2026학년도 숭실대학교 편입학
시험 문제

숭실대학교
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2026학년도 숭실대학교 편입학 시험 문제 (자연계)

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지망학과(부) : 수험번호 : 성명 :

문항배점 : [1-10] 1점 / [11-20] 2.5점 / [21-25] 3점 / [26-27] 1.5점 / [28-32] 1.7점 / [33-43] 2점 / [44-48] 2.3점 / [49-50] 2.5점

[1-2] Choose the one that is grammatically NOT correct. (각 1점)

[1] The committee ①requested that the proposal ②is revised thoroughly to ③address the safety concerns ④raised during the meeting.

[2] Impressionism ①emerged in France when a number of other painters, ②including the Italian artists ③known as the Macchiaioli, and Winslow Homer in the United States, also ④exploring open-air painting.

[3-6] Choose the most appropriate word for the blank. (각 1점)

[3] The scientist _____ documented every observation in order to ensure the experiment could be replicated.
① accidentally ② inadvertently ③ hesitantly ④ meticulously

[4] The high _____ of the local currency has made exports more expensive and less competitive.
① depreciation ② inflection ③ valuation ④ volatility

[5] The judge emphasized the importance of _____ when handling sensitive evidence during a trial.
① integrity ② leniency ③ partiality ④ absurdity

[6] Modern architecture often features _____ designs that prioritize functionality over excessive decoration.
① ambivalent ② elaborate ③ minimalist ④ obsolete

[7-10] Choose the expression closest in meaning to the underlined. (각 1점)

[7] The instructions were so ambiguous that many students were confused about how to complete the assignment.
① candid ② equivocal ③ explicit ④ precise

[8] Despite being an underdog, the young athlete proved to be a formidable opponent for the reigning champion.
① frightening ② eccentric ③ trivial ④ vulnerable

[9] The scientist discovered a genetic anomaly that could explain the patient's unusual symptoms.
① aberration ② perfection ③ prediction ④ regularity

[10] The billionaire was known for his altruism, donating millions of dollars to various charities every year.
① benevolence ② greed ③ indifference ④ malice

[11-13] Read the following passage and answer the questions. (각 2.5점)

Here are three questions about how a computer system performs a task that may help us determine whether the label AI is appropriate. Each of these questions captures something about what we mean by AI, but none is a complete definition. First, does the task require creative effort or training for a human to perform? If yes, and the computer can perform it, it might be AI. This would explain why image generation, for example, qualifies as AI. To produce an image, humans need a certain amount of skill and practice, perhaps in the creative arts or in graphic design. But even *recognizing* what's in an image, say a cat or a teapot, a task that is trivial and automatic for humans, proved daunting to automate until the 2010s, yet object recognition has generally been labeled AI. Clearly, comparison to human intelligence is not the only relevant criterion.

Second, we can ask: Was the behavior of the system directly specified in code by the developer, or did it indirectly emerge, say by learning from examples or searching through a database? If the system's behavior emerged indirectly, it might qualify as AI. Learning from examples is called machine learning, which is a form of AI. This criterion helps explain why an insurance pricing formula, for example, might be considered AI if it was developed by having the computer analyze past claims data, but not if it was a direct result of an expert's knowledge, even if the actual rule was identical in both cases. Still, many manually programmed systems are nonetheless considered AI, such as some robot vacuum cleaners that avoid obstacles and walls.

A third criterion is whether the system makes decisions more or less autonomously and possesses some degree of flexibility and adaptability to the environment. If the answer is yes, the system might be considered AI. Autonomous driving is a good example—it is considered AI. But like the previous criteria, this criterion alone can't be considered a complete definition. We wouldn't call a traditional thermostat AI, one that contains no electronics. Its behavior rather arises from the simple principle of a metal expanding or contracting in response to changes in temperature and turning the flow of current on or off.

[11] What is the main purpose of the passage?
① To provide a comprehensive history of AI
② To argue that traditional thermostats should be classified as AI
③ To discuss three criteria used to determine if a system is AI
④ To prove that machine learning is the only true form of AI

[12] Which of the following can be inferred from paragraph 1 regarding object recognition?
① It is not considered AI because it does not require creative effort.
② It is the only criterion necessary to define human intelligence.
③ It requires more intensive training for humans to perform than graphic design does.
④ It highlights that a task can be considered AI even if it is simple for humans to perform.

