

2026학년도 건국대학교 편입학 필기고사

자연계

A형

○ 시험 시간은 14:00 ~ 15:00 (60분)입니다.

○ 이 문제지는 총 40문항으로 구성되어 있습니다. 문제지 하단 쪽수(현재 쪽/전체 쪽)를 확인 후, 누락된 페이지가 있을 시 즉시 감독자에게 요청하여 문제지를 교체하십시오.

○ 각 문항별로 배점이 상이하므로 유의하십시오.

○ 답안지에 모집단위, 성명, 문제유형(A형, B형), 수험번호, 생년월일(6자리)을 정확하게 쓰십시오.

1. OMR 답안지에 수험생이 직접 쓰는 ① 모집단위, ② 성명, ③ 수험번호 ④ 생년월일(6자리)
· 반드시 **흑색 볼펜 또는 컴퓨터용 사인펜**만 사용 (연필, 샤프, 색깔 볼펜 등 사용 불가)
2. OMR 답안지상에 마킹하는 ① 문제유형(A형, B형), ② 수험번호 숫자 마킹란, ③ 생년월일 숫자 마킹란, ④ 답안 표기란
· 반드시 **컴퓨터용 사인펜**만 사용하여 마킹
3. 개인이 지참한 컴퓨터용 사인펜과 흑색 볼펜 사용 가능
4. 성명, 모집단위, 수험번호, 생년월일, 문제유형은 수정테이프로 수정 불가(반드시 답안지 교체)
5. 마킹한 답안은 수정테이프를 이용하여 수정 가능(단, 수정액은 사용 불가)

○ 답안지 작성 시 아래의 경우를 유의하십시오.

1. 답안지 전체 0점 처리

- OMR 답안지 인적사항(수험번호 또는 생년월일) 마킹(marking) 오류자(컴퓨터 사인펜 마킹 오류)
 - 문제지 유형(A형, B형)을 마킹하지 않은 경우
 - 수험번호 등의 숫자 마킹을 누락한 경우
 - 수험번호 등의 숫자 마킹이 틀린 경우
 - 결시자 표기란에 마킹한 경우
- OMR 답안지에 표기하는 것 이외에 불필요한 표시 및 낙서를 하거나 무관한 서술을 기입한 경우
(예시) 잘 부탁드립니다, 감사합니다, 수고하십시오 등
- 본인 신분을 나타낼 수 있는 표현 및 표시를 하는 경우

2. 해당 문항 0점 처리

- 컴퓨터용 사인펜 이외의 필기구로 답안을 마킹하여 전산에 인식되지 않은 경우
- 답안을 다수로 마킹한 경우

시험이 시작되기 전에 표지를 넘기지 마십시오.



2026학년도 건국대학교 편입학 필기고사 문제지

자연계

편입구분	지원 모집단위	수험번호	성명
일반편입 / 학사편입 / 특성화			

※ [1-20번: 문항당 2점 / 21-40번: 문항당 3점]

[1-3] 밑줄 친 어휘와 의미가 가장 가까운 것을 고르시오.

1. Mood congruence arises when subjects produce free associations and imaginative fantasies.

- ① hospitality ② solidarity ③ trickery
④ contention ⑤ dichotomy

2. Although the sheriff had become accustomed to a certain level of deference from the town's elected officials, he was still surprised by the way the new mayor quickly acceded to his requests.

- ① regulation ② audacity ③ objection
④ supervision ⑤ respect

3. Many of the laws of nature formulated by modern physics challenge conventional thinking and are so recondite that they cannot be understood by lay people; however, most people accept them on the authority of reputable scientists.

- ① profound ② exotic ③ outdated
④ aristocratic ⑤ trivial

[4-10] 빈칸에 들어갈 가장 적절한 단어를 고르시오.

4. Many crucial functions of the self involve _____: making choices and decisions, taking responsibility, initiating and inhibiting behavior and making plans of action and carrying out those plans.

- ① egoism ② volition ③ propensity
④ sentence ⑤ compulsion

5. The difficulty of finding synonyms for words can be illustrated by comparing the word *belief* and the word _____. *belief* is neutral, with no pejorative or favorable connotations; _____, however, can connote a rigid, inflexible belief.

