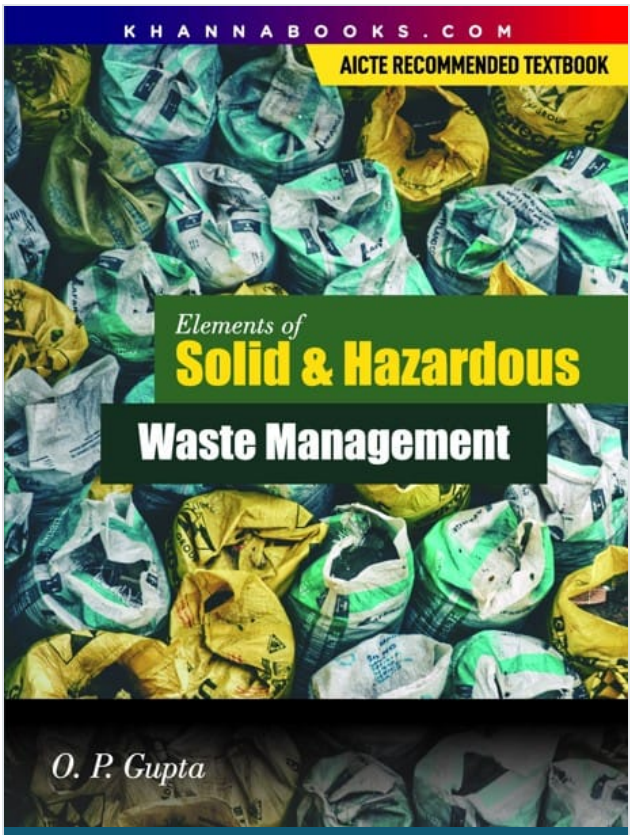


O.P. Gupta

# Elements of Solid & Hazardous Waste Management

| | |
|---|---|
| **Author :** | O.P. Gupta |
| **ISBN 13 :** | 978-93-82609-75-9 |
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## Product Description

This book describes the essential features of Solid & Hazardous Waste Management covering the following topic:

1. Introduction to Solid Waste Management.
2. Municipal Solid Waste (MSW) Management .
3. Industrial Solid Waste Management.
4. Radioactive Waste (BMW) Management.
5. e- Waste Management.
6. Integrated Solid Waste Management (ISWM).

Besides, Short question & answers and multiple-choice questions & answers drawn from the examination papers of various engineering colleges and professional bodies examination given at the end of the book enhances its utility for the students.

The book will be useful for degree, postgraduate & diploma courses in engineering, AMIE, AMIIM & AMMIICHE examinations.

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- Introduction to Solid Waste Management
- Municipal Solid Waste (MSW) Management
- Industrial Solid Waste Management
- Hazardous Waste Management
- Radioactive Waste Management
- Biomedical Waste (BMW) Management
- E- Waste Management
- Integrated Solid Waste Management
- Short Q&A on Solid Waste Management (ISWM)
- Multiple Choice Q & A in Solid Waste Management
- Glossary of Terms Related to Solid & Hazardous
- References/Bibliography/Further Reading


## Author

**O.P. Gupta**

O.P. Gupta Om Prakash Gupta is basically being a chemical engineer, he has a practising experience of efficient Ennergy management and HR functions in steel Industry for more than three decades. privileged to be the youngest writer of technical books in the country (for he had written his first book at the age of 24 years while doing M. Tech. at I.I.T kanpur in 1979), he has authored many frontline books for engineering students. besides, being the regular faculty member in technical courses for Management Trainees (Technical), he has also visited england and france on a study tour sponsored by United Nations Development Programme (UNDP) to study the scope of energy conservation in steel plants in 1987.

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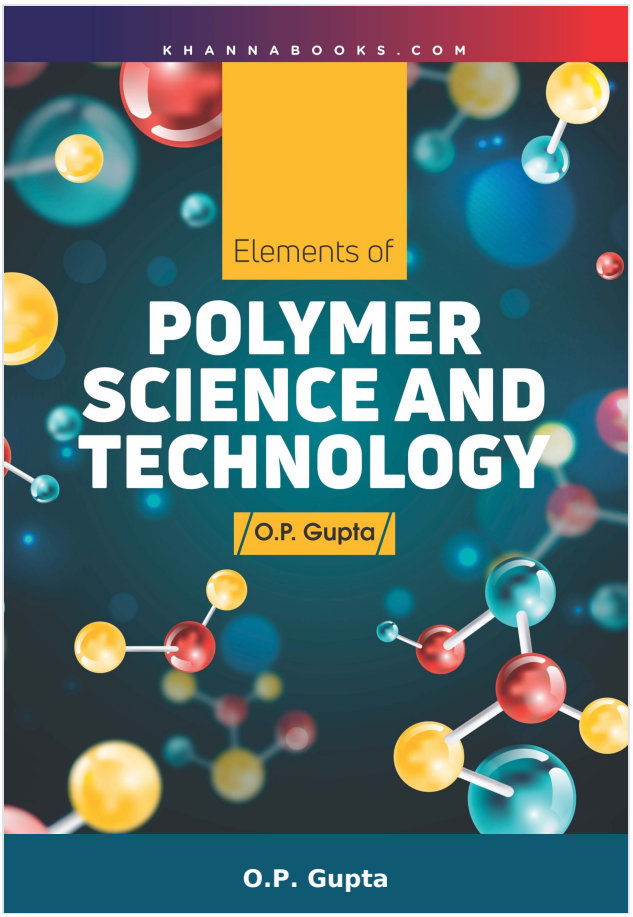


# Elements of Polymer Science and Technology

| | |
|---|---|
| **Author :** | O.P. Gupta |
| **ISBN 13 :** | 978-93-55384-56-0 |
| **ISBN 10 :** | 9355384564 |
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## Product Description

This book covers the manufacture, properties of important polymers-plastics, rubbers & synthetic fibers. Important Information about various raw materials used for polymer industries, various polymers processing technologies & status of Indian polymer industry are also included. It also contains short questions & answers and multiple- choice questions & answers drawn from the examination papers of various engineering colleges for the benefits of the students.