[13] Why does the author mention robot vacuum cleaners in paragraph 2?
① To provide an example of a system that learns from past claim data
② To illustrate a system that is not considered AI because it is manually programmed
③ To give an example of a manually programmed system that is still classified as AI
④ To argue that household appliances should never be labeled as AI

[14-15] Read the following passage and answer the questions. (각 2.5점)

Astronomers have cast doubt on a Nobel prize-winning theory that the expansion of the universe is accelerating, suggesting that instead it may be (A) slowing down. If confirmed, this would have profound implications for the fate of the universe, raising the possibility that rather than expanding for ever, the universe could ultimately enter a reverse big bang scenario known as (1) the big crunch. The astronomers behind the work say their observations also imply that dark energy—the mysterious force thought to be propelling the expansion of the universe—is weakening over time. "Our study shows that the universe has already entered a phase of decelerated expansion at the present epoch and that dark energy evolves with time much more rapidly than previously thought," said Prof. Young-Wook Lee, of Yonsei University in South Korea, who led the work.

Until the 1990s, it was assumed that gravity would act as a cosmic brake, (B) slowing down the expansion of the universe by pulling

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galaxies back towards each other. This view was upended when astronomers made the first estimates of the expansion of the universe using observations of exploding stars, known as type 1a supernovae. These supernovae were thought to be uniquely uniform in the light they emitted, meaning they could serve as "standard candles," whose brightness was a proxy for their distance. This allowed astronomers to measure how fast different parts of the universe were receding by measuring the redshift (the stretching of light due to the expansion of the universe) of supernovae across the cosmos. The observations revealed that distant supernovae were dimmer than expected for a universe whose expansion was (C) slowing down. This led astronomers to conclude that the expansion of the universe had sped up—and was still (D) slowing down.

However, the latest findings offer an alternative explanation. By estimating the ages of 300 host galaxies using a different method, the team concluded that there are simply variations in the properties of stars in the early universe that mean they produce, on average, fainter supernovae.

[14] Which of the following best describes (1)?
① A future collapse of the universe in which expansion reverses
② A sudden explosion that creates new galaxies across the cosmos
③ A temporary pause in expansion before the universe resumes growing faster
④ A period when stars stop forming but the universe continues expanding forever

[15] Which of the following is NOT appropriate in the context?
① A ② B ③ C ④ D

[16-17] Read the following passage and answer the questions. (각 2.5점)
When ChatGPT launched in November 2022, Matt Britton—CEO and founder of Suzy, a consumer-insights platform—and his executives were eager to incorporate it into their product offerings. However, their enterprise customers were initially resistant, particularly their legal departments. While many entrepreneurial companies quickly adopted generative AI, Britton and his team at Suzy took a more cautious approach. For the first nine months of 2023, they focused on establishing a legal framework with their customers that would allow for AI integrations if and when the business units were ready. Britton worked iteratively and tirelessly to get a majority of his key customers to have their legal teams buy in with signed data-processing agreements in place.

Despite this progress, Britton still wondered whether the resistance was limited to the legal departments or if business owners were also hesitant. His strong sense was that the fear was widespread among his enterprise customers. Internally, Britton faced resistance from Suzy's legal, sales, and development teams. The legal department was hesitant to provide solutions, the sales team reported customer objections, and the developers were reluctant to explore AI's potential creatively. Britton's perspective on the AI market was that there was more talk than action.

As 2024 approached, Britton was dissatisfied with Suzy's progress in leveraging AI. He had a lightbulb moment: instead of figuring out an AI strategy, he decided to focus on the biggest issues facing Suzy's growth and see how AI could address them. He realized that AI should support a business strategy, not be the strategy itself.

This realization led Britton to a radical thought: could AI unlock his capacity to innovate and lead differently? Despite not being a developer, Britton dove into AI development, utilizing Gong's* call transcripts and OpenAI's language model. He personally developed several AI applications that significantly enhanced customer insights and operational efficiency.

*Gong: A conversation analytics and sales enablement platform that records, transcribes, and analyzes sales calls and meetings.

[16] According to paragraph 1, why did Suzy take "a more cautious approach" to incorporating AI during the first nine months of 2023?
① Matt Britton and his executives were initially skeptical about the utility of ChatGPT.
② There were significant technical limitations that prevented the immediate use of OpenAI's language model.
③ Enterprise customers, particularly their legal departments, showed resistance to adopting the technology.
④ The company focused entirely on developing Gong's call transcripts instead of AI integration.

