FORMAT OF CERTIFICATES REQUIRED TO BE ENCLOSED BY THE CANDIDATES IN-SERVICE

INTEGRITY CERTIFICATE

| After scrutinizing ACR/APAR of Dr. / Sh who has applied for the post of _ Mizoram, it is certified that his/her inte | in NIT |
|--|--|
| Date : | Authorized Signatory Name & Official Seal |
| Certified that no vigilance case or discient pending or contemplated | ARANCE CERTIFICATE iplinary proceedings or criminal proceedings is against Dr. / Shri / Smt. / Ms who has applied for the post of _ in NIT Mizoram. |
| Date : | Authorized Signatory Name & Official Seal |

FORM OF CERTIFICATE TO BE PRODUCED BY THE OTHER BACKWARD CLASSES APPLYING FOR APPOINTMENT TO POSTS UNDER THE GOVERNMENT OF INDIA

| This is to certify that Shri / Smt. | / Kumari | | | | | | |
|-------------------------------------|-------------------------|--------|----------|---------------------|--------|-------------|-------------|
| Son/daughter of | | | | | | of village | e / town |
| | | | the | State | / | Union | Territory |
| | | | the | | | | |
| Community which is recognized | l as a backward class | und | er the | Govern | ment | of india, I | Ministry of |
| Social Justice and Empowerment | t's Resolution No | | | | | _ | |
| dated*. Sh | ri/Smt./Kumari | | | | | | |
| and/or his/her family ordinarily | reside(s) in the | | | | | | |
| District / Division of the State/U | Jnion Territory. This | is als | o cert | ify that l | ne/sh | e does not | belong to |
| the persons/sections (Creamy La | ayer) mentioned in Co | olumi | n 3 of 1 | the Sche | dule t | to the Gove | ernment of |
| India, Department of Personnel & | & Training O.M No. 36 | 012/ | 22/93 | -Estt.(S0 | T) da | ated 8.9.19 | 93**. |
| Date : | |] | | strict Ma y Comm | _ | | |
| Seal | | | | | | | |
| * - The authority issuing the cer | tificate may have to n | nenti | on the | details o | of Res | olution of | the |
| Government of India, in which th | ne caste of the candida | ite is | menti | oned as (| OBC. | | |
| ** - As amended from time to ti | me. | | | | | | |
| Note :- The term "Ordinarily" use | ed here will have the s | same | meani | ng as in | Sectio | on 20 of th | e |

Representation of the People Act, 1950.

SCHEME OF SYLLABUS FOR COMPETITIVE EXAMINATION FOR NON-TEACHING POSTS IN NIT MIZORAM

1. SUPERINTENDENT: DIRECT RECRUITMENT EXAMINATION

I. MODE OF SELECTION: The Mode of Selection will be as follows:-

- (i) Candidates fulfilling the minimum eligibility conditions will be considered **provisionally eligible** and they will be called for the Competitive Written Examination carrying 140 marks (Paper I of 100 marks and Paper II of 40 Marks).
- (ii) Candidates will be recommended for appointment, **in order of merit,** on the basis of their performance in the Competitive Written Examination and Computer Proficiency Test put together i.e., the sum total of marks scored by the candidate out of 140 marks.
- (iii) Success in the examination confers no right of appointment unless the Institute is satisfied after such enquiry as may be considered necessary that the candidate is suitable in all respects of appointment to the service/post.

II. SCHEME OF EXAMINATION: The examination will consist of a **Competitive Written Examination:** (Maximum Marks 140)

Paper I of 100 Marks & Paper II of 40 Marks

Scheme of Competitive Written Examination and Syllabus: The Competitive Written Examination will consist of **Two Objective Type Papers**, as follows:-

Paper I: Total Marks = 100

| Part | Subject | Maximum Marks | Minimum Qualifying Marks | Duration | Compensatory time* |
|--------|---------------------------------|------------------|--------------------------------|----------|-----------------------|
| Part A | General Aptitude & Reasoning | 30 | 20 | 2 h ouws | 40 minutos |
| Part B | General Knowledge | 30 | 30 | 2 hours | 40 minutes |
| Part C | General English | 40 | | | |

^{*} PWD Candidates availing scribe / reader / lab. assistant.

