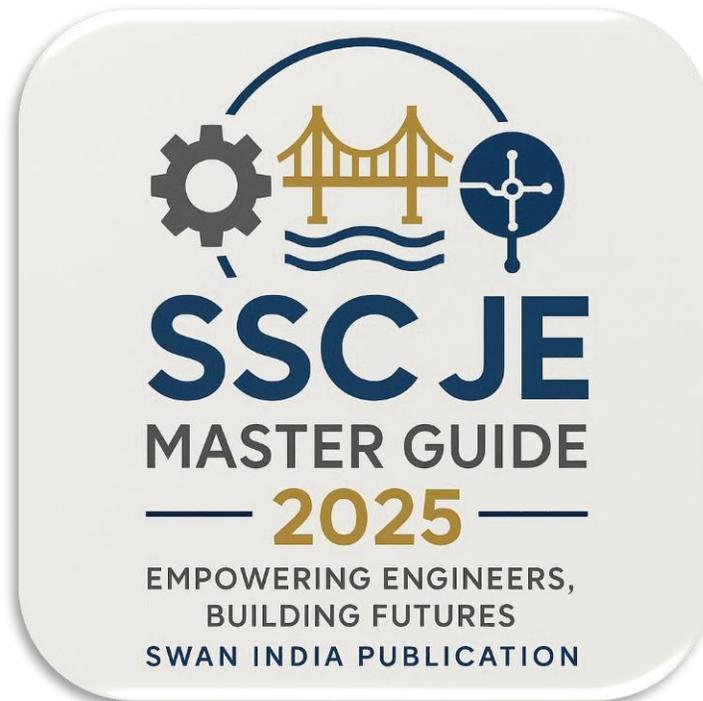


# SSC JE Master Guide 2025



Complete Preparation Book for Junior Engineer Exam (Civil,  
Mechanical, Electrical)

Published by: **SWAN India Publication**

## Dedication

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This book is dedicated to all the **aspiring engineers of India**

—  
those who dream beyond boundaries, work tirelessly through challenges, and believe that knowledge and perseverance can change their future.

To every student preparing late at night, solving one more problem, revising one more formula, and refusing to give up — this book belongs to you.

May your dedication and determination lead you to success in the **SSC Junior Engineer Examination** and beyond.

With deep respect and gratitude,  
to the **teachers, mentors, and families** who support these dreams silently every day.

— **Author**

*SWAN India Publication*

*“For every dream that begins with effort.”*

 **Copyright Page**

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**SSC JE Master Guide 2025**

*Complete Preparation Book for Junior Engineer Exam (Civil, Mechanical, Electrical)*

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## About the Book

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The *SSC JE Master Guide 2025* has been specially designed to meet the complete needs of aspirants preparing for the **Staff Selection Commission - Junior Engineer (SSC JE)** examination. This book serves as a **comprehensive resource**, combining detailed theory, solved examples, and practice questions in one place.

The content is organized in a **systematic and exam-oriented manner**, covering all sections of both **Paper I (Objective)** and **Paper II (Descriptive)**. Each chapter focuses on building conceptual understanding, followed by ample solved problems and previous year's questions to help students grasp real exam trends.

The book is divided into five major parts:

1. **General Intelligence & Reasoning** – Strengthens logical thinking and problem-solving ability with well-explained examples and tricks.
2. **General Awareness** – Covers all essential subjects like History, Polity, Economy, Science, Environment, and Current Affairs.
3. **General Engineering (Civil / Mechanical / Electrical)** – In-depth coverage of core subjects as per the latest SSC JE syllabus.
4. **Practice & Revision Section** – Includes previous year solved papers, mock tests, and model practice sets for complete preparation.
5. **Additional Resources** – Short notes, formulas, quick revision tips, and last-month strategies to boost confidence before the exam.

Every chapter in this book is written in **simple, easy-to-understand language**, making it accessible to all aspirants—whether they are fresh graduates or working professionals. The structure follows a **learn → apply → practice** approach to help readers build both conceptual clarity and speed.

The team at *SWAN India Publication* has ensured that this guide remains **authentic, accurate, and up to date** with the latest examination pattern released by the Staff Selection Commission.

We believe that this book will not only assist you in cracking the exam but also strengthen your foundation in engineering concepts, reasoning, and general studies.

Use this guide as your **complete companion** in your journey to becoming a **Junior Engineer** in the Government of India.

— **SWAN India Publication**

*Empowering aspirants through knowledge and dedication.*

# Part I: General Intelligence & Reasoning

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## 1. Classification & Analogy

The **Reasoning section** of the SSC JE examination tests your logical thinking and pattern recognition ability. Among the most frequent topics are **Classification** and **Analogy**, which help assess how quickly you can identify similarities and differences among given options.

This chapter provides clear explanations, solved examples, and exam-based practice questions to help you master these concepts effectively.

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### Classification

#### Concept:

Classification means grouping similar items together or identifying the *odd one out* based on a common property. In simple terms, you must find which option does not belong to the same group as the others.