This book is targeted to benefit the following:

1. Diploma in engineering student.
2. Degree in engineering students.
3. AMIE , AMIIM , AMIICHE Students.
4. MSc. & B.Sc. Students.
5. Faculty members and teaching staff.
6. Practicing engineers / Professionals.

The scope and coverage of subject matter presented can be gauged from glancing the contents portion of the book to judge its suitability and relevance for a particular target group of reader. Extensive use of internet resources has been made in gathering the relevant information and the subject matter has been presented in a simple, lucid and easy to understand manner for easy grasping of the subject.

Latest and updated information /data/ statistics pertaining to the subject matter has been included in this edition for the benefit of the readers.

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- Manufacture, Properties & Applications of Important Plastics.
- Manufacture, Properties & Applications of Important Elastomers (Rubbers).
- Manufacture, Properties & Applications of Important Synthetic Fibers.
- Appendices


## Author

**O.P. Gupta**

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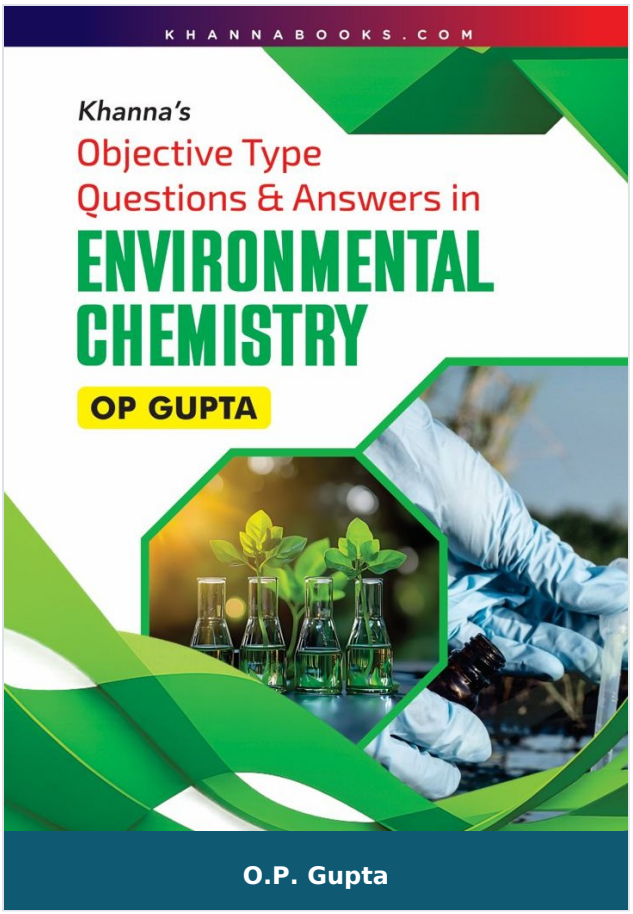


# Khanna's Objective Type Questions & Answers in Environmental Chemistry

| | |
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| **Author :** | O.P. Gupta |
| **ISBN 13 :** | 978-93-74544-27-3 |
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| **Year :** | 2026 |
| **Language :** | English |
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| **Country Origin :** | India |

## Product Description

**Khanna's Objective Type Questions & Answers in Environmental Chemistry**

Objective Type Questions & Answers in Environmental Chemistry by O.P. Gupta is comprehensive academic resource designed to provide a structured and evaluative approach to the study of environmental sciences. Published by Khanna book Publishing, this 2025 edition serves as a vital tool for students and professionals navigating the complexities of atmospheric, aquatic, and terrestrial chemistry. The book is meticulously divided into three primary sections: a rigorous collection of objective-type questions with answers, detailed short-answers questions that explore fundamental mechanisms, and an extensive glossary of technical terms to ensure conceptual clarity.

The core theme revolves around the chemical phenomena occurring in the environment and the impact of human activities on natural cycles. Its primary purpose is to aid readers in mastering the syllabus of various competitive and professional examinations. The target audience includes undergraduate and postgraduate engineering and science students, as well as candidates preparing for associate membership examinations like AMIE, AMIM, and AMIIChE. By blending theoretical depth with a question-and-answer format, the boof offers immense practical value for exam preparation and professional reference, maintaining a tone that is both intellectually stimulating and accessible.

**Salient Features:**

- **Examination-Oriented Structure**: The book is strategically organized into objective questions, short-answer explanations, and a glossary, specifically tailored to meet the curriculum requirements of engineering and science degree programs.
- **Atmospheric Chemistry Insights**: It provides in-depth coverage of atmospheric layers, ozone depletion mechanisms, and the chemistry of greenhouse gases like CO, and CHCs to explain global warming.