Paper II: Total Marks = 40

| Subject | Maximum Marks | Minimum Qualifying Marks | Duration | Compensatory time* |
|---------------------------------------|------------------|--------------------------------|----------|-----------------------|
| Word Processing, Spread Sheet, PPT | 40 | 15 | 45 mins | 20 minutes |

Paper - I:

Part-A: General Aptitude & Reasoning: The test will include questions on analogies, similarities and differences, problem solving, analysis, judgment, decision making, visual memory, relationship concepts, verbal and figure classification, arithmetical number series, non-verbal 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 and other analytical functions.

Part-B: General Knowledge: Questions in this component will be aimed at testing the candidates' 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 every day observations and experience in their scientific aspect as may be expected of any educated person. The test will also include questions relating to National Institute of Technology Mizoram, Mizoram, North-Eastern States, India and other countries especially pertaining to Sports, History, Culture, Geography, Economic Scene, General Polity and Scientific Research.

Part-C: General English: Questions in this component will be designed to test the Candidate's understanding and knowledge of English Language like Error recognition, Fill in the blanks (using verbs, preposition, articles etc.), One word substitution, Improvement of Sentences, Vocabulary, Spellings, Grammar, Sentence Structure, Synonyms, Antonyms, Sentence Completion, Phrases and Idiomatic use of words, Comprehension of Passages.

PAPER - II:

Computer Proficiency Test: Questions will be designed to test the candidate's knowledge of Computer Applications for everyday office work like Word Processing, Spread Sheet etc. including usage of internet.

- **III. RESOLUTION OF TIE CASES:** Tie cases will be resolved by applying one after another, as applicable till the tie is resolved, as follows:-
 - (i) Candidates securing higher marks in Paper-I in the Competitive Written Examination shall be placed higher.
 - (ii) Date of Birth, with older candidate placed higher.
 - (iii) Alphabetical order in which the names of the candidate appear.

Note:-

1. Pertaining to Persons with Benchmark Disability, the minimum qualifying marks is relaxable at the discretion of NIT Mizoram, if at any stage of the selection process; the Institute is of the opinion that sufficient number of candidates from the reserved categories are not likely to be available to fill up the vacancy reserved for them.

2. **JUNIOR ENGINEER:** DIRECT RECRUITMENT EXAMINATION

I. MODE OF SELECTION: The Mode of Selection will be as follows:-

- (i) Candidates fulfilling the minimum eligibility conditions will be considered **provisionally eligible** and they will be called for the Competitive Written Examination carrying 200 marks (Paper-I of 100 marks + Paper-II of 100 marks).
- (ii) Candidates securing the minimum qualifying marks will be recommended for appointment, **depending on the number of vacant post and in order of merit**.
- (iii) Success in the examination confers no right of appointment unless the Institute is satisfied after such enquiry as may be considered necessary that the candidate is suitable in all respects of appointment to the service/post.

II. SCHEME OF EXAMINATION: The Competitive Written Examination will consist of **Two Objective Type Papers** as shown below:-

Paper I: Total Marks = 100

| Part | Subject | Maximum Marks | Minimum Qualifying Marks | Duration | Compensatory time* |
|--------|------------------------------|------------------|--------------------------------|----------|-----------------------|
| Part A | General Aptitude & Reasoning | 30 | 20 | 2 h | 40 |
| Part B | General Knowledge | 30 | 30 | 2 hours | 40 minutes |
| Part C | General English | 40 | | | |

^{*} PWD Candidates availing scribe / reader / lab. assistant.

Paper II: Total Marks = 100

| Subject | Maximum Marks | Minimum Qualifying Marks | Duration | Compensatory time* |
|------------------------|------------------|--------------------------------|----------|-----------------------|
| Civil Engineering | | | | |
| OR | 100 | 40 | 2 hours | 40 minutes |
| Electrical Engineering | | | | |

^{*} PWD Candidates availing scribe / reader / lab. assistant.

Paper-I

Part-A: General Aptitude & Reasoning: The test will include questions on analogies, similarities and differences, problem solving, analysis, judgment, decision making, visual memory, relationship concepts, verbal and figure classification, arithmetical number series, non-verbal 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 and other analytical functions.

Part–B: General Knowledge: Questions in this component will be aimed at testing the candidates' 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 every day observations and experience in their scientific aspect as may be expected of any educated person. The test will also include questions relating to National Institute of Technology Mizoram, Mizoram, North-Eastern States, India and other countries especially pertaining to Sports, History, Culture, Geography, Economic Scene, General Polity and Scientific Research.