- ① decree ② rhetoric ③ dogma
④ prejudice ⑤ caprice

6. Like other general-purpose technologies such as the internal combustion engine, telephony, and the silicon chip, AI is everywhere and nowhere at once, both _____ and unnoticed. AI, in short, is the very lifeblood of reinvention today.

- ① prodigious ② heuristic ③ collateral
④ ubiquitous ⑤ cosmopolitan

7. It is common practice to coat metals such as iron and steel with a protective layer of zinc or an alloy made from zinc mixed with aluminum, cadmium, or tin in a process known as "galvanization." The purpose of galvanization is to prevent the _____ of the iron or steel. The most common method to galvanize metal is the hot-dip galvanizing process.

- ① disruption ② corrosion ③ emulsion
④ combustion ⑤ irruption

8. Empirical studies of auditory imagery have often employed methods in which auditory feedback was _____. The rationale for this approach lies in the idea that if musicians have access to stable sound representations and auditory imagery, then they may depend less on external acoustic feedback. In a sight-reading study in which different types of feedback were manipulated, pianists did not depend on auditory feedback. Sight-reading performances with the sound of a digital piano switched off did not lead to more errors; thus it was not necessary for them to hear what they actually played. It can be assumed that pianists could vividly imagine and anticipate the sounds during sight-reading.

- ① augmented ② deprived ③ protracted
④ furnished ⑤ implanted

9. Many biologists are impatient with the question "What is life?" They point to past attempts to distinguish the living from the non-living (traditionally, organisms are said to eat, breathe, excrete, grow, move, respond to stimuli and reproduce) and tell us, quite rightly, that all such attempts have proved inadequate. The reason why they have proved inadequate is simple. "Eating" involves wildly different processes in, say, oak trees and weasels. Weasels "move" in ways that oaks do not, and so on. Any definitions of "eating" and "moving" that are broad enough to encompass such a range of meanings would be useless. They would apply to many non-living things as well as living ones; and however broad we made our definitions, there would probably still be living things to which they would not apply. The quest for _____ has always been pointless, say the cynics, so it is a waste of time to consider the question further.

- ① an exact process of organic evolution
② an adequate conditions for living organisms
③ a clear distinction between living and non-living
④ a new way of estimating the age of small animals
⑤ an efficient application of reproduction mechanisms

10. Creating a budget isn't incredibly difficult, but where most people fail is trying to maintain the budget. One of the biggest budget killers is infeasible expectations. If you set your sights too high, you only become discouraged when you fail to reach them. While it is admirable to try and accomplish great things, you need to set goals that are challenging, yet _____. One way to do this is to start fairly small with short time frames. If you create smaller achievable goals over the coming months, you're more likely to accomplish them. Then, build upon those goals to set your sights a little higher. This not only helps keep your financial goals manageable, but also can be extra motivation to stick to your budget.

- ① realistic ② fascinating ③ beneficial
④ metaphysical ⑤ compulsory

11. 밑줄 친 (A)~(E) 중 어법상 옳지 않은 것을 고르시오.

Explosive volcanic eruptions that destroy vegetation and deposit volcanic rocks and ash over wide areas create conditions (A) what promote increased rates of surface runoff during rainstorms, dramatically (B) increase the availability of loose debris that can be eroded and transported into river valleys, and typically (C) result in persistent airborne "ashy" conditions due to wind and human activities. The destruction of vegetation (D) combined with deposition of ash on hill slopes (E) reduces the amount of water that normally soaks into the ground or is transpired by plants.

- ① (A) ② (B) ③ (C) ④ (D) ⑤ (E)

[12-13] 밑줄 친 (A)~(E) 중 문맥상 자연스럽지 않은 것을 고르시오.

12. One of the reasons it is so hard to change careers — or why we change, only to end up in the same boat — is that we can so fully (A) internalize our institutional identities, relying on them to convey our worth and accomplishments to the outside world. Even when we can honestly admit that the (B) external trappings of success—titles, perks, and other markers of status—don't matter much, we can hide from the need for change by telling ourselves how much the company needs us. Like Dan, who postponed vacations and overrode family obligations when the organization needed him, (C) most working adults organize at least some portion of their working lives according to the principle that (D) self-sacrifice is OK when it's for the good of the institution. Since basic assumptions tend to exist in interlocking clusters, what may often appear to be a work-life balance problem is in fact our (E) ability to separate our commitment to an organization from being the organization.