#### Types of Classification Questions:

1. **Word Classification** – Based on meaning, category, or usage.  
*Example:*  
Select the odd one out:  
(a) Apple (b) Mango (c) Banana (d) Potato  
→ **Answer:** (d) Potato (It's a vegetable, others are fruits).
2. **Number Classification** – Based on divisibility, arithmetic pattern, or prime numbers.

*Example:*

Find the odd number:

(a) 9 (b) 16 (c) 25 (d) 36

→ **Answer:** (a) 9 (Others are perfect squares of even numbers).

3. **Letter Classification** – Based on the sequence of letters or alphabet positions.

*Example:*

Choose the odd pair:

(a) AB (b) CD (c) EF (d) GH

→ **Answer:** (a) AB (Difference of 1, others have a difference of 2).

4. **General Knowledge-Based Classification** – Based on factual information.

*Example:*

Select the odd one:

(a) Delhi (b) Mumbai (c) Chennai (d) Bangladesh

→ **Answer:** (d) Bangladesh (It's a country, others are Indian cities).

### **Tips to Solve Classification Questions:**

- Identify the **common link** among most of the options.
- Eliminate unrelated terms first.
- In number-based questions, check for **divisibility, squares, cubes, or prime numbers**.
- For letter-based questions, write down **alphabet positions (A=1, B=2, etc.)** to find the pattern.

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### **Analogy**

#### **Concept:**

Analogy shows a relationship between two pairs of words,

numbers, or letters. You must find the missing term that fits the same logic.

### Types of Analogy Questions:

1. **Word Analogy** – Based on meaning or function.

*Example:*

Doctor : Hospital :: Teacher : ?

→ **Answer:** School (A doctor works in a hospital, a teacher works in a school).

2. **Number Analogy** – Based on mathematical patterns.

*Example:*

4 : 16 :: 5 : ?

→ **Answer:** 25 ( $4^2 = 16$ ,  $5^2 = 25$ ).

3. **Alphabet Analogy** – Based on letter sequence or position.

*Example:*

A : C :: B : ?

→ **Answer:** D (Each letter moves +2 forward).

4. **GK-Based Analogy** – Based on factual relations.

*Example:*

Earth : Planet :: Sun : ?

→ **Answer:** Star (Type or category relation).

### Tips to Solve Analogy Questions:

- Identify the **type of relationship** – functional, numerical, or positional.
- Ensure the logic applies in both pairs.
- For number or alphabet-based analogies, check for **operations** like +, -, ×, ÷, squares, or letter shifts.
- Keep logic simple — SSC questions are usually direct.

## Common Mistakes to Avoid:

- Don't use over-complicated logic; SSC follows simple patterns.
  - Avoid random guessing — use elimination.
  - Practice regularly to improve recognition speed.
- 

## Practice Questions

1. Select the odd one out:  
(a) Circle (b) Triangle (c) Rectangle (d) Cube  
→ **Answer:** (d) Cube
  2. Find the odd number:  
(a) 121 (b) 169 (c) 225 (d) 343  
→ **Answer:** (d) 343 ( $7^3$ , others are squares).
  3. Choose the correct analogy:  
Book : Reading :: Pen : ?  
(a) Ink (b) Writing (c) Paper (d) Pencil  
→ **Answer:** (b) Writing
  4. Find the missing number:  
 $3 : 9 :: 5 : ?$   
→ **Answer:** 25
  5.  $A : Z :: B : ?$   
→ **Answer:** Y (Opposite letter relation).
- 

## Quick Revision Notes

- *Classification* → Find the **odd one out**.
  - *Analogy* → Find the **similar relationship**.
  - Focus on **word meaning, numerical logic, and letter sequence**.
-

- Practice at least **50-100 questions** from each type for accuracy.

## Acknowledgement

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It gives me immense pleasure to present this book, *SSC JE Master Guide 2025 – Complete Preparation Book for Junior Engineer Exam (Civil, Mechanical, Electrical)*, to all aspiring engineers preparing for one of India's most competitive examinations.

I wish to express my sincere gratitude to everyone who has directly or indirectly contributed to the making of this book.

I extend my heartfelt thanks to **SWAN India Publication** for their continuous support, encouragement, and belief in creating quality educational content for students across the country.

Special appreciation goes to all **subject experts, reviewers, and educators** who guided in shaping the content, verifying questions, and refining technical accuracy to ensure complete alignment with the latest SSC JE syllabus and examination pattern.

I also thank my **students, readers, and fellow aspirants**, whose constant feedback and enthusiasm have been the true motivation behind this work. Their learning journey and dedication inspired the structure and presentation of this guide.

Finally, I express deep gratitude to my **family and well-wishers** for their constant encouragement, patience, and unwavering belief throughout the writing process.

This book is dedicated to every sincere aspirant who dreams of becoming a **Junior Engineer** and serving the nation with pride and technical excellence.

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— **Author**

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*“Empowering Aspirants, Building Engineers.”*