

SYLLOGISTIC REASONING

SSC CGL Reasoning - Complete Chapter Guide

Logical Deduction | Venn Diagrams | Categorical Propositions | SSC CGL Exam Focus

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📖 Chapter Overview: This chapter covers syllogistic reasoning concepts including categorical propositions, Venn diagrams, logical deduction, and syllogism rules essential for SSC CGL reasoning section.



1. INTRODUCTION TO SYLLOGISTIC REASONING

What is Syllogistic Reasoning?

💡 Definition: Syllogistic reasoning is a form of logical reasoning that involves drawing conclusions from two or more premises that are assumed to be true. It uses categorical propositions to establish relationships between categories.

🔑 Key Insight: A syllogism consists of three parts: two premises and one conclusion. The conclusion must logically follow from the premises.

Components of a Syllogism

☰ Major Premise

- Universal statement
- Contains major term
- "All humans are mortal"
- Sets broad category
- First general statement

☰ Minor Premise

- Specific statement
- Contains minor term
- "Socrates is human"
- Links to major premise
- Second specific statement

🚩 Conclusion

- Logical deduction
- Must follow from premises
- "Socrates is mortal"
- Contains both terms
- Valid or invalid result

2. CATEGORICAL PROPOSITIONS

Four Types of Categorical Propositions

A

Universal Affirmative (A-type)

"All S are P" - Asserts that every member of subject category S is also a member of predicate category P

E

Universal Negative (E-type)

"No S are P" - Asserts that no member of subject category S is a member of predicate category P

I

Particular Affirmative (I-type)

"Some S are P" - Asserts that at least one member of subject category S is also a member of predicate category P

O

Particular Negative (O-type)

"Some S are not P" - Asserts that at least one member of subject category S is not a member of predicate category P

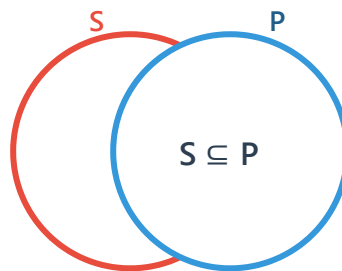
Distribution of Terms

Proposition Type	Subject Distributed	Predicate Distributed	Example
A (All S are P)	Yes	No	All humans are mortal
E (No S are P)	Yes	Yes	No dogs are cats
I (Some S are P)	No	No	Some birds can fly
O (Some S are not P)	No	Yes	Some animals are not mammals

3. VENN DIAGRAMS & RULES

Representing Syllogisms with Venn Diagrams

💡 Example: Venn Diagram for "All S are P"



Interpretation: The entire S circle is inside the P circle, indicating all members of S are also members of P.

✍ Venn Diagram Rules:

- **Shaded Area** - Represents empty set (no elements)
- **X Mark** - Represents existence of at least one element
- **Overlapping Areas** - Show possible relationships
- **Separate Circles** - Indicate no common elements
- **Complete Inclusion** - One circle completely inside another

Rules of Valid Syllogism

☰ Essential Syllogism Rules:

- 1 **Three Terms Rule** - A syllogism must contain exactly three terms
- 2 **Middle Term Distribution** - The middle term must be distributed at least once
- 3 **Term Distribution** - Any term distributed in conclusion must be distributed in premises
- 4 **Negative Premise Rule** - If one premise is negative, conclusion must be negative

- 5 **Particular Premise Rule** - If one premise is particular, conclusion must be particular

☰ 4. PRACTICE QUESTIONS

Basic Syllogism Questions

Q1. Statements: All books are papers. Some papers are journals.
Conclusions: I. Some books are journals. II. Some journals are books.

- ☐ A) Only I follows
- ☐ B) Only II follows
- ☐ C) Both I and II follow
- ☐ D) Neither I nor II follows

[Check Answer](#)

Advanced Syllogism Questions

Q2. Statements: No poets are singers. All singers are dancers.
Conclusions: I. No poets are dancers. II. Some dancers are not poets.

- ☐ A) Only I follows
- ☐ B) Only II follows
- ☐ C) Both I and II follow
- ☐ D) Neither I nor II follows

[Check Answer](#)

5. SSC CGL EXAM STRATEGY

Approaching Syllogism Questions

Exam Strategy for Syllogistic Reasoning:

1. **Identify Proposition Types** - Classify as A, E, I, or O (15 seconds)
2. **Check Terms** - Ensure exactly three terms are present (10 seconds)
3. **Apply Rules** - Use syllogism rules to eliminate options (20 seconds)
4. **Draw Venn Diagram** - Visualize relationships (15 seconds)
5. **Test Conclusions** - Verify each conclusion against diagram (15 seconds)
6. **Select Answer** - Choose the correct conclusion combination (5 seconds)

Common SSC CGL Syllogism Patterns:

- Two premises with multiple conclusions
- Either-or case syllogisms
- Complementary pair conclusions
- Possibility-based conclusions
- Three-statement syllogisms
- Coded syllogisms
- Reverse syllogisms

Quick Solving Techniques

Speed Solving Tips:

- Memorize the four proposition types (A, E, I, O)
- Learn the distribution rules for quick elimination
- Practice quick Venn diagram drawing
- Use the "middle term must be distributed" rule first
- Look for complementary pairs in conclusions
- Remember "no conclusion follows from two particular premises"
- Practice with different statement combinations



6. ADVANCED CONCEPTS & PRACTICE

Mood and Figure of Syllogisms

Understanding Mood and Figure

Mood: AAA (All premises and conclusion are A-type)

Figure 1: Middle term is subject of major premise and predicate of minor premise

Valid Mood-Figure Combination: AAA-1 (Barbara)

Figure	Major Premise	Minor Premise	Example
1	M-P	S-M	All M are P, All S are M
2	P-M	S-M	All P are M, No S are M
3	M-P	M-S	All M are P, Some M are S
4	P-M	M-S	All P are M, Some M are S

Daily Practice Routine

📅 4-Week Preparation Plan:

- Week 1: Basic Proposition Types & Venn Diagrams (15 questions/day)
- Week 2: Syllogism Rules & Valid Forms (20 questions/day)
- Week 3: Multiple Conclusion Syllogisms (20 questions/day)
- Week 4: Advanced Patterns & Speed Practice (25 questions/day)

Effective Syllogism Practice:

- Start with simple two-premise syllogisms
- Practice drawing quick Venn diagrams
- Learn to recognize invalid syllogisms quickly
- Work on speed without sacrificing accuracy
- Create your own syllogism problems
- Review mistakes to understand error patterns
- Practice with different mood and figure combinations

Syllogistic Reasoning - SSC CGL Reasoning Preparation

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