अखिल भारतीय आयुर्वेद संस्थान
ALL INDIA INSTITUTE OF AYURVEDA
(आयुष मंत्रालय, भारत सरकार के अंतर्गत स्वायत्त संस्थान)
(An Autonomous Organization under the Ministry of AYUSH, Govt. of India)
गौतमपुरी, सरिता विहार, मथुरा रोड, नई दिल्ली -110076
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Notice

With reference to Recruitment Advertisement No. AIIA/Rectt/07/2023 and Recruitment Advertisement No. AIIA/Rectt/04/2025, the advertisement wise details of the posts, along with the syllabus and selection process, are as follows:

Recruitment Advertisement No. AIIA/Rectt/07/2023

1. Joint Director (Admin)
2. Scientist-D (Integrated Translational Research)
3. Scientist-C (Integrated Translational Research)
4. Jr. Staff Surgeon (Dental)
5. Staff Surgeon (Dental)
6. Medical Officer (Casualty)
7. CSSD Assistant
8. Sanitary Inspector
9. Jr. Physiotherapist (Neuro)
10. Jr. Physiotherapist (Ortho)
11. Jr. Physiotherapist (Pedia)
12. Assistant Store Officer
13. Librarian
14. Junior Engineer (Civil)
15. Junior Engineer (Biomedical)

Recruitment Advertisement No. AIIA/Rectt/04/2025

1. Accounts Officer (If deputation fails)
2. Assistant
3. Panchakarma Technician
4. Jr. Medical Record Officer (If deputation fails)
5. Nursing Superintendent
6. Accountant
7. Medical Lab Technologist (Bio-Chemistry)
8. Medical Lab Technologist (Zoology)
9. Medical Lab Technologist (Microbiology)
10. Research Assistant (Medicinal Plant)
11. Yoga Instructor
12. Junior Medical Lab Technologist
13. Store Keeper
14. Lab Attendant

Sd/-
Director

EXAM PATTERN

1. STORE KEEPER

Examination criteria: Written examination followed by typing skill test

Written Examination: OMR based Multiple choice questions from following subjects with number of questions and maximum marks as under:

Subjects	No. of Questions	Maximum Marks
General Intelligence & Reasoning	25	25
General Awareness	25	25
Quantitative Aptitude	25	25
General English & Comprehension	25	25

2. OTHER POSTS

(CSSD Assistant, Sanitary Inspector, Jr. Physiotherapist (Neuro), Jr. Physiotherapist (Ortho), Jr. Physiotherapist (Pedia), Assistant Store Officer, Librarian, Junior Engineer (Civil), Junior Engineer (Biomedical), Accounts Officer, Assistant, Panchakarma Technician, Jr. Medical Record Officer, Nursing Superintendent, Accountant, Medical Lab Technologist (Bio-Chemistry), Medical Lab Technologist (Zoology), Medical Lab Technologist (Microbiology), Research Assistant (Medicinal Plant), Yoga Instructor*, Junior Medical Lab Technologist, Lab Attendant)

Examination criteria: Written examination

Written Examination: OMR based Multiple choice questions from following subjects with number of questions and maximum marks as under:

Subjects	No. of Questions	Maximum Marks
General Intelligence & Reasoning	5	5
General Awareness	5	5
Quantitative Aptitude	5	5
Test of English and Computer Awareness	5	5
Subject knowledge of the related subjects for the post of concerned post	80	80

Note:

1. ***Skill Test will be conducted for the post of Yoga Instructor and Store Keeper after Written Test.***
2. ***Five candidates each for the posts of Nursing Superintendent and Accounts Officer shall be shortlisted for the interview based on their performance in the Screening Test, subject to fulfilling the minimum eligibility criteria prescribed in the advertisement.***

SYLLABUS

General Intelligence & Reasoning:

It would include questions of both verbal and non- verbal type. The test will include questions on analogies, similarities and differences, space visualization, problem solving, analysis, judgement, decision making, visual memory, discriminating observation, relationship concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series, nonverbal series etc. The test will also include questions designed to test the candidate's abilities to deal with abstract ideas and symbols and their relationship, arithmetical computation and other analytical functions.

General Awareness:

Questions will be designed to test the ability of the candidate's general awareness of the environment around him and its application to society. Questions will also be designed to test knowledge of current events and of such matters of everyday observation and experience in their scientific aspects as may be expected of an educated person. The test will also include questions relating to India and its neighbouring countries especially pertaining to Sports, History, Culture, Geography, Economic scene, General Polity including Indian Constitution, and Scientific Research etc. These questions will be such that they do not require a special study of any discipline.

Quantitative Aptitude:

Computation of Whole Number, Decimal and Fractions, Relationship between numbers, Percentages, Ratio and Proportion, Square roots, Averages, Interest (Simple and Compound), Profit and Loss, Discount, Partnership Business, Mixture and Allegation, Time and distance, Time and work, Triangle, Quadrilaterals, Regular Polygons, Circle, Right Prism, Right Circular Cone, Right Circular Cylinder, Sphere, Hemispheres, Rectangular Parallelepiped, Regular Right Pyramid with triangular or square Base, Basic algebraic identities of School Algebra and Elementary surds (simple problems) and Graphs of Linear Equations, familiarity with elementary geometric figures and facts, triangle and its various kinds of centres, Congruence and similarity of triangles, Circle and its chords, tangents, angles subtended by chords of a circle, common tangents to two or more circles, Trigonometry, Trigonometric ratios, Complementary angles, Height and distances (simple problems only) etc.

Test of English and Computer Awareness:

Includes questions on 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 and Operating System, MS Office, MS Word, MS Excel, MS Power Point, Internet, E-mail, Antivirus and various online tools used in day to-day office work.

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF NURSING SUPERINTENDENT:

a) Allopathy Nursing: Basic foundational sciences like anatomy, physiology, and biochemistry, along with nursing fundamentals, medical-surgical nursing, psychiatric nursing, community health, and public health nursing. Skills in communication, interpersonal and professional relations, principles of first aid in Emergency situations. Care of terminally ill patients. Basics of first aid.

b) Ayurvedic Nursing: Basic concepts of Ayurveda, Shareera Rachana, Shareera Kriya, Swasthavritta, Community Health, Panchakarma, Dietetics, Nursing in Shalyakarma, Shalakya Karma, Shishu Paricharya, Manasika Roga, Stree & Prasooti. Basic Understanding of Ayurveda Formulations. Yoga And Pranayama.

