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Study abroad, made simple

ACT Practice Paper 10

English | Maths | Reading | Science

Section-wise answer keys with explanations

About This Paper

This is a Yocket original practice paper that follows the structure of the ACT. It contains 50 questions across four sections. Every passage and question is written by Yocket, so you can attempt it as a timed mock.

Section	Questions	Suggested time	What it tests
1. English	15	11 minutes	Grammar, punctuation, sentence structure, rhetorical skills
2. Maths	15	17 minutes	Algebra, geometry, statistics, probability, trigonometry
3. Reading	10	11 minutes	Main idea, detail, inference, vocabulary in context
4. Science	10	10 minutes	Reading tables, spotting variables, drawing conclusions

Suggested times follow the per-question pace of the full ACT sections, scaled down to this shorter paper.

How to Use It

- **Set a timer:** attempt each section in one sitting and stop when the suggested time ends.
- **Work on paper:** circle your answers, and keep the answer key closed until you finish the section.
- **Review every miss:** the key explains the reasoning, so you learn the method and not only the answer.
- **Treat your score as a diagnostic:** a short paper cannot produce an official ACT scale score, so use it to find your weak sections.

Section 1

English

15 questions | Suggested time: 11 minutes | Choose the best answer for each underlined portion or question. Choose NO CHANGE if the underlined portion is already correct.

Passage I: Electric Buses

Cities around the world are replacing diesel buses with electric ones. Electric buses produce no exhaust at street level**[1]**, which improves air quality in crowded centres. A diesel bus costs less to buy**[2]**, an electric bus costs less to run. A battery pack lets a bus travel **[3]**an amount of about three hundred kilometres on a single charge.

Charging is the main challenge. Buses need depots with powerful chargers, and **[4]**them must be installed before the first bus arrives. **[5]**

1.

A. NO CHANGE
B. , that improves air quality in crowded centres
C. which improves, air quality in crowded centres
D. , which improving air quality in crowded centres

2.

A. NO CHANGE
B. : but an electric bus
C. , but an electric bus
D. ; but an electric bus

3.

A. NO CHANGE
B. roughly around
C. approximately about
D. about

4.

A. NO CHANGE
B. there
C. them
D. these

5. Which choice best concludes the passage?

A. Cities that plan their chargers first can run electric buses sooner and with fewer delays.
B. Buses carry millions of passengers every day.
C. Diesel engines were first built in the nineteenth century.
D. Many city buses are painted red.

Passage II: The Potter's Wheel

Sana wet her hands and pressed her thumbs into the spinning clay. **[6]** The clay **[7]**wobble, leaned, and collapsed into a heap. Sana **[8]**started over again from the beginning.

[9]Covered in wet clay, her teacher walked over to watch. **[10]**

6. Which choice best conveys Sana's concentration?

A. The studio was open on weekday evenings.
B. The clay had come from a supplier near the town.
C. The wheel was powered by a foot pedal.
D. She did not hear the radio or the other students, only the soft hum of the wheel.

7.

A. NO CHANGE
B. has wobbled
C. wobbled
D. wobbles

8.

A. NO CHANGE
B. began again afresh anew
C. started again
D. started all over again once more

9.

A. NO CHANGE
B. Covered in wet clay, Sana looked up as her teacher walked over
C. Being covered in wet clay, her teacher walked over
D. Covered in wet clay, her teacher was walking over

10. Which choice best ends the passage?

A. Clay is made from fine particles of rock.
B. The kiln is fired at a very high temperature.
C. Her teacher has taught pottery for twenty years.
D. The bowl that rose between her hands this time was lopsided, but it stood, and she could not stop smiling.

Passage III: Mangrove Forests

Mangroves are trees that grow in salty water along tropical coasts. Their tangled roots **[11]**holds the mud in place and shelter young fish. Mangroves also protect inland areas from storms. **[12]**

Despite this value, mangroves are disappearing**[13]**; farmers clear them for shrimp ponds, and builders fill them for housing. Governments are protecting the remaining forests, **[14]**planting new seedlings, and to teach villagers how to manage them. **[15]**

11.

