course of time. Applicants are advised to plan their travel and accommodation accordingly.
2. Institute reserves the right to increase or decrease the no. of phase(s) of selection process depending upon the no. of shortlisted candidates. The List of shortlisted candidates, venue & date of written test

Handwritten signatures and initials at the bottom of the page.

and skill test will be communicated in due course of time. **The medium of questions shall be English only.**

Post Code & Name of the Post(s)	Syllabus
TA- Technical Assistant JE- Junior Engineer	<p><u>Syllabus for Phase I (Questions shall be up to the level of 10+2):</u></p> <ol style="list-style-type: none"> General English: Reading Comprehension, Word usage and Vocabulary Based Questions, Antonyms, Synonyms, Spelling Check, Active/Passive Voice, Spotting Errors, Sentence Improvement, One Word Substitutes, Selecting Words, Sentence Corrections, Idioms and Phrases, Common Error Detection, Ordering of Words, Verbal Analogies, Sentence Formation, Completing Statements, Change of Speech. Quantitative Aptitude: Number system, BODMAS, Decimals, Fractions, Average, LCM, HCF, Ratio and Proportion, Percentages, Mensuration, Time and Work; Time and Distance, Simple and Compound Interest, Profit and Loss, Algebra, Geometry and Trigonometry, Elementary Statistics, Square Root, Age Calculations, Calendar & Clock etc. General Intelligence and Reasoning: Includes questions relating to both verbal and non-verbal types, analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, Alphabetical and Number Series, Coding and Decoding, Mathematical operations, Relationships, Syllogism, Jumbling, Venn Diagram, Data Interpretation and Sufficiency, Conclusions and decision making, Similarities and differences, Analytical reasoning, Classification, Directions, Statement – Arguments and Assumptions etc. General Awareness: General Knowledge about the History, Polity, Geography, Economy and the Constitution of India, National Symbols, Census 2011, Government Schemes and Policies, Current Affairs, Computer Fundamentals. <p><u>Syllabus for Phase II:</u></p> <p>Part A: Question based on topics including Units, Measurements, Mass Weight and Density, Work Power and Energy, Speed and Velocity, Heat and Temperature, , Basic Electricity, Levers and Simple Machines, Occupational Safety and Health, Environment Education, IT Literacy. (Detailed Syllabus in Annexure I at the end of this document)</p> <p>Part B (Science: Class 10+2 Level) : Permutation and combinations, probability and statistics, Mathematical Reasoning, Physical World and Measurement, Laws of Motion, Electrostatic, Current Electricity, Magnetic Effects of Current and Magnetism, Electronic Devices, Optics, Thermodynamics, Basic Concepts of Chemistry, Structure of Atom, Classification of Elements and Periodicity in Properties, Coordination chemistry, States of Matter: Gases and Liquids, Electrochemistry, chemical kinetics, Organic Chemistry – Some Basic Principles and Techniques, Functional group inter-conversion, Mechanism of organic reaction, Biomolecules, Environmental Chemistry.</p> <p><u>Syllabus for Phase III (Skill Test):</u> Domain practical knowledge in the relevant area specific to the post related to the fields/specializations applied for.</p>
STEC-Senior Technician TEC- Technician	<p><u>Syllabus for Phase I (Questions shall be up to the 10th level):</u></p> <ol style="list-style-type: none"> General English: Reading Comprehension, Word usage and Vocabulary Based Questions, Antonyms, Synonyms, Spelling Check, Active/Passive Voice, Spotting Errors, Sentence Improvement, One Word Substitutes, Selecting Words, Sentence Corrections, Idioms and Phrases, Common Error Detection, Ordering of Words, Verbal Analogies, Sentence Formation, Completing Statements, Change of Speech. Quantitative Aptitude: Number system, BODMAS, Decimals, Fractions, Average, LCM, HCF, Ratio and Proportion, Percentages, Mensuration, Time and Work; Time and