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF CSSD ASSISTANT:

a) Basic Anatomy: General introduction including definition of anatomy and physiology, types of anatomy (including systemic), topographic terms used to describe the body, and description of various regions of the body. Cells and tissues of the body and general histology. Anatomical description of skin and breast, joints, ligaments, fasciae and bursae, musculoskeletal system, cardiovascular system, respiratory system, lymphatic system, blood and blood-forming organs, urogenital system, endocrine system, organs of special senses (ear, eye, etc.), digestive system, and embryology.
b) Basic Physiology: Introductory concepts including specialization of tissues, homeostasis and its importance in mammals, blood and lymphatic system, cardiovascular system, excretory system, skin and temperature regulation, respiratory system, digestive system and metabolism, endocrinology, reproductive system, nervous system, special senses, and muscles.
c) Basic Pathology and Microbiology: Definitions and classification of diseases, inflammatory diseases including viral, fungal, and parasitic, degenerative diseases such as fatty degeneration and amyloid, tumors including definition, etiology, and classification.
d) Operation Theatre Techniques: Operation theatre techniques, surgical procedures, organizing and setting up trolleys for theatre, tracking and recall of equipment and items, surgical instruments, criteria for purchase and maintenance, checking in and out of loan instruments, decontamination process, scientific principles, and recommended practices.
e) Disinfection: Principles of disinfection, cleaning of equipment, use of detergents, ultrasonic washers and mechanical cleaning apparatus, cleaning of catheters and tubings, glassware, syringes and needles, preparation and supplies for terminal sterilization.
f) Cleaning, Washing, Packaging and Assembly Line: Precautions while handling instruments, assembly and packing, packaging selection and materials used for wrapping and packing, assembling pack contents, types of packs prepared, inclusion of trays and gallipots in packs, methods of wrapping and use of indicators to show sterilization, and date stamping.
g) Sterilization Methods: Different methods of sterilization including high temperature sterilization such as dry heat and moist heat sterilization, EO gas sterilization, hydrogen peroxide gas plasma vapor sterilization, sterilization of endoscopes, recommended practices for flash sterilization, and use of sterilization indicators such as biological indicators, chemical indicators, Bowie-Dick test, thermal tape, and incubators for testing biological indicators (60 min/90 min efficiency).
h) Classification of CSSD Working Areas: Colour coding of areas including red colour for dirty area, yellow/blue for clean area, and green for sterilized area.
i) Sterilization Record Keeping: Sterile storage, call-back system in case of failure detection, HVAC system, and maintenance of records and registers.
j) Quality Assurance and Standards: Quality assurance, biological indicators and quality control, quality measurement methods and standards, ISO standards, water quality and its impact on CSSD processes, and biomedical waste disposal protocols.

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF SANITARY INSPECTOR:

a) Basic Understanding of Health Sanitary Inspector: Duties and responsibilities of a sanitary health inspector, importance of sanitation, health and hygiene, sanitation in municipal corporations, public health in trade fairs, water bodies, slums, vulnerable areas, restaurants, and hotels. Ethics in healthcare including privacy, confidentiality, consent, medico-legal aspects, professionalism, and values.
b) Emergency Care and Life Support Skills: Basic emergency care including first aid and triage, vital signs, management of choking (Heimlich manoeuvre), bleeding, burns, hypothermia, asthma attacks, bites and stings, fainting, and sprains. Ventilation using bag-valve masks, CPR (one and two rescuer), use of automated external defibrillator (AED), patient transport techniques, and disaster preparedness and management.
c) Liquid, Solid and Biomedical Waste Management: Biomedical waste management including definition, sources, classification, waste minimization, recycling, environmental management systems, handling rules, collection, storage, transportation, treatment, and disposal methods such as incineration, chemical disinfection, and encapsulation. Personal protective equipment, hygiene, emergency measures, and training.
d) Solid Waste Disposal: Sources, generation, storage, collection, and disposal of solid waste, classification of waste, pollution effects, methods of collection and transportation, and disposal techniques such as composting, sanitary landfilling, and incineration.
e) Liquid Waste and Sewage Disposal: Definition and sources of liquid waste, methods of disposal, sewage systems and their types, sewage disposal through biogas plants, water pollution due to sewage, health hazards, sewer types, laying of sewers, sewer appurtenances, traps, and plumbing operations.
f) Burial and Cremation: Concept, methods of disposal of dead bodies, preservation methods, requirements for burial and cremation grounds, and health hazards associated with improper disposal.
g) Food and Nutrition: Science of food including definition, functions, classification, sources, nutrients (proteins, fats, vitamins, minerals), requirements, and deficiencies. Balanced diet including definition, importance, meal planning, nutrient requirements for different age groups, and therapeutic diets.
h) Nutrition Education: Malnutrition including causes, prevention, low birth weight (LBW), care of malnourished children, types of malnutrition, and importance of health education. Family health assessment including anthropometric measurements, haemoglobin testing, and diet survey.
i) Food Preservation: Methods of food preservation including household and industrial methods, pasteurization, refrigeration, and prevention of food-borne diseases including their sources, symptoms, prevention, and control.
j) Environmental and Water Sanitation: Soil sanitation including classification, importance, soil health, and pest control. Healthy housing principles, sanitation at home, water supply systems, chlorination, water testing, and inspection of water sources and health facilities. Sanitation during fairs, festivals, and disasters.
k) Occupational Health: Occupational environment, diseases, workplace safety, roles of employers and employees, health protection measures, and occupational health practices in India.
l) Air and Ventilation: Importance of ventilation, types of ventilation (natural and mechanical), air pollution indicators, air purification, greenhouse effect, thermal comfort, and environmental factors like temperature and humidity.

m) Control of Biological Environment: Use of insecticides, pesticides, disinfectants, sterilization methods, spraying equipment, rodenticides, larvicides, and vector control.
n) Public Health Acts: Introduction, importance, terminology, documentation, and ethical aspects of public health laws.
o) Indian Epidemic Diseases Act: Legal provisions, powers of government, penalties, and protection under the Act.
p) Air and Water Pollution Control Act: Functions of central and state boards, prevention and control measures, and penalties.
q) Prevention of Food Adulteration Act: Standards, food laboratories, powers of inspectors, procedures, and penalties.
r) Birth and Death Registration Act: Registration procedures, record maintenance, powers, and penalties.
s) MTP Act and Other Acts: Legal provisions for medical termination of pregnancy, rules, regulations, and protections. Other relevant acts include SITA, Municipal Acts, Factory Act, ESI Act, Tobacco and Drug Control laws, Environmental Protection Act, and Biomedical Waste Rules.
t) Infection Prevention and Control: Principles of infection control including sterilization, disinfection, hand hygiene, PPE usage, prevention of healthcare-associated infections, and hospital infection control guidelines (NABH, JCI).
u) Personal Hygiene: Factors affecting hygiene, habits, body care, oral hygiene, exercise, clothing, menstrual hygiene, sensory care, and behavioural aspects.
v) Communicable Diseases and Non-Communicable Diseases: Modes of transmission, prevention, control, and role of health workers. Diseases include swine flu, tuberculosis, AIDS, diphtheria, polio, measles, diarrhoea, etc. Introduction, prevalence, diagnosis, and prevention of diseases such as cancer, hypertension, heart disease, and diabetes.
w) Immunity and Immunisation: Importance, types, national immunisation schedule, and vaccines such as measles, typhoid, COVID-19, and pentavalent vaccines.
x) Disinfection and Sterilization: Need, importance, methods, and use of disinfectants such as halogens, $KMnO_4$ solution, formaldehyde, sulphur, chlorine, UV radiation, ozone, bleaching powder, and lime.
y) Universal/Standard Precautions: Hand hygiene, use of PPE, safe injection practices, handling contaminated materials, and respiratory hygiene.
z) Current Issues in Sanitation and Hygiene: Current sanitation and hygiene issues at local, state, and national levels.

