



मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर
MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR
(An Institute of National Importance under Ministry of Education, Govt. of India)
JLN MARG, JAIPUR - 302 017 (RAJASTHAN) INDIA

SCHEME OF EXAMINATION FOR DIRECT RECRUITMENT OF VARIOUS NON-TEACHING POSITIONS ADVERTISED VIDE ADVERTISEMENT NO. AES/MNIT/ESTT/2023/01 DATED 22.03.2023 TO BE CONDUCTED THROUGH NATIONAL TESTING AGENCY (NTA) / ANY OTHER AGENCY / MNIT / ETC.

The Selection Process shall be conducted in following Stages as follows: -

1. For Group 'A' Posts: -

Stage-I	Written Test	100 marks (100 Questions)	Duration will be of 120 minutes. The syllabus is given separately.
Stage-II	Presentation	25 marks	Candidates are required to make a brief Power-Point Presentation which includes past experience and vision for the Institute.
Stage-III	Interview	25 marks	The interview shall be conducted in such a manner that the candidates' suitability for the post is probed among other things, through academic qualifications, relevant experience, extra-curricular activities, general awareness/ knowledge, communication and problem-solving skills and overall personality etc.

Note: -

The screening test will be held as decided by the competent authority of MNIT Jaipur. The shortlisted candidates of respective post(s) shall be informed regarding the same in due course of time. No queries in this regard shall be entertained by the Institute. Each question will carry 1 mark each question and there will be negative marking of 0.25 marks for each wrong answer. Un-attempted question will be awarded zero marks.

- (i) The candidates are required to qualify Stage-I (**in case conducted**), which shall in general be at 60% (Relaxation/ Concession to reserved category candidates may be given as per GOI's rules).
- (ii) However, the Committee may change the qualifying percentage (60%) depending on number of candidates qualifying in the examination for Stage-II & Stage-III on the basis of the number of vacancies for the respective posts.
- (iii) The final selection shall depend on the merit of marks obtained by the candidates in Stage-I (100 marks), Stage-II (25 marks) & Stage-III (25 marks) out of total 150 marks, provided, the candidate qualifies in Stage-I.

Stage-I: Syllabus for following Group-‘A’ Posts: -

S. No.	Post Name	Syllabus
1	Assistant Registrar	Annexure - 1
2	Medical Officer	Annexure - 2

2. For Group ‘B’ & ‘C’ Posts: -

				Number of questions	Duration of Exam
Stage-I*	Written Test	Part-A (General)	60 marks	60	135 Minutes
		Part-B (Specialization)	90 marks	90	
		Part-C (Computer Applications)	20 Marks	20	
Stage-II**	Trade Test/ Computer Test/ Skill Test/ Other Test	Part-D	30 marks	-	45 Minutes

* Each question in Stage-I test will carry 01 mark and there will be negative marking of 0.25 marks for each wrong answer. Un-attempted question will be awarded zero marks.

** Stage-II (Part-D) examination for any/ all positions may be conducted on paper/practically in field/ laboratories/systems/Noting & Drafting etc. The modalities of the same shall be decided by the Competent Authority of MNIT Jaipur. This Trade / skill test aims to check the practical knowledge of the candidate and assess a person’s specific skills required for the job.

Note: -

- (i) The candidates are required to qualify Stage-I, which shall in general be at 60% (Relaxation/ Concession to reserved category candidates may be given as per GOI’s rules).
- (ii) However, the Committee may change the qualifying percentage (60%) depending on number of candidates qualifying in the examination for Stage-II on the basis of the number of vacancies for the respective posts.
- (iii) **The Part-D (Trade/ Computer/ Skill/ Other Test) of Stage-II of only those candidates shall be evaluated/conducted, who qualify in Stage-I of the Selection process.**

- (iv) The **final selection** shall depend on the merit of marks obtained by the candidates in both Stage-I (170 marks) & Stage-II (30 marks) out of total 200 marks, provided, the candidate qualifies in Stage-I.
- (v) The select panel formed out of this process shall be valid for a period of one year.
- (vi) In case of bunching/ bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows: -
 - a) The candidate having more marks in Stage-I examination for the respective post shall be given preference.
 - b) In case of further bunching/ bracketing of candidates, candidate senior in age shall be given preference.
 - c) In case option at (a) and (b) is exhausted, it shall be decided by the Competent Authority.

