

Unit 7 · Energy Solutions · 7A Powering the Planet

Vocabulary Test 1 · 2 · 정답

A 뜻 연결 · B 문장 완성 · C 동의어/반의어 · D 단어 쓰기

Vocabulary Test 1

A Definition Matching · 영영 뜻 연결

A-1

B

finite · 한정된, 유한한

A-2

D

capacity · 용량, 생산
능력

A-3

A

eliminate · 없애다, 제
거하다

A-4

C

equivalent · 동등한 것
/ 대등한

A-5

E

surplus · 잉여, 여분 /
과잉의

B Contextual Sentence Completion · 문장 완성

B-1

convert

전환하다, 변환하다

B-2

steep

급격한, 가파른

B-3

constantly

끊임없이, 지속적으로

B-4

utilize

활용하다, 이용하다

B-5

emissions

← emission · 배출, 배
출물

C Synonym Identification · 동의어 · 반의어

C-1

(A) replacement

substitute · 대체물 / 대체하다

C-2

(D) object to

protest · 항의하다 / 항의

C-3

(C) considerable

substantial · 상당한, 실질적인

C-4

(B) at first

initially · 처음에, 초기에

D Active Vocabulary Writing · 단어 쓰기

D-1

dispose

처분하다, 처리하다
(dispose of)

D-2

guarantee

보장하다 / 보장

D-3

decline

감소하다 / 감소

D-4

advocate

옹호자 / 옹호하다

D-5

combination

조합, 결합

Vocabulary Test 2

A English Definition Matching · 영영 뜻 연결

A-1

B

substitute · 대체물 /
대체하다

A-2

C

constantly · 끊임없이,
지속적으로

A-3

A

substantial · 상당한,
실질적인

A-4

E

convert · 전환하다, 변
환하다

A-5

D

advocate · 옹호자 / 옹
호하다

B Contextual Sentence Completion · 문장 완성

B-1

converting

← convert · 전환하다,
변환하다

B-2

obstacles

← obstacle · 장애물, 난
관

B-3

guarantees

← guarantee · 보장하
다 / 보장

B-4

combination

조합, 결합

B-5

initial

← initially · 처음에, 초기
에

C Synonym & Antonym Selection · 동의어 · 반의어

C-1

(B) considerable

substantial · 상당한, 실질적인

C-2

(A) endless

finite · 한정된, 유한한

C-3

(D) object to

protest · 항의하다 / 항의

C-4

(C) rapid

steep · 급격한, 가파른

D Active Vocabulary & Word Form Writing · 단어 쓰기

D-1

utilize

활용하다, 이용하다

D-2

disposal

← dispose · 처분하다,
처리하다 (dispose of)

D-3

surplus

잉여, 여분 / 과잉의

D-4

megawatt

D-5

decline

감소하다 / 감소

Unit 7 · Energy Solutions · 7A Powering the Planet

Practice Test Set 1 · 정답

총 25문항 · 서술형은 모범답안 (같은 의미면 정답 인정)

Reading Comprehension · 독해

- 1 What is the main idea of Reading [Powering the Planet]?
(C) Alternative energy sources each have unique advantages and challenges, requiring a combined approach.
- 2 According to [Paragraph B], how do solar panels produce electricity?
(D) By collecting sunlight directly and converting it into electricity
- 3 Which statement about solar energy is supported by [Paragraph C]?
(B) Solar panels produce less energy on cloudy days and during nighttime.
- 4 Why do proponents advocate for space-based solar power stations in [Paragraph D]?
(A) Because space has no clouds or nighttime, allowing continuous energy production.
- 5 According to [Paragraph E], what causes wind power?
(D) The sun's heat rather than its light
- 6 According to [Paragraph F], which region produces the highest amount of wind power worldwide?
(A) Asia with around 230,000 megawatts
- 7 Why are some locals in England protesting wind turbines near Lake District?
(C) They believe the turbines are noisy, ugly, and ruin high-quality landscapes.
- 8 What happens when wind power produces an energy surplus during strong winds?
(B) Power companies are forced to sell extra electricity at a reduced rate.
- 9 According to [Paragraph J], why did the use of nuclear power decline in the 1980s and 1990s?
(D) Public concerns arose over accidents, nuclear waste storage, and high building costs.
- 10 Which country generates the highest percentage of its electricity (75%) from nuclear power?
(C) France
- 11 Which statement best rewrites the following sentence from [Paragraph M]?
(B) No individual alternative energy source on its own can solve our energy problems.
- 12 What is mentioned in [Paragraph J] as a major benefit of nuclear power compared to coal or gas?
(A) It produces vast amounts of electricity cheaply with no carbon emissions.
- 13 Based on [Paragraph A], state TWO alternative energy sources researchers are investigating to replace finite fossil fuels.
서술형 Solar, wind, and nuclear power (Any 2).
- 14 According to [Paragraph B], what is the capacity of the solar power station in Tamil Nadu, India in terms of people served?
서술형 Power for 750,000 people.

