**Verbal Reasoning**

Tests your ability to evaluate written information. You'll read through 11 passages and answer questions about the conclusions you can make. For some items you'll need to answer either 'true', 'false' or 'can't tell', and for others you'll need to select which of the statements presented is true or false based on the information in the passage.

Two types of questions in the verbal reasoning section:

1) Statements where you decide whether, according to the passage, the statement is **true, false or whether you cannot tell**.
2) **Multiple-choice questions** where you are tasked to determine statement most likely to be true.

Figure out which you struggle with the most. Second group of questions include the following:

- Incomplete Statements
- According To The Passage
- Except Question
- Most Likely
- Inference
- Writer Questions

① TFICT
Strong factual statements
→ ~~False~~ or can't tell
Maybe hedging statements
→ Generally True

Speed Reading key → Tim Ferris - youtube
How to speed read?

Techniques ✓
Skills ⇒ speed reading skim/scan
Knowledge ✓

Speed ≈ practice

# VERBAL REASONING

- Subjective statements are usually Can't tell. Factual statements are more likely to have a straight answer
- Be aware of 'shifts' in the author's opinion

QUALIFIERS:

- Soft → can, could, may, might, sometimes, usually, some ... → More likely to be true
- Hard → are, is, will, need, must, all, always, never... → More likely to be false or CT

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- Read above / below keywords in a passage
- Pay attention to 'quoted text'
- For conclusion questions, read the last paragraph or last few lines to (usually) get a summary
- Look out for synonyms when skimming or speed-reading
- The answer to most questions is either the first or last line of a paragraph

↳ Q1 → Paragraph / Section 2-3
↳ Q2 → 3 or 1
↳ Q3 → 1-2
↳ Q4 → 1-4

Split into 4 sections if its not 4 paragraphs

## Decision Making

Tests your ability to apply logic to reach a decision or conclusion, evaluate arguments and analyse statistical information. Presented with questions that may refer to text, charts, tables, graphs or diagrams. In the UCAT Decision Making, you will face two types of question formats:

**1. Answer Options** - Presented with four answer options, where one option is correct. These include the following:

**Logical puzzles:** You are required to take one or more steps of deductive inference from the information presented in order to arrive at a conclusion. There is only one correct response per question. Information may be given in the form of text, tables or other graphic.

**Syllogisms:** In these items you will be required to evaluate whether each of a series of conclusions arises from a given set of premises. Some questions may have multiple correct response options. You need to 'drag and drop' the correct responses.

**Interpreting Information:** You will be presented with information in various formats (written passages, graphs, charts, etc.) and will be required to interpret this information in order to determine which conclusions follow. There may be multiple correct response options per item.

**Recognising Assumption:** Ask you to evaluate arguments for and against a particular solution to a problem. Required to evaluate the strength of arguments and soundness of assumptions. Only one correct response per question; candidates must reach the strongest conclusion.

**Venn Diagrams:** Presented with a Venn diagram and asked to select the single best conclusion from a list of statements. Basically a passage of information to interpret either in the form of a Venn diagram or by providing conclusions. May be provided with a set of statements and a set of different Venn diagrams as response options.

**Probability Reasoning:** You will be presented with a very short passage containing statistical information. You will be asked to select the best response to the question.

**2. Yes or No Statements**

You will be asked to respond to five statements, by answering 'yes' or 'no' next to each statement. These type of questions can also be in the form of any of the six question types mentioned above.

# DECISION MAKING

- Shape equations, logic puzzles and venn diagrams:
  - ↳ Have a systematic approach and follow clear logic
  - ↳ Eliminate the options fact by fact
- Argument questions → 2 ways to make an argument weaker:
  - ↳ Making the argument subjective (based on emotions or opinions)
    - → Chose arguments based on evidence, statistics, facts or studies
  - ↳ Avoiding the question in a argument

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- If there is a specific name or thing mentioned in the question, then focus on that while scanning through the information
- Layout all the information in an ideal format
- Some = All = Most of ≠ None
- Not all = None = Zero ≠ All

} Possible

Situational Judgement

## 1. Appropriateness Questions

- **a very appropriate thing to do** – if it will address at least one aspect (not necessarily all aspects) of the situation — helpful – fixes
- **appropriate, but not ideal** – if it could be done, but is not necessarily a very good thing to do
- **inappropriate, but not awful** – if it should not really be done, but would not be terrible
- **a very inappropriate thing to do** – if it should definitely not be done and would make the situation worse unhelpful – create more problem

## 2. Importance Questions

- **very important** – if this is something that is vital to take into account – have consider
- **important** – if this is something that is important but not vital to take into account
- **of minor importance** – if this is something that could be taken into account, but it does not matter if it is considered or not
- **not important** – at all if this is something that should definitely not be taken into account ignore

Is the action helpful? – Does it fix one aspect at least of the problem?