A. NO CHANGE
B. has held
C. is holding
D. hold

12. Which choice best gives a specific example of how mangroves protect inland areas?

A. Some mangroves have red roots.
B. Cyclones form over warm ocean water.
C. Villages are found along many coasts.
D. After a major cyclone, villages behind mangrove belts often suffer less damage than villages on open shores.

13.

A. NO CHANGE
B. , farmers clear
C. ; because farmers, clear
D. : farmers, clear

14.

A. NO CHANGE
B. to plant new seedlings, and teaching
C. planting new seedlings, and teaching
D. planting new seedlings, and teach

15. Which choice best concludes the passage?

A. Many fish species live in coastal waters.
B. Shrimp is a popular food in many countries.
C. Mangroves grow best in warm, salty water.
D. Protecting a mangrove belt usually costs less than repairing the damage that storms cause without it.

Answer Key: Section 1, English

Mark your paper, then count your correct answers. Read the explanation for every question you missed or guessed.

Q	Answer	Why it is correct
1	**A**	A comma and *which* correctly attach the non-essential clause.
2	**C**	*But* with a comma joins two contrasting complete clauses. The original is a comma splice.
3	**D**	*An amount of* is empty, and the other choices repeat the idea of approximation.
4	**D**	A subject pronoun or determiner is needed. *These* points back to *chargers*.
5	**A**	It ties back to the charging challenge. The others are unrelated facts.
6	**D**	It shows how absorbed she is. The others are neutral details.
7	**C**	The verbs *wobbled, leaned, and collapsed* must match in the past tense.
8	**C**	*Started again* is clear. The other choices repeat the idea of starting over.
9	**B**	The opening phrase must describe Sana, who is covered in clay. In the other choices, it seems to describe the teacher.
10	**D**	It resolves the earlier collapse with a small success.
11	**D**	The subject *roots* is plural, and the verb must match *shelter*: *hold*.
12	**D**	It gives a concrete example of protection. The others do not show it.
13	**A**	A semicolon correctly joins two related complete clauses.
14	**C**	The list must be parallel: *protecting, planting, and teaching*.
15	**D**	It sums up the case for protecting mangroves.

Your score: _____ / 15

13 to 15 correct: strong. **9 to 12:** review the missed topics. **Below 9:** revisit the basics before your next paper.

Section 2

Maths

15 questions | Suggested time: 17 minutes | Solve each problem and choose the best answer. A calculator is allowed. Figures are not necessarily drawn to scale.

1. What is 5/8 written as a percent?

A. 58.5%
B. 62.5%
C. 65%
D. 80%

2. What is the positive solution of $2x^2 - 18 = 0$?

A. 1.5
B. 3
C. 4.5
D. 9

3. A restaurant bill is $48. After adding a 15% tip, what is the total?

A. $7.20
B. $53.00
C. $55.20
D. $63.00

4. A line passes through (2, −1) and (6, 7). What is its x-intercept?

A. −5
B. 2
C. 5/2
D. 5

5. What is the median of 4, 7, 9, 12, 15, and 20?

A. 9
B. 10.5
C. 11.2
D. 12

6. A rectangle is inscribed in a circle of diameter 10 cm. Its sides are 6 cm and 8 cm. What is the rectangle's area?

A. 24 cm^2
B. 48 cm^2
C. 60 cm^2
D. 78.5 cm^2

7. Events A and B are mutually exclusive, with P(A) = 0.4 and P(B) = 0.3. What is P(A or B)?

A. 0.1
B. 0.12
C. 0.58
D. 0.7

8. Five runners compete in a race. In how many ways can the gold, silver, and bronze medals be awarded?

A. 10
B. 20
C. 60
D. 120

9. $500 is invested at 4% interest compounded annually. What is the balance after 2 years?

