



# Applaa UCAT Practice Mock 104

Mock Practice Exam Booklet

## Applaa: Socratic Practice Engine

Submit and grade your answers online for instant worked solutions:

<https://applaa.com/practice/check?exam=ucat&paper=104>

# 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;=104> 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.

## ■ SUPERCHARGE YOUR STUDIES WITH APPLAA DESKTOP APP

Tired of printing PDFs and manual grading? Download the **Applaa Desktop Application**. It includes interactive exam mocks, real-time pacing stats, auto-grading, and personalized Socratic AI support. Get a **14-day free trial** of our premium preparation package to track your progress rate.

**Download:** <https://applaa.com/download>

## 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: Public health campaigns in Sweden during the late twentieth century made significant progress in combating infectious diseases. In 1975, the incidence rate of Dengue Fever was recorded at 260 cases per 100,000 people. Following a nationwide distribution of protective nets and sanitation improvements, the rate fell to 165 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: The nationwide distribution of protective nets cost the government of Sweden over ten million dollars.

- 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 2017, research conducted by researchers led by Dr. Rosalind Franklin at the Renewable Energy Research investigated the properties of Carbyne. Initial experimental setups achieved an energy conversion efficiency of 23 percent. By refining the chemical vapor deposition process and reducing crystalline defects, the team successfully boosted the efficiency of Carbyne 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 team led by Dr. Rosalind Franklin managed to increase the energy conversion efficiency of Carbyne.

- 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 2016, research conducted by researchers led by Dr. Sarah Jenkins at the Molecular Biology Unit investigated the properties of Aerogel. Initial experimental setups achieved an energy conversion efficiency of 19 percent. By refining the chemical vapor deposition process and reducing crystalline defects, the team successfully boosted the efficiency of Aerogel to 32 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 Molecular Biology Unit 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 2019, research conducted by researchers led by Dr. Aris Thorne at the Renewable Energy Research investigated the properties of Phosphorene. Initial experimental setups achieved an energy conversion efficiency of 25 percent. By refining the chemical vapor deposition process and reducing crystalline defects, the team successfully boosted the efficiency of Phosphorene to 48 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 Renewable Energy Research 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: 44
- B: 52
- C: 34
- D: 54

**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 / venn\_deduction]**

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

- A: 60
- B: 57
- C: 50
- D: 55

**Question 8 — [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 9 — [Quantitative Reasoning / chart\_interpretation]**

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

- A: 1:3
- B: 5:3
- C: 1:4
- D: 2:3
- E: 11:6

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

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

- A: \$230k
- B: \$200k
- C: \$220k
- D: \$210k
- E: \$250k

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

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

- A: \$140k
- B: \$190k
- C: \$160k
- D: \$150k
- E: \$180k

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

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

- A: 4:3
- B: 3:5
- C: 12:13
- D: 3:2
- E: 3:1

**Question 13 — [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;"> <rect x="0" y="0" width="70" height="70" rx="4" ry="0" fill="#f8f9fa" stroke="#343a40" stroke-width="2" fill-opacity="1.0" /> <circle cx="55.5" cy="54.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> <circle cx="14.5" cy="49.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> <circle cx="17.5" cy="16.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> <circle cx="51.5" cy="14.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> </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;"> <rect x="0" y="0" width="70" height="70" rx="4" ry="0" fill="#f8f9fa" stroke="#343a40" stroke-width="2" fill-opacity="1.0" /> <circle cx="19.5" cy="20.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> <circle cx="52.5" cy="51.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> <circle cx="18.5" cy="52.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> <circle cx="50.5" cy="19.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> </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;"> <rect x="0" y="0" width="70" height="70" rx="4" ry="0" fill="#f8f9fa" stroke="#343a40" stroke-width="2" fill-opacity="1.0" /> <circle cx="55.5" cy="18.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> <circle cx="52.5" cy="55.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> <circle cx="15.5" cy="49.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> <circle cx="16.5" cy="20.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> </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;"> <rect x="0" y="0" width="70" height="70" rx="4" ry="0" fill="#f8f9fa" stroke="#343a40" stroke-width="2" fill-opacity="1.0" /> <circle cx="50.5" cy="17.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> <circle cx="14.5" cy="19.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> <circle cx="50.5" cy="52.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> <circle cx="14.5" cy="54.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> </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;"> <rect x="0" y="0" width="70" height="70" rx="4" ry="0" fill="#f8f9fa" stroke="#343a40" stroke-width="2" fill-opacity="1.0" /> <circle cx="15.5" cy="55.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> <circle cx="53.5" cy="51.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> <circle cx="17.5" cy="14.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> <circle cx="49.5" cy="14.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> </svg>
```

**Question 14 — [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 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 / importance]**

Scenario: A junior doctor, Lily, at Valley View is deciding whether to escalate a deteriorating 90-year-old patient in the dermatology ward to the registrar on call on a busy Saturday shift. How important is the following factor to consider? Factor: Whether the registrar will be annoyed or irritated by the call.

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

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

Scenario: A doctor, Hannah, in the emergency clinic at Parkview Hospital is treating a 16-year-old patient who presents with physical injuries on a busy Saturday shift. The teenager, who is accompanied by a relative, begs the doctor not to tell anyone. How important is the following factor to consider? Factor: The child protection and safeguarding duties of the medical team.

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

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

Scenario: A junior doctor, Charlotte, at Saint Luke's discovers that her close colleague, Daniel, who has worked there for 10 months, has been falsifying overnight patient observation logs in emergency. 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

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

Scenario: During a urology ward round on Wednesday evening at St. John's Clinic, a consultant asks a medical student, Sarah, a clinical question. The student, who has been shadowing for 10 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

# 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;=104>

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.