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- **Aquatic Ecosystem Analysis**: Detailed sections Explore water pollution, eutrophication, and the “oxygen sag curve,” offering readers a clear understanding of how pollutants effect dissolved oxygen and aquatic life.
- **Waste Management Solutions**: the text covers practical methodologies for managing solid and hazardous wastes, including sanitary landfills, composting, and the “Extended producer’s Responsibility” (EPR) for plastic waste.
- **Pollution Control Technologies**: It discusses industrial and domestic pollution mitigation, featuring methods such as cooling towers for thermal pollution and secondary/tertiary treatments for wastewater.
- **Biogeochemical Cycle Expertise**: Readers gain a fundamental understanding of natural processes like the water cycle and carbon cycle, and how human interference leads to environmental degradation.

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- Glossary


## Author

**O.P. Gupta**

O.P. Gupta Om Prakash Gupta is basically being a chemical engineer, he has a practising experience of efficient Ennergy management and HR functions in steel Industry for more than three decades. privileged to be the youngest writer of technical books in the country (for he had written his first book at the age of 24 years while doing M. Tech. at I.I.T kanpur in 1979), he has authored many frontline books for engineering students. besides, being the regular faculty member in technical courses for Management Trainees (Technical), he has also visited england and france on a study tour sponsored by United Nations Development Programme (UNDP) to study the scope of energy conservation in steel plants in 1987.

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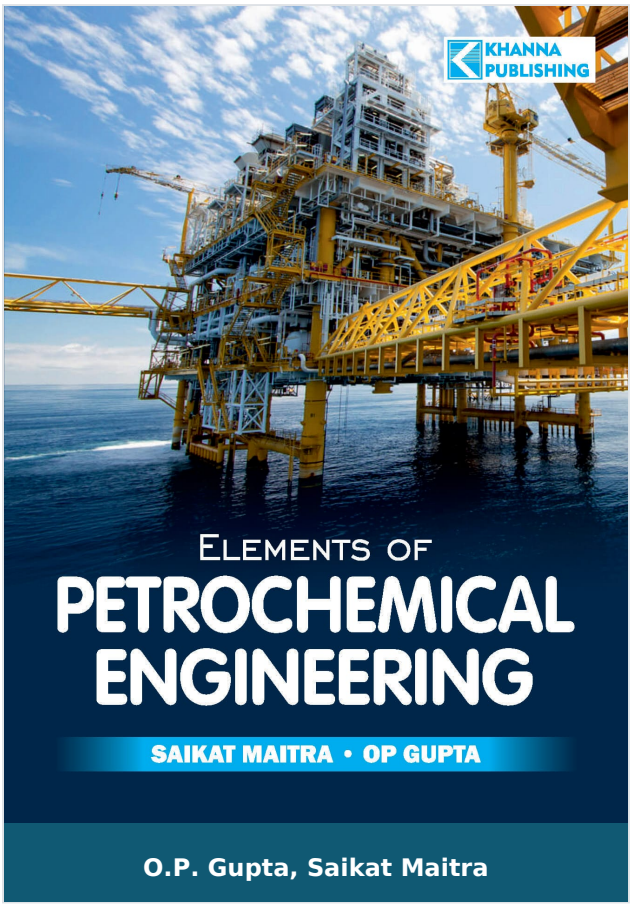


# Elements of Petrochemical Engineering

| | |
|---|---|
| **Author :** | O.P. Gupta, Saikat Maitra |
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| **ISBN 10 :** | 9386173360 |
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## Product Description

Elements of Petrochemical Engineering book is meant for the students, teachers and practicing Engineers. This book contains the manufacture, properties and applications of important petrochemicals. Important information's about feedstocks and applications of petrochemical derived products, status of Indian Petrochemical Industry and environment standards for the petrochemical plant are given in the appendices. It also contains short questions and answers and multiple choice questions and answers drawn from examination papers of various engineering colleges for the benefits of the students.

The book is targeted to benefit the following :

Diploma in Engineering Students, Degree in Engineering Students, AMIE AMIIM, AMIICHE students, Faculty members and teaching staff, Practicing Engineers/Professionals. Latest and updated information/ data/statistics pertaining to the subject matter has been included in the edition for the benefit of the readers.

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- = Ch
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- Production of Benzene and Toluene


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- Production of Benzene by Hydrodealkylation of Tolune
- Manufacture of Xylene
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- ) from Benzene
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- Appendix E : Glossary of Terms Related to Petrochemical Engineering
- Appendix F : Bibliography/References/Further Reading
- Appendix G : Objective Type Questions and Answers
- Appendix H : Short Questions and Answers

## Author

**O.P. Gupta**

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**Saikat Maitra**

Prof. Saikat Maitra is presently working as the Vice Chancellor of Maulana Abul Kalam Azad University of Technology, West Bengal (formerly West Bengal University of Technology). He did his B.Sc (Honours in Chemistry) from the Presidency Colleges, Kolkata, B.Tech, M.Tech and Ph.D in Chemical Technology from the University of Calcutta. He is a Chartered Chemical Engineer and Fellow of Institute of Engineers (India). Prof. Maitra earlier worked as Professor and Principal-in-Charge at Government College of Engineering; Ceramic Technology, Associate Professor at University Technology Petronas, Malasiya and as Scientist at Central Fuel Research Institute, Dhanbad. He has worked in industries too. Prof. Maitra published 150 research papers in different national & international journals, presented 60 papers in different conferences, filed two patents, authored three books and three book chapters. He has guided twelve Ph.D students, completed several funded research projects, organized several training programmes and workshops. He visited many countries like US, Australia, Italy, Malasiya, Singapore, Thailand, Bangladesh, Baharain etc for delivering lecturers.