A. $520.00
B. $540.00
C. $540.80
D. $562.43

10. What is the sum of the first four terms of the geometric sequence 2, 6, 18, ...?

A. 26
B. 54
C. 80
D. 162

11. If $3x + y = 10$ and $x - 2y = 1$, what is the value of xy?

A. 1
B. 3
C. 4
D. 10

12. A 1.5 m child casts a 2 m shadow. At the same moment, a building casts a 40 m shadow. How tall is the building?

A. 20 m
B. 30 m
C. 53.3 m
D. 60 m

13. What is the sum of the solutions of $2x^2 - 10x + 8 = 0$?

A. -5
B. 4
C. 5
D. 10

14. What is the value of $\cos 60° \times \tan 45° + \sin 30°$?

A. 0.5
B. 1
C. 1.5
D. 2

15. A pool is 5 m long, 4 m wide, and 1.5 m deep. A hose fills it at 250 litres per minute. How long will it take to fill? ($1\ m^3 = 1{,}000$ litres)

A. 1 hour
B. 2 hours
C. 3 hours
D. 8 hours

Answer Key: Section 2, Maths

Mark your paper, then count your correct answers. Read the explanation for every question you missed or guessed.

Q	Answer	Why it is correct
1	**B**	5 ÷ 8 = 0.625, which is 62.5%.
2	**B**	$2x^2 = 18$, so $x^2 = 9$ and the positive solution is 3.
3	**C**	The tip is 0.15 × 48 = $7.20, so the total is $55.20.
4	**C**	The slope is 8 ÷ 4 = 2, so y = 2x − 5. Setting y = 0 gives x = 5/2.
5	**B**	With six values, the median is the mean of the middle two: (9 + 12) ÷ 2 = 10.5.
6	**B**	Area = 6 × 8 = 48. Choice D is the area of the circle.
7	**D**	For mutually exclusive events, add the probabilities: 0.4 + 0.3 = 0.7.
8	**C**	The number of ordered selections is 5 × 4 × 3 = 60.
9	**C**	$500 \times 1.04^2 = 500 \times 1.0816 = \$540.80$.
10	**C**	The first four terms are 2, 6, 18, and 54, and their sum is 80.
11	**B**	From the first equation y = 10 − 3x. Then x − 20 + 6x = 1, so x = 3 and y = 1. Therefore xy = 3.
12	**B**	The ratio of height to shadow is 1.5/2 = 0.75, so the building is 40 × 0.75 = 30 m tall.
13	**C**	The sum of the solutions is $-b/a = 10/2 = 5$.
14	**B**	cos 60° = 0.5, tan 45° = 1, and sin 30° = 0.5. So 0.5 × 1 + 0.5 = 1.
15	**B**	The volume is 5 × 4 × 1.5 = 30 m^3, which is 30,000 litres. At 250 litres per minute it takes 120 minutes, or 2 hours.

Your score: _____ / 15

13 to 15 correct: strong. **9 to 12:** review the missed topics. **Below 9:** revisit the basics before your next paper.

Section 3

Reading

10 questions | Suggested time: 11 minutes | Read each passage and choose the best answer to each question based on what is stated or implied.

Passage I: The Night Shift (Prose Fiction)

At two in the morning, the hospital corridor belonged to Efua. She pushed the supply cart past dark doorways, the wheels whispering on the polished floor, and listened to the building breathe: the low hum of machines, a cough somewhere, the faint tick of a clock she could not see. Nine years of nights had taught her which sounds meant nothing and which meant she should run.

Tonight, one sound was wrong. It was a small sound, a repeated tapping from Room 14, too regular to be the pipes. She stopped the cart and held her breath. Then she opened the door.

The old man by the window was awake, his finger knocking softly against the glass. He turned, startled, and then embarrassed. “I did not want to ring,” he said. “It seemed too small a reason.”

Efua pulled a chair beside the bed. “Nothing is too small at two in the morning,” she said. “Tell me.” And he did, haltingly, about the farmhouse where he grew up and the rain that had tapped on its tin roof every night of his childhood, until the window outside began to pale and the tapping slowed, and stopped.

1. The phrase “listened to the building breathe” suggests that Efua:

- **A.** knows the sounds of the hospital at night very well.
- **B.** cannot hear anything clearly.
- **C.** dislikes working nights.
- **D.** is afraid of the dark.

2. Why does Efua stop the cart outside Room 14?

- **A.** She hears a sound that does not match the usual noises.
- **B.** She needs supplies from the room.
- **C.** A patient has rung for her.
- **D.** Her shift has ended.