Techniques
Skills – Comp
Knowledge – ✓
Speed ✓

1) Does it fix even if tiny
Does it create more problems

2) Have MUST consider.
Should be ignored

## Abstract Reasoning

Assesses how you infer relationships from patterns of abstract shapes. Includes irrelevant and distracting shapes to mislead you. Measures your ability to change, track, critically evaluate and generate hypotheses requiring you to query judgements as you go along trying to work out the correct pattern. The Abstract reasoning section includes four different types of questions:

Type 1 – Presented with two sets of shapes labelled "Set A" and "Set B". You will be given a test shape and asked to decide whether the test shape belongs to Set A, Set B, or Neither.

**Type 2** - Presented with a series of shapes and asked to select next shape in the series.

**Type 3** - Presented with a statement, involving a group of shapes. You will be asked to determine which shape completes the statement.

**Type 4** – Presented with two sets of shapes labelled "Set A" and "Set B". You will be asked to select which of the four response options belongs to Set A or Set B.

Technique -

Skill -

Knowledge -

(Speed) ↑ practice quicker.

# ABSTRACT REASONING

- If shapes between boxes are completely different, then it is likely to be a number pattern
- Rotation is common for type 2 and 3 questions

SCANS↓ ⟶ Conditionals - 'if' and 'then' conditions

## Shape:

↳ Straight / Curvy
↳ Concave / Convex
↳ Open / Closed
↳ Longest side
↳ Right / Obtuse / Acute / reflex angles
↳ Regular / Irregular

## Colour:

↳ Part of the shape is shaded
↳ Paticular kind of shape is shaded

## Arrangement:

↳ Top, Bottom, Left, Right, Middle
↳ Clockwise, Anti-clockwise, 90 vs 180° rotations
↳ Shape rotations, Shape positions relative to each other
↳ Arrows pointing to/away from shapes or the box

## Number:

↳ Number of total shapes, paticular shapes, sides, intersections, angles
↳ Odd or even

## Size:

↳ Big / Medium / Small

# PATTERNS:

IEB = in each box

- White shape inside the same black shape with a different opposite shape outside it
- 2 Number of overlaps in each box
- Overlapping reigons in each box
- 8 Number of edges
- Number of edges + direction of arrow
- 8 Lines of symmetry
- 3 Odd or even number of 2 shapes (separately) — Different
- 4 Conditional → Direction of arrow to shading of shape(s)
- 10 Number of shapes (IEB)
- 2 Odd or even number of arrow crossings
- Number of lines in a zig zag
- Increasing number of sides from e.g. top to bottom
- 8 Direction of arrow
- Number of edges + odd or even + shading
- Shading of shapes
- Odd or even + Shading
- 2 Conditional → Shading to arrangement of shape(s)
- Number of shape + type of shapes overlapping
- Conditional → Size of shape to arrangement
- Curved / Straight edges
- 3 Acute / Obtuse angles
- Number of arrowheads = number of circles / squares -1 + 1
- Conditional → Direction of arrow to arrangement of shape
- 2 Rotation / Reflection
- 2 Number of right-angles
- Arrow intersections
- Direction and number of arrows is = number of shaded shapes
- Multiples
- Number of enclosed regions
- Curved shapes + Type of shape + Conditional → Points of intersection to shading
- Conditional - number of edges to number of shapes
- The hour hand is even and minute hand is odd (clock)
- Shaded and unshaded shapes are seperate or overlap
- ↗, □, △, ⌂ in corners in clockwise direction with 2 shaded circles and one striped circle
- Prime number of sides

# PATTERNS

1 → Number of shapes ||||||||||||||||||||||

2 → Symmetry |||||

3 → Direction of ↑/↓ or shape ||||||||||||||

4 → No. edges ||||||||||||||

5 → Odd / Even ||||||||||||||||||||||||||

6 → Prime numbers |

7 → Multiples ||

8 → Acute / Obtuse angles (right-angles) ||||||

9 → Curved / Straight edges ||||(direction a curve points at e.g left) ||||||||

10 → Shading + another rule ||||||||||||||||||||||

11 → Overlapping or Enclosed regions ||||||||||

12 → Arrangement (usually with a conditional) ||||||||||||||||||||

13 → Rotation / Reflection

14 → Regular / Irregular shapes

15 → Intersections ||||

16 → Point shapes (e.g. square is 1 point, triangle is 2 points etc.) |

17 → Number of curves is even/odd → certain shape is present

18 → If total number of circles is more than non-circles all circles are black

19 → There is always an arrow, heart, white circle so if the arrow points at the circle, the heart is black. The heart is white if it points to the edge of the box

20 → Parallel lines (and perpendicular) |

21 → Vertices |||

22 → Bottom shape has even / odd number of sides. The rightmost shape has odd or even number of sides

23 → Concave / Convex |

24 → White triangle is straight line / Black triangle is curvy line

25 → All dots are attached to two other dots

26 → Apperance of shape ||||||||||||||

27 → Shapes positioned on corners / edges

28 → Direction of shape corresponds to odd/even number of sides

29 → Total number of verticies is 7, number of verticies for all quadrilaterals is halfed

30 → Each letter in the alphabet corresponds to a number (e.g A = 1), the number is odd/even

31 → White triangles is equal to number of black circles.