	<p>Distance, Simple and Compound Interest, Profit and Loss, Algebra, Geometry and Trigonometry, Elementary Statistics, Square Root, Age Calculations, Calendar & Clock etc.</p> <p>3. General Intelligence and Reasoning: Includes questions relating to both verbal and non-verbal types, analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, Alphabetical and Number Series, Coding and Decoding, Mathematical operations, Relationships, Syllogism, Jumbling, Venn Diagram, Data Interpretation and Sufficiency, Conclusions and decision making, Similarities and differences, Analytical reasoning, Classification, Directions, Statement – Arguments and Assumptions etc.</p> <p>4. General Awareness: General Knowledge about the History, Polity, Geography, Economy and the Constitution of India, National Symbols, Census 2011, Government Schemes and Policies, Current Affairs, Computer Fundamentals.</p> <p>Syllabus for Phase II:</p> <p>Part A: Question based on topics including Units, Measurements, Mass Weight and Density, Work Power and Energy, Speed and Velocity, Heat and Temperature, Basic Electricity, Levers and Simple Machines, Occupational Safety and Health, Environment Education, IT Literacy. (Detailed Syllabus in Annexure I at the end of this document).</p> <p>Part B (Science: Class 10th Level): Chemical Reactions and Equations, Acid, Bases and Salts, Metals and Non-Metals, Carbon and its compounds, Periodic classification of elements, Electricity, Magnetic Effects of Electric Current, Sources of Energy, Management of Natural Resources. Life processes in plants and animals, Light- Reflection and Refraction, Environment and ecosystem.</p> <p>Syllabus for Phase III (Skill Test):</p> <p>Domain practical knowledge in the relevant area specific to the post related to the fields/specializations applied for.</p>
LIA: Library and Information Assistant	<p>Syllabus for Phase I (Questions shall be up to the level of 10+2):</p> <p>1. General English: Reading Comprehension, Word usage and Vocabulary Based Questions, Antonyms, Synonyms, Spelling Check, Active/Passive Voice, Spotting Errors, Sentence Improvement, One Word Substitutes, Selecting Words, Sentence Corrections, Idioms and Phrases, Common Error Detection, Ordering of Words, Verbal Analogies, Sentence Formation, Completing Statements, Change of Speech.</p> <p>2. Quantitative Aptitude: Number system, BODMAS, Decimals, Fractions, Average, LCM, HCF, Ratio and Proportion, Percentages, Mensuration, Time and Work; Time and Distance, Simple and Compound Interest, Profit and Loss, Algebra, Geometry and Trigonometry, Elementary Statistics, Square Root, Age Calculations, Calendar & Clock etc.</p> <p>3. General Intelligence and Reasoning: Includes questions relating to both verbal and non-verbal types, analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, Alphabetical and Number Series, Coding and Decoding, Mathematical operations, Relationships, Syllogism, Jumbling, Venn Diagram, Data Interpretation and Sufficiency, Conclusions and decision making, Similarities and differences, Analytical reasoning, Classification, Directions, Statement – Arguments and Assumptions etc.</p> <p>4. General Awareness: General Knowledge about the History, Polity, Geography, Economy and the Constitution of India, National Symbols, Census 2011, Government Schemes and Policies, Current Affairs Computer Fundamentals.</p> <p>Syllabus for Phase II: Library & Information Science: Library and Society, Library</p>

