



# Applaa UCAT Practice Mock 243

Mock Practice Exam Booklet

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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;=243> 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 2019, research conducted by researchers led by Prof. Richard Feynman at the Renewable Energy Research investigated the properties of Graphene. Initial experimental setups achieved an energy conversion efficiency of 17 percent. By refining the chemical vapor deposition process and reducing crystalline defects, the team successfully boosted the efficiency of Graphene 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: Graphene became commercially viable immediately following the trials led by Prof. Richard Feynman.

- 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: In 2014, research conducted by researchers led by Dr. Vera Rubin at the Astrophysics Division investigated the properties of Graphene. 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 Graphene to 33 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: Graphene became commercially viable immediately following the trials led by Dr. Vera Rubin.

- 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 2015, research conducted by researchers led by Dr. Sarah Jenkins at the Genetic Engineering Center investigated the properties of Carbon-Nanotubes. Initial experimental setups achieved an energy conversion efficiency of 17 percent. By refining the chemical vapor deposition process and reducing crystalline defects, the team successfully boosted the efficiency of Carbon-Nanotubes to 30 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 team led by Dr. Sarah Jenkins managed to increase the energy conversion efficiency of Carbon-Nanotubes.

- 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: Public health campaigns in Egypt during the late twentieth century made significant progress in combating infectious diseases. In 1996, the incidence rate of Yellow Fever was recorded at 175 cases per 100,000 people. Following a nationwide distribution of protective nets and sanitation improvements, the rate fell to 101 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 5 — [Decision Making / venn\_deduction]**

Based on the Venn diagram, how many members belong to Tennis and Swimming but NOT Athletics?

- A: 16
- B: 8
- C: 13
- D: 11

**Question 6 — [Decision Making / error\_checking]**

How many of the four pictures in the left-hand column are exactly the same as the corresponding picture in the right-hand column?

- A: 0
- B: 1
- C: 2
- D: 3
- E: 4

**Question 7 — [Decision Making / error\_checking]**

How many of the four pictures in the left-hand column are exactly the same as the corresponding picture in the right-hand column?

- A: 0
- B: 1
- C: 2
- D: 3
- E: 4

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

Based on the Venn diagram, how many members belong to Tennis and Swimming but NOT Athletics?

- A: 7
- B: 5
- C: 10
- D: 13

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

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

- A: 4:3
- B: 2:1
- C: 2:5
- D: 5:6
- E: 5:3

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

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

- A: \$220k
- B: \$210k
- C: \$230k
- D: \$240k
- E: \$250k

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

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

- A: \$140k
- B: \$150k
- C: \$180k
- D: \$160k
- E: \$170k

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

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

- A: 16.0%
- B: 3.5%
- C: 31.0%
- D: 25.1%
- E: 7.8%

**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="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>`

**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="40.0" y1="35" x2="10" y2="35" stroke="#000000" stroke-width="2" /><polygon points="60,35 40.0,25.0 40.0,45.0" 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="40.0" y1="35" x2="10" y2="35" stroke="#000000" stroke-width="2" /><polygon points="60,35 40.0,25.0 40.0,45.0" 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="40.0" y1="35" x2="10" y2="35" stroke="#000000" stroke-width="2" /><polygon points="60,35 40.0,25.0 40.0,45.0" 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="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>`

**Question 15 — [Abstract Reasoning / odd\_one\_out]**

Which of the following boxes does not belong with the others?

- A: Box A
- B: Box B
- C: Box C
- D: Box D
- E: Box E

**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 / importance]**

Scenario: An elderly 90-year-old patient at City General Infirmary during the Monday morning rounds tells a medical student, Alice, that she lives alone and has no heating. The registrar, who has worked there for 5 years, tells the student to ignore this and focus only on the medical form. How important is the following factor to consider? Factor: The patient's domestic living conditions and safety at home.

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

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

Scenario: A medical student, Olivia, on a dermatology placement at University Hospital is told by a 57-year-old patient in confidence on Friday 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 19 — [Situational Judgement / appropriateness]**

Scenario: During a cardiology ward round on a Thursday afternoon at City General Infirmary, a consultant asks a medical student, Charlotte, a clinical question. The student, who has been shadowing for 5 weeks, does not know the answer. How appropriate is the following action? Action: The student invents a plausible-sounding answer hoping the consultant will not notice.

- 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 medical student, Alice, is assigned to work with Gary on a general surgery research project at Hope Hospital. Gary has not attended meetings or responded to group emails. The project is due in 29 days. How appropriate is the following action? Action: The student sends Gary a polite message asking him to contribute by tomorrow, copying in the project supervisor.

- 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;=243>

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.