कल्याण डोंबिवली महानगरपालिका, कल्याण

लेखी परिक्षेसाठी पदनिहाय अभ्यासक्रम

१) फिजिओथेरेपिस्ट (Physiotherapists)

- General Knowledge.
- Maharashtra Municipal Corporation Act.
- Human Anatomy, Physiology, Biochemistry.
- Psychiatry including Psychology.
- Fundamentals of Kinesiology & Kinesiotherapy.
- Fundamental of Electrotherapy.
- Functional Diagnosis & Physiotherapeutic skills.
- Musculoskeletal Physiotherapy.
- Neuro Physiotherapy.
- Cardiovascular Respiratory Physiotherapy.
- Community Physiotherapy.
- Principles of Bio-engineering.

२) औषधनिर्माता (Pharmacist)

- General Knowledge.
- Maharashtra Municipal Corporation Act.
- General Pharmacology 1 Type of Drugs, General Classifications of Drugs, Drug Doses forms, & Bioavailability, Indications, Contraindications, Adverse Drug Reaction, Roll of antibiotics, Clinical Pharmacology, Neuro Pharmacology.
- Psycho Pharmacology, Cardiovascular Pharmacology, Pharmacy epidemiology, Dental Pharmacology, Indian Pharmacopeia, British Pharmacopeia, Pharmacy Act 1948, Drugs & cosmetic Act 1940 & amendments, Food & Drug Administration, Drug Storage, Logistics & inventory management, Roll of Hospital Pharmacist, Community Pharmacy, Good Manufacturing Practices (GMP), Disinfectants & their concentrations used in pharmaceuticals & hospitals, EDL & ECL list (Standard list of Drugs & Consumables required to run hospital), Biomedical Waste management rules.

३) कुष्ठरोग तंत्रज्ञ (Leprosy Technician)

- General Knowledge.
- Maharashtra Municipal Corporation Act.
- Historical Background of Leprosy.
- Bacteriology related to Leprosy.
- Epidemiology.
- Evolution of LeprosyLesions.
- Clinical Features.
- Eye Involvement in Leprosy.
- Differential Diagnosis.
- Diagnosis.
- Treatment.
- Stigma.
- Heath education for leprosy pateints.
- Reactions in Leprosy.
- Deformities and their Management.
- Planter Ulcers.
- Physical Therapy, Aids and Appliances.
- Reconstructive surgery in Leprosy.
- Rehabilitation in Leprosy.
- Prevention and control of Leprosy.
- Elimination of Leprosy as a Public Health Problem.
- New Initiative of Leprosy Division.

४) स्टाफ नर्स (Staff Nurse)

- General Knowledge.
- Maharashtra Municipal Corporation Act.
- RCH programme, nursing art, anatomy physiology, microbiology,Sociology medical surgical nursing Part I and Part II,fundamentals of nursing,first aid and personal hygeine, mental health – midwifery & gynacology, peadatric nursing, community health nursing Part I and Part II, biomedical waste management rules, immunisation, administrative work.
- Communicable Diseases, Ear, Nose and Throat, Oncology/Skin

५) क्ष-किरण तंत्रज्ञ (X-Ray Technician)

- General Knowledge
- Maharashtra Municipal Corporation Act.
- Radiophysics (history/principle, etc.) related to x-ray machine c-arm /, c.t.scan, /m.r.i./mamography, types of machine and their principle with detailed knowledge about machine.
- Anatomy and related physiology knowledge with different position used to take x-ray/ /c.arm/ m.r.i./mamography.
- Different types of films and solutions their chemical nature and clinical importance.
- Different type of dyes (contrast) detailed knowledge to use/related hazards and emergency management.
- Radiation hazards and precaution measures (radiation protection).
- Mammography / c.arm/ digital radiography/pacs, handling knowledge about working principle.
- C.t/ m.r.i./radiotherapy/lithotripsy detailed knowledge of machine for eg. history / procedure /position /complication management.
- Biomedical waste management.
- Maintenance of equipment and responsibilities to handle it / record keeping.

