

भारतीय उष्णदेशीय मौसम विज्ञान संस्थान
INDIAN INSTITUTE OF TROPICAL METEOROLOGY
(पृथ्वी विज्ञान मंत्रालय के अधीन स्वायत्तशासी संस्थान, भारत सरकार)
(An Autonomous Institute under Ministry of Earth Sciences)
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NOTICE

SCHEME AND INSTRUCTIONS TO THE CANDIDATES FOR TEST
FOR THE POST OF SENIOR SCIENTIFIC ASSISTANT TO BE HELD ON
SATURDAY, 25TH MARCH 2023, 08.00 AM ONWARDS

With reference to Advt. No. PER/06/2022-Phase II, the scheme for test for the post of Senior Scientific Assistant for the screened in candidates is detailed below:

The test will be conducted in Level-I and Level -II. The Level -I consist of Paper -I and Paper -II & Level -II is Skill Test.

Level -I

Subjects for Paper -I	No. of questions	Marks	Time Duration
English Language	15	60	1 Hrs.
Logical Reasoning	15		
Quantitative aptitude	15		
General Knowledge	15		
Subjects for Paper -II	200	200	2 Hrs.
Contain questions of the subjects as detailed below : a. Physics/Applied Physics. b. Mathematics/ Applied Mathematics/Statistics. c. Meteorology/Atmospheric Science. d. Geophysics. e. Electronic and Electrical	(40 questions from each topic)		

Syllabus for Paper- II.

The questions will be in the following pattern and syllabus for a total of 200 marks with 40 multiple choice questions from each topic below (a-e) comprising a total of 200 questions. Look at the following subject to learn about the topics.

a. Physics/Applied Physics

Syllabus: Classical Mechanics, Quantum Mechanics, Thermodynamics, Optics, Atoms-Molecules & solids, Electricity and Magnetism, Statistical Mechanics, Atomic Structure, Electrodynamics

b. Mathematics/ Applied Mathematics/Statistics

Syllabus: Real Analysis, Calculus, Linear Algebra, Number Theory, Ordinary Differential Equations, Partial Differential Equations, Probability Theory, Multivariate Analysis, Regression Analysis, Stochastic Processes.

c. Meteorology/Atmospheric Science

Syllabus: Physical Meteorology, Dynamic Meteorology, Tropical Meteorology and climatology, Physical and Dynamical Oceanography, Numerical Weather Prediction, Meteorological Instruments and Observational Techniques, Cloud Physics and Atmospheric Electricity, Satellite and Radar Meteorology, Atmospheric Chemistry and Air Pollution.

d. Geophysics

Syllabus: Elements of Geology, Geohydrology, Geoexploration, Solid Earth Geophysics, Seismology, Instrumentation & Signal Processing, Gravity and Magnetic Methods, Geoelectromagnetic Methods, Marine Geophysics.

e. Electronic and Electrical

Syllabus: Analog and Digital system principles, Electronics and Network Analysis, Mechatronics, Microwave and Antenna, Optoelectronics, Power Electronics, Neural networks and applications, Digital signal processing, Communication Systems, Power System, Electrical Measurements and Instrumentation, Electrical Mechanics.

After level - I approximately 25 candidates will be shortlisted for the Skill test (Level - II) based on the marks obtained in Paper I + Paper II.

The final selection of the candidates will be based on the performance in the Level-II Skill Test. Skill test for the shortlisted candidates will be based on their area of expertise.

Syllabus for the same is as given below.

LEVEL - II :- SKILL TEST (50 MARKS)

In the Level -II of the examination, a Skill Test will be conducted. The Skill Test will be from the relevant subject fields (a-e) of the Level-I examinations.

Candidates will opt for any one group from the following:

For Group -a & d (Physics/Applied Physics/Geophysics), principles on atmospheric measurement instruments involving Laser, various gas analysers, Gas chromatography, isotopic measurements, radars, rain gauges, aerosols etc. may be included.

For Group-b (Mathematics/Applied Mathematics/Statistics), applications of differential calculus in numerical methods, Taylors series, finite difference form, numerical computation, statistical technics applicable to atmospheric sciences, harmonic and spectral analysis etc., may be included.

For Group-c (Meteorology/Atmospheric Sciences), the demonstration of atmospheric instruments and their working principles, such as rain gauges, thermometers, anemometers, anemometers, aerosols measurements, radars, microwave radiometers etc. and weather chart analysis, synoptic charts, t-phi grams, statistical techniques, multivariate analysis etc.

For Group-e (Electronics and Electrical), demonstration of electrical subsystems, electronic circuits, power systems, designs, instrumentals electronics involved in Radars, Microwave radiometers, Aerosols measurements, anemometers etc. and digital signal analysis.

INSTRUCTIONS TO THE CANDIDATES

- 1) The examination will be conducted in the Meghdoot Hall of IITM.
- 2) Candidates are required to be present in the Meghdoot Hall by 8 am to get their certificates verified
- 3) Candidates are required to bring the call letter and photo ID with them.
- 4) Candidates will be provided with Paper - I and Paper- II answer sheets. Candidates are required to answer multiple choice questions in Paper - I & Paper- II.
- 5) Each correct answer will carry +1 marks and incorrect answers -0.5 marks.**
- 6) Candidates are required to darken the correct options in the answer sheet- Paper - I & Paper- II provided to them. Circles should be darkened completely and properly.
- 7) Only Blue/Black pen is allowed for answering the questions.
- 8) Using of pencils are strictly prohibited.
- 9) The answers once marked cannot be cancelled and hence candidates are required to be very cautious while answering the questions.
- 10) Candidates are not allowed to keep their belonging i.e. bag, mobile etc. with them during the examination.
- 11) Calculator is allowed for calculation. Candidates are required to bring their own calculator.
- 12) The merit list of the Level-I examination will be displayed on the website on 25.03.2023 by 17.00 hours.
- 13) Skill Test will be held on 25.03.2023 at 17.30 hours on wards.
- 14) Director, IITM has the discretion to prescribe any method for Test, prescribe minimum qualifying marks for above Test which can be increased or decreased at any stage without assigning any reason thereof.**
- 15) Director reserves the right to fill up or not to fill up the above post without assigning any reason thereof.**

Sd/-

(अजीत प्रसाद पी/ . Ajit Prasad P.)
प्रशासनिक अधिकारी/ Administrative Officer
कृते निदेशक/For Director

To
Head LIP Division : (Kindly Upload on Institute's Website).