32 → Clockwise / Anticlockwise ||

33 → Moving clockwise, numbers are in accending order

34 → Number of triangles (e.g. 1 isosceles, 2 right-angled, 1 equilateral)

35 → An arrow pointing left is cancelled out by an arrow pointing right, therefore the number of squares is = the number of arrows that aren't cancelled out

36 → If there is a white circle, there's a white triangle. If there's a black circle, there's a white and black triangle opposite each other

37 → Patterns

38 → Shape with largest number of edges is at the bottom

39 → If triangle is black, arrow points at straight edge. If triangle is grey, arrow points at curved edge

40 → White shape has one line of symmetry while black shapes have more than 1 line of symmetry

41 → Size

42 → Same number of circles as lines

# SITUATIONAL JUDGMENT

- Key medical themes:
  - ↳ Respect clinical seniority → Being aware and understanding your role
  - ↳ Due diligence → Improving the quality of services by taking Leadership and exercising attentivness and care
  - ↳ Teamwork → Includes working together in ways that best serve the patient
  - ↳ Effective Communication
  - ↳ Local Resolutions → Knowing when to deal with issues locally and when to esculate them
  - ↳ Patient Safety
  - ↳ Honesty, Integrity, Professionalism
  - ↳ Confidentiality → Knowing when to keep it and when to break it

# PATTERNS

→ Confidentiality - parents cannot obtain any information for any of their children aged 18 or older, unless given permission

→ Honesty, Integrity and patient safety - any issues that appear or medical conditions that develop for students should be addressed as it could affect personal health or, later on, patient safety

→ Teamwork - completing a project is usually the bigger goal out of anything else that happens

→ Knowledge, skills and performance - patient safety and consent is the most important factor. Urgency comes right after this

→ Honesty, Integrity and patient safety - patients providing vulnerable and private information are trusting the doctor/student, therefore the trust should be earned by showing integrity and honesty

→ Confidentiality - information should never be shared, even if it's someone close to the patient (Family, Husband/Wife) unless given permission or the patient is younger than 18

→

**Quantitative Reasoning**

- Basic Arithmetic
- Proportionality
- Percentage and Percentage changes
- fractions and decimals
- Ratios
- Speed, Distance and Time
- Money, Income Tax, VAT, Tariffs & Exchanges
- Geometry: Area and Volume
- Population densities
- Averages and ranges: Means, Median and Mode
- Schedules and Time
- Rates

# QUANTITATIVE REASONING

- Tax calculations:
  - ↳ Spot the bracket that the income fits in and calculate how much of the income is within the bracket(s)
  - ↳ Work out the amount, using the given percentage
  - ↳ Add the tax of each bracket that the income falls into

## CONVERSIONS ↓

1 mi = 1.6 km

1 ft = 12 in

1 kg = 2.2 pounds

1 cm = 0.4 in

## EQUATIONS ↓

Area of ⊙ = $\pi r^2$

Diameter of ⊙ = $\pi d$

Volume of ◯ = $\frac{4}{3}\pi r^2$

$a^2 + b^2 = c^2$

Midpoint = $(x_1 + x_2)/2$

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- Total price of shares = % Shares x Total shares x Price of shares
- How to work out time zones ↓

| Destination | Departure Time | Landing Time | Time Difference (hrs) |
|---|---|---|---|
| San Francisco | 10 25 | 13 35 | -8 hours |
| Toronto | 12 05 | 14 45 | -5 hours |
| Tokyo | 15 45 | 11 15 (+1) | +8 hours |
| Johannesburg | 19 05 | 07 05 (+1) | +1 hour |
| Bangkok | 21 30 | 15 00 (+1) | +6 hours |

Add it on to (negative)

Time taken = Landing time − Departure time

Subtract it from (positive)

- Time zones, Percentages, Bar Chart, Ratios, Tax, Reverse Tax, Income, Table Pie Chart, Salary, Conversions
- Population density = Population / Area
- Percent increase/decrease = $\frac{\text{New} - \text{Old}}{\text{Old}}$
- km/h → (÷ 3.6) → m/s

# PATTERNS

→ Table - Grades, Exam, Medicine, Percentages, Company, Clothes, Tickets, Zoo, Hot Drinks

→ Volume - Dimensions, Bottles, Glass Cups

→ Graph - Runners, Speed, Race