- 15 According to [Paragraph L], what natural event hit the Fukushima nuclear power plant in Japan, leading to the release of radioactive materials?

서술형 A tsunami.

Reading Skill · Identifying Pros and Cons

- 16 Based on the text and Skill Chart on page 110, which of the following is considered an ADVANTAGE of both wind and solar power?

(A) They enable people to generate their own energy where they live.

- 17 Which energy source is correctly matched with its DISADVANTAGE?

(C) Solar Energy - Affected by weather conditions like clouds and darkness.

- 18 According to [Paragraph G], what major storage issue do BOTH wind and solar power currently face?

서술형 Storing a large energy surplus (or lack of efficient battery storage systems).

Vocabulary Practice · 어휘

- 19 "Most people are aware that the supply of fossil fuels on Earth is _____."

(D) finite

- 20 "Government incentives designed to decrease dependence on oil led to a _____ increase in wind energy."

(B) steep

- 21 Which word means "a machine that uses water, steam, or wind to turn a wheel to produce electricity"?

(C) turbine

- 22 Which word means "to completely remove or get rid of something"?

(B) eliminate

- 23 "Public concerns regarding nuclear waste storage and _____ caused a decline in nuclear plant development."

서술형 disposal

- 24 "When wind turbines generate an energy _____, the extra power must be sold at a lower price."

서술형 surplus

- 25 "Developing space-based solar stations would _____ continuous clean energy for everyone on Earth."

서술형 guarantee

Unit 7 · Energy Solutions · 7A Powering the Planet

Practice Test Set 2 · 정답

총 25문항 · 서술형은 모범답안 (같은 의미면 정답 인정)

Reading Comprehension · 독해

- 1 What is the primary objective of [Paragraph M] in Reading [Powering The Planet]?
(A) To summarize that a combination of alternative energy sources is key to eliminating fossil fuel dependence.
- 2 According to [Paragraph A], why are researchers urgently seeking alternative energy sources?
(D) Because fossil fuel supplies are finite, costly, and increasingly difficult to find.
- 3 According to [Paragraph C], why does solar power currently provide less than 2 percent of global energy?
(A) Solar panel installation costs remain very high.
- 4 In [Paragraph D], what key advantage does space offer for gathering solar energy?
(D) Space has no clouds and no nighttime, allowing constant power generation.
- 5 How does wind power differ from solar power regarding weather conditions according to [Paragraph E]?
(B) Wind power works well even on cloudy days because it relies on sun heat, not light.
- 6 According to [Paragraph F], how much wind energy does Asia produce compared to large coal plants?
(C) 230,000 megawatts, equivalent to 230 large coal plants
- 7 What is a major problem for energy companies when wind blows too strongly [Paragraph G]?
(C) Too much power is generated, forcing companies to sell surplus energy at reduced rates.
- 8 According to [Paragraph I], what is a distinct advantage of small-scale wind and solar power?
(B) They enable individuals to generate their own power locally where they live.
- 9 According to [Paragraph K], how many nuclear plants operate worldwide today, and what fraction of global power do they generate?
(B) About 450 plants generating 11 percent of world power
- 10 Which two Asian countries are highlighted in [Paragraph K] for expanding their nuclear energy usage?
(A) China and India
- 11 In [Paragraph F], what does the word "They" refer to in the quote: "They shouldn't be putting those things in here"?
(C) Wind energy companies or developers installing turbines
- 12 Which statement best captures the meaning of [Paragraph C]?
(D) Solar energy is unreliable without backup systems like batteries because weather affects output.