3. The man's statement “It seemed too small a reason” shows that he:

- **A.** was angry with Efua.
- **B.** did not want to trouble the staff.
- **C.** wanted to leave the hospital.
- **D.** had forgotten why he was awake.

4. Efua's reply suggests that she believes:

- **A.** the man was behaving foolishly.
- **B.** night shifts are quiet.
- **C.** no patient's worry is too minor to deserve attention.
- **D.** patients should ring more often.

5. The last sentence suggests that by the end the man feels:

- **A.** angry about the storm.
- **B.** calmer and comforted.
- **C.** eager to leave the room.
- **D.** more anxious.

Passage II: Rivers of Ice (Natural Science)

A glacier is a river of ice that moves, though so slowly that the motion is invisible to a casual observer. It forms where more snow falls in winter than melts in summer. Over years, the layers of snow compress, squeezing out air and turning to dense ice. Once the mass of ice is thick enough, its own weight causes it to flow downhill.

Glaciers move in two main ways. The ice itself can deform, its crystals sliding past one another like cards in a deck. And where meltwater collects at the base, the whole glacier can slide over the ground beneath it. A glacier that moves mostly by sliding can advance far faster than one that merely deforms; in surges, some have moved many metres in a single day.

As they move, glaciers reshape the land. Rock frozen into the base of the ice acts like sandpaper, scraping valleys into a characteristic U shape and leaving long scratches in bedrock. When glaciers melt back, they drop the rock they carried in ridges called moraines. By measuring these landforms and the ice that remains, scientists can reconstruct past climates, and can also track how quickly glaciers are shrinking today.

6. According to the passage, a glacier forms where:

- **A.** rain falls throughout the year.
- **B.** the ground is always frozen.
- **C.** rivers freeze solid each winter.
- **D.** more snow falls in winter than melts in summer.

7. The comparison to “cards in a deck” illustrates:

- **A.** ice crystals sliding past one another.
- **B.** meltwater collecting at the base.
- **C.** rocks scraping the bedrock.
- **D.** layers of snow piling up.

8. According to the passage, glaciers that move by sliding:

- **A.** can advance much faster than those that only deform.
- **B.** cannot move uphill.
- **C.** form only in warm climates.
- **D.** always move many metres a day.

9. Which landform is created when melting glaciers drop the rock they carried?

- **A.** Bedrock scratches
- **B.** U-shaped valleys
- **C.** Meltwater lakes
- **D.** Moraines

10. The passage suggests that scientists study glacial landforms in order to:

- **A.** measure the speed of rivers.
- **B.** predict volcanic eruptions.
- **C.** find new valleys to farm.
- **D.** reconstruct past climates and track how glaciers are shrinking.

Answer Key: Section 3, Reading

Mark your paper, then count your correct answers. Read the explanation for every question you missed or guessed.

Q	Answer	Why it is correct
1	**A**	The next sentences describe the sounds she knows, and her nine years of nights.
2	**A**	The passage says one sound was wrong, too regular to be the pipes.
3	**B**	He explains why he did not ring, which shows reluctance to bother the nurses.
4	**C**	She says nothing is too small at two in the morning and invites him to talk.
5	**B**	The tapping slows and stops as he talks, and the night passes toward morning.
6	**D**	The first paragraph states this.
7	**A**	The sentence describes ice crystals sliding past one another.
8	**A**	The second paragraph says sliding glaciers can advance far faster than those that merely deform.
9	**D**	The third paragraph names ridges called moraines.
10	**D**	The last sentence says measuring these landforms helps reconstruct past climates and track shrinking.

Your score: _____ / 10

9 to 10 correct: strong. **6 to 8:** review the missed topics. **Below 6:** revisit the basics before your next paper.

Section 4

Science

10 questions | Suggested time: 10 minutes | Each passage is followed by questions. Refer to the passage and tables as needed. A calculator is allowed.

Passage I: Stretching Springs

Students hung masses from steel springs and measured the length of each spring. Each spring was 10.0 cm long with no mass attached.

Experiment 1: The students used Spring A and changed the mass. The results appear in Table 1.

Experiment 2: The students hung a 100 g mass from each of three different springs. The results appear in Table 2.