[17] What can be inferred from paragraph 4 about Matt Britton's development of AI applications?
① He was forced to become a professional software engineer because his development team quit.
② He discovered that AI was unable to effectively analyze sales call transcripts.
③ He realized that the AI applications were too complex for non-developers to understand.
④ He successfully created AI tools to improve efficiency despite not being a developer himself.

[18-20] Read the following passage and answer the questions. (각 2.5점)
The desire for growth is a general feature of much of capitalism. But the idea of a big future filled with virtually unlimited growth, a future of the specific sort longtermism proffers, has held a great deal of currency in Silicon Valley for decades. The most salient example of this is the concept of a technological singularity, usually referred to as the Singularity.

Believers in the Singularity claim that technological progress has been accelerating and will continue to do so, leading to a singular point where so much change happens so rapidly that the fundamental nature of daily human life will transform beyond all imagination or comprehension. Superintelligent AI and human-machine hybrids will usher in a utopia, end scarcity, and make biomedical discoveries that will allow us to live forever or nearly so. Bounded only by the laws of physics, there will be no practical limit to what a post-Singularity civilization can achieve. According to Ray Kurzweil, the most prominent exponent of the Singularity, the current rate of technological change strongly suggests that the Singularity is coming very soon indeed—no later than twenty years from now, in 2045. "Ultimately, it will affect everything," he claims. "We're going to be able to meet the physical needs of all humans. We're going to expand our minds and exemplify these artistic qualities that we value."

There's little scientific basis for the idea of a Singularity and all the attendant miracles it will supposedly perform. Nonetheless, the idea is astonishingly common in Silicon Valley and across the entire tech industry. Kurzweil isn't some kind of marginal figure. He is a director of engineering at Google, and his books on the Singularity have been bestsellers. "The Singularity is a new religion—and a particularly kooky one at that," said computer scientist and artist Jaron Lanier. "The Singularity is the coming of the Messiah, heaven on Earth, the Armageddon, the end of times. And fanatics always think that the end of time comes in their own lifetime."

[18] According to the passage, which of the following best describes the Singularity?
① A plan by Silicon Valley to increase the desire for capitalist growth
② A specific point in time when technological change becomes rapid and transformative
③ A biomedical discovery that allows humans to expand their minds artistically and physically
④ A scientific theory bounded strictly by the laws of physics

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[19] Why does the author mention that Ray Kurzweil is a “director of engineering at Google” and that his books are “bestsellers”?
① To prove that his scientific theories about the Singularity are factually correct
② To explain why Jaron Lanier is critical of Kurzweil’s success
③ To show that Google is officially funding the creation of the Singularity
④ To demonstrate that the Singularity is a mainstream idea in the tech industry, not a fringe belief

[20] What can be inferred from Jaron Lanier’s statement, “And fanatics always think that the end of time comes in their own lifetime”?
① Lanier believes the Singularity will definitely happen, but not in our lifetime.
② Lanier suggests that predictions of the Singularity are driven by hope and faith lacking objective evidence.
③ Lanier thinks that religious fanatics are the only people who believe in the Singularity.
④ Lanier argues that the “end of times” is a scientifically proven event.

[21-22] Read the following passage and answer the questions. (각 3점)
Dale Carnegie’s metamorphosis from farmboy to salesman to public-speaking icon is also the story of the rise of the Extrovert Ideal. Carnegie’s journey reflected a cultural evolution that reached a tipping point around the turn of the twentieth century, changing forever who we are and whom we admire, how we act at job interviews and what we look for in an employee, and how we court our mates and raise our children. America had shifted from what the influential cultural historian Warren Susman called a Culture of Character to a Culture of Personality—and opened up a Pandora’s Box of personal anxieties from which we would never quite recover.

In the Culture of Character, the ideal self was serious, disciplined, and honorable. What counted was not so much the impression one made in public as how one behaved in private. The word personality didn’t exist in English until the eighteenth century, and the idea of “having a good personality” was not widespread until the twentieth.

But when they embraced the Culture of Personality, Americans started to focus on how others perceived them. They became captivated by people who were bold and entertaining. “The social role demanded of all in the new Culture of Personality was that of a performer,” Susman famously wrote. “Every American was to become a performing self.”

[21] Which of the following best states the main idea of the passage?
① Dale Carnegie’s personal success was mainly due to his exceptional talent and effort.
② The drastic rise of public speaking reshaped American education in the twentieth century.
③ American society shifted from valuing moral character to valuing outward personality.
④ The Culture of Personality encouraged personal morality in private.