	<p>Management, Library Classification Theory and Practice, Library Cataloguing Theory and Practice, Reference and Information Sources, Information Services, Information Technology. (Detailed Syllabus in Annexure II at the end of this document).</p> <p><u>Syllabus for Phase III (Skill Test):</u> Domain practical knowledge in the relevant area specific to the post related to the fields/specializations applied for.</p>
SAS: SAS Assistant	<p><u>Syllabus for Phase I (Questions shall be up to the level of 10+2):</u></p> <ol style="list-style-type: none"> General English: Reading Comprehension, Word usage and Vocabulary Based Questions, Antonyms, Synonyms, Spelling Check, Active/Passive Voice, Spotting Errors, Sentence Improvement, One Word Substitutes, Selecting Words, Sentence Corrections, Idioms and Phrases, Common Error Detection, Ordering of Words, Verbal Analogies, Sentence Formation, Completing Statements, Change of Speech. Quantitative Aptitude: Number system, BODMAS, Decimals, Fractions, Average, LCM, HCF, Ratio and Proportion, Percentages, Mensuration, Time and Work; Time and Distance, Simple and Compound Interest, Profit and Loss, Algebra, Geometry and Trigonometry, Elementary Statistics, Square Root, Age Calculations, Calendar & Clock etc. General Intelligence and Reasoning: Includes questions relating to both verbal and non-verbal types, analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, Alphabetical and Number Series, Coding and Decoding, Mathematical operations, Relationships, Syllogism, Jumbling, Venn Diagram, Data Interpretation and Sufficiency, Conclusions and decision making, Similarities and differences, Analytical reasoning, Classification, Directions, Statement – Arguments and Assumptions etc. General Awareness: General Knowledge about the History, Polity, Geography, Economy and the Constitution of India, National Symbols, Census 2011, Government Schemes and Policies, Sports News and Current Affairs, Computer Fundamentals. <p><u>Syllabus for Phase II: Detailed syllabus in Annexure III at the end of this document.</u></p> <p><u>Syllabus for Phase III (Skill Test):</u> Domain practical knowledge in the relevant area specific to the post related to the fields/specializations applied for.</p>
<p>SUP: Superintendent</p> <p>PA: Personal Assistant</p>	<p><u>Syllabus for Phase I (Questions shall be up to the level of 10+2):</u></p> <ol style="list-style-type: none"> General English: Reading Comprehension, Word usage and Vocabulary Based Questions, Antonyms, Synonyms, Spelling Check, Active/Passive Voice, Spotting Errors, Sentence Improvement, One Word Substitutes, Selecting Words, Sentence Corrections, Idioms and Phrases, Common Error Detection, Ordering of Words, Verbal Analogies, Sentence Formation, Completing Statements, Change of Speech. Quantitative Aptitude: Number system, BODMAS, Decimals, Fractions, Average, LCM, HCF, Ratio and Proportion, Percentages, Mensuration, Time and Work; Time and Distance, Simple and Compound Interest, Profit and Loss, Algebra, Geometry and Trigonometry, Elementary Statistics, Square Root, Age Calculations, Calendar & Clock etc. General Intelligence and Reasoning: Includes questions relating to both verbal and non-verbal types, analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, Alphabetical and Number Series, Coding and Decoding, Mathematical operations, Relationships, Syllogism, Jumbling, Venn Diagram, Data Interpretation and Sufficiency, Conclusions and

	<p>decision making, Similarities and differences, Analytical reasoning, Classification, Directions, Statement – Arguments and Assumptions etc.</p> <p>4. General Awareness: General Knowledge about the History, Polity, Geography, Economy and the Constitution of India, National Symbols, Census 2011, Government Schemes and Policies, and Current Affairs.</p> <p>Syllabus for Phase II: Question based on topics including CCS (CCA) Rules 1965, CCS conduct rules, Office procedure, rules for TA/DA, LTC, RTI Act 2005 along with amendments, Manual of Office Procedure, Types of official correspondence, CCS Leave Rules 1972, CCS (Pension) Rule and NPS, NIT Acts and statutes, GFR-2017, Brief about Ministry of Education, Govt. of India, Education System in India, Types of Educational Institutions and Educational Institute Ranking System in India, NEP-2020, Computer Fundamentals.</p> <p>Syllabus for Phase III (Skill Test): Noting/ Drafting, Computer Proficiency Test for test of working knowledge of MS-Word, Excel, Power Point, Access & other office tools. Test of Stenography (only for Personal Assistant)</p>
<p>STN: Stenographer</p> <p>SA: Senior Assistant</p> <p>JA: Junior Assistant</p>	<p>Syllabus for Phase I (Questions shall be up to the 10th level):</p> <ol style="list-style-type: none"> Aptitude-Averages, Number System, Profit and Loss, Time and Work, Problems on Trains, Calendar, Area, Problems on Numbers, Square Root and Cube Root, Interest, Percentage, Ratio, Time and Distance, Problems on Ages, Clock, Simplifications, Odd Man Out Series. Reasoning- Number Series Compilation, Missing Number Finding, Continuous Pattern Series, Direction Sense Test, Series Compilations, Classification, Missing Character Finding, Odd Man Out, Blood Relations, Analogy, Coding and Decoding, Syllogisms, Letter and Symbol Series, Verbal Reasoning, Statement and Conclusions, Letter and Symbol Series, Logical Problems, Arithmetic Reasoning, Logical Sequence of Words, Analogies. General English- Antonyms, Synonyms, Spelling Check, Active/Passive Voice, Spotting Errors, Sentence Improvement, One Word Substitutes, Selecting Words, Sentence Corrections, Idioms and Phrases, Common Error Detection, Ordering of Words, Verbal Analogies, Sentence Formation, Completing Statements, Change of Speech. <p>Syllabus for Phase II:</p> <ol style="list-style-type: none"> Computer Fundamentals: Operating System, MS Word, MS Excel & Spreadsheet, Power Point. General Awareness: Indian History, Indian Economy, Indian Culture, Sports, Books and Authors, Famous Personalities, Geography, Days and Years, Environmental Science, General Science, Inventions, Basic General Knowledge, Awards and Honors, Famous Places in India, World Organization, Current Affairs. Functioning and structure of Government, Government Policy. Miscellaneous: Basic Knowledge of NITs and its Act and statutes, GFR-2017, Brief about Ministry of Education, Govt. of India, Education System in India, Types of Educational Institutions and Educational Institute Ranking System in India, Manual of Office Procedure, Types of official correspondence, basic knowledge of official matters, service matter and leave rules, NPS, NEP-2020, GeM, <p>Syllabus for Phase III (Skill Test): Typing Test, Computer Proficiency Test for test of working knowledge of MS-Word,</p>