६) हेल्थ व्हिजीटर ॲण्ड लेप्रसी टेक्निशियन (Health Visitor and Leprosy Technician)

- General Knowledge.
- Maharashtra Municipal Corporation Act.
- Historical Background of Leprosy.
- Bacteriology related to Leprosy.
- Epidemiology.
- Evolution of LeprosyLesions.
- Clinical Features.
- Eye Involvement in Leprosy.
- Differential Diagnosis.
- Diagnosis.
- Treatment.
- Stigma.
- Heath education for leprosy pateints.
- Reactions in Leprosy.
- Deformities and their Management.
- Planter Ulcers.
- Physical Therapy, Aids and Appliances.
- Reconstructive surgery in Leprosy.
- Rehabilitation in Leprosy.
- Prevention and control of Leprosy.
- Elimination of Leprosy as a Public Health Problem.
- New Initiative of Leprosy Division.

७) मानस उपचार समुपदेशक (Phychiatric Counseller)

- General Knowledge.
- Maharashtra Municipal Corporation Act.
- Preliminary concepts.
- Biological domain and cognitive-behavioral domain.
- Dispositional domain : trait approach.
- Social-cultural and adjustment domain.
- Philosophy and ethics of psychological research.
- Research settings and applied research.
- Experimental and quasi-experimental methods.
- Qualitative Research.
- Inferential statistics: inference about location.
- Association, prediction and other methods.
- Factor Analysis and Software Packages.
- Foundation of evolutionary psychology.
- Major aspects of evolutionary theory: survival and mating.
- Parenting and social behavior.
- Social behavior and specific topics.
- Intervention systems emphasizing background.
- Intervention systems emphasizing humanistic, cognitive and behavioural approaches.
- Techniques in group.
- Intervention emphasizing integrated, eclectic systems, multicultural perspectives.
- Anxiety and mood spectrum disorders.
- Psychotic spectrum disorders.
- Disorders of the brain and pervasive Conditions.
- Personality disorders, LD and other conditions
- Children and adolescents.
- Counselling adults & elderly.
- Introduction: concepts, nature and principles of organizational behaviour.
- Motivations in organization: concepts to applications and foundations of group behavior.
- Leadership: approaches and contemporary issues.
- Organizational culture.
- Assessment of development and ability.
- Assessment of personality.
- Assessment of ability and aptitude.
- Assessment of Personality.
- Definition, steps, methods and application of competency.
- Assessment of social problems and action planning.
- Assessment methods using qualitative approach.
- Assessment in following areas of social relevance.
- Positive emotional states and processes.
- Nature and scope of environmental psychology.
- Bases of criminal behavior.
- Criminal forensic procedures.
- Psychological interventions and reporting.
- Rehabilitation psychology: overview and concepts.
- Therapeutic assessment, contracting and initiating therapy.
- Process of counseling and psychotherapy.

८) लेखापाल / वरिष्ठ लेखा परिक्षक (Accountant / Senior Auditor)

- General Knowledge.
- Maharashtra Municipal Corporation Act.
- National Municipal Accounts Manual.
- Financing Accounting.
- Cost Accounting.
- Taxation.
- Auditing
- Financial Management.
- Double Entry System & Single Entry System of Accounting.
- Bank Reconciliation Statement preparation.
- Depreciation Accounting.
- Preparation of Accounting Documents.
- Goods and Service Tax Act 2017.
- Business Ethics and communication - principles of business ethics, corporate governance and corporate social responsibility, essentials of communication, group dynamics.
- Financial Markets and Institutions.
- Organization Theory.

९) कनिष्ठ अभियंता (स्थापत्य) (Junior Engineer (Civil)

- General Knowledge.
- Maharashtra Municipal Corporation Act.
- Theory of structures.
- Strength of materials.
- Computer aided analysis and design of structures.
- Steel structures.
- Structural Analysis.
- Construction Planning and Management.
- Design of Reinforced concrete Strucutures (WSM and Limit state).
- Bridge Engineering.
- Concerete Technology.
- Prestressed concrete.
- Geotechnical Engineering.
- Surveying.
- Engineering Materials.
- Building Planning and Construction.
- Fluid mechanics.
- Fluid Machines.
- Irrigation Engineering.
- Highway Engineering.
- Tunnel Engineering.
- Estimating,Costing and valuation.
- Engineering Hydrology.
- Environmental Engineering.

१०) कनिष्ठ अभियंता (विद्युत) (Junior Engineer (Electrical)

- General Knowledge.
- Maharashtra Municipal Corporation Act.
- Energy Scenario.
- Electric Circuits.
- Electrical Machines.
- Power Systems and Power Conditioning.

- Electrical Measurements.
- L.T. Distribution System.
- HVAC and Refrigeration System.
- Fans and Blower.
- Pumps and Pumping System.
- Lighting System.
- Lifts.
- Power Back up.