Part–C: General English: Questions in this component will be designed to test the Candidate's understanding and knowledge of English Language like Error recognition, Fill in the blanks (using verbs, preposition, articles etc.), One word substitution, Improvement of Sentences, Vocabulary, Spellings, Grammar, Sentence Structure, Synonyms, Antonyms, Sentence Completion, Phrases and Idiomatic use of words, Comprehension of Passages.

PAPER-II:

CIVIL ENGINEERING

Building Materials: Physical and Chemical properties, classification, standard tests, uses and manufacture/quarrying of materials e.g. building stones, silicate based materials, cement (Portland), Asbestos products, Timber and Wood based Products, laminates, bituminous materials, paints, varnishes.

Surveying: Principles of surveying, working of prismatic compass and bearings, plane table surveying, theodolite traverse, adjustment of theodolite, levelling and contouring, curvature, refraction correction, permanent adjustment of dumpy level, methods of contouring and uses of a contour map, tachometric survey.

Soil Mechanics: Origin of soil phase diagram, definitions of void ratio porosity, degree of saturation, water content specific gravity of soil grains and unit weights, grain size distribution curves for different solid and their uses. Atterberg's limits, ISI soil classification, plasticity chart, coefficient of permeability, effective stress, consolidation of soils.

Soil: Calculation of shear strength of soils, direct shear test, vane shear test, triaxial test, soil compaction, Lab compaction, Lab compaction test, moisture content and bearing capacity of soils, plate load test, standard penetration test.

Hydraulics: Fluid properties, hydrostatics, measurements of flow, Bernoulli's theorem and its application, flow through pipes, flow in open channels, weirs, flumes, spillways, pumps and turbines.

Environmental Engineering: Quality of water, source of water supply, purification of water, distribution of water, need of sanitation, sewerage systems, circular sewers, oval sewer, sewer appurtenances, surface water drainage, sewage treatments.

ELECTRICAL ENGINEERING

Basic Electrical Engineering and Electrical Measurements: Concepts of currents, voltage, resistance, power and energy, their units, Ohm's law.

Circuit Law: Kirchhoff's law, solution of simple network problems, Network theorems and their applications, Electro-magnetism, concept of flux, emf, reluctance, magnetic circuits, Electro-magnetic induction, self and mutual inductance.

A.C. fundamentals, instantaneous, peak, r.m.s. and average values of alternating waves, Equation of sinusoidal wave form, simple series and parallel a.c. circuits consisting of R.L. and C Resonance.

Measurement and measuring instruments, Moving coil and moving iron ammeters and voltmeters, Extension of range, Wattmeters, Multimeters, Megger, Basic Electronics.

Electrical Machines: Basic principles of D.C. motors of generators, their characteristics, Speed control and starting of D.C. motors, losses and efficiency of D.C. machines.

1-phase and 3-phase Transformers: Principles of operation, equivalent circuit, voltage regulation, O.C. and S.C. tests, efficiency, auto transformers.

Synchronous machines, generation of three phase emf, armature reaction, Voltage regulation, Parallel operation of two alternators, synchronizing, starting and applications of synchronous motors.

3-phase Induction motor, rotating magnetic field, principle of operation, equivalent circuit, torque speed characteristics, starting and speed control of 3-phase induction motors, Fractional kW motors, 1-phase induction motors, a.c. series motor, reluctance motor.

Generation, Transmission and Distribution: Different types of power stations, Load factor, diversity factor, demand factor, cost of generation, inter connection of power stations.

Power factor improvement, various types of tariffs, types of faults, short circuit current for symmetrical faults.

Switchgears-rating of circuit breakers: Principles of arc extinction by oil and air, H.R.C. fuses, earth leakage protection, over current, Buchholz relay, Merz-Prince system of protection of generators & transformers, Protection of feeders and bus bars.

Lightning arresters, Various transmission and distribution systems. Comparison of conductor materials, efficiency for different systems.

Utilization of Electrical Energy: Illumination, electric heating, Electric welding, electroplating, electric drivers and motors.

III. RESOLUTION OF TIE CASES: Tie cases will be resolved by applying one after another, as applicable till the tie is resolved, as follows:-

- (i) Candidates securing higher marks in Paper II of Competitive Examination shall be placed higher.
- (ii) Candidates securing higher marks in Paper I of Competitive Examination shall be placed higher.
- (iii) Date of Birth, with older candidate placed higher.
- (iv) Alphabetical order in which the names of the candidate appear.