[22] According to the passage, which of the following is true about the Culture of Character?
① Social performance was considered essential for success.
② Private behavior was valued more than public impression.
③ Entertaining others was a social obligation.
④ The concept of personality was widely discussed.

[23-25] Read the following passage and answer the questions. (각 3점)
Something went suddenly and horribly wrong for adolescents in the early 2010s. By now you’ve likely seen the statistics: Rates of depression and anxiety in the United States—fairly stable in the 2000s—rose by more than 50 percent in many studies from 2010 to 2019. The suicide rate rose 48 percent for adolescents ages 10 to 19. For girls ages 10 to 14, it rose 131 percent.

The problem was not limited to the U.S.: Similar patterns emerged around the same time in Canada, the U.K., Australia, New Zealand, the Nordic countries, and beyond. By a variety of measures and in a variety of countries, the members of Generation Z (born in and after 1996) are suffering from anxiety, depression, self-harm, and related disorders at levels higher than any other generation for which we have data.

The decline in mental health is just one of many signs that something went awry. Loneliness and friendlessness among American teens began to surge around 2012. Academic achievement went down, too. According to “The Nation’s Report Card,” scores in reading and math began to decline for U.S. students after 2012, reversing decades of slow but generally steady increase. PISA, the major international measure of educational trends, shows that declines in math, reading, and science happened globally, also beginning in the early 2010s.

As the oldest members of Gen Z reach their late 20s, their troubles are carrying over into adulthood. Young adults are dating less, having less sex, and showing less interest in ever having children than prior generations. They are more likely to live with their parents. They were less likely to get jobs as teens, and managers say they are harder to work with. Many of these trends began with earlier generations, but most of them accelerated with Gen Z.

Surveys show that members of Gen Z are shyer and more risk averse than previous generations, too, and risk aversion may make them less ambitious. In an interview last May, OpenAI co-founder Sam Altman and Stripe co-founder Patrick Collison noted that, for the first time since the 1970s, none of Silicon Valley’s preeminent entrepreneurs are under 30. “Something has really gone wrong,” Altman said. In a famously young industry, he was baffled by the sudden absence of great founders in their 20s.

[23] What is the main idea of the passage?
① The United States educational system has failed to maintain the academic standards of the early 2000s.
② Generation Z is experiencing a widespread decline in mental health, academic performance, and social engagement compared to previous generations.
③ Silicon Valley is struggling to find young employees because modern teenagers are too shy to work.
④ Suicide rates among adolescents have stabilized after a sharp increase in the early 2010s.

[24] The author mentions “PISA” in paragraph 3 in order to:
① Prove that the decline in academic achievement is a global phenomenon, not just an American one.
② Criticize the testing methods used by “The Nation’s Report Card.”
③ Show that science scores have remained stable while reading and math scores have dropped.
④ Suggest that educational trends have improved in Nordic countries.

[25] Which of the following can be inferred from paragraph 4 regarding Gen Z’s professional life?
① They are more likely to hold management positions in their early 20s than previous generations.
② They are entering the workforce earlier than their parents did.
③ They are perceived as more difficult employees compared to previous cohorts.
④ They prefer to work in Silicon Valley rather than in traditional industries.

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[26] 곡선 $y=\frac{e^x+e^{-x}}{2}$ 위의 점 중에서 $x=\ln 2$ 인 점에서의 법선의 기울기를 구하시오. (1.5점)

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

[27] 정적분 $\int_{-1}^{1}\sin^{-1}t\,dt$ 의 값을 구하시오. (1.5점)

① $-\frac{\pi}{2}$ ② 0 ③ 1 ④ $\frac{\pi}{2}$

[28] $f(x)=\frac{x^5}{\sin 2x-2x-ax^3}$ 일 때, $\lim_{x\to 0}f(x)\neq 0$ 인 a의 값을 구하시오. (1.7점)

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

[29] 급수 $\sum_{n=0}^{\infty}\frac{(-1)^n}{2^{2n}n!}$ 의 값을 구하시오. (1.7점)

① e^{-2} ② e^{-1} ③ $e^{-0.5}$ ④ $e^{-0.25}$

[30] 미분방정식 $(2x+3y)dx+(3x+4y)dy=0$ 의 해를 구하시오. (1.7점)