	<p>Spreadsheets and Excel, Power Point, Access & other office tools. Test of Stenography (only for Stenographer).</p>
<p>LA: Lab Attendant</p>	<p><u>Syllabus for Phase I (Questions shall be up to the 10th level):</u></p> <ol style="list-style-type: none"> Aptitude-Averages, Number System, Profit and Loss, Time and Work, Problems on Trains, Calendar, Area, Problems on Numbers, Square Root and Cube Root, Interest, Percentage, Ratio, Time and Distance, Problems on Ages, Clock, Simplifications, Odd Man Out Series. Reasoning- Number Series Compilation, Missing Number Finding, Continuous Pattern Series, Direction Sense Test, Series Compilations, Classification, Missing Character Finding, Odd Man Out, Blood Relations, Analogy, Coding and Decoding, Syllogisms, Letter and Symbol Series, Verbal Reasoning, Statement and Conclusions, Letter and Symbol Series, Logical Problems, Arithmetic Reasoning, Logical Sequence of Words, Analogies. General English- Antonyms, Synonyms, Spelling Check, Active/Passive Voice, Spotting Errors, Sentence Improvement, One Word Substitutes, Selecting Words, Sentence Corrections, Idioms and Phrases, Common Error Detection, Ordering of Words, Verbal Analogies, Sentence Formation, Completing Statements, Change of Speech. <p><u>Syllabus for Phase II:</u></p> <ol style="list-style-type: none"> Computer Fundamentals: Operating System, MS Word, MS Excel & Spreadsheet, Power Point. GK- Indian History, Indian Economy, Indian Culture, Sports, Books and Authors, Famous Personalities, Constitution of India, Geography, Days and Years, Environmental Science, General Science, Inventions, Basic General Knowledge, Awards and Honors, Famous Places in India, World Organization, Current Affairs. <p>Science (Science: Class 10th Level): Chemical Reactions and Equations, Acid, Bases and Salts, Metals and Non-Metals, Carbon and its compounds, Periodic classification of elements, Electricity, Magnetic Effects of Electric Current, Sources of Energy, Management of Natural Resources. Life processes in plants and animals, Light- Reflection and Refraction, Environment and ecosystem.</p> <p><u>Syllabus for Phase III (Skill Test):</u> Domain practical knowledge in the relevant area specific to the post related to the fields/specializations applied for.</p>
<p>OA: Office Attendant</p>	<p><u>Syllabus for Phase I (Questions shall be up to the 10th level):</u></p> <ol style="list-style-type: none"> Aptitude-Averages, Number System, Profit and Loss, Time and Work, Problems on Trains, Calendar, Area, Problems on Numbers, Square Root and Cube Root, Interest, Percentage, Ratio, Time and Distance, Problems on Ages, Clock, Simplifications, Odd Man Out Series. Reasoning- Number Series Compilation, Missing Number Finding, Continuous Pattern Series, Direction Sense Test, Series Compilations, Classification, Missing Character Finding, Odd Man Out, Blood Relations, Analogy, Coding and Decoding, Syllogisms, Letter and Symbol Series, Verbal Reasoning, Statement and Conclusions, Letter and Symbol Series, Logical Problems, Arithmetic Reasoning, Logical Sequence of Words, Analogies. General English- Antonyms, Synonyms, Spelling Check, Active/Passive Voice, Spotting Errors, Sentence Improvement, One Word Substitutes, Selecting Words, Sentence Corrections, Idioms and Phrases, Common Error Detection, Ordering of Words, Verbal Analogies, Sentence Formation, Completing Statements, Change of Speech. <p><u>Syllabus for Phase II:</u></p>

1. **Computer Fundamentals:** Operating System, MS Word, MS Excel & Spreadsheet, Power Point.
2. **GK (Class 10th Level)-** Indian History, Indian Economy, Indian Culture, Sports, Books and Authors, Famous Personalities, Constitution of India, Geography, Days and Years, Environmental Science, General Science, Inventions, Basic General Knowledge, Awards and Honors, Famous Places in India, World Organization, Current Affairs.
3. **Reading Comprehension**

Syllabus for Phase III (Skill Test):

Test of computer knowledge & Typing Test.