SYLLABUS OF EXAMINATION FOR DIRECT RECRUITMENT OF VARIOUS NON-TEACHING POSITIONS ADVERTISED VIDE ADVERTISEMENT NO. AES/MNIT/ESTT/2023/01 DATED 22.03.2023

A. Stage-I (Part-A) (MCQ Type) for all Non-Academic Group 'B' & 'C' posts: -

Stage-I (MCQ Type)	Test Components		
		No. of Questions	Marks
(i)	General Awareness: Questions will be designed to test knowledge of current events and of such matters of everyday observation as may be expected of an educated person. The test will include questions relating to India and its neighboring countries, especially pertaining to History, India Policy & Constitution. Art & Culture, Geography, Economics, General Policy. Science & Scientific Research. National/ International Organizations/ Institutions events etc.	10	10
(ii)	Reasoning Ability: The syllabus includes questions of both verbal and non-verbal types. Test may include questions on analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship, concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series etc.	15	15
(iii)	Mathematical Ability: The test will cover Number System including questions on Simplification, Decimals, Fractions, L.C.M., H.C.F., Ratio & Proportion, Percentage, Average and Profit & Loss. Discount, Simple & Compound Interest, Mensuration, Time & Work, Time & Distance, Tables & Graphs, etc.	15	15
(iv)	Test of English language: In addition to the testing of candidate's understanding of the English Language, its Vocabulary, Grammar, Sentence Structure, Synonyms, Antonyms, and its correct usage etc.	20	20
	Total	60	60

B. Stage-I (Part-B) Syllabus for following Group-‘B’ & ‘C’ posts: -

S. No.	Post Name	Syllabus
1	Superintendent	Annexure – 3
2	Technician	Annexure – 4
3	Senior Assistant	Annexure – 5
4	Junior Assistant	Annexure – 6
5	Office Attendant / Lab Attendant	Annexure - 7

C. Stage-I (Part-C) Syllabus for following Group-‘B’ & ‘C’ posts: -

Stage-I (MCQ Type)	Test Components	No. of Questions	Marks
(i)	<p>Knowledge of Computer Applications:</p> <p>Computer Basics: Organization of a computer, Central Processing Unit (CPU), input/ output devices, computer memory, memory organization, back- up devices, PORTs, Windows Explorer. Keyboard shortcuts.</p> <p>Software: Windows Operating system including basics of Microsoft Office like MS word, MS Excel and Power Point etc.</p> <p>Working with Internet and e-mails: Web Browsing & Searching, Downloading & Uploading, Managing an E-mail Account, e-Banking.</p> <p>Basics of networking and cyber security: Networking devices and protocols, Network and information security threats (like hacking, virus, worms, Trojan etc.) and preventive measures.</p>	20	20
	Total	20	20

INSTRUCTIONS: -

- Date for determining the eligibility of all candidates in every respect shall be the prescribed closing date (05.05.2023) for submission of online application/ advertisement.**
- In case of any dispute/ ambiguity/ confusion that may occur in the process of selection, the decision of the Director, MNIT Jaipur shall be final.
- No correspondence or query shall be entertained from the candidates regarding the eligibility, status of application, communication delays, conduct and result of tests, selection process etc.

4. The list (indicating only the Registration numbers and reasons for not shortlisting) of Shortlisted and Non-Shortlisted candidates shall be displayed on Institute Website viz. <https://www.mnit.ac.in/news/newsall?type=latest> after the shortlisting of the candidate's process is completed.
5. **The applicants must keep a continuous tab on this website for his/her shortlisting/non-shortlisting and latest updates.**
6. **Admit Card informing the Date of Examination, Time, Exam Centre, Instructions etc. shall be issued in due course of time on the registered email-ID.**
7. Only selected candidate(s) shall be informed in due course of time and the result shall be displayed at the Institute Website. No queries regarding the outcome of the selection process shall be entertained.

SYLLABUS FOR THE POST OF ASSISTANT REGISTRAR

PART-A: (70 Question: 70 Marks)

1. General Administration

Constitution of India, FR & SR, CCS Leave Rules, CCS Conduct Rules, CCS CCA Rules, CCS Pension Rules, New Pension Scheme, Disciplinary & Vigilance, LTC Rules, TA/DA Rules and other Allowances, GPF Rules, Office Procedure, Reservation & Concession in Services, Deputation, Foreign Service, Lien, Probation, Confirmation, Retirement, Resignation, DPC, LDE, Seniority, General Financial Rules-2017 & 2022, GeM Rules, Delegation of Financial Power Rules, Budgeting & Internal Audit, HEFA/ PFMS, Medical Attendance Rules & CGHS, etc.