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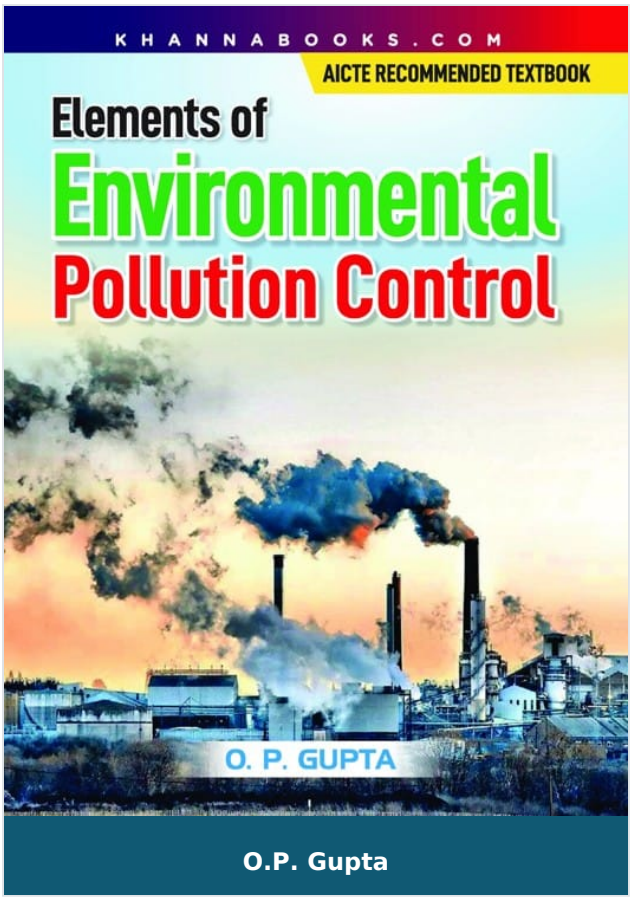


# Elements of Environmental Pollution Control

| | |
|---|---|
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| **ISBN 10 :** | 9382609660 |
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## Product Description

This book will cater to the needs of students who want to pursue a Diploma in Engineering, Degree in Engineering (B. Tech/B.E., B.Sc.(Eng.) students. Postgraduate degree in Engineering (M. Tech, M.E.) students. AMIE (Associate membership of Indian Institute of Metals) examination. AMIICHE (Associate Membership of Indian Institute of Chemical Engineers) examination. AIC (Associateship of Institute of Chemist) examination. Practicing engineers in the field of environmental engineering. Environmental engineering professionals.

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- Introduction of Air Pollution
- Effects of Environmental Pollution on Plants/Trees/Vegetation


## Author

**O.P. Gupta**

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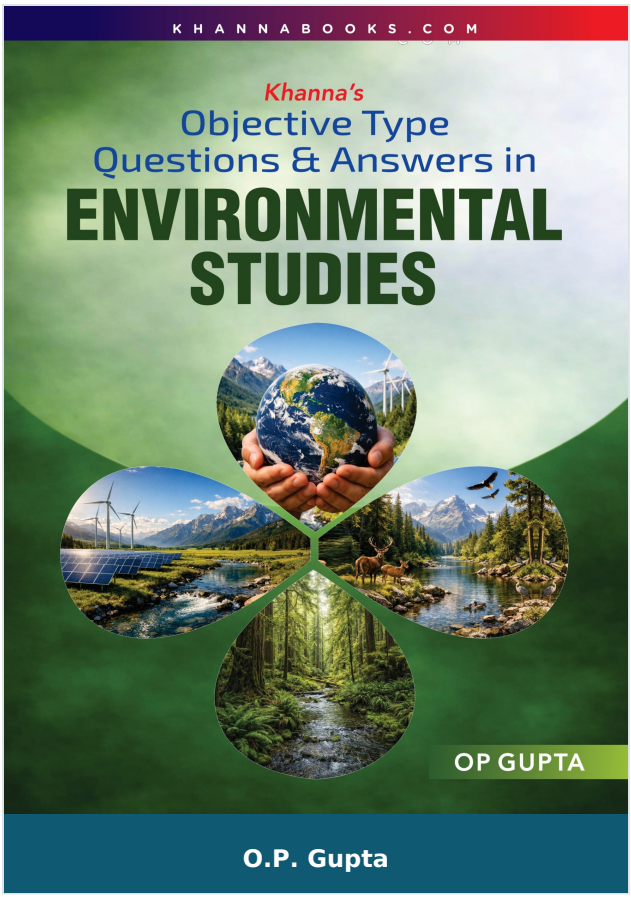


# Khanna's Objective Type Questions & Answers in Environmental Studies

| | |
|---|---|
| **Author :** | O.P. Gupta |
| **ISBN 13 :** | 978-93-74545-90-4 |
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## Product Description

Objective Type Questions and Answers in Environmental Studies by Om Prakash Gupta is a meticulously structured academic guide designed to simplify the complexities of environmental science. This comprehensive resource serves as a vital tool for students and professionals navigating the interdisciplinary nature of ecology, pollution control, and sustainable development. By blending fundamental concepts with a rigorous examination framework, the book provides readers with the clarity needed to understand human-environment interactions and the critical challenges facing our planet today.

The book's primary objective is to foster environmental consciousness and ethics through a diverse range of assessment styles. It is specifically tailored to meet the curricular requirements of degree, postgraduate, and diploma students across various engineering branches. Additionally, it serves as an essential reference for candidates preparing for professional associate membership examinations, such as AMIE, AMIIM, and AMIIChE, as well as B.Sc. and M.Sc. students. With its systematic approach and practical focus, the book bridges the gap between academic theory and real-world environmental management.