- 13 According to [Paragraph B], how many solar panels are installed in the Tamil Nadu solar station in India?
서술형 More than 2.5 million solar panels.
-
- 14 According to [Paragraph F], what is the wind power output of North America?
서술형 105,000 megawatts.
-
- 15 According to [Paragraph J], what environmental benefit does nuclear power offer compared to fossil fuels during operation?
서술형 It produces no carbon emissions.
-

Reading Skill · Identifying Pros and Cons

- 16 According to the Reading Skill table on page 110, which advantage is shared by BOTH Solar and Wind energy?
(C) Produces no carbon emissions
-
- 17 Based on page 110, which energy source has a specific disadvantage regarding "history of safety issues"?
(B) Nuclear Energy
-
- 18 State ONE major advantage of space-based solar power stations compared to Earth-based solar panels as described in [Paragraph D].
서술형 Space stations operate constantly without nighttime or clouds (providing continuous energy).
-

Vocabulary Practice · 어휘

- 19 "Asia produces around 230,000 megawatts, the _____ of 230 large coal-powered plants."
(A) equivalent
-
- 20 "High construction costs and safety concerns caused nuclear power use to _____ in the 1990s."
(D) decline
-
- 21 Which word means "an extra amount of something left over when requirements are met"?
(A) surplus
-
- 22 Which word means "to make practical and effective use of something"?
(B) utilize
-
- 23 "We must _____ different renewable sources to reduce our dependence on fossil fuels."
서술형 combine
-
- 24 "Space-based solar technology would _____ require a huge financial investment before becoming profitable."
서술형 initially
-
- 25 "Local homeowners gathered near the national park to _____ against the construction of wind towers."
서술형 protest
-

