



భారతీయ సాంకేతిక విజ్ఞాన సంస్థ హైదరాబాద్
भारतीय प्रौद्योगिकी संस्थान हैदराबाद
Indian Institute of Technology Hyderabad

Advertisement No. IITH/2023/NF/15 dated 22.10.2023

Post Number	Post Name
15.6	Junior Technician - Chemical Engineering

Selection process consists of Skill Test and Written Test

Syllabus for Written and/or Skill Test

(These topics are mentioned for illustrative purpose only.)

01. 10 % Arithmetic
02. 10 % General English
03. 80 % for work-related topics.

Syllabus for work-related topics (These topics are mentioned for illustrative purposes only).

Fluid Mechanics: Properties of fluids, Flow through pipeline systems, Flow meters, pumps and compressors, Frictional loss, Weirs

Mechanical Operations: Size reduction, Bonds law, Rittingers law and Kicks Law, Size analysis, Free and hindered settling, cyclones, centrifuge, filtration

Heat transfer: Steady and unsteady conduction, convection, radiation. Evaporation, condensation, heat exchangers

Mass transfer: Fick's law, Distillation, Adsorption, Absorption, Extraction

Process control: Response of first order and second order systems, Block diagrams, Open loop and closed loop transfer function, P, PI, and PID controllers, tuning of controllers using Cohen and Coon, and Ziegler Nichols

Reaction Engineering: Theories of reaction rates, single and multiple reactions in Ideal reactors; Non ideal reactors, RTD studies