Salient Features

• Dual-Section Assessment Model: The text is strategically divided into objective-type questions and short-answer formats to cater to different examination patterns and learning styles.

• Multidisciplinary Scope: It covers a wide range of topics, including ecology, ecosystem dynamics, biodiversity, and the socio-economic impacts of industrialization and urbanization.

• Sustainable Development Focus: A significant emphasis is placed on sustainable practices, exploring the balance between economic growth and the preservation of

natural resources for future generations.

• Environmental Impact Tools: The book provides detailed insights into critical regulatory and assessment tools, such as Environmental Impact Assessment (EIA), essential for modern engineering and policy-making.

• Biodiversity and Conservation: Readers gain an in-depth understanding of genetic, species, and ecosystem diversity, alongside the legislative frameworks designed for wildlife and forest protection.

• Human-Centric Challenges: The content addresses pressing human issues, including population explosion, family welfare programs, and the health impacts of environmental pollutants like heavy metals and pesticides.

• Comprehensive Technical Glossary: A specialized glossary is included to define complex terminology in environmental science and renewable energy, ensuring students master the professional vocabulary of the field.

• Practical Problem Solving: Through its diverse Q&A format, the book encourages the application of engineering interventions for environmental protection, such as flood control and waste management.

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## Author

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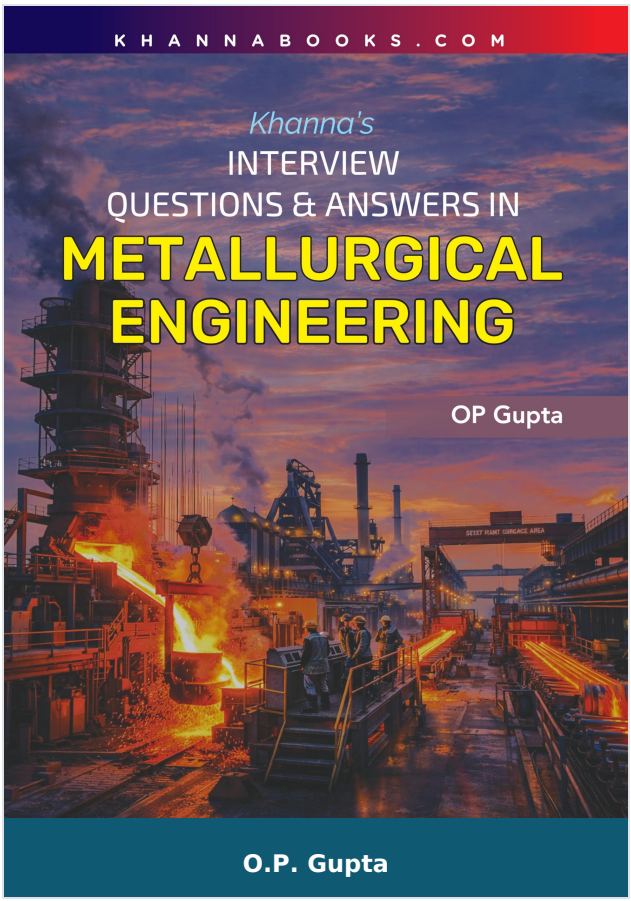


# Khanna's Interview Questions & Answers in Metallurgical Engineering

| | |
|---|---|
| **Author :** | O.P. Gupta |
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## Product Description

Interview Questions and Answers in Metallurgical Engineering is a definitive preparatory guide designed to bridge the gap between academic theory and professional practice. Authored by Om Prakash Gupta, an experienced industry veteran, the book serves as a comprehensive resource for students and engineers facing the rigors of technical interviews and competitive examinations. Its core theme centers on the practical application of metallurgical principles across a vast spectrum of materials and processes, ranging from foundational material science to advanced nanomaterials and smart technologies.

The primary purpose of this volume is to equip candidates with the precise, high-impact knowledge required by major public and private sector recruiters, such as SAIL, TATA Steel, and DRDO. By presenting information in a clear question-and-answer format, it demystifies complex topics like phase diagrams, heat treatments, and powder metallurgy, making them accessible for quick revision and deep understanding. Whether you are a diploma student, a postgraduate researcher, or a professional seeking a career transition, this book provides the practical value and academic rigor necessary to excel in the metallurgical engineering landscape.

Salient Features

• Comprehensive Coverage: Includes 35 specialized chapters ranging from foundational metallic structures to advanced nanomaterials and polymers.

• Industry Alignment: Specifically tailored to meet the technical standards of elite recruiters like SAIL, TATA Steel, ISRO, and DRDO.

• Academic Integration: Aligned with degree and diploma curricula, as well as professional exams like AMIE and AMIIM.