११) कनिष्ठ अभियंता (यांत्रिकी) (Junior Engineer (Mechanical)

- General Knowledge.
- Maharashtra Municipal Corporation Act.
- Engineering Materials.
- Fundamentals.
- Strength of Materials.
- Theory of Machines.
- Design of Elements.
- Design of Gears.
- System Design.
- Dynamics of machines.
- Manufacturing Science.
- Manufacturing Processes.
- Manufacturing Management.
- Operation Research.
- CAD, CAM, Product Development.
- Thermodynamics.
- Heat and mass transfer.
- Fluid Mechanic, Fluid Machinery.
- Pneumatics and Hydraulics.
- Power Plant Engineering, Energy Engineering.
- I.C. Engines, Automobile Engineering, Refrigeration and Air Conditioning.
- Measurement and Metrology, Numerical Analysis and Computer Programming, Numerical Control of Machine Tools, Automatic Control.

१२) चालक-यंत्रचालक (Driver-Operator)

- General Knowledge.
- Maharashtra Municipal Corporation Act.
- The Maharashtra Fire Prevention and Life Safety Measures Act, 2006.
- Maharashtra Fire Prevention & Life Safety Measures Act, 2023.
- National Building Code of India 2016 - Part 4 Fire & Life Safety.
- Maharashtra Fire Prevention and Life Safety Rules.
- Fixed Fire Fighting Installation.
- Building Construction.
- Means of Escape.
- Air Craft Fire.
- Ship Fire.
- Rural & Forest Fire.
- Hose.
- Hose Fittings.
- Foam & Foam Making Equipments.
- Ladder.
- Small Gear.
- Pumps & Pump Operation.

- Water Tender & Special Appliances.
- Basic Physics & Chemistry.
- Hydrants & Fittings.
- Water Relay.
- Breathing Apparatus Set.
- Hydraulics.
- Electricity.
- Portable Extinguisher.
- Discipline.
- Practical Firemanship.
- Fire Service Administration.
- Watch room Procedure.
- Salvage.
- Special Service.
- First Aid Ambulance.
- Resuscitation /Artificial Respiration.

१३) अग्निशामक (फायरमन) (Fireman)

- General Knowledge.
- Maharashtra Municipal Corporation Act.
- The Maharashtra Fire Prevention and Life Safety Measures Act, 2006.
- Maharashtra Fire Prevention & Life Safety Measures Act, 2023.
- National Building Code of India 2016 - Part 4 Fire & Life Safety.
- Maharashtra Fire Prevention and Life Safety Rules.
- Fixed Fire Fighting Installation.
- Building Construction.
- Means of Escape.
- Air Craft Fire.
- Ship Fire.
- Rural & Forest Fire.
- Hose.
- Hose Fittings.
- Foam & Foam Making Equipments.
- Ladder.
- Small Gear.
- Pumps & Pump Operation.
- Water Tender & Special Appliances.
- Basic Physics & Chemistry.
- Hydrants & Fittings.
- Water Relay.
- Breathing Apparatus Set.
- Hydraulics.
- Electricity.
- Portable Extinguisher.
- Discipline.
- Practical Firemanship.
- Fire Service Administration.
- Watch room Procedure.
- Salvage.
- Special Service.
- First Aid Ambulance.
- Resuscitation /Artificial Respiration.

१४) कनिष्ठ विधी अधिकारी (Junior Law Officer)

- General Knowledge.
- Maharashtra Municipal Corporation Act.
- Constitution of India.
- Bharatiya Nyaya Sanhita – 2023.
- Bharatiya Nagarik Suraksha Sanhita – 2023.
- Bharatiya Sakshya Adhiniyam – 2023.
- Interpretation of Statute.
- Transfer of Property Act, 1882 and Sale of Goods Act, 1930.
- Indian Contract Act, 1872.
- Legislative Drafting.
- The basic of legislative Drafting.
- Maharashtra Official Language Act, 1964.
- Maharashtra General Clauses Act.
- Maharashtra Civil Services (Discipline and Appeal) Rules, 1979.