2. Academic Administration with special reference to NITs.

NIT Act, Statutes & Recruitment Rules, Role and functions of NIT Council, Board of Governors, Finance Committee, Building and Works Committee, Senate, Departments/Sections/Centres at MNIT Jaipur, Academic programmes at MNIT Jaipur, Admission and Registration procedure in NITs, Grade point system, CGPA/GPA, Scholarships, Credit system, Regulatory Bodies on Higher Education, Ministry of Education, Industrial Research and Development at MNIT Jaipur, MOOCS/NPTEL, LMS Tools/Social Media, Office Automation & ERP Implementation in an academic system, Important International Collaborations in the field of Higher Education, Basic Concepts of Management (Planning, Organizing, Controlling, Motivation, Works and method study, E-office, digitization process), etc.

3. Government Acts, Laws relevant to Academic Administration

The Right to Information Act-2005, Anti Ragging Act, Labour Laws (including Maternity Benefits, Contractual Labour, Outsourcing, ESI/EPF, Gratuity etc.), the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act-2013, Information Technology Act-2000, Companies Act -2013, Indian Contract Act, Income Tax Act with focus on Salary Income, e-TDS, Financial Management of an Academic Institute, Service Tax Rules, GST Rules, etc.

PART-B: (30 Question: 30 Marks)

4. General Aptitude such as Arithmetic, Reasoning, English and General Awareness

**SYLLABUS FOR THE POST OF MEDICAL OFFICER
(100 Question : 100 Marks)**

(a) General Medicine including the following:

- (i) Cardiology
- (ii) Respiratory diseases
- (iii) Gastro-intestinal
- (iv) Genito-Urinary
- (v) Neurology
- (vi) Hematology
- (vii) Endocrinology
- (viii) Metabolic disorders
- (ix) Infections/Communicable Diseases
 - a) Virus
 - b) Ricketts
 - c) Bacterial
 - d) Spirochetal
 - e) Protozoan
 - f) Metazoan
 - g) Fungus
 - (x) Nutrition/Growth
 - (xi) Diseases of the skin (Dermatology)
 - (xii) Musculoskeletal System
 - (xiii) Psychiatry
 - (xiv) General
 - (xv) Emergency Medicine
 - (xvi) Common Poisoning
 - (xvii) Snake bite
 - (xviii) Tropical Medicine
 - (xix) Critical Care Medicine
 - (xx) Emphasis on medical procedures
 - (xxi) Patho physiological basis of diseases
 - (xxii) Vaccines preventable diseases and Non vaccines preventable diseases
 - (xxiii) Vitamin deficiency diseases
 - (xxiv) In psychiatry include – Depression, psychosis, anxiety, bipolar diseases and Schizophrenia.
- (b) Paediatrics including the following -
 - (i) Common childhood emergencies,
 - (ii) Basic new born care,

- (iii) Normal developmental milestones,
- (iv) Accidents and poisonings in children,
- (v) Birth defects and counseling including autism,
- (vi) Immunization in children,
- (vii) Recognizing children with special needs and management, and
- (viii) National programmes related to child health.

(b) PREVENTIVE SOCIAL AND COMMUNITY MEDICINE

- I Social and Community Medicine
- II Concept of Health, Disease and Preventive Medicine
- III Health Administration and Planning
- IV General Epidemiology
- V Demography and Health Statistics
- VI Communicable Diseases
- VII Environmental Health
- VIII Nutrition and Health
- IX Non-communicable diseases
- X Occupational Health
- XI Genetics and Health
- XII International Health
- XIII Medical Sociology and Health Education
- XIV Maternal and Child Health
- XV National Programmes
- XVI Management of common health problems
- XVII Ability to monitor national health programmes
- XVIII Knowledge of maternal and child wellness
- XIX Ability to recognize, investigate, report, plan and manage community health problems including malnutrition and emergencies.

SYLLABUS FOR THE POST OF SUPERINTENDENT

1. General Administration

Constitution of India, FR & SR, CCS Leave Rules, CCS Conduct Rules, CCS Pension Rules, New Pension Scheme, Disciplinary & Vigilance, LTC Rules, TA/DA Rules and other Allowances, GPF Rules, Office Procedure, Reservation & Concession in Services, Deputation, Foreign Service, Lien, Probation, Confirmation, Retirement, Resignation, DPC, LDE, Seniority, General Financial Rules-2017 & 2022, GeM Rules, Delegation of Financial Power Rules, Budgeting & Internal Audit, HEFA/ PFMS, Medical Attendance Rules & CGHS, etc.

