



# Applaa UCAT Practice Mock 87

Mock Practice Exam Booklet

## Applaa: Socratic Practice Engine

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# Instructions & Study Method

Welcome to your Applaa offline practice booklet. Please follow these guidelines to maximize your learning outcome:

- 1. Distraction-Free Practice:** Solve the multiple-choice questions in Section 1 under timed conditions. Do not look for shortcuts or answers until you are completely done.
- 2. Check & Submit Online:** We have intentionally excluded the answer key from this printout. To get your score, see worked solutions, and track your progress metrics, open: <https://applaa.com/practice/check?exam=ucat&paper;=87> on any browser. Bubble in your answers in our digital check sheet.
- 3. Learn with Appy Buddy (AI Socratic Tutor):** Applaa is a 100% ad-free educational space. Our online AI Tutor guides you step-by-step through questions you get wrong, showing you how to solve them rather than just giving you the answer.

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## Section 1: Practice Questions

### Question 1 — [Verbal Reasoning / true\_false\_cant\_tell]

Read the passage below and decide if the following statement is True, False, or Can't Tell based on the text.

Passage: In 2013, research conducted by researchers led by Dr. Aris Thorne at the Quantum Computing Lab investigated the properties of Gallium-Nitride. Initial experimental setups achieved an energy conversion efficiency of 21 percent. By refining the chemical vapor deposition process and reducing crystalline defects, the team successfully boosted the efficiency of Gallium-Nitride to 38 percent in follow-up trials. Despite these promising results, commercial viability is currently limited by the high cost of raw precursor materials and safety regulations governing nanotechnology manufacturing. Statement: The research at the Quantum Computing Lab was funded by a government scientific grant.

- A: True
- B: False
- C: Can't Tell

### Question 2 — [Verbal Reasoning / true\_false\_cant\_tell]

Read the passage below and decide if the following statement is True, False, or Can't Tell based on the text.

Passage: Public health campaigns in Hungary during the late twentieth century made significant progress in combating infectious diseases. In 2003, the incidence rate of Yellow Fever was recorded at 149 cases per 100,000 people. Following a nationwide distribution of protective nets and sanitation improvements, the rate fell to 64 cases per 100,000 people over the next decade. While this decline was celebrated as a major victory, health officials warned that rising temperatures could allow vector populations to rebound in rural regions. Statement: Rising temperatures caused the incidence rate of Yellow Fever to increase during the campaign.

- A: True
- B: False
- C: Can't Tell

### Question 3 — [Verbal Reasoning / true\_false\_cant\_tell]

Read the passage below and decide if the following statement is True, False, or Can't Tell based on the text.

Passage: In 2018, research conducted by researchers led by Dr. Barbara McClintock at the Materials Science Lab investigated the properties of Carbyne. Initial experimental setups achieved an energy conversion efficiency of 30 percent. By refining the chemical vapor deposition process and reducing crystalline defects, the team successfully boosted the efficiency of Carbyne to 45 percent in follow-up trials. Despite these promising results, commercial viability is currently limited by the high cost of raw precursor materials and safety regulations governing nanotechnology manufacturing. Statement: The research at the Materials Science Lab was funded by a government scientific grant.

- A: True
- B: False
- C: Can't Tell

**Question 4 — [Verbal Reasoning / true\_false\_cant\_tell]**

Read the passage below and decide if the following statement is True, False, or Can't Tell based on the text.

Passage: In 2024, research conducted by researchers led by Dr. Marcus Vance at the Quantum Computing Lab investigated the properties of Aerogel. Initial experimental setups achieved an energy conversion efficiency of 26 percent. By refining the chemical vapor deposition process and reducing crystalline defects, the team successfully boosted the efficiency of Aerogel to 39 percent in follow-up trials. Despite these promising results, commercial viability is currently limited by the high cost of raw precursor materials and safety regulations governing nanotechnology manufacturing. Statement: The research at the Quantum Computing Lab was funded by a government scientific grant.

- A: True
- B: False
- C: Can't Tell

**Question 5 — [Decision Making / venn\_deduction]**

Based on the Venn diagram, how many members belong to AT LEAST two clubs/groups?

- A: 30
- B: 37
- C: 40
- D: 35

**Question 6 — [Decision Making / venn\_deduction]**

Based on the Venn diagram, how many members belong to EXACTLY one club/group?

- A: 83
- B: 75
- C: 70
- D: 77

**Question 7 — [Decision Making / venn\_deduction]**

Based on the Venn diagram, how many members belong to AT LEAST two clubs/groups?

- A: 35
- B: 40
- C: 27
- D: 30

**Question 8 — [Decision Making / venn\_deduction]**

Based on the Venn diagram, how many members belong to both Tennis and Athletics?

- A: 6
- B: 16
- C: 21
- D: 13

**Question 9 — [Quantitative Reasoning / chart\_interpretation]**

What is the combined revenue of Dept B and Dept D (in thousands)?

- A: \$120k
- B: \$140k
- C: \$160k
- D: \$130k
- E: \$150k

**Question 10 — [Quantitative Reasoning / table\_interpretation]**

What is the percentage increase in sales of Product Beta from 2023 to 2025?

- A: 14.3%
- B: -7.3%
- C: -3.0%
- D: 5.2%
- E: 20.2%

**Question 11 — [Quantitative Reasoning / chart\_interpretation]**

What is the simplified ratio of the revenue of Dept D to that of Dept A?