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF ASSISTANT STORE OFFICER:

a) Purchase Management (as per General Financial Rules 2017): Purchase of Goods and Services, Fundamental Principles of Public Buying, Purchase of Goods without quotation, Purchase of Goods by Purchase Committee, Purchase of Goods under Rate Contract, Purchase of Goods by Obtaining Bids, Advertised Tender Enquiry, Limited Tender enquiry, Two-Stage Bidding, Single Tender Enquiry, Electronic Reverse Auction, E-Publishing, E-Procurement, Government E-Market Place (GeM), Registration of Suppliers, Department from bidding, Contents of binding document, Maintenance Contract, Bid Security and Performance Security, Efficiency, Economy and Accountability in Public Procurement System, Buy-Back Offer, International trade (Imports, Customs, Incoterms)
b) Inventory Management: Types of Inventory, Cost of associates with inventories, Forecasting technics, Inventory Control and Service Level, Replenishment of Inventory, Inventory Management System, Materials Requirement Planning, Spare Parts Inventories, Ware House and Inventory Operations Systems, Receipt of Goods and materials from private suppliers, Receipt/Issue of goods and materials from internal divisions of the same Organization, Customs of goods and materials, Lists and Accounts, Procedure of Physical verification and Consumables and Assets, Buffer Stuck, Disposal of goods and Modes of disposals, Total Quality Management.
c) Storekeeping: Objectives and functions of storekeeping, location and layout of stores. Types of stores.
d) Store Handling Equipment: Advantages of using stores handling equipment, Types of handling equipment: manual and mechanical devices.

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF JUNIOR ENGINEER (CIVIL):

a) Strength of Materials and Theory of Structures: Stress–strain relationship, Hooke's Law, determination of forces in members of trusses and pin-jointed frames, bending moments and shear forces. Theory of simple bending, continuous beams and simple portals, determination of bending moments and shear forces using various methods of analysis.
b) Design Principles: Determination of dead, live, wind, and seismic loads, relevant Indian Standard (I.S.) Codes, factor of safety, and load factor.
c) Steel Design: Design of simple beams and plate girders as per Indian Standards, design of single and built-up columns, column base connections, and design of steel roof trusses.
d) Reinforced Concrete: Basic principles of reinforced concrete, shear, bond, and diagonal tension, location of reinforcement, design of singly and doubly reinforced beams, one-way and two-way slabs, theory and design of reinforced concrete columns with unidirectional bending, design of cantilever and simple counterfort retaining walls, liquid retaining structures and their special requirements.
e) Construction Practice: General details of building construction including foundations, flooring, masonry, and different types of roofs, safety during construction, durability, general properties, standard requirements, and tests for common building materials such as bricks, stones, sand, aggregates, cement, lime, timber, and steel. Tests for fresh and hardened concrete.
f) Surveying: Use and adjustment of surveying instruments such as chain, plane table and accessories, magnetic compass, level, and theodolite. Use of compass and theodolite including alignment and adjustments. Levelling methods and reduced level calculations. Contour surveying including methods of contouring and properties of contours. Curves and alignment including setting out of simple, reverse, and transition curves using different methods, and vertical curves.
g) Highway Engineering: Road alignment in hills and plains, minimum standards for National Highways, principles of design of urban roads, cross-sectional requirements and interactions, road drainage and maintenance, house paths, approach roads, and service lanes.
h) Public Health Engineering: Water Supply: Quality and quantity of water required for public water supply, water purification processes, water distribution systems including valves, fittings, and testing.
i) Sanitation: Orientation, ventilation, and damp-proofing of buildings, sanitary appliances, construction and testing of house drains, sewage disposal, sewerage systems including construction and maintenance, types of sewage treatment such as oxidation ponds, simple sedimentation, recirculation, filtration plants, contact beds, percolating filters, and septic tanks.
j) Soil Mechanics and Foundation Engineering: Properties of soils, classification, soil exploration, methods of determining bearing capacity. Principles of selection of foundation types for structures including shallow and deep foundations. Compaction, laboratory and field methods, optimum moisture content, and soil stabilization.

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF LIBRARIAN:

a) Foundations of Library and Information Science: Library as a social institution including social and historical foundations, types of libraries and their functions, and role in formal and informal education. Normative principles including Five Laws of Library Science and their implications. Library development with reference to India and Kerala. Library legislation including need, features, and acts such as Copyright Act and Delivery of Books Act. Library profession including ethics, associations (IFLA, ILA, IASLIC, etc.), education, and research. Promoters such as UNESCO, UGC, and RRRLF. Resource sharing, consortia (ShodhSindhu, DELNET, INFLIBNET), library networks, and public relations.

b) Knowledge Organization – Library Classification: Universe of subjects including structure and formation. Library classification, need and purpose, enumerative and faceted schemes. Mapping of subjects in DDC, CC, UDC, and LC. General theory including idea plane, verbal plane, facet analysis, and sequence. Notation system, qualities, mnemonics, and zone analysis. Fundamental categories, call number, class number, book number, and collection number.

c) Information and Communication: Concept of information including characteristics, value, and difference between data, information, and knowledge. Communication including channels, models, barriers, and trends. Information society, intellectual property, right to information, censorship, data security, and open access movement.

d) Information Sources: Physical media of information, classification of sources (print and non-print, primary, secondary, tertiary). Ready reference sources such as dictionaries, encyclopaedias, directories, and statistical sources. Electronic sources including e-books, e-journals, databases, OPAC, and internet resources. Abstracting and indexing services and multimedia resources.

e) Information Products and Services: Information users and their needs, information-seeking behaviour, and user studies. Reference services including virtual reference and search techniques. Information services such as CAS, SDI, bibliographic and document delivery services. Personalized services including translation and reprography. Information systems such as NISCAIR, DESIDOC, AGRIS, MEDLARS, and OCLC.

f) Library and Information Centre Management: Library operations including acquisition, classification, cataloguing, and processing. Reader services including circulation, maintenance, stock verification, and serial control. Library finance including budgeting and accounting. Library building, space management, green libraries, and security. Human resource management including recruitment, training, and performance appraisal. Records, statistics, and reports.

g) Cataloguing and Metadata: Bibliographic records, catalogues, OPAC, and FRBR. Standards such as ISBD, AACR-2, RDA, MARC formats. Subject indexing, thesauri, indexing systems (PRECIS, POPSI), and metadata standards such as Dublin Core.

h) Intellectual Property Rights: International treaties such as Berne Convention, TRIPS, and WIPO. Copyright law and patent law of India. Implications including plagiarism, Creative Commons, and protection of digital content.

i) Information Technology Applications in LIS: Library automation including software like KOHA and e-Granthalaya. Communication technology including networks (LAN, MAN, WAN), hardware, and protocols. Internet tools, search engines, cloud computing, and cybersecurity.

j) Digital Libraries: Concept, scope, and characteristics of digital libraries. Institutional repositories, design, standards, and software such as DSpace and EPrints. Emerging technologies including AI, machine learning, blockchain, virtual reality, and their application in libraries. Role of libraries in research data management.