Note:-

1. Pertaining to Persons with Benchmark Disability (PwD), the minimum qualifying marks is relaxable at the discretion of NIT Mizoram, if at any stage of the selection process; the Institute is of the opinion that sufficient number of candidates from the reserved categories are not likely to be available to fill up the vacancy reserved for them.

3. TECHNICAL ASSISTANT: DIRECT RECRUITMENT EXAMINATION

- **I. MODE OF SELECTION:** The Mode of Selection will be as follows:-
- (i) Candidates fulfilling the minimum eligibility conditions will be considered **provisionally eligible** and they will be called for the Competitive Written Examination carrying 200 marks (Paper-I of 100 marks + Paper-II of 100 marks).
- (ii) Candidates securing the minimum qualifying marks in the Competitive Written Examination will be called for Trade Test carrying 50 marks. Trade Test is qualifying nature. Assessment will not be done on the basis of marks for Trade Test.
- (iii) Candidates will be recommended for appointment, **in order of merit,** on the basis of their performance in the Competitive Written Examination.
- (iv) Success in the examination confers no right of appointment unless the Institute is satisfied after such enquiry as may be considered necessary that the candidate is suitable in all respects of appointment to the service/post.
- II. SCHEME OF EXAMINATION: The examination will consist of a Competitive Written Examination Paper I (Maximum Marks 100) and Paper II (Maximum Marks 100).

Scheme of Competitive Written Examination and Syllabus: The Competitive Written Examination will consist of **Two Objective Type Papers**, as follows:-

Paper I: Total Marks = 100

| Part | Subject | Maximum Marks | Minimum Qualifying Marks | Duration | Compensatory time* |
|--------|---------------------------------|------------------|--------------------------------|----------|-----------------------|
| Part A | General Aptitude & Reasoning | 30 | 20 | 2 h | 40 |
| Part B | General Knowledge | 30 | 30 | 2 hours | 40 minutes |
| Part C | General English | 40 | | | |

^{*} PWD Candidates availing scribe / reader / lab. assistant.

Paper II: Total Marks = 100

| Subject | Maximum Marks | Minimum Qualifying Marks | Duration | Compensatory time* |
|--|------------------|--------------------------------|----------|-----------------------|
| Diploma Level in Engineering of the concerned Branch | 100 | 40 | 2 hours | 40 minutes |

^{*} PWD Candidates availing scribe / reader / lab. assistant.

Paper I

Part-A: General Aptitude & Reasoning: The test will include questions on analogies, similarities and differences, problem solving, analysis, judgment, decision making, visual memory, relationship concepts, verbal and figure classification, arithmetical number series, non-verbal 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 and other analytical functions.

Part-B: General Knowledge: Questions in this component will be aimed at testing the candidates' 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 every day observations and experience in their scientific aspect as may be expected of any educated person. The test will also include questions relating to National Institute of Technology Mizoram, Mizoram, North-Eastern States, India and other countries especially pertaining to Sports, History, Culture, Geography, Economic Scene, General Polity and Scientific Research.

Part-C: General English: Questions in this component will be designed to test the Candidate's understanding and knowledge of English Language like Error recognition, Fill in the blanks (using verbs, preposition, articles etc.), One word substitution, Improvement of Sentences, Vocabulary, Spellings, Grammar, Sentence Structure, Synonyms, Antonyms, Sentence Completion, Phrases and Idiomatic use of words, Comprehension of Passages.

Paper II: Concerned Subject in Engineering

Questions in this component will be designed at Diploma Level in Engineering of concern Branch.