- A: 3:2
- B: 2:1
- C: 2:3
- D: 5:3
- E: 4:3

**Question 12 — [Quantitative Reasoning / chart\_interpretation]**

What is the simplified ratio of the revenue of Dept C to that of Dept A?

- A: 5:3
- B: 3:4
- C: 3:2
- D: 7:9
- E: 3:5

**Question 13 — [Abstract Reasoning / set\_ab]**

Does the Test Shape belong to Set A, Set B, or Neither?

- A: Set A
- B: Set B
- C: Neither

**Question 14 — [Abstract Reasoning / sequence]**

Which of the options completes the sequence shown in the diagram?

- A:** `<svg width="70" height="70" viewBox="0 0 70 70" xmlns="http://www.w3.org/2000/svg" style="background-color:#f8f9fa;border:1px solid #ced4da;"> <g><line x1="30.0" y1="35" x2="60" y2="35" stroke="#000000" stroke-width="2" /><polygon points="10,35 30.0,25.0 30.0,45.0" fill="#000000" stroke="#000000" stroke-width="1" /></g> </svg>`
- B:** `<svg width="70" height="70" viewBox="0 0 70 70" xmlns="http://www.w3.org/2000/svg" style="background-color:#f8f9fa;border:1px solid #ced4da;"> <g><line x1="35" y1="40.0" x2="35" y2="10" stroke="#000000" stroke-width="2" /><polygon points="35,60 45.0,40.0 25.0,40.0" fill="#000000" stroke="#000000" stroke-width="1" /></g> </svg>`
- C:** `<svg width="70" height="70" viewBox="0 0 70 70" xmlns="http://www.w3.org/2000/svg" style="background-color:#f8f9fa;border:1px solid #ced4da;"> <g><line x1="30.0" y1="35" x2="60" y2="35" stroke="#000000" stroke-width="2" /><polygon points="10,35 30.0,25.0 30.0,45.0" fill="#000000" stroke="#000000" stroke-width="1" /></g> </svg>`
- D:** `<svg width="70" height="70" viewBox="0 0 70 70" xmlns="http://www.w3.org/2000/svg" style="background-color:#f8f9fa;border:1px solid #ced4da;"> <g><line x1="30.0" y1="35" x2="60" y2="35" stroke="#000000" stroke-width="2" /><polygon points="10,35 30.0,25.0 30.0,45.0" fill="#000000" stroke="#000000" stroke-width="1" /></g> </svg>`
- E:** `<svg width="70" height="70" viewBox="0 0 70 70" xmlns="http://www.w3.org/2000/svg" style="background-color:#f8f9fa;border:1px solid #ced4da;"> <g><line x1="35" y1="30.0" x2="35" y2="60" stroke="#000000" stroke-width="2" /><polygon points="35,10 45.0,30.0 25.0,30.0" fill="#000000" stroke="#000000" stroke-width="1" /></g> </svg>`

**Question 15 — [Abstract Reasoning / set\_ab]**

Does the Test Shape belong to Set A, Set B, or Neither?

- A:** Set A
- B:** Set B
- C:** Neither

**Question 16 — [Abstract Reasoning / set\_ab]**

Does the Test Shape belong to Set A, Set B, or Neither?

- A:** Set A
- B:** Set B
- C:** Neither

**Question 17 — [Situational Judgement / appropriateness]**

Scenario: A medical student, Sarah, on a cardiology placement at County Hospital is told by a 64-year-old patient in confidence on Sunday night that they plan to physically harm their partner later that day. How appropriate is the following action? Action: The student promises to keep this completely confidential to maintain the patient's trust.

- A:** A very appropriate thing to do
- B:** Appropriate, but not ideal
- C:** Inappropriate, but not awful
- D:** A very inappropriate thing to do

**Question 18 — [Situational Judgement / importance]**

Scenario: A medical student, Emma, at Saint Luke's is deciding whether to raise a complaint about a consultant in cardiology who is consistently 26 minutes late to teaching sessions. How important is the following factor to consider? Factor: How popular the consultant is among the rest of the student cohort.

- A: Very Important
- B: Important
- C: Of Minor Importance
- D: Not Important at All

**Question 19 — [Situational Judgement / appropriateness]**

Scenario: A medical student, Isabella, at State Medical Center finds a public social media page run by a peer that posts mocking descriptions of patients from their geriatrics placement, which has 33 active beds. How appropriate is the following action? Action: The student likes the posts and shares them in a private group chat with other students.

- A: A very appropriate thing to do
- B: Appropriate, but not ideal
- C: Inappropriate, but not awful
- D: A very inappropriate thing to do

**Question 20 — [Situational Judgement / appropriateness]**

Scenario: A junior doctor, Chloe, at Westside Clinic discovers that her close colleague, Michael, who has worked there for 5 months, has been falsifying overnight patient observation logs in neurology. How appropriate is the following action? Action: The doctor decides not to report it to protect her colleague's medical career.

- A: A very appropriate thing to do
- B: Appropriate, but not ideal
- C: Inappropriate, but not awful
- D: A very inappropriate thing to do

# Submit Answers & Check worked Solutions

## ■ Section Complete!

You have completed this practice exam paper. To check your answers and view step-by-step worked explanations:

■ Go to: <https://applaa.com/practice/check?exam=ucat&paper;=87>

Simply bubble in your choices (e.g. A, B, C, D) and get instantly scored! You can then review the explanations or chat with Appy Buddy (AI Socratic tutor) to understand complex concepts.