- ① (A) ② (B) ③ (C) ④ (D) ⑤ (E)

13. The qualitative feature of time to which we shall now turn our attention is encountered in the following kind of (A) commonplace experience: When hot water and cold water are poured into an essentially closed container, their temperatures will (B) equalize so as to yield lukewarm water, but, at least in our ordinary experience, lukewarm water in a closed container does not undergo separation into hot and cold portions of water. (C) Contrastively, we find that while the young grow old, the aged do not then regain their

youthful vigor. Neither do the dead rise from their graves, nor do cigarettes (D) reconstitute themselves from their ashes. We shall soon see that "irreversible" kinds of processes like temperature equalization and biological (E) decay are a source of one of the most striking qualitative attributes of the segment of cosmic time constituting the current epoch in our spatial region of the world.

- ① (A) ② (B) ③ (C) ④ (D) ⑤ (E)

14. 아래 문장 다음에 이어질 글의 순서로 가장 적절한 것은?

People have a strong desire to define categories using rules.

(A) This is not due to any human failing, I believe, but simply to the natural complexity and messiness of the world. No religion, legal system, or bureaucracy can completely control the variation and weird events that occur even in limited worlds like baseball or disease classification.

(B) Even human-made categories in systems of rules, like games, legal systems, official diagnostic categories, and the like can put only so much order into the universe. There are always test cases that seem to break the rules — unclear category membership, not fitting into any category, or just giving the wrong answer.

(C) It is a natural human goal to impose order and sense on the world, to be able to know what boxes everything should go into, with no ambiguity. The disappointing aspect is that this urge has failed in almost every attempt. Most natural categories simply do not have a definition or rule that comes close to working.

- ① (A) — (B) — (C) ② (B) — (A) — (C)
③ (B) — (C) — (A) ④ (C) — (A) — (B)
⑤ (C) — (B) — (A)

15. 빈칸에 들어갈 말을 바르게 짝지은 것은?

The United States had already been gradually moving away from being a country of mainly rural communities to one of more metropolitan centers by the latter part of the 1800s. (A) _____, in the early part of the twentieth century, over 70 percent of the population still lived in farm communities. The census of 1910 documented approximately 28 percent of U.S. citizens living in urban areas while the rest were dwelling in rural ones. (B) _____, by the beginning of the current century, according to the census of 2000, this proportion had reversed itself: 80 percent of the population reported living in urban or suburban areas, leaving only 20 percent residing in rural locales.

- | | (A) | — | (B) |
|---|---------------|---|-------------|
| ① | In addition | — | As a result |
| ② | To begin with | — | In contrast |
| ③ | Indeed | — | In short |
| ④ | Nonetheless | — | However |
| ⑤ | In fact | — | For example |

16. 다음 글의 요지로 가장 적절한 것은?

What came first—the linguistically ignorant right hemisphere, or skilled reading ability? By now, most people who study human behavior understand that our biology and our experiences are so intertwined that it hardly makes sense to “blame” one or the other when trying to figure out what makes you *you*. The answer is always a combination of both. For one thing, every single life experience changes your brain. Some of the changes are inconsequential and others are incremental. But on rare occasions, for better or for worse, a single event can change the way we work, forever. This is an important note to take, before diving deeper into the neuroscience of you. The fact that something about your brain causes you to think, feel, or behave in a certain way does not necessarily mean either that you were born that way or that it can’t change. The truth is that your brain is a moving target.

- ① 뇌의 발달은 선천적인 생물학적 요인의 제한을 받는다.
- ② 읽기 능력은 뇌 우반구의 기능 발달과 관련이 없다.
- ③ 인간의 뇌는 개인적 경험 등 외부 환경에 따라 계속 변화한다.
- ④ 사람의 행동 변화에 대한 연구는 뇌의 진화를 밝히는 데 결정적이다.
- ⑤ 개인의 일상적 경험은 뇌의 발달에 큰 영향을 미치지 않는다.

[17-18] 다음 글을 읽고 물음에 답하시오.