Unit 7 · Energy Solutions · 7B City of the Future

Vocabulary Test 1 · 2 · 정답

A 뜻 연결 · B 문장 완성 · C 동의어/반의어 · D 단어 쓰기

Vocabulary Test 1

A Definition Matching · 영영 뜻 연결

A-1

C

metropolis · 대도시,
주요 도시

A-2

A

regulation · 규정, 규제

A-3

B

myth · 통념, 근거 없는
믿음

A-4

E

comprehensive · 포
괄적인, 종합적인

A-5

D

sustainable · 지속 가
능한

B Contextual Sentence Completion · 문장 완성

B-1

insulation

단열, 절연

B-2

reflective

반사하는

B-3

distributed

← distribute · 분배하
다, 배치하다

B-4

residents

← resident · 주민, 거주
자

B-5

efficiency

효율, 효율성

C Synonym Identification · 동의어 · 반의어

C-1

(A) prosperous

wealthy · 부유한, 풍부한

C-2

(C) impractical

unrealistic · 비현실적인

C-3

(D) boldness

audacity · 대담함, 무모함

C-4

(B) all-inclusive

comprehensive · 포괄적인,
종합적인

D Active Vocabulary Writing · 단어 쓰기

D-1

footprint

(생태) 발자국, 자국

D-2

close-knit

긴밀히 결속된

D-3

intend

의도하다, 계획하다

D-4

orientation

(건물의) 향, 방향

D-5

evolve

진화하다, 발전하다

Vocabulary Test 2

A English Definition Matching · 영영 뜻 연결

A-1

B

audacity · 대담함, 무모
함

A-2

C

footprint · (생태) 발자
국, 자국

A-3

A

myth · 통념, 근거 없는
믿음

A-4

E

orientation · (건물의)
향, 방향

A-5

D

reflective · 반사하는

B Contextual Sentence Completion · 문장 완성

B-1

evolved

← evolve · 진화하다, 발
전하다

B-2

close-knit

긴밀히 결속된

B-3

intend

의도하다, 계획하다

B-4

insulation

단열, 절연

B-5

residents

← resident · 주민, 거주
자

C Synonym & Antonym Selection · 동의어 · 반의어

C-1
(A) prosperous
wealthy · 부유한, 풍부한

C-2
(C) unsustainable
sustainable · 지속 가능한

C-3
(D) all-inclusive
comprehensive · 포괄적인,
종합적인

C-4
(B) impractical
unrealistic · 비현실적인

D Active Vocabulary & Word Form Writing · 단어 쓰기

D-1
regulation
규정, 규제

D-2
ecological

D-3
emission

D-4
distribute
분배하다, 배치하다

D-5
efficiency
효율, 효율성

Unit 7 · Energy Solutions · 7B City of the Future

Practice Test Set 1 · 정답

총 25문항 · 서술형은 모범답안 (같은 의미면 정답 인정)

Reading Comprehension · 독해

- 1 Why does the author begin Reading [City Of The Future], with a detailed description of Ski Dubai?
(B) To illustrate the extreme wealth, audacity, and energy consumption of Dubai
- 2 According to [Paragraph B], what event in the 1960s changed Dubai's fortunes forever?
(D) The discovery of oil reserves in the region
- 3 What environmental consequence resulted from Dubai's rapid growth by 2006 [Paragraph B]?
(A) It became one of the places with the largest ecological footprints in the world.
- 4 Which transportation improvement did Dubai implement to lower emissions [Paragraph C]?
(A) A comprehensive public transit system featuring gleaming driverless trains
- 5 According to [Paragraph C], what requirement must ALL new buildings in Dubai meet?
(B) They must comply with strict energy regulations like smart lighting and solar water heating.
- 6 Where is Dubai's Sustainable City located [Paragraph D]?
(D) Where the city's suburbs meet the desert to the south
- 7 According to [Paragraph D], how are houses arranged in the Sustainable City to provide natural shade?
(A) They all face north and are positioned close together.
- 8 What effect do reflective windows and wall paint have on buildings in the Sustainable City [Paragraph D]?
(B) They reduce the heat absorbed from the sun.
- 9 According to [Paragraph D], how much less energy do residents of the Sustainable City consume compared to other parts of Dubai?
(C) 50 percent less
- 10 What myth does Faris Saeed address in [Paragraph E] regarding sustainable living?
(C) The myth that living sustainably has to be more expensive
- 11 According to [Paragraph F], what percentage of energy does Dubai intend to obtain from renewable sources by 2050?
(C) 75 percent
- 12 According to the caption on page 114, how is organic waste processed in the Sustainable City?
(D) It is used in domed greenhouse farms to grow vegetables.
- 13 Based on [Paragraph B], how many residents live in Dubai today, and how many high-rise towers does it have?
서술형 Over three million residents AND a hundred high-rise towers. [Para B]

- 14 According to [Paragraph C], what do smart lighting and cooling systems in Dubai buildings do when no people are present in a room?
서술형 They must automatically switch off when no people are present.
- 15 According to page 114 caption, what types of vehicles are allowed for resident transportation in the Sustainable City?
서술형 Electric cars or electric buses (gas-powered cars are forbidden).

Reading Skill · Identifying an Author's Opinion

- 16 In Reading [City of the Future], what is the author's general attitude toward Dubai's transition to a green city?
(C) Admiring and hopeful about its bold and audacious sustainability plans
- 17 In Reading Skill page 117, which set of words reflects a strongly NEGATIVE opinion about coal reliance?
(B) "dirty", "dangerous", "recklessly", "foolhardy"
- 18 In [Paragraph F], the author uses phrases like "model for the future" and "guilt-free skiing". Explain in 1-2 sentences what opinion the author holds about Dubai's vision.
서술형 The author views Dubai's vision with great respect and optimism, seeing it as a pioneering model for future sustainable cities.