१५) क्रिडा पर्यवेक्षक (Sports Supervisor)

- General Knowledge.
- Maharashtra Municipal Corporation Act.
- Foundations of Physical Education and Sports.
- Yoga Education and Environmental Studies.
- Methodology of Teaching.
- Physical Education Activities.
- Anatomy, Physiology and Health Education.
- Officiating, Coaching and Sports Training.
- Organization, Administration and Management in Physical Education.
- Physical Education Activities.
- Psychology of Education, Physical Education and Sports.
- Fitness, Wellness, Nutrition and Weight Management
- Methodology of Teaching Physical Education.
- Physical Education Activities.
- Measurement, Evaluation and Statistics in Physical Education
- Sports Medicine, Physiotherapy and Rehabilitation
- Kinesiology and Biomechanics.
- Theory of Sports Training.
- Management of Physical Education and Sports.
- Medical Problem and Rehabilitation.
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१६) उद्यान अधिक्षक (Garden Superintendent)

- General Knowledge.
- Maharashtra Municipal Corporation Act.
- Horticulture, Styles of Gardening, Lawn Development, Roadside\ plantation of trees/shrubs. Flowering shrubs, Hedges.
- Bonsai and its maintenance, Annual flowers, Topiary, Indoor and outdoor potted plants, Propagation of roses , Chrysanthemum, Dahlia, Bougainvillea, Hanging Basket, Cultivation of Cut flowers i.e. Roses, Gladiolus, Orchids, Tuberose, Lilium and Anthurium , Ground Covers, Medicinal Plants, Scented Shrubs / Trees, Propagation, Plant Protection, Nursery management, Routine Garden operations, Features of the garden, Flower shows and Garden Competitions, Floral ornaments and Flower Arrangements.

१७) उद्यान निरिक्षक (Garden Inspector)

- General Knowledge
- Maharashtra Municipal Corporation Act.
- Horticulture, Styles of Gardening, Lawn Development, Roadside\ plantation of trees/shrubs. Flowering shrubs, Hedges.
- Bonsai and its maintenance, Annual flowers, Topiary, Indoor and outdoor potted plants, Propagation of roses , Chrysanthemum, Dahlia, Bougainvillea, Hanging Basket, Cultivation of Cut flowers i.e. Roses, Gladiolus, Orchids, Tuberose, Lilium and Anthurium , Ground Covers, Medicinal Plants, Scented Shrubs / Trees, Propagation, Plant Protection, Nursery management, Routine Garden operations, Features of the garden, Flower shows and Garden Competitions, Floral ornaments and Flower Arrangements.

१८) लिपिक टंकलेखक (Clerk Typist)

- General Knowledge, Current Affairs.
- Maharashtra Municipal Corporation Act.
- Right to Inforamtion Act-2005.
- Right to Services Act-2015 Maharashtra State.

१९) लेखा लिपिक (Account Clerk)

- General Knowledge,Current Affairs.
- Maharashtra Municipal Corporation Act.
- Right to Inforamtion Act-2005.
- Right to Services Act-2015 Maharashtra State.
- Trading and profit & Loss Accounts & Balance Sheet,Self Balancing, Ledgers and sectional Balancing, Bills of Exchange, Deprecitation Reserve & Provisions, Capital & Revenue, Receipts & Payments, Income & Expenditure Account, Double Account System, Branch and Departmental Accounts, Rectification of Errors, Bank Reconcilation statement, Blanace sheet Formats & Classification, Accounts Financial Management, Company Laws, Auditing, Taxation – Direct / Indirect, Comercial Laws, Cost Accounting, Ind AS.

२०) प्रयोगशाळा तंत्रज्ञ(Laboratory Technician)

- Marathi Grammer, English Grammer,Arithmetic.
- General Knowledge, Current affairs (National / International)
- Mahrashtra Municipal Corporations Act
- Right To Information Act-२००५
- Right To Services Act-२०१५ Maharashtra State.
- Types of test done in a medical Laboatory
- Name of the equipment used in a medical Lab
- Housekeeping and cleanliness in laboratory
- Method of Chemical disinfection
- Method of sterilization of lab euipment
- How is the blood sample was taken(Veinpuncture)
- How is the labelling of sample done
- Quality control,Inventory control
- Bio-Medical Waste management

२१) <u>आया</u>

- Marathi Grammer, English Grammer, Arithmetic.
- General Knowledge, Current affairs (National)
- Mahrashtra Municipal Corporations Act
- Right To Information Act-२००५
  Right To Services Act-२०१५ Maharashtra State.
- Basic principles of patient care, comfort, and safety.
- Importance of personal and environmental hygiene, infection control.
- hospital procedures, record-keeping, and communication.
- Basic first aid knowledge and techniques
- Patient Movement and Handling
- Bed Making and Linen Care
- Understanding of common medical terms.