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF JUNIOR ENGINEER (BIOMEDICAL):

a) Human Anatomy and Physiology: Basics of cell, types of tissues and organ systems; Homeostasis; Basics of organ systems - musculoskeletal, respiratory, circulatory, excretory, endocrine, nervous, gastrointestinal and reproductive.
b) Medical Imaging Systems: Basic physics, Instrumentation and image formation techniques in medical imaging modalities such as X-Ray, Computed Tomography, Single Photon Emission Computed Tomography, Positron Emission Tomography, Magnetic Resonance Imaging, Ultrasound.
c) Biomechanics: Kinematics of muscles and joints - free-body diagrams and equilibrium, forces and stresses in joints, biomechanical analysis of joints, Gait analysis; Hard Tissues - Definition of Stress and Strain, Deformation Mechanics, structure and mechanical properties of bone - cortical and cancellous bones; Soft Tissues - Structure, functions, material properties, visco elastic properties, Maxwell & Voight models; Biofluid mechanics - Flow properties of blood in the intact human cardiovascular system.
d) Biomaterials: Basic properties of biomaterials - Metallic, Ceramic, Polymeric and Composite; Fundamental characteristics of implants - biocompatibility, bioactivity, biodegradability; Basics of drug delivery; Basics of tissue engineering. Biomaterial characterization techniques - Rheology, Atomic Force Microscopy, Electron Microscopy, Transmission Electron Microscopy Fourier Transform Infrared Spectroscopy.
e) Sensors and Bioinstrumentation: Sensors - resistive, capacitive, inductive, piezoelectric, Hall effect, electro chemical, optical; Sensor signal conditioning circuits; application of LASER in sensing and therapy. Origin of bio potentials and their measurement techniques - ECG, EEG, EMG, ERG, EOG, GSR, PCG, Principles of measuring blood pressure, body temperature, volume and flow in arteries, veins and tissues, respiratory measurements and cardiac output measurement. Operating principle of medical equipment-sphygmomanometer, ventilator, cardiac pacemaker, defibrillator, pulse oximeter, hemodialyzer Electrical Isolation (optical and electrical) and Safety of Biomedical Instruments.
f) Measurements and Control Systems: SI units, systematic and random errors in measurement, expression of uncertainty - accuracy and precision index, propagation of errors; PMMC, MI and dynamometer type instruments; DC potentiometer; bridges for measurement of R, L and C, Q-meter. Basics of control system - transfer function.
g) Electrical Circuits: Voltage and current sources - independent, dependent, ideal and practical; v-i relationships of resistor, inductor and capacitor; transient analysis of RLC circuits with dc excitation; Kirchoff's laws, superposition, Thevenin, Norton, maximum power transfer and reciprocity theorems; Peak, average and rms values of ac quantities; apparent, active and reactive powers; phasor analysis, impedance and admittance; series and parallel resonance, realization of basic filters with R, L and C elements, Bode plot.
h) Signals and Systems: Continuous and Discrete Signal and Systems - Periodic, a periodic and impulse signal; Sampling theorem; Laplace and Fourier transforms; impulse response of systems; transfer function, frequency response of first and second order linear time invariant systems, convolution, correlation. Discrete time systems - impulse response, frequency response, DFT, Z - transform; basics of IIR and FIR filter.
i) Analog and Digital Electronics: Basic characteristics and applications of diode, BJT and MOSFET; Characteristics and applications of operational amplifiers - difference amplifier, adder, subtractor, integrator, differentiator, instrumentation amplifier,

buffer, filters and waveform generators. Number systems, Boolean algebra; combinational logic circuits - arithmetic circuits, comparators, Schmitt trigger, encoder/decoder, MUX/DEMUX, multi-vibrators; Sequential circuits - latches and flip flops, state diagrams, shift registers and counters; Principles of ADC and DAC; Microprocessor- architecture, interfacing memory and input- output devices.

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF JR. PHYSIOTHERAPIST (NEURO):

a) Basics of Anatomy, Physiology
b) Biochemistry, Pathology and Microbiology
c) Basics of Psychology
d) Biomechanics and Kinesiology
e) Exercise Therapy
f) Manual Therapy
g) Physical Modalities
h) Physiotherapy in Neurology (Adult & child)

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF JR. PHYSIOTHERAPIST (ORTHO):

a) Basics of Anatomy, Physiology
b) Biochemistry, Pathology and Microbiology
c) Basics of Psychology
d) Biomechanics and Kinesiology
e) Exercise Therapy
f) Manual Therapy
g) Physical Modalities
h) Physiotherapy in Orthopedics

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF JR. PHYSIOTHERAPIST (PEDIA):

a) Basics of Anatomy, Physiology
b) Biochemistry, Pathology and Microbiology
c) Basics of Psychology
d) Biomechanics and Kinesiology
e) Exercise Therapy
f) Manual Therapy
g) Physical Modalities
h) Physiotherapy in Pediatrics and Neonatal Sciences

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF ASSISTANT

a) CCS (Conduct Rules)
b) CCS(CCA) Rules
c) CCS (Leave Rules)
d) Fundamental and Supplementary Rules
e) TA/DA Rules
f) LTC Rules
g) CS(MA) and CGHS
h) RTI Act,
i) CCS (Revised Pay Rules 2016)
j) CCS (Pensions Rules)
k) GPF, CPF and NPS
l) Office Procedure,
m) Rules of Deputation & Lien
n) Reservation in appointment
o) Retirement and superannuation,
p) Resignation, removal and dismissal
q) Seniority and promotion

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF JR. MEDICAL RECORD OFFICER

a) Definition, objectives, functions, and classification of hospitals; departmental administration, delegation, and decentralization; departments and service units in hospitals. Definition and history of medical records; values, purposes, and uses of medical records; contents and components of medical records; need for a Medical Record Department and its functions. Responsibilities of medical record technicians, hospital administrators, doctors, nurses, and allied health professionals in relation to medical records.
b) Numbering, filing, storing, and retrieval of medical records; types of indexes and their purposes, including patient, disease, operation, and physician indexes. Maintenance of registers such as birth, death, admission, discharge, charge-out, and medico-legal case (MLC) registers; preparation of birth and death reports.
c) Analysis of medical records and preparation of deficiency checklists; microfilming and preservation of records. Medical terminology, including roots, prefixes, suffixes, colours, numerals, symbols, and abbreviations; terminology related to investigations, operations, and treatment of diseases and disorders.
d) International Classification of Diseases (ICD) and classification of diseases as per ICD. Medico-legal aspects, medical ethics, and the medical profession in relation to law; medical confidentiality, privileged communication, medical negligence, reports to police, and subpoena. Legal aspects and potentialities of hospital medical records, including custody, confidentiality, and their use in life insurance cases, malpractice suits, Workmen's Compensation cases, and authorization for operations.
e) Rules regarding registration and certification of births and deaths; release of information to government and other agencies; policies for release of medical information; correction of medical records. Maintenance of accident registers and wound certificates; legal aspects of hospital–patient, doctor–patient, and hospital–doctor relationships; records related to post-mortem, examination of bones and tissues; types of consent, including informed, implied, and express consent.
f) Health insurance, including the role of the Medical Record Department in providing data to insurance companies and release of medical information.
g) Biostatistics: definition of statistics and biostatistics; values and uses of statistics; methods of data collection; sampling; types of data, rates, and ratios; measures of central tendency (mean, median, mode); measures of dispersion (range, mean deviation, standard deviation); graphical presentation of data, including line graphs, bar diagrams, and pie charts.
h) Hospital statistics: definition, uses, and limitations; important hospital terms such as inpatient, outpatient, admission, and discharge; calculation of hospital indicators, including bed occupancy rate, death rate, birth rate, turnover rate, and average length of stay.