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- Deformation Mechanism
- Metallic Materials
- Non-Metallic Materials
- Ferrous Materials & Alloys
- Non-Ferrous Materials & Alloys
- Bearing Materials
- Spring Materials
- Dielectric Materials
- Magnetic Materials
- Semi-Conductor Materials
- Super Conducting Material
- Constitution of Alloys and Phase Diagrams
- Iron- Carbon Equilibrium Diagram
- Heat Treatment of Metals
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- Shaping Processes for Plastics
- Rubber Processing Technology
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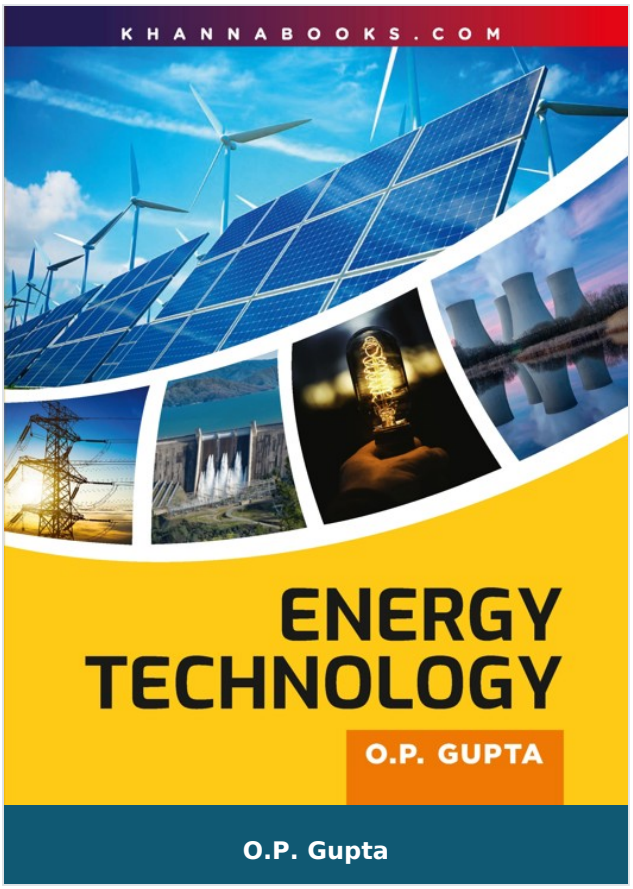
- Modern Engineering Materials
- Corrosion
- Casting
- Glass Working
- Power Metallurgy(PM)
- Metal Forming Technology
- Metal Treatment/Coating
- Welding/ Soldering /Brazing
- Miscellaneous Questions

## Author

**O.P. Gupta**

O.P. Gupta Om Prakash Gupta is basically being a chemical engineer, he has a practising experience of efficient Ennergy management and HR functions in steel Industry for more than three decades. privileged to be the youngest writer of technical books in the country (for he had written his first book at the age of 24 years while doing M. Tech. at I.I.T kanpur in 1979), he has authored many frontline books for engineering students. besides, being the regular faculty member in technical courses for Management Trainees (Technical), he has also visited england and france on a study tour sponsored by United Nations Development Programme (UNDP) to study the scope of energy conservation in steel plants in 1987.




# Energy Technology

| | |
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## Product Description

Energy Technology is an integral part of the degree, postgraduate & diploma curriculum of various branches of engineering. besides, it is also a compulsory paper for various associate membership examination conducted by professional bodies like institution of engineering (AMIE), Indian Institute of Metals (AMIIM), Indian Institute of Chemical Engineering (AMIICHE), BEE etc. This book has been prepared strictly as per the syllabus of these examinations. Short questions & answer and multiple-choice questions & answers drawn from the examination papers of various engineering colleges and professional bodies examinations given at the end of the book enhances its utility for the student.

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- Chapter-3. Alternate fuels for transportation
- Chapter-4. Furnaces
- Chapter-5. Boilers
- Chapter-6. Waste heat recovery
- Chapter-7. Steam-properties & efficient utilization
- Chapter-8. Thermal Insulation
- Chapter-9. Refractories
- Chapter-10. Basics of Electric Energy Uses
- Chapter-11. Electric Transformers
- Chapter-12. Electric Motors
- Chapter-13. Fans and blowers
- Chapter-14. Pumps and pumping system
- Chapter-15. Cooling towers
- Chapter-16. Compressed air system
- Chapter-17. Refrigeration system
- Chapter-18. Diesel Generator (DG) set system
- Chapter-19. Energy efficient lighting systems
- Chapter-20. Energy efficient technologies in electrical system
- Chapter-21. Power Cogeneration
- Chapter-22. Energy Conversion System
- Chapter-23. Energy Storage Systems


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- Chapter-24. Energy Efficient Building
- Chapter-25. Waste To Energy (WTE) Generation
- Short Question & Answer on Conventional Energy

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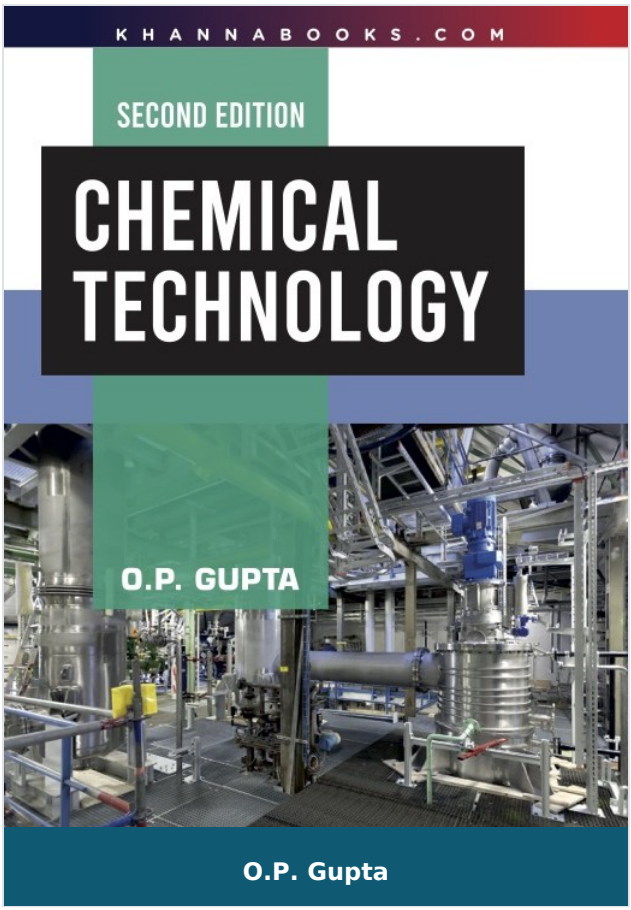