SYLLABUS FOR PAPER II OF WRITTEN EXAMINATION FOR THE POST OF TECHNICAL ASSISTANT, DEPARTMENT OF MECHANICAL ENGINEERING

- Automobile Engineering: Automobile and its development, Classification of automobiles, Transmission System, Steering System, Braking System, Dynamo and Alternator, and Exhaust Emissions.
- Computer Integrated Manufacturing: Introduction to NC, CNC & DNC, Construction and Tooling, Part Programming, System Devices, Problems in CNC Machines, Automation and NC system.
- Engineering Materials: Scope of Material Science, Crystallography, Metals and Alloys, Heat Treatment, Plastics and Advanced Materials.
- Engineering Mechanics: Laws of Forces, Moment, Friction, Centre of Gravity and Simple Machines.
- Fluid Mechanics: Type and Properties of Fluids, Pressure and its Measurement, Flow of Fluids and Flow through Pipes.
- Heat-Transfer: Modes of Heat Transfer, Fourier's Law, Steady State Conduction, Composite Structures, Natural and Forced Convection and Thermal Radiation.
- I.C. Engines: Working principle of two stroke and four stroke cycle, SI engines and CI Engines, Otto cycle, Diesel cycle, Dual cycle, Fuel Supply and Ignition System in Petrol Engine, Fuel System of Diesel Engine, Cooling and Lubrication and Testing of IC Engines.
- Machine Design: Design-Definition, Types of design, necessity of design, Design terminology: stress, strain, factor of safety, factors affecting factor of safety, stress concentration, methods to reduce stress concentration, fatigue, endurance limit, Design Failure, Design of Shaft, Design of Key, Design of Joints, Design of Flange Coupling and Design of Screwed Joints.
- Machining and Machine Tool Operations: Cutting Tools and Cutting Materials, Lathe, Drilling, Boring, Shaping and Planning, Broaching, Jigs and Fixtures and Cutting Fluids and Lubricants, Welding, Pattern Making, Metal Forming Processes.
- Mechanics of Materials: Stresses and Strains, Resilience, Moment of Inertia, Bending Moment and Shearing Force, Bending Stresses, Columns, Torsion and Springs.
- Metrology and Inspection: Linear and Angular Measurement, Measurement of Surface Finish and Measurements of Screw threads and Gauges.
- Refrigeration and air-conditioning: Fundamentals of Refrigeration, Vapour Compression System, Refrigerants, Air Refrigeration System, Vapour Absorption System and Refrigeration Equipment.
- Theory of Machines: Simple Mechanisms, Friction, Power Transmission, Flywheel, Governor and Balancing.
- Thermodynamics: Fundamental Concepts, Laws of Perfect Gases, Thermodynamic Processes on Gases, Laws of Thermodynamics, Ideal and Real Gases and Properties of Steam.
- Turbo-machinery: Introduction to Turbomachines, Classification of Turbomachines, Steam Turbines and Steam Condensers, Gas Turbines and Jet Propulsion.
- Vibrations: Types-Longitudinal, Transverse and Torsional vibrations, Dampening of Vibrations, Causes of vibrations in Machines, their Harmful Effects and Remedies.

SYLLABUS FOR PAPER II OF WRITTEN EXAMINATION FOR THE POST OF TECHNICAL ASSISTANT, DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING (ECE)

1. Basic Electronics

- **Semiconductors**: Properties, P-N junction diode, characteristics, and applications.
- **Rectifiers**: Half-wave, full-wave, bridge rectifiers, clippers and clampers.
- **Transistors**: Basics of Bipolar Junction Transistors (BJTs) Types (NPN, PNP), biasing, characteristics, and applications as amplifiers and switches.
- **Operational Amplifiers (Op-Amps)**: Characteristics, applications (adders, subtractors, integrators, differentiators, comparators).
- **Oscillators**: Hartley, Colpitts, RC, LC, Crystal oscillators.

2. Digital Electronics

- **Number Systems**: Binary, Octal, Decimal, Hexadecimal, and conversions.
- **Logic Gates**: AND, OR, NOT, NAND, NOR, XOR, XNOR, and truth tables.
- **Boolean Algebra**: Simplification techniques, Karnaugh maps (K-Maps).
- **Combinational Circuits**: Multiplexers, Demultiplexers, Encoders, Decoders.
- **Sequential Circuits**: Flip-flops (SR, JK, D, T), Registers, Counters.
- Memory Devices: RAM, ROM, EEPROM.

3. Electrical Circuits and Machines

- **Basic Circuit Analysis**: Ohm's Law, Kirchhoff's Laws, Thevenin's and Norton's Theorems.
- **AC Circuits**: RMS values, power factor, RL, RC, RLC circuits, resonance.
- **Transformers**: Principles, types, efficiency, and losses.

4. Electronic Devices and Circuits

- **Amplifiers**: Small signal, large signal, Class A, B, AB, C amplifiers.
- **Feedback**: Positive and negative feedback, stability, gain.
- **Power Electronics**: SCR, TRIAC, DIAC, MOSFET, IGBT.
- **Voltage Regulators**: Zener diode regulator, IC regulators (78XX, 79XX series).

5. Communication Systems

- **Analog Communication**: Amplitude Modulation (AM), Frequency Modulation (FM), and Phase Modulation (PM).
- Digital Communication: Pulse Modulation (PAM, PWM, PPM), ASK, FSK, PSK.
- **Data Transmission**: Error detection and correction, multiplexing (TDM, FDM).
- **Antennas and Wave Propagation**: Types of antennas, radiation pattern, propagation modes (ground wave, skywave).

