토플 적중 90 READING DAY 19.

Pre-Study

1. 점수 쑥쑥 동의어

1. seemingly	
2. tenacity	
3. versatile	
4. aberrant	
5. antagonistic	
6. archaic	

outdated	competing
adaptable	stubbornness
apparently	abnormal

2. 한 눈 쑥쑥 지문 정리

Act 6-3 Soil Formation

P1 soil의 정의와 형성에 영향 주는 요소 5가지
: parent m. / weathering / geology / organism (*fertility) / time
P2 parent material = 3종류 rock (sedimentary / metamorphic / igneous)
P3 weathering 원인 2: Physical & chemical (물의 양에 의존)
P4 geography → soil보유 물 양 : plain에 soil 쌓여, not fertile
P5 soil 사는 organism → Bacteria, plant 필요한 영양 제공 / decomposition
P6 soil fertile 만드는 다른 organism : ex) earthworms, moles
P7 more time → well developed soil & 특징 (distinct layer / sed.= rich soil)

Lecture Actual Test 06-3 Soil Formation

학습목표

- ◆ 지문을 미리 풀어보고, 정답 / 오답의 정확한 단서를 파악한다.
- ◆ 특히, 오답률이 높은 문제를 철저히 분석한다.

1. Actual Test 06-3 Soil Formation

P1. The definition of soil varies between different scientific disciplines, with the most basic being any loose material on the surface of the Earth. [However, **this** ignores the complex nature of soil and the processes that are involved in its creation.] Soil formation is determined by five main factors: the parent materials from which it forms, the weathering it is exposed to, the geography of the area, the flora and fauna that are present, and time. Changing the type or amount of any of these factors will dramatically affect the type and quality of soil that forms in a given region. However, the most significant factor as far as the soil's fertility is concerned is the life forms that are present.

1. The word **this** in paragraph 1 refers to
   (A) definition
   (B) material
   (C) surface
   (D) nature

P2. The nature of soil depends first and foremost on the parent material from which it forms. All soils begin as bedrock, which is broken down into progressively smaller particles. The rocks that make up the Earth's crust are divided into three overall categories: igneous, sedimentary, and metamorphic. Igneous rocks like granite or basalt form directly from the cooling of magma, sedimentary rocks like sandstone and limestone aggregate from tiny particles of weathered material and minerals from organisms, and metamorphic rock is created by **subjecting** the other two kinds to extreme heat and pressure underground. Soils may be created on site from the weathering of parent material or from weathered rock that is transported from other areas.

2. The word **subjecting** in paragraph 2 is closest in meaning to
   (A) exposing
   (B) absorbing
   (C) handling
   (D) subduing

3. In paragraph 2, what does the author indicate about the rocks that make up the Earth's crust?
   (A) Sedimentary rocks are the final phase of formation.
   (B) All of the rocks are formed inside of the Earth.
   (C) There are only two types of sedimentary rocks.
   (D) Igneous rocks are formed directly from magma.

P3. In physical disintegration, the parent material is broken down without changing its molecular or crystalline structure; it simply becomes smaller pieces. [This is caused by temperature changes that make the rocks expand and contract, cycles where water permeates the rock then evaporates or freezes and thaws, and particles of rock that wind or water carry across the surface, abrading the stone.]

핵심정보: 1. parent material broken by (1) temp (→rock 팽창&수축)
(2) cycle (바위 안 water 증발,얼음)
(3) rock particle (wind or water carry surf.)
2. → abrade stone

4. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.
   (A) Temperature changes, water, and rock particles carried across the surface break down the stone.
   (B) Expansion and contraction of rocks allows particles of rock to be carried across the rock surface.
   (C) The cycles of temperature change freezes the rock, making it stronger.
   (D) Temperature changes cause water that had permeated the rock to expand and contract.

P4. The amount of precipitation an area receives is important to soil composition, but the amount of water the soil can **retain** is even more important. This is determined by the geography of the region. Mountains and high plateaus do not tend to allow water to penetrate deeply, and their steepness means that it also will not collect on their surface. Instead it will pour down their sides, carrying away sediments and leaving little soil in place. This material collects further down slope, in valleys and plains where it forms layers of sediment that can make thick soil.
P4. However, while rich in minerals and nutrients released by chemical decomposition, soil at this point is still inorganic rock particles. In order to form fertile soil, organisms need to be present.

5. The word **retain** in paragraph 4 is closest in meaning to
   (A) reserve
   (B) process

(C) repel
(D) hold

6. Based on paragraph 4, what can be inferred about soil formation?
(A) Sediments deposited in valleys and plains below mountains are composed of rich organic deposits.
(B) The geography of a region does not play a minor role in determining where soil sediments are deposited.
(C) The mountains were shaped by the amount of precipitation in that region.
(D) Sediments of rock particles on their own cannot be considered as fertile soil.