# Chemical Technology

| | |
|---|---|
| **Author :** | O.P. Gupta |
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## Product Description

This book will be useful for degree & diploma Curriculum of Engineering and for various associate membership examinations conducted by professional bodies like Institution of Engineers(AMIE) and Indian Institute of chemical Engineers (AMIICHE) etc.

Salient Features of This Book

* Subject matter has been presented in simple, lucid & easy to understand language

* Covers all the topics included in the syllabus of various engineering colleges/Technical Institutes & professional bodies examination papers.

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- Chapter-4: Fertilizers: Nitrogenous, phosphatic and potassic
- Chapter-5: Glass and Ceramics
- Chapter-6: Cement industry
- Chapter-7: Refactories
- Chapter-8: High Polymers- Plastics, Rubber and Fibers
- Chapter-9: Petroleum Refinary
- Chapter-10: Petrochemicals
- Chapter-11: Oils and Fats: Refining, Hydrogenation, Fat splitting
- Chapter-12: Soaps and Detergents
- Chapter-13: Pulp and Paper industries
- Chapter-14: Industrial fermentation- Ethyl alcohol
- Chapter-15: Multiple choice Questions & Answers on Chemical Process Technology


## Author

**O.P. Gupta**

O.P. Gupta Om Prakash Gupta is basically being a chemical engineer, he has a practising experience of efficient Ennergy management and HR functions in steel Industry for more than three decades. privileged to be the youngest writer of technical books in the country (for he had written his first book at the age of 24 years while doing M. Tech. at I.I.T kanpur in 1979), he has authored many frontline books for engineering students. besides, being the regular faculty member in technical courses for Management Trainees

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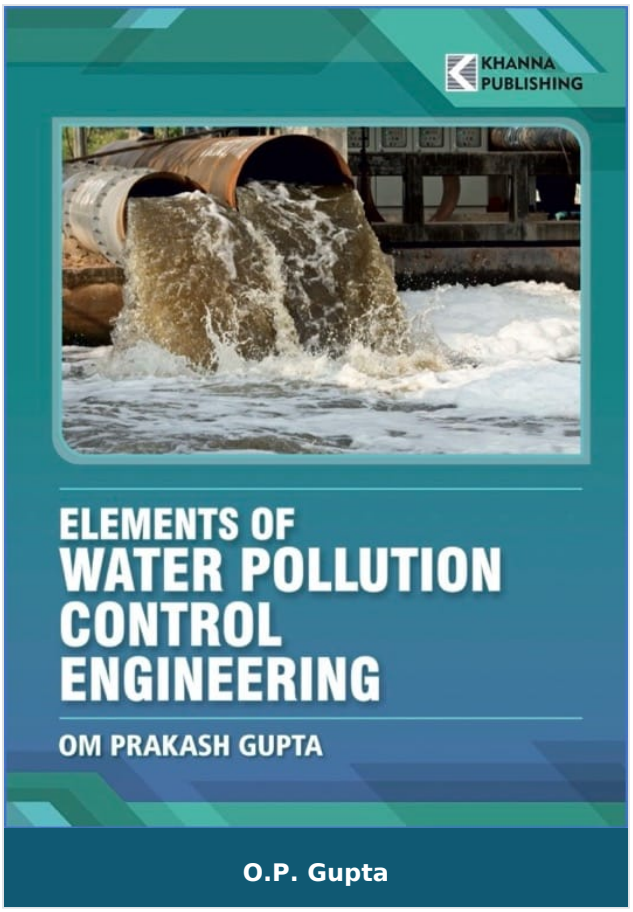


# Elements of Water Pollution Control Engineering

| | |
|---|---|
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## Product Description

The book contains twelve chapters followed by appendices (meant for specific target reader groups) pertaining to complete domain of water pollution control engineering. Beside, it also contains two chapters devoted to short questions & answers and multiple choice questions & answers drawn from the examination papers of various engineering colleges for the benefits of the students. the book will be useful for degree & diploma curriculum or various branches of engineering and for various associate membership examinations conducted by professional bodies like Institution of Engineers (AMIE), Indian Institute of Metals (AMIIM), Indian Institute of Chemical Engineers (AMIICHE), Institute of Chemist etc. It will also be equally useful for M.Sc. & B.Sc. students.

SALIENT FEATURES OF THE BOOK:

Subject matter has been presented in simple, lucid & easy to understand language.

Covers all the topics included in the syllabus of various engineering colleges/Technical Institutes & professional bodies examination papers. Short question & answers and multiple choice questions & answers drawn from the examination papers of various engineering colleges and professional bodies examinations given at the end of the book enhances its utility for students.

Up to date statistics and glossary of terms related to the subject have been included.