In 1948, Claude Shannon, an American mathematician and electronics engineer, published a paper called *A Mathematical Theory of Communication*. This launched the information age by unlocking the mathematics of information and showing how it could be transmitted digitally. At the time, messages could only be transmitted using a continuous, analog signal. The main drawback to this was that waves become _____ the further they travel, and increasing background interference creeps in. Eventually, this “white noise” overwhelms the original message. Shannon’s solution was to divide information into the smallest possible chunks, or “bits” (binary digits). The message is converted into a code made of 0s and 1s—every 0 is a low voltage and every 1 is a high voltage. In creating this code, Shannon drew on binary mathematics, the idea that figures can be represented by just 0s and 1s, which had been developed by Gottfried Leibniz. Although Shannon was not the first to send information digitally, he fine-tuned the technique. For him, it was not simply about solving technical problems of transmitting information efficiently. By showing that information could be expressed as binary digits, he launched the theory of information.

17. 위글의 내용과 일치하지 않는 것은?

- ① Shannon은 미국의 수학자이자 전자공학자이다.
- ② 1948년 당시에 메시지는 연속적인 아날로그 신호로 전송되었다.
- ③ 2진 숫자(binary digit)에서 모든 0은 저전압, 모든 1은 고전압이다.
- ④ Shannon은 최초로 정보를 디지털 방식으로 전송하였다.
- ⑤ Shannon이 정보 이론을 창시하였다.

18. 빈칸에 들어갈 말로 가장 적절한 것은?

- ① weaker ② faster ③ longer
- ④ higher ⑤ simpler

[19-20] 다음 글을 읽고 물음에 답하시오.

The Indian monsoon is rain caused by hot air blowing over India from the Arabian Sea. Monsoon rains are very heavy in India because of the Himalayan mountains in the north of the country. The mountains are too high for the clouds to pass over, so all the rain falls on the south side—over central and northern India. In addition to the rain, there are high winds and frequent storms.

The monsoon begins some time during June and lasts for several months. Up to 10,000 millimetres of rain can fall during this period. Even though Indians are used to the monsoon, there are many towns that still can’t deal with all the water. _____, there is so much rain that most cities get flooded. After falling continuously for two or three months, the rain eventually stops in September.

Although people in most countries complain about rain, Indians are pleased to get the monsoon. Not only does it cool the air, but it provides the water that is necessary for growing crops. Since 80 percent of the year’s rain falls during the monsoon, farmers have learned to grow suitable crops—mostly rice and cotton.

19. 빈칸에 들어갈 말로 가장 적절한 것은?

- ① Consequently ② In fact ③ On the contrary
- ④ However ⑤ Nevertheless

20. 위글의 내용과 일치하지 않는 것은?

- ① 구름이 히말라야 산맥을 넘지 못해 인도에 엄청난 비가 내린다.
- ② 인도의 우기에는 비뿐만 아니라 강풍과 폭풍우가 동반된다.
- ③ 인도의 우기는 6월 중에 시작해서 9월에 끝이 난다.
- ④ 인도 사람들은 우기를 별로 좋아하지 않는다.
- ⑤ 연간 강우량의 80퍼센트가 우기 중에 내린다.

21. x 에 대한 다음 항등식이 성립할 때, $\frac{a_6}{a_5}$ 의 값은?

$$x^{10} = \sum_{n=0}^{10} a_n (x-2)^n$$

- ① $\frac{2}{5}$
- ② $\frac{5}{12}$
- ③ $\frac{3}{5}$
- ④ $\frac{4}{5}$
- ⑤ $\frac{11}{12}$

22. 타원 $x^2 + 4y^2 = 4$ 에 접하고 원점으로부터의 거리가 $\sqrt{2}$ 인 직선의 기울기의 절댓값은?

- ① $\frac{1}{\sqrt{2}}$
- ② $\frac{1}{\sqrt{3}}$
- ③ $\frac{1}{\sqrt{5}}$
- ④ $\frac{1}{\sqrt{6}}$
- ⑤ $\frac{1}{\sqrt{7}}$

23. 좌표공간에 원판 $D = \{(x, y, z) | x^2 + y^2 \leq 1, z = 1\}$ 이 있다. 점 $(0, 0, 1+t^2)$ 에 위치한 광원이 원판 D 를 비췄을 때 xy 평면에 생기는 원판 D 의 그림자의 넓이를 $S(t)$ 라 하자. (단 $t > 0$) $S'(2)$ 의 값은?