① $x^2+\frac{3}{2}xy+2y^2=C$ ② $x^2+3xy+2y^2=C$

③ $2x^2+\frac{3}{2}xy+4y^2=C$ ④ $2x^2+3xy+4y^2=C$

[31] 함수 $f(x,y)=(x^2+3y^2)e^{1-x^2-y^2}$ 의 임계점의 개수를 구하시오. (1.7점)

① 0 ② 1 ③ 3 ④ 5

[32] 다음 연립일차방정식을 만족하는 y 의 값을 구하시오. (1.7점)

$$\begin{cases}2x+y+3z=-4\\-x-y+3z=-17\\3x+y+2z=3\end{cases}$$

① 1 ② 2 ③ 3 ④ 4

[33] 시각 t에서의 물체의 위치가 $f(t)=3t^4-16t^3+18t^2\ (0\le t\le 4)$ 일 때, 다음 중 물체가 원점에서 가장 먼 시각 t_0을 고르시오. (2.0점)

① 0 ② 1 ③ 3 ④ 4

[34] 함수 $f(x)=\begin{cases}x\ln x-x & x>0\\0 & x=0\end{cases}$ 에 대하여, 다음 중 구간 $[0,1]$에서 평균값정리를 만족하는 정의역의 값을 고르시오. (2.0점)

① e^{-2} ② e^{-1} ③ $e^{-0.5}$ ④ $e^{-0.25}$

[35] 매개변수방정식 $x=\sin t+\cos t,\ y=\sin 2t$ 에 대하여 $t=\frac{\pi}{6}$일 때의 이계도함수 $\frac{d^2y}{dx^2}$의 값을 구하시오. (2.0점)

① $4-2\sqrt{3}$ ② $\sqrt{3}$ ③ 2 ④ $6+2\sqrt{3}$

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[36] 다음 중 점 $(2,1)$에서 함수 $h(x,y)=y\cos(\pi x)-x\cos(\pi y)$ 의 함숫값의 변화가 가장 작을 것으로 예상되는 방향을 고르시오. (2.0점)

① $\frac{1}{\sqrt{2}}\langle -1,-1\rangle$ ② $\langle 1,0\rangle$
③ $\frac{1}{\sqrt{2}}\langle -1,1\rangle$ ④ $\langle 0,1\rangle$

[37] 정적분 $\int_0^{\ln 2}\frac{e^x}{e^{2x}+5e^x+6}\,dx$ 의 값을 구하시오. (2.0점)

① $\ln\frac{6}{5}$ ② $\ln\frac{9}{8}$ ③ $\ln\frac{13}{12}$ ④ $\ln\frac{16}{15}$

[38] 다음 중 수렴하는 급수를 모두 고르시오. (2.0점)

(가) $\sum_{n=1}^{\infty}\frac{\sin\frac{\pi n}{4}}{n^2+1}$ (나) $\sum_{n=2}^{\infty}\left(\frac{1}{\ln n}\right)^3$

(다) $\sum_{n=1}^{\infty}(-1)^n\sinh\frac{1}{n}$ (라) $\sum_{n=2}^{\infty}\left(\frac{1}{2}\right)^{\ln n}$

① (가) (나) ② (나) (라)
③ (가) (다) ④ (가) (라)

[39] 함수 $f(x,y)=(3x-y,x-y)$ 와 집합 $S=\left\{(x,y)\mid x^2+y^2\le\frac{2}{\pi}\right\}$ 에 대하여 $f(S)=\{f(s)\mid s\in S\}$ 로 정의할 때, $f(S)$의 넓이를 구하시오. (2.0점)

① $2\sqrt{2}$ ② 4 ③ $4\sqrt{2}$ ④ 8

[40] 다음 중 멱급수로 표현하였을 때 수렴반경이 나머지 셋과 다른 함수를 고르시오. (2.0점)

① $\frac{1}{x+3}$ ② $\frac{x}{1+x^2}$ ③ $\sqrt{1+x}$ ④ $\sin^{-1}x$

[41] 이계미분방정식 $x^2y''-4xy'+4y=0$ 의 해 $y(x)$가 $y(1)=2$, $y(2)=18$을 만족할 때, $y(3)$의 값을 구하시오. (2.0점)

① 19 ② $9+9\ln 3$ ③ 84 ④ $81+81\ln 9$

[42] 이중적분 $\int_0^1\int_{\sqrt{y}}^1 e^{x^3}\,dx\,dy$ 의 값을 구하시오. (2.0점)

