

IBPS SO Reasoning Study Notes

Date: August 4th, 2024

Instructor: Neeram Gehlot

Session: Monday-Thursday 7 PM Series

1. SYLLOGISM

Problem Example: Wine, Vodka, Brandy, Rum, Whiskey

Given Statements:

- All wine is vodka
- Only a few wines are brandy
- Only vodka is rum
- Some brandy is whiskey

Step-by-Step Solution:

1. **All wine is vodka** → Draw wine circle inside vodka circle
2. **Only a few wines are brandy** → Only some portion of wine overlaps with brandy
3. **Only vodka is rum** → All rum is inside vodka, rum is exclusive to vodka
4. **Some brandy is whiskey** → Partial overlap between brandy and whiskey

Conclusions Analysis:

Conclusion 1: "Some wine cannot be rum" ✓ **CORRECT**

- Not all wine connects with rum since rum is exclusive to vodka

Conclusion 2: "All vodka is definitely not brandy" ✓ **CORRECT**

- Two reasons:
 1. If all vodka goes to brandy, rum (inside vodka) would also go to brandy (not allowed)
 2. All wine inside vodka cannot go to brandy (only few wines are brandy)

Answer: Both conclusions follow

2. SYLLOGISM - Practice Question 2

Problem: Dance, Class, Music, Karate, Yoga

Given Statements:

- Some dance is class
- All music is class
- No karate is music
- All karate is yoga

Solution Process:

1. Draw overlapping circles for dance and class
2. Place music circle entirely inside class circle
3. Keep karate separate from music (no connection)
4. Place karate circle inside yoga circle

Conclusions:

Conclusion 1: "All karate is class" - **POSSIBLE but not confirmed** **Conclusion 2:** "Some karate is not class" - **POSSIBLE but not confirmed**

Answer: Either-or case (one of the two will be true)

3. ALPHABET TEST

Problem: STENOGRAPHIC

Rule:

- Odd positions (1,3,5,7,9,11) → Replace with previous letter (-1)
- Even positions (2,4,6,8,10,12) → Replace with next letter (+1)

Word Analysis: S-T-E-N-O-G-R-A-P-H-I-C

Positions: 1-2-3-4-5-6-7-8-9-10-11-12

Changes:

- S (pos 1): -1 → R
- T (pos 2): +1 → U ✓ (vowel)
- E (pos 3): -1 → D
- N (pos 4): +1 → O ✓ (vowel)

- O (pos 5): $-1 \rightarrow N$
- G (pos 6): $+1 \rightarrow H$
- R (pos 7): $-1 \rightarrow Q$
- A (pos 8): $+1 \rightarrow B$
- P (pos 9): $-1 \rightarrow O \checkmark$ (vowel)
- H (pos 10): $+1 \rightarrow I \checkmark$ (vowel)
- I (pos 11): $-1 \rightarrow H$
- C (pos 12): $+1 \rightarrow D$

Answer: 4 vowels (U, O, O, I)

4. ALPHANUMERIC SERIES

Pattern Recognition: A-Z-2, C-X-2, F-U-6

Analysis:

- First letters: $A \rightarrow C \rightarrow F$
- Position values: $1 \rightarrow 3 \rightarrow 6$
- Pattern: $+2, +3$, so next should be $+4$
- $6 + 4 = 10$, so 10th letter = J

Answer: J (only option starting with J)

5. DATA SUFFICIENCY

Key Concepts:

Answer Options:

- **A:** Statement 1 alone is sufficient
- **B:** Statement 2 alone is sufficient
- **C:** Either statement alone is sufficient
- **D:** Both statements together are necessary
- **E:** Even both statements together are insufficient

Problem: Circular Seating (8 people: G,H,I,J,K,L,M,N)

Question: Who sits immediately right of M?

Statement 1:

- Only 3 people between J and K
- K is 3rd right of L
- One person between L and M **Result:** Insufficient (M has multiple possible positions)

Statement 2:

- L sits immediately right of N
- Two people between N and M
- M does not sit opposite to L
- I sits opposite to N **Result:** Sufficient (M's position confirmed, I sits immediately right of M)

Answer: B (Statement 2 alone is sufficient)

6. DIRECTION SENSE

Problem Setup:

- Point D is 10m south of E
- E is 12m west of F
- Point J is 13m south of F
- Point J is 5m east of G
- Point G is 8m south of H
- H is 9m east of I
- Point K is exactly between H and L
- Point L is 19m east of I

Key Distance Calculations:

- **Distance between H and F:** Using Pythagorean theorem
 - $HK = 5\text{m}$, $FK = 5\text{m}$
 - $HF = \sqrt{5^2 + 5^2} = \sqrt{50} = 5\sqrt{2}$

Applications:

1. **Points forming straight line:** F-K-J ✓
 2. **If point X is 2m east of I:** Distance XD = 5m = Distance GJ
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7. IMPORTANT FORMULAS & SHORTCUTS

Right-Angled Triangle:

- If two sides are equal (a), hypotenuse = $a\sqrt{2}$
- Pythagorean theorem: $c^2 = a^2 + b^2$

Data Sufficiency Strategy:

1. Check Statement 1 alone
 2. If insufficient, check Statement 2 alone
 3. If both insufficient individually, check combined
 4. Focus only on what's asked, don't solve completely
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8. EXAM TIPS

1. **Time Management:** Don't write lengthy solutions for alphabet tests - solve mentally
 2. **Data Sufficiency:** Focus only on the specific question asked
 3. **Direction Problems:** Draw clear diagrams with accurate measurements
 4. **Syllogism:** Use circle diagrams for visual clarity
 5. **New Pattern Questions:** Don't skip unfamiliar questions - they're often easier than they appear
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Practice Schedule

- **Monday-Thursday:** 7:00 PM reasoning sessions
- **Additional Practice:** 5:00 PM seating arrangement classes
- **Complete Coverage:** All IBPS SO reasoning topics at exam level

Next Session: Tuesday, 7:00 PM