6. Microprocessors and Microcontrollers

- **Microprocessor Basics**: Architecture of 8085 and 8086, pin configuration, memory interfacing.
- **Microcontrollers**: 8051 architecture, timers, counters, serial communication, interrupts.

7. Electronic Measurements and Instrumentation

- **Measuring Instruments**: Multimeters, CROs, signal generators, frequency counters.
- **Sensors and Transducers**: Temperature, pressure, light, and proximity sensors.
- **Bridges**: Wheatstone, Maxwell, Kelvin bridges for resistance, inductance, and capacitance measurement.
- **Industrial Devices**: Thyristors, SCRs, rectifiers, inverters, choppers.

Trade Test: Trade Test is **qualifying nature**. Candidates who qualify in the Competitive Written Examination only will be called for Trade Test carrying 50 marks. Assessment will not be done on the basis of marks for Trade Test. Questions will be designed to test the candidate's knowledge of concerned subject of specialization.

| Subject/Test | Maximum Marks | Minimum Qualifying Marks | Duration | Compensatory time* |
|---|------------------|--------------------------------|------------|-----------------------|
| Trade Test – Concerned subject in Engineering | 50 | 15 | 45 minutes | 20 minutes |

^{*} PWD Candidates availing scribe / reader / lab. assistant.

III. RESOLUTION OF TIE CASES: Tie cases will be resolved by applying one after another, as applicable till the tie is resolved, as follows:-

- (i) Candidates securing higher marks in Paper II of Competitive Examination shall be placed higher.
- (ii) Candidates securing higher marks in Part 'A' of Paper I of Competitive Examination shall be placed higher.
- (iii) Date of Birth, with older candidate placed higher.
- (iv) Alphabetical order in which the names of the candidate appear.

Note:-

1. Pertaining to Persons with Benchmark Disability (PwD), the minimum qualifying marks is relaxable at the discretion of NIT Mizoram, if at any stage of the selection process; the Institute is of the opinion that sufficient number of candidates from the reserved categories are not likely to be available to fill up the vacancy reserved for them.

4. TECHNICIAN: DIRECT RECRUITMENT EXAMINATION

- I. MODE OF SELECTION: The Mode of Selection will be as follows:-
- (i) Candidates fulfilling the minimum eligibility conditions will be considered **provisionally eligible** and they will be called for the Competitive Written Examination carrying total **100 marks**.
- (ii) Candidates will be recommended for appointment, **in order of merit,** on the basis of their performance in the Competitive Written Examination.
- (iii) Success in the examination confers no right of appointment unless the Institute is satisfied after such enquiry as may be considered necessary that the candidate is suitable in all respects of appointment to the service/post.
- II. SCHEME OF EXAMINATION: The examination will consist of a Competitive Written Examination (Maximum Marks 100) and Trade Test (Maximum Marks 50).

A. **SCHEME OF EXAMINATION:** The Competitive Written Examination will

consist of One Objective Type Papers, as follows:-

| Part | Subject | Maximum Marks | Minimum Qualifying Marks | Duration | Compensatory time* |
|--------|---------------------------------|------------------|--------------------------------|----------|-----------------------|
| Part A | General Aptitude & Reasoning | 30 | | | |
| Part B | General Science | 30 | 30 | 2 hours | 40 minutes |
| Part C | General Knowledge | 40 | | | |

^{*} PWD Candidates availing scribe / reader / lab. assistant.

INDICATIVE SYLLABUS:

Part – A: General Aptitude & Reasoning: The test will include questions on analogies, coding decoding, similarities and differences, problem solving, blood relation, analysis, judgment, decision making, visual memory, relationship concepts, verbal and figure classification, arithmetical number series, non-verbal series, directions, missing numbers, order & ranking etc. The test will also include questions designed to test the

candidate's abilities to deal with abstract ideas and symbols and their relationship and other analytical functions.

Part-B: General Science: Questions in this component will be designed to test the Candidate's understanding and knowledge of General Science like Biology, Physics, Chemistry, Environment etc.

Part-C: General Knowledge: Questions in this component will be aimed at testing the candidates' 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 every day observations and experience in their scientific aspect as may be expected of any educated person. The test will also include questions relating to National Institute of Technology Mizoram, Mizoram, North-Eastern States, India and other countries especially pertaining to Sports, History, Geography, Economic Scene, General Polity, Scientific Research, Award & Honours, Science & Technology, Art & Culture.