① $3e^2$ ② $\frac{1}{3}(e-1)$ ③ $e-1$ ④ $\frac{1}{3}e^2$

[43] 곡선 $y=1-x^2$ 과 직선 $y=0$으로 둘러싸인 영역을 x축 둘레로 회전시켜 얻은 회전체의 부피를 구하시오. (2.0점)

① $\frac{14\pi}{15}$ ② $\frac{16\pi}{15}$ ③ $\frac{6\pi}{5}$ ④ $\frac{4\pi}{3}$

[44] 곡면 $z=x^2-y^2$ 에서 $x^2+y^2\le 2$ 인 부분의 넓이를 구하시오. (2.3점)

① $\frac{\pi}{4}$ ② $\frac{13\pi}{6}$ ③ $\frac{13\pi}{3}$ ④ $\frac{9\pi}{2}$

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[45] 곡선 $y=(x-2)e^{2x}$ 에 대하여 $x=a\ (0\le a\le 2)$에서 정의된 접선 중 기울기가 가장 큰 접선과 가장 작은 접선이 이루는 각을 θ 라고 할 때, $|\tan\theta|$의 값을 구하시오. (2.3점)

① $\frac{e^2-3}{3e^2+1}$ ② $\frac{e^2+3}{3e^2-1}$ ③ $\frac{e^4-e^2}{e^6-1}$ ④ $\frac{e^4+e^2}{e^6-1}$

[46] 다음 이상적분 중에서 수렴하는 것을 모두 고르시오. (2.3점)

(가) $\int_1^{\infty}\frac{1}{(x+2)^3}\,dx$ (나) $\int_1^{5}\frac{x}{\sqrt{x-1}}\,dx$

(다) $\int_0^{3}\frac{\ln x}{\sqrt{x}}\,dx$ (라) $\int_0^{1}\frac{1}{x^2-x}\,dx$

① (가) ② (나) (다)

③ (가) (나) (다) ④ (가) (라)

[47] 입체 W가 곡면 $z=x^2+y^2$ 과 평면 $z=2$ 에 의해 둘러싸인 영역과 부등식 $x\ge 0, y\ge 0$ 으로 정의되는 영역의 교집합일 때, 다음 삼중적분의 값을 구하시오. (2.3점)

$$\iiint_W x\,dx\,dy\,dz$$

① $\frac{8}{15}\sqrt{2}$ ② 1 ③ $\frac{4}{5}\sqrt{2}$ ④ 2

[48] 선형사상 $T\colon \mathbb{R}^2\to\mathbb{R}^2$ 가 $T(1,1)=(8,-10),\ T(2,-1)=(7,-8)$ 을 만족할 때, $T(a,b)+(a,b)=(0,0),\ a,b\neq 0$가 성립하는 a와 b의 비율 $\frac{b}{a}$를 구하시오. (2.3점)

① -0.5 ② -1 ③ $-\sqrt{3}$ ④ -2

[49] 무한급수 $\sum a_n$ 과 $\sum b_n$ 에 대한 다음 설명 중 옳은 것을 모두 고르시오. (2.5점)

(가) $\sum a_n$과 $\sum b_n$이 모두 수렴하면 $\sum a_n b_n$도 수렴한다.

(나) $\sum\sqrt{|a_n b_n|}$이 발산하면 $\sum|a_n|$과 $\sum|b_n|$중 하나는 발산한다.

(다) $|a_n|\neq 1$이고 $\sum a_n$이 절대수렴하면 $\sum\frac{|a_n|}{1-|a_n|}$이 수렴한다.

(라) $\sum a_n$이 절대수렴하고 $\sum b_n$이 수렴하면 $\sum a_n b_n$이 절대수렴한다.

① (가) (라) ② (나) (다)

③ (가) (나) (라) ④ (나) (다) (라)

[50] 라플라스 역변환 $\mathcal{L}^{-1}\left\{\frac{1}{s^4-1}\right\}$ 을 구하시오. (2.5점)

① $-\frac{1}{4}e^t-\frac{1}{4}e^{-t}-\frac{1}{2}\sin t$ ② $\frac{1}{4}e^t-\frac{1}{4}e^{-t}-\frac{1}{2}\sin t$

③ $-\frac{1}{4}e^t-\frac{1}{4}e^{-t}+\frac{1}{2}\sin t$ ④ $\frac{1}{4}e^t-\frac{1}{4}e^{-t}+\frac{1}{2}\sin t$

<끝>