Vocabulary Practice · 어휘

- 19 "Dubai evolved from a small fishing village into a wealthy, modern _____. "
(A) metropolis
- 20 "Climate experts argue that economic growth is not _____ if it causes massive carbon pollution."
(D) sustainable
- 21 Which word means "an official rule or directive made and maintained by an authority"?
(D) regulation
- 22 Which word means "the ability to accomplish a task with minimum waste of time or energy"?
(B) efficiency
- 23 "Dubai is investing heavily in solar energy to reduce its greenhouse gas _____. "
서술형 emissions
- 24 "A decade ago, the idea of building a zero-emission town in the desert was considered _____. "
서술형 unrealistic
- 25 "Low-rise green houses were evenly _____ along attractive, tree-lined streets in the community."
서술형 distributed

Unit 7 · Energy Solutions · 7B City of the Future

Practice Test Set 2 · 정답

총 25문항 · 서술형은 모범답안 (같은 의미면 정답 인정)

Reading Comprehension · 독해

- 1 What is the best alternative title for Reading [City of the Future]?
(C) Building a Sustainable City for the Future
- 2 In [Paragraph A], what contrast does the cartoon thermometer on the souvenir T-shirt highlight?
(A) The extreme temperature change from +50°C outside in the desert to -8°C inside
- 3 Why did Dubai develop a massive ecological footprint after the 1960s [Paragraph B]?
(B) Because powering its cars and air-conditioning released huge amounts of CO2 from fossil fuels
- 4 In [Paragraph C], what climate specialist statement is quoted regarding Dubai's growth?
(D) "Economic growth is not sustainable without taking action on emissions."
- 5 How does the Sustainable City feel compared to much of Dubai [Paragraph D]?
(A) Like a close-knit village community with tree-lined streets
- 6 What feature on building roofs contributes to energy efficiency in the Sustainable City [Paragraph D]?
(C) Rooftop solar panels
- 7 How do living costs in the Sustainable City compare to other neighborhoods in Dubai [Paragraph E]?
(B) Living costs are similar to some of Dubai's other neighborhoods.
- 8 What ultimate environmental goal does Dubai's government want to achieve according to [Paragraph F]?
(D) To have the smallest ecological footprint in the world
- 9 According to the diagram "What Makes a Green Building?" on page 115, how does building orientation affect energy usage?
(C) Positioning a building away from or toward the sun impacts heating and cooling needs.
- 10 According to page 115, how do rooftop plantings (green roofs) help green buildings?
(B) They retain rainwater and help keep cities cooler.
- 11 In [Paragraph F], what does the pronoun "It" refer to in the sentence: "It also wants to have the smallest ecological footprint in the world"?
(D) Dubai's government / leadership
- 12 Which statement best rewrites the quote by Faris Saeed in [Paragraph E]?
(A) It is incorrect to believe that eco-friendly living must cost extra money.
- 13 According to [Paragraph B], what was Dubai originally before oil was discovered in the 1960s?
서술형 A small fishing village.

14 According to page 114 caption, where is power generated from solar panels in the Sustainable City?
(State TWO locations)
서술형 Beside roads AND on rooftops.

15 According to page 115 diagram, how do motion detection sensors save energy in green buildings?
서술형 Smart lighting automatically turns off if no one is in the room.

Reading Skill · Identifying an Author's Opinion

16 In [Paragraph B], when the author writes "But the rapid growth has come at a price," what opinion or tone is implied?

(A) Critical/Concerned that economic expansion caused severe environmental harm

17 In [Paragraph F], why does the author describe Dubai's plan as "audacious"?

(D) Because setting a goal to obtain 75% renewable energy and have the smallest footprint is extremely bold and daring

18 In Reading Skill [City of the Future] (page 117), the author describes continuing to rely heavily on coal as "foolhardy and irresponsible." What is the author's opinion on coal energy?

서술형 The author believes coal is a dirty, hazardous, and foolish energy source that poses severe risks to human health and the environment.

Vocabulary Practice · 어휘

19 "Babcock Ranch in Florida is a solar-powered town where future ——— live in high-tech homes."

(C) residents

20 "Improved insulation increases energy ——— by preventing air from escaping."

(B) efficiency

21 Which word means "a widely held but false belief or idea"?

(B) myth

22 Which word means "spread or dispersed evenly throughout an area"?

(A) distributed

23 "By 2006, Dubai had one of the largest ——— footprints in the world."

서술형 ecological

24 "The Sustainable City feels more like a ——— village community than a crowded metropolis."

서술형 close-knit

25 "Dubai leaders ——— to obtain 75 percent of the city's energy from solar power by 2050."

서술형 intend