2. Academic Administration with special reference to NITs.

NIT Act, Statutes & Recruitment Rules, Role and functions of NIT Council, Board of Governors, Finance Committee, Building and Works Committee, Senate, Departments/Sections/Centres at MNIT Jaipur, Academic programmes at MNIT Jaipur, Admission and Registration procedure in NITs, Grade point system, CGPA/GPA, Scholarships, Credit system, Regulatory Bodies on Higher Education, Ministry of Education, Industrial Research and Development at MNIT Jaipur, MOOCS/NPTEL, LMS Tools/Social Media, Office Automation & ERP Implementation in an academic system, Important International Collaborations in the field of Higher Education, Basic Concepts of Management (Planning, Organizing, Controlling, Motivation, Works and method study, E-office, digitization process), etc.

3. Government Acts, Laws relevant to Academic Administration

The Right to Information Act-2005, Anti Ragging Act, Labour Laws (including Maternity Benefits, Contractual Labour, Outsourcing, ESI/EPF, Gratuity etc.), the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act-2013, Information Technology Act-2000, Companies Act -2013, Indian Contract Act, Income Tax Act with focus on Salary Income, e-TDS, Financial Management of an Academic Institute, Service Tax Rules, GST Rules, etc.

SYLLABUS FOR THE POST OF TECHNICIAN

Basic Science and Engineering

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 (Cut /Copy /Paste/ Formatting), Basics of Excel worksheet (Commands/simple formulas and functions) • INTERNET: Computer Networks (LAN/WAN), Applications of Internet (Browsing, Searching, Emailing, Social Networking) • WEB Browser: World Wide Web (WWW), Web Browsing, Information Security and antivirus tools, Awareness of IT – ACT, Importance of information security and IT act, types of cyber crimes.

Physics: Nature of Universe-General Scientific laws-Inventions and discoveries National scientific laboratories-Mechanics and properties of matter-Physical quantities, standards and units-Force, motion and energy Magnetism, electricity and electronics -Heat, light and sound.

Chemistry: Elements and Compounds-Acids, bases and salts-Fertilizers, pesticides, insecticides, etc.

Basic Knowledge of Laboratories

SYLLABUS FOR THE POST OF SENIOR ASSISTANT

1. General Administration

Constitution of India, CCS Leave Rules, CCS Conduct Rules, LTC Rules, TA/DA Rules and other Allowances, Office Procedure, Probation, Confirmation, Resignation, General Financial Rules-2017 & 2022, GeM Rules, Medical Attendance Rules & CGHS, etc.

2. Academic Administration with special reference to NITs.

NIT Act, Statutes & Recruitment Rules, Board of Governors, Finance Committee, Building and Works Committee, Senate, Departments/Sections/Centres at MNIT Jaipur, Academic programmes at MNIT Jaipur, Admission and Registration procedure in NITs, Scholarships, Ministry of Education, Office Automation & ERP Implementation in an academic system, E-office, digitization process), etc.

3. Government Acts, Laws relevant to Academic Administration

The Right to Information Act-2005, Anti Ragging Act, Outsourcing, ESI/EPF, Gratuity etc.), Income Tax Act with focus on Salary Income, GST Rules, etc.

SYLLABUS FOR THE POST OF JUNIOR ASSISTANT

1. General Administration

Constitution of India, CCS Leave Rules, CCS Conduct Rules, LTC Rules, TA/DA Rules and other Allowances, Office Procedure, Probation, Confirmation, Resignation, General Financial Rules-2017 & 2022, GeM Rules, Medical Attendance Rules & CGHS, etc.

2. Academic Administration with special reference to NITs.

NIT Act, Statutes & Recruitment Rules, Board of Governors, Finance Committee, Building and Works Committee, Senate, Departments/Sections/Centres at MNIT Jaipur, Academic programmes at MNIT Jaipur, Admission and Registration procedure in NITs, Scholarships, Ministry of Education, Office Automation & ERP Implementation in an academic system, E-office, digitization process), etc.

3. Government Acts, Laws relevant to Academic Administration

The Right to Information Act-2005, Anti Ragging Act, Outsourcing, ESI/EPF, Gratuity etc.), Income Tax Act with focus on Salary Income, GST Rules, etc.

SYLLABUS FOR THE POST OF OFFICE ATTENDANT / LAB ATTENDANT

Knowledge of Geography, History, Current Affairs, NITs Act & Statutes and Leave rules etc.

Basic Science:

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

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 (Cut /Copy /Paste/ Formatting), Basics of Excel worksheet (Commands/simple formulas and functions) • INTERNET: Computer Networks (LAN/WAN), Applications of Internet (Browsing, Searching, Emailing, Social Networking) • WEB Browser: World Wide Web (WWW), Web Browsing, Information Security and antivirus tools, Awareness of IT – ACT, Importance of information security and IT act, types of cyber crimes.

Basic knowledge of Laboratories and Office System.