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF ACCOUNTANT AND ACCOUNTS OFFICER:

a) Basic concepts of accounting: Fundamental principles and concepts of accounting; nature, scope and limitations of financial accounting; accounting concepts, conventions and Generally Accepted Accounting Principles (GAAP); single and double entry systems; books of original entry; journal and ledger; trial balance; rectification of errors; self-balancing ledgers; bank reconciliation statement; bills of exchange.
b) Final accounts and specific accounting areas: Preparation of manufacturing, trading, profit and loss account, profit and loss appropriation account and balance sheet; distinction between capital and revenue expenditure; depreciation accounting; valuation of inventories.
c) Accounts of special entities: Accounts of non-profit organizations, including receipts and payments account and income and expenditure account.
d) Taxation: Income Tax rules; Goods and Services Tax (GST) rules; basic concepts of Service Tax.
e) Budgeting, government accounting and financial procedures: Concepts of budgeting and estimation; procedures for budgeting; Government Accounting System; government budgeting; budget formulation and implementation; general system of financial management; audit procedures; preparation of Annual Statement of Accounts; endowment funds; interest-bearing and interest-free advances.

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF MEDICAL LAB TECHNOLOGIST (BIOCHEMISTRY)

a) Fundamentals of clinical biochemistry, including structure and function of biomolecules such as carbohydrates, proteins, lipids, enzymes, vitamins, and hormones. Metabolism of carbohydrates, proteins, and lipids, and their clinical significance. Acid-base balance, electrolytes, and water balance.
b) Clinical enzymology and organ function tests, including liver function tests (LFT), kidney function tests (KFT), cardiac markers, thyroid function tests, and pancreatic function tests. Laboratory investigations related to diabetes, lipid profile, and metabolic disorders.
c) Principles and use of laboratory instruments such as spectrophotometer, autoanalyzer, centrifuge, and electrophoresis. Quality control in clinical laboratories, calibration, and standardization.
d) Specimen collection, handling, processing, and preservation of biological samples. Laboratory safety, biomedical waste management, and infection control practices.
e) Recent advances in biochemistry, including molecular diagnostics and automation in laboratory techniques.

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF MEDICAL LAB TECHNOLOGIST (MICROBIOLOGY)

a) General microbiology, including classification, morphology, and physiology of microorganisms such as bacteria, viruses, fungi, and parasites.
b) Sterilization and disinfection methods; culture media preparation; isolation and identification of microorganisms; staining techniques (Gram staining, Ziehl-Neelsen staining, etc.).
c) Immunology: antigen-antibody reactions, hypersensitivity, vaccines, and immune response.
d) Clinical microbiology: laboratory diagnosis of infectious diseases, including bacteriology, virology, mycology, and parasitology.
e) Antimicrobial agents and antibiotic sensitivity testing; hospital-acquired infections and infection control practices.
f) Specimen collection, transport, and processing; biosafety and biomedical waste management.
g) Recent advances in microbiology, including molecular techniques (PCR, ELISA, etc.).

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF MEDICAL LAB TECHNOLOGIST (ZOOLOGY)

a) Zoological Sciences: Introduction to zoology; principles of animal classification and taxonomy; binomial nomenclature; study of invertebrates and vertebrates of medical importance. Structural organization of animals and comparative anatomy. Cell biology including cell structure, cell division (mitosis and meiosis), and cell functions. Genetics: Mendelian laws, chromosomal theory of inheritance, mutations, and basic molecular genetics. Evolution and natural selection.
b) Animal Physiology: Detailed study of physiological systems including digestive, respiratory, circulatory, excretory, nervous, endocrine, and reproductive systems. Homeostasis and regulation in animals.
c) Parasitology: Classification, morphology, life cycle, pathogenesis, laboratory diagnosis, and control of parasites of medical importance including protozoa (Entamoeba, Plasmodium), helminths (Ascaris, Taenia), and arthropods. Host–parasite relationship and epidemiology of parasitic diseases.
d) Hematology: Composition and functions of blood; morphology and formation of blood cells; hemoglobin estimation; anemia and blood disorders; blood grouping and coagulation mechanisms.
e) Histology & Cytology: Microscopic structure of tissues; epithelial, connective, muscular, and nervous tissues; slide preparation; fixation and staining techniques; cytological examination.
f) Immunology: Innate and acquired immunity; antigen-antibody reactions; hypersensitivity; vaccines and immunization; immune disorders.
g) Medical Entomology: Study of insects and vectors of medical importance such as mosquitoes, houseflies, lice, ticks, and mites; vector-borne diseases and their control measures.
h) Environmental Biology & Ecology: Ecosystem, food chain, food web, biodiversity, and conservation. Role of environment in disease transmission and public health.
i) Laboratory Techniques: Microscopy; staining methods; specimen collection, preservation, and processing; use of laboratory instruments; quality control and assurance.
j) Laboratory Safety: Biosafety practices; infection control; biomedical waste management; standard laboratory precautions.

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF RESEARCH ASSISTANT (MEDICINAL PLANTS):

a) Medico-Botanical Sciences: Introduction to medicinal plants; morphological studies of plants; areas of occurrence and ecological studies; important identifying characters of medicinal plants; useful parts of plants and their specific characters, properties, and uses. Season and methods of collection of different plant parts such as root, stem, bark, leaves, flowers, fruits, seeds, and exudates.
b) Agricultural Sciences: Area, land, and topography; soil conditions; preparation of land for cultivation; nursery management; sowing, germination, and transplanting; irrigation methods; use of fertilizers and manures; protection from fungi, pests, and diseases; weeding and harvesting techniques.
c) Pharmaceutical Sciences: Macro and microscopic studies of crude drugs; chemical, pharmacognostical, and pharmacological studies of crude drugs from both modern and Ayurvedic perspectives. Material, personnel, and resource management aspects related to medicinal plant resource development.

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST YOGA INSTRUCTOR:

a) Foundation of Yoga: Orientation to classical yoga texts including Patanjali Yoga Sutra, Hatha Yoga Pradipika, Gheranda Samhita, and Shiva Yoga Deepika.
b) Basis Relevant to Yoga Therapy: Basics of Sanskrit; principles of Ayurveda; principles of Naturopathy; and principles of Astrology in relation to yoga therapy.
c) Human Biology: Human anatomy and physiology; yogic diet, nutrition, and related biochemistry; fundamentals of yoga and psychology; and research methodology.
d) Philosophical Foundations of Yoga Therapy: Basics of the integral approach to yoga therapy; concepts of Sankhya and Yoga; teachings of the Bhagavad Gita and Upanishads; and the relationship between the individual (man) and the higher consciousness (the Master).
e) Yoga Therapy in Practice: Comprehensive study of definition, etiology, pathophysiology, clinical features, assessment, and yogic management of disorders related to the following systems: nervous system, endocrine system, respiratory system, cardiovascular system, digestive system, musculoskeletal system, reproductive system, neurosis, pregnancy-related conditions, and eye disorders.