Continued...

Annexure I

Detailed Syllabus for Part A (TA-Technical Assistant, JE- Junior Engineer, STEC-Senior Technician and TEC-Technician)

Units and Measurement: Definition, Classifications: Fundamental and Derived units, Systems of units: FPS, CGS, MKS, Units of physical quantities, symbols, Conversion factors Measurement of mechanical quantities, electrical quantities, Related problems.

Mass Weight and Density: Definition, Comparison between mass and weight, Comparison between density and relative density/specific gravity, Volume of different geometries (Cube, Cylinder, Cone, Sphere etc.), Related problems.

Work Power and Energy: Definition, Work and its Units, Measurement of work, Work done on bodies moving on horizontal and inclined planes (consider frictional forces also) Concept of Power and its units, Calculations of power (simple cases), Concept of Kinetic energy and potential energy, Expressions for P.E and K.E, Principle of conservation of energy, Related problems.

Speed and Velocity: Definition of speed, velocity and their comparison, Scalar and Vector quantity, Average Velocity, Acceleration & Retardation, Equations of motion, Circular Motion: Relation between circular motion and Linear motion, Related problems.

Heat and Temperature: Definition, Specific Heat and Thermal Capacity, Types of heat: Sensible Heat, Latent Heat, Difference between heat and temperature, Different temperature scales and conversions, Temperature measuring instruments.

Basic Electricity: Source of electricity: Battery, Generator, Thermocouple, Types of electric current: Direct current, Alternate current, Difference between AC and DC, Electrical Terms and units, Ohm's Law, Kirchoff's law Relationships between Current, Volt, Resistance and Power, Resistance connections, Simple Problems on series and parallel circuits, Insulators: Properties and Classification, Conductors: Properties and Classification, Electric Power, Horse Power, Work and energy.

Levers and Simple Machines: Definitions, Velocity ratio, Mechanical Advantages, Efficiency and relationships, Ideal Machines, Lever: Principle, Types (First order lever, Second order lever, Third order lever), Relationship, law of machine, simple machines.

Occupational Safety, Health: Safety & Health: Introduction and Importance of Occupational Safety and Health • Occupational Hazards: Basic Hazards, Chemical Hazards, Vibroacoustic Hazards, Mechanical Hazards, Electrical Hazards, Thermal Hazards. Occupational health, Occupational hygienic, Occupational Diseases/ Disorders & its prevention, Accident & safety: Basic principles for protective equipment, Accident Prevention techniques – control of accidents and safety measures, First Aid: Care of injured & Sick at the workplaces, First-Aid & Transportation of sick person, Basic Provisions: Idea of basic provision of safety, health, welfare under legislation of India.

Environment Education: Ecosystem: Introduction to Environment, Relationship between Society and Environment, Ecosystem and Factors causing imbalance, Pollution: Pollution and pollutants including liquid, gaseous, solid and hazardous waste, Energy Conservation: Conservation of Energy, re-use and recycle, Global warming: Global warming, climate change and Ozone layer depletion, Ground Water: Hydrological cycle, ground and surface water, Conservation and Harvesting of water, Environment: Right attitude towards environment, Maintenance of in-house environment.

I.T. Literacy: Computer: Introduction, Computer and its applications, Hardware and peripherals, switching on and shutting down of computer, WINDOWS: Basics of Operating System, WINDOWS, Create, Copy, Move and delete Files and Folders, Use of External memory like pen drive, CD, DVD etc. MS office: Basic operations of Word Processing, Excel worksheet, INTERNET: Computer Networks Applications of Internet, Web Browsing, Information Security and antivirus tools.