Trade Test: Trade Test is of **qualifying nature**. Candidates who qualify in the Competitive Written Examination only will be called for Trade Test carrying 50 marks. Assessment will not be done on the basis of marks for Trade Test. Questions will be designed to test the candidate's knowledge of concerned subject of specialization.

| Subject/Test | Maximum Marks | Minimum Qualifying Marks | Duration | Compensatory time* |
|--------------|------------------|--------------------------------|------------|--------------------|
| Trade Test | 50 | 15 | 45 minutes | 20 minutes |

^{*} PWD Candidates availing scribe / reader / lab. assistant.

III. RESOLUTION OF TIE CASES: Tie cases will be resolved by applying one after another, as applicable till the tie is resolved, as follows:-

- (i) Candidates securing higher marks in Part 'A' in the Competitive Written Examination shall be placed higher.
- (ii) Date of Birth, with older candidate placed higher.
- (iii) Alphabetical order in which the names of the candidate appear.

Note:-

1. Pertaining to Persons with Benchmark Disability (PwD), the minimum qualifying marks is relaxable at the discretion of NIT Mizoram, if at any stage of the selection process; the institute is of the opinion that sufficient number of candidates from the reserved categories is not likely to be available to fill up the vacancy reserved for them.

5. <u>JUNIOR ASSISTANT: DIRECT RECRUITMENT EXAMINATION</u>

- **I. MODE OF SELECTION:** The Mode of Selection will be as follows:-
- (i) Candidates fulfilling the minimum eligibility conditions will be considered **provisionally eligible** and they will be called for the Competitive Written Examination carrying **Total 140 marks** (Paper-I of 100 marks + Paper-II of 40 marks).
- (ii) Candidates securing the minimum qualifying marks in the Competitive Written Examination will be called for Typing Test (Qualifying nature).
- (iii) Candidates will be recommended for appointment, **in order of merit**, on the basis of their performance in the Competitive Written Examination of marks scored by the candidate out of **140 marks**.
- (iv) Success in the examination confers no right of appointment unless NIT Mizoram is satisfied after such enquiry as may be considered necessary that the candidate is suitable in all respects of appointment to the service/post.
- II. SCHEME OF EXAMINATION: The examination will consist of a Competitive Written Examination (Maximum Marks 140), Typing Test on Computer (Qualifying nature).
 - **A. Scheme of Competitive Written Examination and Syllabus:** The written examination will consist of **Two Objective Type Papers** as shown below:

Paper - I:

| Part | Subject | Maximum Marks | Minimum Qualifying Marks | Duration | Compensatory time* |
|--------|------------------------------|------------------|--------------------------------|----------|-----------------------|
| Part A | General Aptitude & Reasoning | 30 | | | |
| Part B | General Knowledge | 30 | 30 | 2 hours | 40 minutes |
| Part C | General English | 40 | | | |

^{*} PWD Candidates availing scribe / reader / lab. assistant.

Paper - II: Computer Proficiency Test

| Subject/Test | Maximu m Marks | Minimum Qualifying Marks | Duration | Compensator y time* |
|---------------------------------------|-------------------|--------------------------------|------------|------------------------|
| Word Processing, Spread Sheet, PPT | 40 | 15 | 45 minutes | 20 minutes |

^{*} PWD Candidates availing scribe / reader / lab. assistant.

Part-A: General Aptitude & Reasoning: The test will include questions on analogies, similarities and differences, problem solving, analysis, judgment, decision making, visual memory, relationship concepts, verbal and figure classification, arithmetical number series, non-verbal 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 and other analytical functions.

Part-B: General Knowledge: Questions are designed to test the candidate's general awareness of the environment around him and its application to society. Questions are also designed to test knowledge of current events and of such matters of everyday observations and experience in their scientific aspect as may be expected of an educated person. The test will also include questions relating to National Institute of Technology Mizoram, North-Eastern States, India and other countries especially pertaining to Sports, History, Culture, Geography, Economic Scene, General Polity and scientific research.

Part-C: General English: Questions in this component will be designed to test the Candidate's understanding and knowledge of English Language like Error recognition, Fill in the blanks (using verbs, preposition, articles etc.), One word substitution, Improvement of Sentences, Vocabulary, Spellings, Grammar, Sentence Structure, Synonyms, Antonyms, Sentence Completion, Phrases and Idiomatic use of words, Comprehension of Passages.