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF JUNIOR MEDICAL LAB TECHNOLOGIST:

1. *Biochemistry:*

a) Cleaning and care of laboratory glassware and equipment; types and calibration of pipettes; preparation and storage of distilled water; preparation of solutions, units of weight and volume, and concentration calculations; SI and CGS units; normality, molarity, and molality; calibration of volumetric apparatus; principles and maintenance of analytical balance.
b) Quality control and assurance in clinical biochemistry laboratory; laboratory organization and record maintenance; principles of assay procedures; reference values in blood, serum, plasma, and urine. pH concepts, Henderson-Hasselbalch equation, pH measurement methods, and pH meter handling.
c) Volumetric analysis and preparation of reagents; principles and applications of electrophoresis, chromatography (TLC, HPLC, etc.), centrifugation, spectrophotometry, and colorimetry. Enzymes: classification and mechanism of action.
d) Metabolism and clinical significance of carbohydrates, lipids, proteins, amino acids, and nucleic acids; laboratory methods for glucose, lipid profile, and protein estimation; diabetes mellitus diagnostics. Nutrition, vitamins, minerals, and trace elements; electrolyte balance and acid-base disorders.
e) Endocrinology: hormone assays (RIA, ELISA, chemiluminescence); thyroid and adrenal function tests. Molecular biology basics including PCR and recombinant DNA technology. Laboratory diagnosis of liver, kidney, and gastrointestinal disorders.

2. *Microbiology:*

a) History of microbiology and host–microbe relationship; laboratory safety and biomedical waste management; microscopy principles and types. Sterilization and disinfection methods; culture media and culture techniques (aerobic and anaerobic).
b) Classification, morphology, and physiology of microorganisms; bacterial anatomy and growth. Antimicrobial agents and susceptibility testing. Staining techniques: Gram stain, Ziehl-Neelsen, Albert stain, capsule staining.
c) Identification of bacteria through biochemical tests; immunity (innate and acquired), antigen-antibody reactions, complement, hypersensitivity, and vaccines.
d) Study of medically important bacteria (Gram-positive and Gram-negative), viruses (DNA and RNA viruses including HIV, Hepatitis, Dengue, etc.), bacteriophages.
e) Parasitology: classification, morphology, and laboratory diagnosis of protozoa, helminths, and nematodes; specimen collection and preservation.
f) Mycology: morphology, culture, and identification of fungi; superficial, subcutaneous, deep, and opportunistic fungal infections.

3. *Pathology (Hematology & Histopathology):*

a) Blood: origin, development, morphology, and functions of blood cells; methods of blood collection and anticoagulants. Hemoglobin estimation, ESR, RBC/WBC counting, and hematological techniques.

b) Peripheral smear and bone marrow examination; staining methods; identification of abnormal cells; anemia and leukemia classification and diagnosis. Platelets and coagulation tests (BT, CT, PT, APTT).
c) Blood grouping (ABO & Rh), cross-matching, Coombs test, blood transfusion and its hazards.
d) Histopathology: fixation, tissue processing, embedding, microtomy, staining (H&E), and special stains. Demonstration of tissues, cells, and pathological substances (fat, iron, amyloid, etc.).
e) Cytology: preparation and staining of cytological specimens; FNAC and PAP smear. Laboratory instrument calibration and validation.

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF PANCHAKARMA TECHNICIAN:

a) General Skills & Professional Practices: Soft skills and communication; basic computer knowledge; reporting and documentation; personal hygiene; professional ethics and medico-legal conduct; interpersonal relationship with colleagues and patients; employability skills including communication, digital literacy, financial literacy, and career development.
b) Fundamentals of Ayurveda & Human Body: Basic concepts and principles of Ayurveda including Tridosha, Dhatu, Mala, Agni, Prakriti, Srotas, Ama; Ayurvedic pharmacology (Rasa, Guna, Virya, Vipaka, Karma); basics of human anatomy and physiology including body systems, organs, and functions.
c) Panchakarma Therapy & Procedures: Preparation for Panchakarma therapy session; principles and types of Panchakarma; Snehana and Swedana procedures; major Panchakarma procedures including Vamana, Virechana, Basti, Nasya and Raktamokshana; various therapies such as Abhyanga, Shirodhara, Shirobasti, Udwartana, Pizhichil, and other massage techniques; patient assessment, positioning, and vital monitoring; use of medicaments and formulations; indications, contraindications and complications.
d) Diet, Patient Care & Post-Therapy Management: Ayurvedic diet (Ahara), Pathya-Apathya, Ritucharya and Dinacharya; preparation of Ayurvedic formulations (Kwath, Kalka, Hima, Phanta, etc.); patient care during therapy; post-therapy procedures, compliance and follow-up; maintenance of records, feedback and patient support.

SUBJECT KNOWLEDGE OF THE RELATED SUBJECTS FOR THE POST OF LAB ATTENDANT:

a) Biomedical Waste Management
b) Infection Prevention and Control
c) Basic Medical Terms
d) Common Laboratory associated Hazards & Bio-safety measures.
e) Concept of Quality care in laboratory
f) Quality Improvement Tools
g) NABH Guidelines h
h) Basic Biochemistry including Normal values
i) HIV, Hepatitis-B and Hepatitis-C, Pre and Post exposure guidelines.
j) Medical Ethics
k) Basic Anatomy and Physiology

MEDICAL OFFICER (CASUALTY)

Examination criteria:

Written Test with 75% weightage followed by Interview with 25% weightage for final merit list.

Written Test:

OMR based Multiple choice questions from following subjects and maximum marks of 100 from 100 MCQs. Every wrong answer will be awarded $1/4^{th}$ negative mark.

Interview:

Personal interview carrying 50 marks. Total 20 candidates will be shortlisted for interview on the basis of the performance in Written Test. Final selection will be made on the basis of total marks obtained by the candidate in Written Test and Personal Interview after calculating weightage as prescribed in Examination Criteria above.

Syllabus for Written Test:

The syllabus and pattern of questions will be similar to NEET PG entrance examination with special emphasis on concerned specialty and Institute specific areas.

STAFF SURGEON (DENTAL) and JR. STAFF SURGEON (DENTAL)

Examination criteria:

Written Test with 75% weightage followed by Interview with 25% weightage for final merit list.

Written Test:

OMR based Multiple choice questions from following subjects and maximum marks of 100 from 100 MCQs. Every wrong answer will be awarded $1/4^{th}$ negative mark.