Annexure II

Library & Information Science

Library and Society: Laws of Library Science; Types of Libraries; Library Associations, Systems and Programs; Library Movement and Library Legislation in India; Organizations and Institutions involved in the development of Library and Information Services – UNESCO, IFLA, FID, INIS, NISSAT, etc.;

Library Management: Collection development – Types of Documents and Selection Principles, Acquisition Procedure, Acquisition of Journals and Periodicals, Preparation of Documents for use; Library Personnel and Library Committee, Library Rules and Regulations; Library Finance and Budget; Principles of Library Management, Library Organization and Structure; Use and Maintenance of the Library – Circulation, Maintenance, Shelving, Stock Verification, Binding and Preservation, Weeding out, etc.;

Library Classification Theory and Practice: Canons and Principles, Library Classification Schemes – DDC, CC, UDC;

Library Cataloguing Theory and Practice: Canons and Principles; Library Cataloguing Codes – CCC and AACR;

Reference and Information Sources: Bibliography and Reference Sources – Types of Bibliography; Reference Sources – Dictionaries, Encyclopedias, Ready Reference Sources, etc.; Sources of Information – Primary, Secondary, Tertiary, Documentary, Non-Documentary; E- Documents, EBooks, E-Journals, etc.;

Information Services: Concept and need for Information; Types of Documents; Nature and organization of Information Services, Abstracting and Indexing Services; Computer based Information Services – CAS, SDI;

Information Technology: Basics Introduction to Computers; Use of computers in Library housekeeping, Library Automation; Software and software packages; Networks – DELNET, NICNET, etc.; National and International Information Systems – NISSAT, NASSDOC, INSDOC, DESIDOC, etc.

Amfar D

Annexure III

Detailed Syllabus for Phase III for the post SAS: SAS Assistant

1. Physical Education - Meaning, Definition, Aims, Objectives and Scope. History of Physical Education in Ancient Greece: in Reference to Sparta and Athens. Philosophy: Meaning, functions of Philosophy, Idealism, Realism, Naturalism, Pragmatism, Arjuna Award, Dronacharya Award /MAKA Trophy. Ancient and Modern Olympic Game, Commonwealth Games.
2. Meaning of kinesiology, aims and objectives of kinesiology. Importance of kinesiology in physical education. Meaning structure and chemical composition of bones. Functions and types of bones. Common postural deformities i.e. flat foot, bow legs, knock knees, lordosis, scoliosis, kyphosis, and round shoulders, their causes and remedial measures. Motion and types of motion & Newton's law of motion.
3. Meaning and Definition of Test, Measurement, & Evaluation. Philip's J.C.R Test, AAHPER Youth, Fitness Test, Tuttle Pulse Ratio Test, Harvard Step Test) Johnson Basketball Test, Knox Basketball Test, Modified Brady Volleyball Test, Russell-Lange Volleyball Test. Somatotyping. Meaning of Somatotyping Brief Account of Kretchmer's Body Type, Brief Account of Sheldon Body Classification.
4. Meaning and Definition of Sports Training, Aims and Objectives of Sports Training. Meaning and Types, Talent Identification and its Importance. Meaning of Training Load, Principle of Training Load, Overload Causes and Symptoms of Overload. Definition and Meaning of Endurance, Types of Endurance, Factor Affecting Endurance, Methods of Developing Endurance Definition Meaning of Flexibility, Types of Flexibility, Factor Affecting Flexibility, Methods of Developing Flexibility.
5. Muscular System: Classification of Muscles, Functions and Types of Muscles, Concept of Homeostasis and its Relevance to Physical Education and Sports, Brief Introduction of the Cardiovascular System: The Heart & its Structure and Function, Cardiac Cycle, Mechanism of Blood Circulation, Composition and Function of Blood, Brief Introduction of the Respiratory System, Structure and Functions, Mechanism of Respiration, Types of Respiration.
6. Sports Psychology, Nature, Scope and Importance in Physical Education Methods of Sports Psychology. Concept of Learning, Theories and Laws of Learning. Laws and principles of learning. Meaning and Types Dynamics of Motivation in Sports. Techniques of Motivation. Intelligence, Definition and Meaning of Intelligence, Theories of Intelligence, Role of Intelligence in Sports.
7. Definition, Meaning and Importance of Officiating, Principles of Officiating, Qualities of good Officials. Duties of Officials:- Pre-game, During Game, Post Game, Measures for Improving the Standard of Officials. Rules of Different games and Dimensions of Play fields:-Basketball, Handball, Kabaddi, Volleyball. Methods of Conditioning and Training, Continuous Training Method, Interval Training Method, Repetition Training Method.

Anupam De

AD

Kishor Kishor

Amul