Typing Test: The Typing Test is of **qualifying nature**. It will be conducted in English to be administered on the Computer using Microsoft Word. The speed requirement is **35 w.p.m.** corresponds to 9000 key depressions per hour.

The speed will be adjudged on the accuracy of typing on the Computer of a given text passage in 10 minutes. Visually Handicapped candidates (with 40% disability and above) will be allowed compensatory time of 20 minutes.

Passage Dictators will be provided to each of VH candidates for the Typewriting test. The Passage Dictators will read out the passage to the VH candidates within the allotted time period.

III. RESOLUTION OF TIE CASES: Tie cases will be resolved by applying one after another, as applicable till the tie is resolved, as follows:-

- (i) Candidates securing higher marks in Paper–II the Competitive Written Examination shall be placed higher.
- (ii) Candidates securing higher marks in Part 'A' of Paper–I the Competitive Written Examination shall be placed higher
- (iii) Date of Birth, with older candidate placed higher.
- (iv) Alphabetical order in which the names of the candidate appear.

Note:-

1. Pertaining to Persons with Benchmark Disability (PwD), the minimum qualifying marks is relaxable at the discretion of NIT Mizoram, if at any stage of the selection process; the Institute is of the opinion that sufficient number of candidates from the reserved categories are not likely to be available to fill up the vacancy reserved for them.

6. OFFICE ATTENDANT: DIRECT RECRUITMENT EXAMINATION

I. MODE OF SELECTION: The Mode of Selection will be as follows:-

- (i) Candidates fulfilling the minimum eligibility conditions will be considered **provisionally eligible** and they will be called for the Competitive Written Examination carrying 100 marks.
- (ii) Candidates securing the minimum qualifying marks will be recommended for appointment, **depending on the number of vacant post and in order of merit**.
- (iii) Success in the examination confers no right of appointment unless the Institute is satisfied after such enquiry as may be considered necessary that the candidate is suitable in all respects of appointment to the service/post.
- **II. TRADE TEST:** Notwithstanding *Clause I (i)* above, a **Trade Test** with Knowledge of Basic Computer Applications (Word Processing, Spread Sheet etc.)

OR

Driving Test (2 wheeler/Light Vehicle) - under the supervision of MVI, Carrying 50 marks which is of **qualifying nature** will be conducted. Candidates securing 20 marks and above shall be declared qualified for the Competitive Written Examination.

III. SCHEME OF EXAMINATION: The Competitive Written Examination will consist of **One Objective Type Paper** as shown below:-

| Part | Subject | Maximum Marks | Minimum Qualifying Marks | Duration | Compensatory time* |
|--------|------------------------------|------------------|--------------------------------|----------|-----------------------|
| Part A | General Aptitude & Reasoning | 30 | | | |
| Part B | General Knowledge | 30 | 30 | 2 hours | 40 minutes |
| Part C | General English | 40 | | | |

^{*} PWD Candidates availing scribe / reader / lab. assistant.

Questions on Numerical Aptitude and General English will be simple, of a level that an average matriculate will be in a position to answer comfortably. Questions on General Awareness will be also of similar standard. Questions on General Intelligence will be non-verbal considering the functions attached to the post.

Part-A: General Aptitude & Reasoning: It would include questions of nonverbal type. The test will include questions on similarities and differences, problem solving, analysis, judgment, decision making, relationship concepts, arithmetical number series, non-verbal series. 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.

Part-B: General Knowledge: 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 include questions relating to National Institute of Technology Mizoram and Mizoram especially pertaining to Sports, History, Culture, Geography, Economic scene and General Polity. These questions will be such that they do not require a special study of any discipline.

Part-C: General English: Candidates' understanding of the Basics of English Language, its vocabulary, grammar, sentence structure.

IV. RESOLUTION OF TIE CASES: Tie cases will be resolved by applying one after another, as applicable till the tie is resolved, as follows:-

- (i) Candidates securing higher marks in Part-A shall be placed higher.
- (ii) Candidates securing higher marks in Part-C shall be placed higher.
- (iii) Date of Birth, with older candidate placed higher.
- (iv) Alphabetical order in which the names of the candidate appear.

Note:-

1. Pertaining to Persons with Benchmark Disability (PwD), the minimum qualifying marks is relaxable at the discretion of NIT Mizoram, if at any stage of the selection process; the Institute is of the opinion that sufficient number of candidates from the reserved categories are not likely to be available to fill up the vacancy reserved for them.