



Department of Pharmaceuticals  
Ministry of Chemicals and Fertilizers  
Government of India



NIPER HYDERABAD IN ASSOCIATION WITH  
TELANGANA STATE COUNCIL OF SCIENCE & TECHNOLOGY  
PROUDLY PRESENT

# QUALITY CONTROL AND QUALITY ASSURANCE IN THE PHARMA INDUSTRY (STUDENT TRAINING PROGRAM)

November 2023 to March 2024

Sponsored by

Skill Vigyan Initiative Scheme of Department of Biotechnology, Govt. of India



**Program Coordinator:**  
Dr. S. Gananadhamu  
Assistant Professor  
NIPER Hyderabad

**Chief Patron:**  
Prof. Shailendra Saraf  
Director  
NIPER Hyderabad



Applications are invited from eligible candidates for '**Quality Control and Quality Assurance in the Pharma Industry (Student Training Program)**' at National Institute of Pharmaceutical Education and Research, Hyderabad. The main aim of this program is to impart the practical skills and knowledge required to work in the pharmaceutical industry in the areas of Quality Control and Quality Assurance of pharmaceuticals.

This program is mapped with Life Sciences Sector Skill Development Council (LSSSDC) Qualification Pack (Quality Control Chemist, LFS/Q1301, NSQF Level-5). The candidates will be assessed and issued a certificate after completion of the training program.

**Coordinated by:** Telangana State Council of Science & Technology (TSCOST), Hyderabad

**Eligibility:** B.Pharm or B.Sc with Biotechnology/Chemistry/Life Sciences/Analytical Chemistry  
M. Pharm in Pharmaceutical Analysis or Quality Assurance  
M.Sc with Biotechnology/Chemistry/Life Sciences/Analytical Chemistry  
(Preferably from Telangana State)

**Duration:** Three Months Full-time On-Campus Program

**Monthly stipend:** Rs.5,000 per month

**Total no. of seats:** 60 (Sixty) in 2 batches; 30 (Thirty) per batch for 3 months

**Link for online registration:** <https://forms.gle/yYCEDZbsbzHxUQxm6>

**Last date for online registration:** 23 November 2023

**Mode of selection:** Through written test

**Date and venue of written test:** 26 November 2023 at 10:00 AM, NIPER Hyderabad

**Note:**

- The admissions are subject to verification of original certificates of Qualifying Degree, Aadhaar Card, SC/ST/OBC/EWS Certificates wherever applicable.
- The selected candidates will have to make their own arrangements for boarding and lodging.

### **About NIPER Hyderabad**

NIPER Hyderabad is an "Institute of National Importance" with proclaimed objectives of becoming Centre of Excellence for advanced research in pharmaceutical sciences. NIPER Hyderabad has excellent Lab facilities to update the knowledge and expose the students to various advanced techniques essential for Drug Discovery Research.



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## **ORGANIZING COMMITTEE**

### **Dr. S. Gananadhamu**

Assistant Professor, NIPER Hyderabad

### **Dr. Rajesh Sonti**

Assistant Professor, NIPER Hyderabad

### **Dr. Amol G. Dikundwar**

Assistant Professor, NIPER Hyderabad

### **Ms. Srishti Paliwal**

Scientist / Technical Supervisor Grade II

### **Mr. Hara Prasad Padhy**

Scientist / Technical Supervisor Grade II

### **Student volunteers**

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Mr. Rushikesh Shantilal Shinde

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Mr. Sibub Sen

Ms. Subha Jahnavi

For any queries write to [qcqastp@gmail.com](mailto:qcqastp@gmail.com)

## SYLLABUS FOR WRITTEN TEST

### Quality Control and Quality Assurance in the Pharma Industry (Student Training Program)

#### 1. General knowledge, Mental ability, and Arithmetic Reasoning (20 Marks)

#### 2. General English (20 marks)

Prepositions, pronouns, verbs, tenses, active and passive voice; direct and indirect speech

#### 3. General Chemistry (20 Marks)

Chemical structure and bonding; Alkanes and cycloalkanes; Functional groups and nomenclature; Nucleophiles and electrophiles; Reactions and mechanisms; Acid–base reactions; Alkenes and alkynes; Aromatic chemistry; Aldehydes and ketones; Carboxylic acids and carboxylic acid derivatives; Alkyl halides; Alcohols, phenols, and thiols; Ethers, epoxides, and thioethers; Amines and nitriles.

Chemistry of selected drugs: Paracetamol, Aspirin, Atenolol, amlodipine, hydrochlorothiazide, Metformin and Cetirizine.

#### 4. General Biology (20 Marks)

Cells and tissues; The blood; Cardiovascular system; Lymphatic system; Nervous system; Endocrine system; Digestive system; Urinary system; Immune system; Amino acids and proteins; Enzymes; Antibodies; Biomembranes and cell signaling; DNA structure and replication; RNA synthesis and processing; Protein synthesis; Recombinant DNA technology; Carbohydrate metabolism; Lipid metabolism; Respiration and energy; Microbiology of Bacteria, virus and fungi; Vaccines; Antibiotics; Plant derived alkaloids.

#### 5. General Analytical Chemistry (20 Marks)

Acid-base titrations; Redox titrations; Complexometric titrations; Non-aqueous titrations; pH, Conductivity and moisture content measurement; UV/visible spectroscopy; Fluorescence spectroscopy; IR Spectroscopy; Mass Spectrometry; NMR Spectroscopy; Separation techniques: Open column chromatography, Thin layer chromatography, Gas Chromatography and HPLC.

### GENERAL INSTRUCTIONS FOR WRITTEN TEST

- The written test will be conducted at National Institute of Pharmaceutical Education and Research (NIPER), Balanagar, Hyderabad-500037, Telangana State.
- The question paper for the written test consists of 100 multiple-choice questions (MCQs). Each question carries 1 mark and there will be a negative marking @25% for each wrong answer.
- The candidates must make their own arrangements for appearing the written test.
- The written test will be conducted on November 26th (Sunday), 2023 from 10:00 AM to 12:00 PM.