Table 1

Mass (g)	Length of Spring A (cm)
0	10.0
50	12.0
100	14.0
150	16.0
200	18.0

Table 2

Spring	Extension with 100 g (cm)
A	4.0
B	2.0
C	8.0

1. In Experiment 1, as the mass increased, the length of Spring A:

- **A.** increased and then decreased.
- **B.** increased.
- **C.** stayed the same.
- **D.** decreased.

2. In Experiment 1, how much longer was Spring A with a 200 g mass than with no mass?

- **A.** 2.0 cm
- **B.** 8.0 cm
- **C.** 4.0 cm
- **D.** 18.0 cm

3. Based on Table 1, the length of Spring A with a 125 g mass would most likely be closest to:

- **A.** 13 cm
- **B.** 19 cm
- **C.** 17 cm
- **D.** 15 cm

4. In Experiment 2, which spring stretched the most with the 100 g mass?

- **A.** Spring B
- **B.** Spring A
- **C.** Spring C
- **D.** They stretched equally

5. Based on Table 2, which spring is the stiffest?

- **A.** Spring B
- **B.** Spring A
- **C.** Spring C
- **D.** They are equally stiff

Passage II: Mould on Bread

Students placed slices of bread in sealed bags and measured the area covered by mould after 5 days.

Experiment 1: The bags were kept at 25 °C, and the humidity inside the bags was changed. The results appear in Table 3.

Experiment 2: The humidity was kept at 80%, and the temperature was changed. The results appear in Table 4.

Table 3

Humidity (%)	Mould area (cm²)
20	0
40	2
60	9
80	24
95	31

Table 4

Temperature (°C)	Mould area (cm²)
5	3
15	12
25	24
35	18
45	2

6. In Experiment 1, as the humidity increased, the mould area:

- **A.** increased.
- **B.** increased and then decreased.
- **C.** stayed the same.
- **D.** decreased.

7. In Experiment 1, how much more mould grew at 80% humidity than at 40% humidity?

- **A.** 15 cm²
- **B.** 22 cm²
- **C.** 26 cm²
- **D.** 7 cm²

8. According to Experiment 2, which temperature produced the most mould?

- **A.** 5 °C
- **B.** 45 °C
- **C.** 25 °C
- **D.** 15 °C

9. In Experiment 2, as the temperature rose from 25 °C to 45 °C, the mould area:

- **A.** doubled.
- **B.** increased.
- **C.** decreased.
- **D.** stayed the same.

10. Based on both experiments, which conditions would most likely produce the most mould?

A. Dry air at 25 °C
B. Humid air at 45 °C
C. Very humid air at 5 °C
D. Very humid air at about 25 °C

Answer Key: Section 4, Science

Mark your paper, then count your correct answers. Read the explanation for every question you missed or guessed.

Q	Answer	Why it is correct
1	**B**	The length rises from 10.0 cm to 18.0 cm.
2	**B**	18.0 cm minus 10.0 cm is 8.0 cm.
3	**D**	125 g lies between 100 g (14.0 cm) and 150 g (16.0 cm), so the length is about 15 cm.
4	**C**	Table 2 shows 8.0 cm for Spring C, the largest extension.
5	**A**	The stiffest spring stretches the least under the same load, and Spring B stretched only 2.0 cm.
6	**A**	The area rises from 0 cm^2 to 31 cm^2.
7	**B**	24 cm^2 minus 2 cm^2 is 22 cm^2.
8	**C**	Table 4 shows 24 cm^2 at 25 °C, the highest value.
9	**C**	The area falls from 24 cm^2 to 2 cm^2.
10	**D**	Table 3 shows more mould as humidity rises, and Table 4 shows a peak near 25 °C.

Your score: _____ / 10

9 to 10 correct: strong. **6 to 8:** review the missed topics. **Below 6:** revisit the basics before your next paper.

Your Next Steps

Add up your four section scores and note which section cost you the most marks. Spend your next study week on that section, then attempt a fresh paper under timed conditions.

Section	Your score	Out of
English	_____	15
Maths	_____	15
Reading	_____	10
Science	_____	10
Total	_____	**50**

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