- ① $-\frac{1}{8}\pi$
- ② $-\frac{3}{8}\pi$
- ③ $-\frac{5}{8}\pi$
- ④ $-\frac{7}{8}\pi$
- ⑤ $-\frac{9}{8}\pi$

24. $\lim_{n \rightarrow \infty} \sum_{k=1}^n \frac{k}{n^2} \sin\left(\frac{\pi k}{n}\right)$ 의 값은?

- ① $\frac{1}{\pi}$
- ② $\frac{2}{\pi}$
- ③ 1
- ④ π
- ⑤ 2π

25. 이상적분 $\int_1^\infty \frac{x+2}{x^3+x} dx$ 의 값은?

- ① $\ln 2 + \frac{\pi}{8}$
- ② $\ln 2 + \frac{\pi}{4}$
- ③ $\ln 2 + \frac{\pi}{2}$
- ④ $\ln 3 - \ln 2 + \frac{\pi}{8}$
- ⑤ $\ln 3 - \ln 2 + \frac{\pi}{2}$

26. 극곡선 $r = 2\sin\theta + 3$ 의 $\theta = \frac{\pi}{6}$ 인 점에서의 접선의 기울기는?

- ① $-\sqrt{3}$
- ② $-2\sqrt{3}$
- ③ $-3\sqrt{3}$
- ④ $-4\sqrt{3}$
- ⑤ $-5\sqrt{3}$

27. 다음 급수의 합은?

$$\sum_{n=1}^{\infty} \frac{1}{n \cdot 2^n} = \frac{1}{1 \cdot 2} + \frac{1}{2 \cdot 2^2} + \frac{1}{3 \cdot 2^3} + \dots$$

- ① $\frac{2}{3}$
- ② $\frac{3}{5}$
- ③ $\frac{4}{5}$
- ④ $\ln 2$
- ⑤ $\ln 3$

28. 좌표공간의 두 직선 ℓ_1, ℓ_2 가 다음과 같이 주어졌다.

$$\ell_1 : \frac{x-1}{2} = \frac{y-1}{3} = \frac{z-1}{4}, \quad \ell_2 : \frac{x-1}{4} = \frac{y-1}{3} = \frac{z-1}{2}$$

두 직선 ℓ_1, ℓ_2 를 모두 포함하는 평면의 식이 $z = ax + by + c$ 일 때, $a + b$ 의 값은?

- ① 1
- ② 2
- ③ 3
- ④ 4
- ⑤ 5

29. 점 $(\sqrt{3}, 1)$ 에서 곡선 $(x^2 + y^2)^2 = 8(x^2 - y^2)$ 에 접하는 직선의 y 절편은?

- ① -2
- ② -1
- ③ 0
- ④ 1
- ⑤ 2

30. 미분가능한 함수 $f(x, y)$ 에 대하여 다음이 성립한다.

$$\lim_{h \rightarrow 0} \frac{f(h, 2h) - f(0, 0)}{h} = 3, \quad \lim_{h \rightarrow 0} \frac{f(2h, 3h) - f(0, 0)}{h} = 1$$

$\lim_{h \rightarrow 0} \frac{f(5h, ah) - f(0, 0)}{h} = 0$ 일 때, a 의 값은?

- ① 3
- ② 4
- ③ 5
- ④ 6
- ⑤ 7

31. 다음 곡선의 길이는?

$$x = 4t, \quad y = \ln t, \quad z = 4t^2 \quad (2 \leq t \leq 4)$$

- ① $12 + 2\ln 2$
- ② $24 + \ln 2$
- ③ $24 + 2\ln 2$
- ④ $48 + \ln 2$
- ⑤ $48 + 2\ln 2$

32. 함수 $f(x, y) = x^3 - 6xy + y^3$ 에 대한 다음 설명 중 참인 것은?

- ① 점 $(0, 0)$ 에서 극솟값을 가진다.
- ② 점 $(0, 0)$ 에서 극댓값을 가진다.
- ③ 점 $(1, 1)$ 은 안장점이다.
- ④ 점 $(2, 2)$ 에서 극솟값을 가진다.
- ⑤ 점 $(2, 2)$ 에서 극댓값을 가진다.