Interview:

Personal interview carrying 50 marks. Total 10 candidates (5 for each post of Staff Surgeon (Dental) and Jr. Staff Surgeon (Dental)) will be shortlisted for interview on the basis of the performance in Written Test. Final selection will be made on the basis of total marks obtained by the candidate in Written Test and Personal Interview after calculating weightage as prescribed in Examination Criteria above.

Syllabus for Written Test:

- **General Knowledge**: Human Development Programs, Indian Agriculture, Economy, Recent trends in Science and Technology, Ecology and Environment, Food processing, Transportation and Service Sectors, Indian Society, Industry, Heritage & Culture, Natural Resources, Food Adulteration, Polity, Trade, Institute and Ayurveda specific areas etc.
- **Anatomy**: General Anatomy, The general disposition of thoracic, Medical Genetics, Respiratory, General Embryology and Systemic embryology, Abdominal and Pelvic Organs, Head and Neck Structures and alimentary, Clinical Anatomy, Histology of basic tissues
- **Oral Pathology**: Case history recording, Dental Anatomy and Histology, Viral Diseases affecting the oral cavity, Regressive Alterations of Teeth, Healing of Oral Wounds, Child Psychology, Dental Radiology, Growth and Development, Dental Caries, Diseases of Blood & Blood-Forming Organs, Development Disturbances of Hard Tissue, Physical & Chemical Injuries, Diseases of Pulp and Periapical tissues, Caries, Oral Infection – Spread, Bacterial & Fungal
- **Orthodontics**: Mechanics of Orthodontics, Introduction to Orthodontics, Oro-Facial Growth and Development, Post Treatment Concepts, Treatment Planning, Malocclusion, Orthodontic Diagnosis
- **Dental Material**: Impression Materials, Dental Implants, Dental Ceramics, Denture base resins, Dental polymers, Gypsum products, Investments and casting procedure, Physical properties of Dental Materials, Inlay casting waxes, Mechanical properties of Dental Materials, Structure of matter and principles of adhesion, Casting Alloys
- **Pedodontics & Dentistry**: Child Psychology, Dental Radiology, Dental Anatomy and Histology, Growth and Development, Dental Caries, Case history recording

SCIENTIST-C (INTEGRATED TRANSLATIONAL RESEARCH)

Examination criteria:

Written Test with 40% weightage followed by assessment of publications, experience etc. and Interview with 20% and 40% weightage respectively for final merit list.

A. Written Test – maximum 100 marks

B. Publication, experience etc. – maximum 50 marks

C. Personal Interview – maximum 100 marks

A. Written Test:

OMR based Multiple choice questions with maximum marks of 100 from 100 MCQs of one mark each. Every wrong answer will be awarded $1/4^{th}$ negative mark.

Level of questions will be of M.Sc/MD/MS level and will cover the areas mentioned below:

- Research methods (Inductive and deductive), Study designs (observational, experimental, Interventional designs, Preclinical, Clinical, Quantitative and Qualitative), types of sample designs, Ethical aspects related to human research, types of clinical trials, databases (PubMed, Medline, Scopus, web of science), Impact factor, Basics of Intellectual property right (IPR) - 25 Marks
- Basics of Molecular biology -DNA, RNA, types, Eukaryotic Gene expression/Protein expression (methodology), related techniques including Nucleic acid (DNA/RNA)-extraction methods, Quantitation, PCR (Polymerase Chain Reaction), RT-PCR, Agarose gel Electrophoresis, SDS PAGE Electrophoresis, Western blotting, Immunohistochemistry, ELISA (Sandwich ELISA, Direct ELISA, Indirect ELISA). Integrative Oncology, Oncogenes, Tumor suppressor genes, Cell cycle, Apoptosis based experiments (ANNEXIN V, TUNEL), Tissue cell culture: basic principle and methodology - 40 Marks
- Basic Biostatistics – measures of central tendency, probability, p-value, odds ratio, parametric tests, non-parametric tests, correlation, sampling, sensitivity, specificity, ROC - 20 Marks
- Computing skills/ Logical Reasoning - 05 Marks
- General Knowledge related to AIIA - 05 Marks
- Common Sense - 05 Marks

B. Publication, Experience etc.

[Maximum marks B1 + B2 + B3 = 50]

B1. Publications (Maximum marks B1a + B1b + B1c + B1d + B1e = 25)

B1a) Indexed journal publications - 0.50 marks for each publication (maximum marks 5)

B1b) If the impact factor (IF) of the journals is upto 1.0 - 0.5 marks per publication

B1c) If the impact factor of the Journal is between 1.1and 4.9 – 0.75 marks per publication

B1d) If the impact factor of the Journal is between 5.0 and 9.0 – 1.5 marks per publication

B1e) If the impact factor of the journal is above 9, the candidate will be given 2.5 marks per publication

If the candidate is not a Corresponding/Co-Corresponding or First/Co-First Author or Last Author 50% marks will be considered for scoring. Impact factor will be as per Thompson Reuters.

B2. Research/Teaching/Service Experience (Maximum marks 5)

For each year of experience after the qualifying degree the candidate will be awarded 1.5

marks.

B3. Extra qualification (Maximum marks B3a + B3b = 20)

B3a) Ph.D/M.D./M.S. - 10 marks for each degree

B3b) Postgraduate diploma in concerned subjects/M.Phil/M.P.H.- 6 marks for each diploma/degree

C. Interview:

[Maximum marks C1 + C2 + C3 + C4 + C5 + C6 = 100]

Total 15 candidates will be shortlisted for interview on the basis of the performance in Written Test, who will be found fulfilling minimum eligibility criteria as mentioned in the advertisement. Final selection will be made on the basis of total marks obtained by the candidate in Written Test, Publication, experience etc. and Personal Interview.

The Selection Committee shall interview the candidate and award marks as mentioned below:

C1) Comprehension skills – 10 marks

C2) Oral communication skill – 10 marks

C3) General Behaviour/Presentation/Attitude – 15 marks

C4) Subject knowledge/understanding – 40 marks

C5) Awareness about Ayurveda/AIIA/Position – 15 marks

C6) Academic background

i) First division throughout and in first attempt – 10 marks

ii) Otherwise – 6 marks

SCIENTIST-D (INTEGRATED TRANSLATIONAL RESEARCH)

Examination criteria:

Screening Test of 100 marks will be held to shortlist 10 candidates for Personal Interview, who will be found fulfilling minimum eligibility criteria as mentioned in the advertisement. However, the Screening Test will be only of qualifying nature and marks obtained in the Screening Test will not be added in the final score. Final selection will be made on the basis of the following parameters:

A. Publications - 25 marks
B. Extra-mural Grants - 10 marks
C. Research Supervision - 10 marks
D. Impact of the Publications – 15 marks
E. Personal Interview - 40 marks

Screening Test:

OMR based Multiple choice questions with maximum marks of 100 from 100 MCQs of one mark each. There will be no negative marking. Level of questions will be of M.Sc/MD level and will cover the areas mentioned below:

100 marks

- Research methods (Inductive and deductive), Study designs (observational, experimental, Interventional designs, Preclinical, Clinical, Quantitative and Qualitative), types of sample designs, Ethical aspects related to human research, types of clinical trials, databases (PubMed, Medline, Scopus, web of science), Impact factor, Basics of Intellectual property right (IPR) - 25 Marks
- Molecular biology (DNA, RNA, types, Eukaryotic Gene expression/Protein expression (methodology), and related techniques including Nucleic acid (DNA/RNA)-extraction methods, Quantitation, PCR (Polymerase Chain Reaction), RT-PCR, Agarose gel Electrophoresis, SDS PAGE Electrophoresis, Western blotting, Immunohistochemistry, ELISA (Sandwich ELISA, Direct ELISA, Indirect ELISA). Integrative Oncology, Oncogenes, Tumor suppressor genes, Cell cycle, Apoptosis based experiments (ANNEXIN V, TUNEL), Tissue cell culture: basic principle and methodology - 40 Marks
- Basic Biostatistics – measures of central tendency, probability, p-value, odds ratio, parametric tests, non-parametric tests, correlation, sampling, sensitivity, specificity, ROC - 20 Marks
- Computing skills/ Logical Reasoning - 05 Marks
- General Knowledge related to AIIA - 05 Marks
- Common Sense - 05 Marks

Scoring Criteria

A. PUBLICATIONS [Maximum marks A1 + A2 + A3 + A4 + A5 = 25]

A1) Indexed journal publications – 1.0 marks for each publication (maximum marks 10)

A2) If the impact factor (IF) of the journals is upto 1.0 - 0.1 marks per publication

A3) If the impact factor of the Journal is between 1.1 and 4.9 – 0.2 marks per publication

A4) If the impact factor of the Journal is between 5.0 and 9.0 – 0.5 marks per publication

A5) If the impact factor of the journal is above 9, the candidate will be given 1.0 mark per publication

If the candidate is not a Corresponding/Co-Corresponding or First/Co-First Author or Last Author 50% marks will be considered for scoring. Impact factor will be as per Thompson Reuters.

B. EXTRA-MURAL GRANTS [Maximum marks B1 + B2 = 10]

Grants from DBT, DST, ICMR, CSIR, CCRAS, Industry or any other national or international agency during the last 5 years will be considered.

B1. If grant value is between ₹ 1 - 25 lakhs, 2.0 marks per grant

B2. If grant value is more than ₹ 25 lakhs, 3.0 marks per grant

If the candidate is not a PI on any of these grants but is a Co-PI/ Coordinator, the marks will be reduced by 25% and if he/she is a Co-Investigator, the marks will be reduced by 50%.

C. RESEARCH SPERVISION [Maximum marks C1 + C2 = 10]

C1. Guide/ Supervisor for Ph.D, MS, MD, MPH student: 1 mark per student

C2. Co-Guide/ Co-Supervisor for Ph.D, MS, MD, MPH student: 0.5 mark per student

D. IMPACT OF PUBLICATIONS [Maximum marks D1 + D2 + D3 = 10]

Impact of the Candidate's publications will be assessed based on the three parameters defined below:

D1. Average Citations per paper – (maximum 2.0 marks)

The Average citation will be calculated as:

Average Citation per paper= Total number of citations/ Total number of indexed papers

D1a. If the Average citation per paper is between 1and 4.99, the candidate will get 1.0mark.

D1b. If the Average citation per paper is between 4 and above, the candidate will get 2.0 marks.

D1c. If the Average citations per paper is 8 or more; the candidate will get 3.0 marks.

D2. Number of Citation Classics – (maximum 3.0 marks)

A Published paper cited at least 100 times is referred to as a Citation Classic. For each Citation Classic,1.0 mark will be awarded.

D3. Total Citations of the Candidates publications: (maximum 5 marks)

D3a. Total Citations are <100, 0.5 marks

D3b. Total Citations are between 100 - 999, 1.0 mark

D3c. Total Citations are between 1000 - 2500, 1.5 marks

D3d. Total Citations are between 2501 - 5000, 2.0 marks

D3e. Total Citations are between 5001-10,000, 4.0 marks

D3f. Total Citations are >10001, 5.0 marks

Citations will be as per Thomson Reuters Citation Analysis.

E. PERSONAL INTERVIEW [Maximum marks 40]

Total 10 candidates will be shortlisted for interview on the basis of the performance in Screening Test, who will be found fulfilling minimum eligibility criteria as mentioned in the advertisement. Personal interview will be based on the assessment of the Selection Committee on the following criteria and cumulative marks subject to a maximum of 40 marks.

a. Comprehension Skills – 4.0 marks
b. Oral Communication Skills – 4.0 marks
c. General Behaviour/Attitude/Positive outlook – 5.0 marks
d. Domain Knowledge and understanding of Subject – 15.0 marks
e. Awareness about Ministry of Ayush and Ayurveda related regulatory policies – 4.0 marks
f. Contribution and significance of research to public health and national programs – 8.0 marks

JOINT DIRECTOR (ADMIN)

Examination criteria:

Written Test with 75% weightage followed by Interview with 25% weightage for final merit list.

Written Test:

Screening Test of 100 marks will be held to shortlist 5 candidates for Personal Interview, who will be found fulfilling minimum eligibility criteria as mentioned in the advertisement. Every wrong answer will be awarded 1/4th negative mark.

Syllabus for Screening Test:

(a) Question will cover subjects of interest and importance in the present day to test knowledge of the broad salient features of the Health Care Policy of Government of India, Indian Economy and major Developmental Schemes, intelligence awareness of current affairs both national and international.

(b) A broad knowledge of the following aspects will also be expected: The principles of the Constitution of India, Parliament Procedures, organization of the machinery of the Govt. of India, Designation and allocation of subjects between Ministries, Departments and Attached & Subordinate Offices, methods and procedure of work in the Government of India Secretariat and attached offices, Role and functions of Constitutional and Statutory Bodies such as CAG, UPSC, CVC etc., RTI Act, 2005 and Official Language Policy.

(c) Detailed knowledge of General Financial Rules, Procurement Manuals of Department of Expenditure, Government of India

(d) Service Rules viz., Conduct Rules, Leave Rules, TA Rules, Fundamental and Supplementary Rules, Central Civil Services (Pension) Rules, Central Civil Services (Conduct) Rules, Central Civil Services (Classification, Control and Appeal) Rules, Central Civil Service (Leave) Rule, Delegation of Financial Power Rules etc.

(e) Rules and Regulations of Ministry of Ayush and its autonomous organizations with special emphasis on All India Institute of Ayurveda

PERSONAL INTERVIEW [Maximum marks 100]

Total 5 candidates will be shortlisted for interview on the basis of the performance in Screening Test, who will be found fulfilling minimum eligibility criteria as mentioned in the advertisement. Personal interview will be based on the assessment of the Selection Committee on the following criteria and cumulative marks subject to a minimum of 40 marks.

a. Domain Knowledge and understanding of Administrative Laws – 20 marks
b. General Behavior/Attitude/Positive outlook – 20 marks
c. Oral Communication Skills – 15 marks
d. Comprehension Skills – 10 marks
e. Awareness about Ministry of Ayush and Ayurveda related regulatory policies – 15 marks
f. Fulfillment of desirable qualifications/experience – 20 marks

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