P5. The first organisms that **infiltrate** soil are microscopic organisms, and there are usually millions of them living in just a cubic centimeter. These organisms include both flora and fauna, but the flora dominates. These organisms utilize the minerals and gases in the soil to create the nutrients that plants need in order to thrive. These include bacteria that fix nitrogen, combining it into compounds that the plants can use. They also help the soil particles to clump together, allowing more water and air to penetrate. These decomposers speed up a process that would otherwise take many years to accomplish, and they exist in huge numbers. In fact, 1 acre of soil, depending on depth, may contain 40 metric tons of bacteria.

7. What is the main purpose of paragraph 5?
(A) To provide examples of how minerals and gases in soil are utilized by bacteria
(B) To demonstrate the advantages of having decomposers speeding up the process of breaking down dead material into humus
(C) To explain how microscopic organisms help transform soil to become an environment where plants can flourish
(D) To emphasize the sheer number of bacteria living in soil

8. The word **infiltrate** in paragraph 5 is closest in meaning to
(A) contaminate
(B) evacuate
(C) permeate
(D) diffuse

P6. While bacteria are of vital importance, other organisms also play important roles in fertile soil creation. The next most important organisms are earthworms, which tunnel through the soil by the thousands. Not only do their tunnels help water and air to spread through the soil, but they process the soil they move through their digestive tract. This chemically affects the soil, releasing even more nutrients, and the material they excrete as casts acts as natural fertilizer.

Other burrowing animals like moles also mechanically mix the soil below the surface, while land mammals break down and mix the material above. Tree roots help water reach down into the soil, and shrubs and grasses hold the soil in place.

9. Why does the author mention earthworms in paragraph 6?
   (A) To prove that bacteria are not the most important organisms in soil development
   (B) To provide an example of an organism that helps create fertile soil
   (C) To contrast earthworms with burrowing animals like moles
   (D) To discuss the various habitats of earthworms

P7. Of course, all of these factors require time to exert their influence on soil formation. In order to go 10-C from solid bedrock to fertile soil, many years must pass. The more time that the soil surface has seen exposure to precipitation and plant growth, the more developed the soil will be. Well developed soil usually forms on stable, fairly flat areas and will often 10-B have distinct layers. 10-A Areas that are exposed to high levels of erosion usually form only thin soils, 10-D but the areas where those removed sediments are deposited may become very rich soil in the future.

10. In paragraph 7, what does the author mention about the development of fertile soil?
   Click on two answers.
   (A) Areas with high levels of erosion are not exposed to much precipitation.
   (B) Well developed fertile soil usually has distinct layers.
   (C) Many years must pass for precipitation to create solid bedrock.
   (D) Well developed soil forms where sediments are deposited.

11. All of the following are mentioned in the passage as important factors in soil formation EXCEPT
   (A) types of precipitation
   (B) organisms that are present
   (C) types of parent materials
   (D) length of time

12. Where would the sentence best fit?
→ Other bacteria are responsible for breaking down the dead material that plants shed, converting it into a rich mixture known as humus.

P5. The first organisms that infiltrate soil are microscopic organisms, and there are usually millions of them living in just a cubic centimeter. These organisms include both flora and fauna, but the flora dominates. These organisms utilize the minerals and gases in the soil to create the

nutrients that plants need in order to thrive. [■A] These include bacteria that fix nitrogen, combining it into compounds that the plants can use. [■B] They also help the soil particles to clump together, allowing more water and air to penetrate. [■C] These decomposers speed up a process that would otherwise take many years to accomplish, and they exist in huge numbers. [■D] In fact, 1 acre of soil, depending on depth, may contain 40 metric tons of bacteria.

13. **The development of soil unfolds over many years, with several key factors playing their roles in transforming solid bedrock into rich soil.**

● ● ●

P2 first factor : parent material = 3종류 rock
P3 weathering 원인 2: Physi & chemi (물의 양에 의존)
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P7 more time→well developed soil & 특징

(A) Wind and water abrade rocks into small particles, which are swept down by rainwater and deposited in plains.
(B) The amount of water retained in a region is fundamental in supporting the activity of microscopic organisms.
(C) Microscopic organisms and other organisms work the inorganic sediment into an environment rich with nutrients that support a variety of plant life.
(D) The material that earthworms excrete becomes natural fertilizer in important soil formation.
(E) The more time a given region is allowed for plant growth and development, the richer the soil will be.
(F) Harsh weather conditions have serious repercussions on the processes of soil formation.

Tip!

시험 2주전

(1) 1주일에 3~4회, 지문 3개씩 한 번에 풀기 ➔ 집중력!
(2) 단어장 정리 한 것 3회 이상 복습