33. $f(x, y, z) = x \sin(y + z^2) - 2x$ 일 때, 점 $(2, -1, 1)$ 에서 단위 벡터 $\frac{1}{3}(2\mathbf{i} - \mathbf{j} + 2\mathbf{k})$ 방향으로의 f 의 방향도함수는?

- ① $-\frac{5}{3}$
- ② $-\frac{4}{3}$
- ③ $\frac{2}{3}$
- ④ $\frac{4}{3}$
- ⑤ $\frac{5}{3}$

34. $x^2 + 9y^2 = 4$ 일 때 $f(x, y) = e^{-xy}$ 의 최댓값이 a 이고 최솟값이 b 이다. $\frac{a}{b}$ 의 값은?

- ① $e^{1/4}$
- ② $e^{1/3}$
- ③ $e^{1/2}$
- ④ $e^{2/3}$
- ⑤ $e^{4/3}$

35. 세 꼭짓점이 $(0, 0)$, $(1, -1)$, $(3, 0)$ 인 삼각형 영역이 D 일 때, $\iint_D (x - 2y)^2 \sqrt{x + y} \, dA$ 의 값은?

- ① $3\sqrt{3}$
- ② $4\sqrt{3}$
- ③ $5\sqrt{3}$
- ④ $6\sqrt{3}$
- ⑤ $7\sqrt{3}$

36. 곡면 $z = x^2 - y^2 + 1$, $0 \leq y \leq x$, $x^2 + y^2 \leq 3$ 의 넓이는?

- ① $\frac{\pi}{48}(13\sqrt{13} - 1)$
- ② $\frac{\pi}{48}(13\sqrt{13} + 1)$
- ③ $\frac{\pi}{24}(15\sqrt{15} - 1)$
- ④ $\frac{\pi}{24}(15\sqrt{15} + 1)$
- ⑤ $\frac{\pi}{12}(17\sqrt{17} - 1)$

37. C 는 $x = \sin^3 t$, $y = \cos^5 t$, $z = t^7$, $0 \leq t \leq \pi$ 로 주어진 곡선이다. 다음 선적분의 절댓값은?

$$\int_C y^2 z \, dx + \left(2xyz + \cos\left(\frac{\pi y}{2}\right) \right) dy + xy^2 \, dz$$

- ① $\frac{1}{\pi}$
- ② $\frac{2}{\pi}$
- ③ $\frac{3}{\pi}$
- ④ $\frac{4}{\pi}$
- ⑤ $\frac{5}{\pi}$

38. C 가 $(0, 0)$ 에서 $(\pi, 0)$ 까지, $(\pi, 0)$ 에서 (π, π) 까지, (π, π) 에서 $(0, \pi)$ 까지, $(0, \pi)$ 에서 $(0, 0)$ 까지의 선분들로 이루어진 곡선일 때 다음 선적분의 절댓값은?

$$\int_C y \sin^3 x \, dx + x \cos^3 y \, dy$$

- ① $\frac{4\pi}{3}$
- ② $\frac{5\pi}{3}$
- ③ 2π
- ④ $\frac{7\pi}{3}$
- ⑤ $\frac{8\pi}{3}$

39. 곡면 S 는 다음 두 곡면 S_1 과 S_2 의 합집합이다.

$$S_1 : x^2 + y^2 = 1, \ 0 \leq z \leq 2$$

$$S_2 : x^2 + y^2 + (z - 2)^2 = 1, \ z \geq 2$$

$\mathbf{F}(x,y,z) = 3x\mathbf{i} - 3y\mathbf{j} - 5\mathbf{k}$ 일 때, $\iint_S \mathbf{F} \cdot d\mathbf{S}$ 의 절댓값은?

- ① 4π
- ② 5π
- ③ 6π
- ④ 7π
- ⑤ 8π

40. 곡선 $x^{2/3} + y^{2/3} = 4$ 로 둘러싸인 영역의 넓이는?

- ① 8π
- ② 16π
- ③ 24π
- ④ 32π
- ⑤ 40π

**2026학년도
건국대학교 편입학
필기고사
(자연계)
A형**

이 면은 빈 면 입니다.

시험이 시작되기 전에 표지를 넘기지 마십시오.