Applaa UCAT Practice Mock 172

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=172

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;=172** 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.

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. Elena Vance at the Quantum Computing Lab investigated the properties of Helium-3. Initial experimental setups achieved an energy conversion efficiency of 15 percent. By refining the chemical vapor deposition process and reducing crystalline defects, the team successfully boosted the efficiency of Helium-3 to 29 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 Prof. Elena Vance managed to increase the energy conversion efficiency of Helium-3.

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 United Kingdom during the late twentieth century made significant progress in combating infectious diseases. In 1988, the incidence rate of Tuberculosis was recorded at 294 cases per 100,000 people. Following a nationwide distribution of protective nets and sanitation improvements, the rate fell to 240 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 Tuberculosis 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 2010, research conducted by researchers led by Dr. Marcus Vance at the Renewable Energy Research investigated the properties of Silicene. Initial experimental setups achieved an energy conversion efficiency of 18 percent. By refining the chemical vapor deposition process and reducing crystalline defects, the team successfully boosted the efficiency of Silicene 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 team led by Dr. Marcus Vance managed to increase the energy conversion efficiency of Silicene.

A: True

B: False

C: Can't Tell

Check Answers: applaa.com/practice/check?exam=ucat&paper=172

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 Japan during the late twentieth century made significant progress in combating infectious diseases. In 1995, the incidence rate of Tuberculosis was recorded at 183 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: The nationwide distribution of protective nets cost the government of Japan over ten million dollars.

A: True

B: False

C: Can't Tell

Question 5 — [Decision Making / venn_deduction]

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

A: 79

B: 69

C: 74

D: 89

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 Dog Owners and Cat Owners but NOT Bird Owners?

A: 4
B: 14
C: 19
D: 9

Question 9 — [Quantitative Reasoning / chart_interpretation]

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

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

Question 10 — [Quantitative Reasoning / chart_interpretation]

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

A: $200k
B: $220k
C: $210k
D: $180k
E: $230k

Question 11 — [Quantitative Reasoning / chart_interpretation]

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

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

Question 12 — [Quantitative Reasoning / chart_interpretation]

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

A: $210k
B: $160k
C: $180k
D: $170k
E: $200k

Check Answers: applaa.com/practice/check?exam=ucat&paper=172

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="52.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> <circle cx="17.5" cy="55.5" 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" /> <circle cx="49.5" cy="20.5" r="10.08" fill="#888888" stroke="#000000" stroke-width="2" fill-opacity="1.0" /> </svg>

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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 / sequence]

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

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Question 16 — [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="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>

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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="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>

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Question 17 — [Situational Judgement / appropriateness]

Scenario: A medical student, Jessica, on a geriatrics placement at Parkview Hospital is told by a 74-year-old patient in confidence on Tuesday morning 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 GP, Alice, in endocrinology at City General Infirmary is deciding whether to refer an anxious 85-year-old patient for an MRI scan for back pain, which is not clinically indicated. The patient has been experiencing symptoms for 12 weeks. How important is the following factor to consider? Factor: The patient's anxiety and their explicit request for the scan.

A: Very Important

B: Important

C: Of Minor Importance

D: Not Important at All

Question 19 — [Situational Judgement / importance]

Scenario: An elderly 87-year-old patient at St. Vincent's on Tuesday morning tells a medical student, Sophia, that she lives alone and has no heating. The registrar, who has worked there for 3 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 20 — [Situational Judgement / appropriateness]

Scenario: During a dermatology ward round on a Thursday afternoon at Valley View, a consultant asks a medical student, Grace, 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

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;=172**

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.