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- Purification of Water/Water Treatment
- Sources, Effects and Control of Water Pollution
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- Water Related Disease
- Thermal Pollution of Water
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## Author

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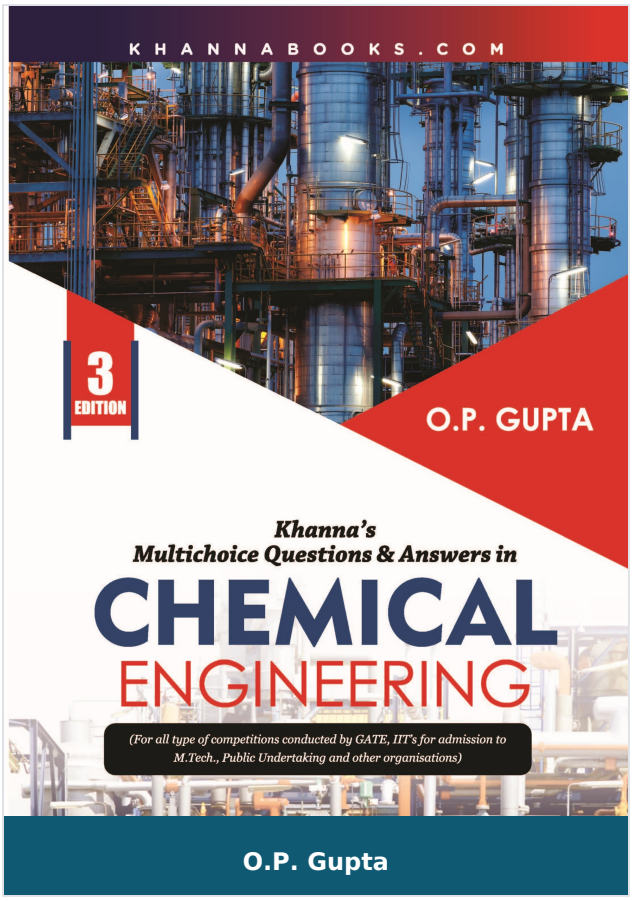
steel plants in 1987.




# Khanna's Multi-Choice Questions and Answers in Chemical Engineering

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## Product Description

This book designed comprehensively for chemical engineering graduates for their academic program, various competitive examinations & GATE examination will serve as a' Handbook of chemical Engineering'. It contain MCQ's drawn from the examination papers of various engineering college & GATE examination papers fully solved from 1990to 2025. Following subjects of chemical engineering have been covered for college examinations, competitive examinations & GATE examinations.

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- Process Control and Instrumentation
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- Materials of Construction
- process Equipment Design
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- Mechanical Operations
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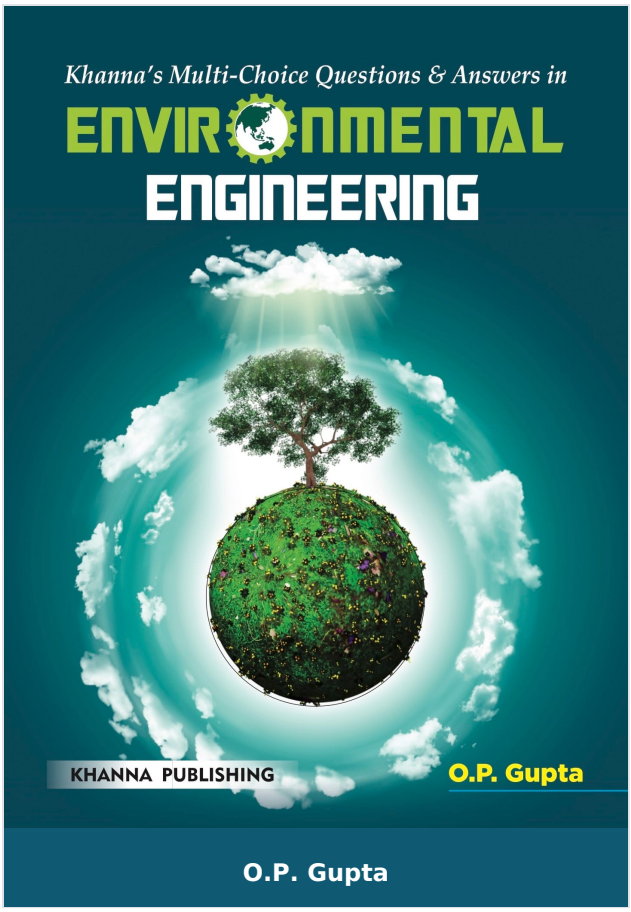


# Khanna's Multi-Choice Questions & Answers in Environmental Engineering

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## Product Description

This book covers the various topics of environmental engineering in the form of MCQ and Short Q&A; and is useful for degree, postgraduate & diploma courses in engineering, AMIE, AMIIM & AMIICHE examination. Subject matters has been presented in simple, lucid & easy to understand language and Covers all the topics included in the syllabus of various engineering colleges/Technical Institutes & Professional bodies examination papers. Latest and updated information/data/statistics pertaining to the subject matter has been included.

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- Water Pollution
- Waste Water Treatment
- Marine Pollution
- Noise Pollution
- Soil/Land Pollution
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- Radioactive/Nuclear Pollution
- Environmental Studies
- Ozone layer Depletion and its Health Effects
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- Smoking and its Health Effects
- Electrical Hazards
- Section B: Multiple Choice Questions and Answers
- multiple Choice Question and Answers on Environmental engineering
- Immediately Dangerous to life of Health (IDLH) Concentrations of Various Substances/Chemicals (as per NIOSH as on 03/01/1995)


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