

2022학년도 편입학 필기시험 문제지 (A형)

일반 편입학 : 인문계·예체능계

지원캠퍼스	수원(), 서울()
지원학과	
수험번호	
성명	

◆ 수험생 유의사항 ◆

1. 문제지는 총 40문항으로 구성되어 있습니다.
2. 문항배점
1번~10번 문항 : 2.0점
11번~30번 문항 : 2.5점
31번~40번 문항 : 3.0점
3. 문제지의 유형과 답안지의 유형이 동일한지 확인하고 작성하여야 합니다.
4. 수험번호 표기란과 답안 표기란은 감독관이 지급한 컴퓨터용 사인펜만을 사용하여야 합니다.
5. 답안을 표기할 경우 “●” 같이 정확히 마킹하여야 하며, 부정확한 표기로 인하여 전산상 더블마킹 및 블랭크로 처리되는 것은 수험생의 책임으로 합니다.
▶ 잘못 표기된 예 : ⊙ ⊙ ⊕
6. 답안을 수정하고자 할 경우 감독관에게 새 답안지를 요청하여 다시 기재하여야 합니다.
▶ 한번 표기한 답은 “x” 표를 하거나 칼로 긁거나 수정액으로 지우는 등 어떠한 방법으로도 고쳐서는 안되며 고친 문항 및 이중마킹한 경우에는 “0” 점 처리합니다.

(#1-10) Choose the option that best completes each sentence. (2 points for each question)

1. Many senators have serious _____ about the bill, as it would significantly increase the national debt.
 (1) liabilities (2) hypotheses
 (3) reservations (4) commitments
2. Angry citizens are refusing to _____ a local café after its owner posted a crude joke online.
 (1) obstruct (2) delegate
 (3) intercede (4) patronize
3. Because people have attempted to damage it, the painting has been placed behind shatterproof glass to keep it safe from potential _____.
 (1) tyrants (2) vandals
 (3) precursors (4) forgers
4. Species threatened with extinction can _____ if appropriate conservation efforts are taken.
 (1) recoup (2) retreat
 (3) revolve (4) rebound
5. When scientists conduct dietary studies on animals, their findings cannot always be _____ to humans, since human bodies often work in different ways.
 (1) extrapolated (2) consolidated
 (3) reciprocated (4) indoctrinated
6. The hiring board threw out the job application of the man who falsified his documents, having easily seen through such _____.
 (1) chicanery (2) hyperbole
 (3) verbiage (4) banality
7. China is home to 1.4 billion people, making it the most _____ country in the world.
 (1) assiduous (2) copious
 (3) ubiquitous (4) populous
8. The overrepresentation of certain groups within a sample could _____ the results of a survey.
 (1) exclude (2) demote
 (3) skew (4) offend

9. The Lions' defense completely _____ the opposing team's attackers, stopping them from scoring a single goal all game.

- (1) coddled (2) thwarted
 (3) extricated (4) splintered

10. The benefits of investing in new space telescopes far _____ the significant costs of doing so, as the devices reveal fundamental truths about the universe.

- (1) outthink (2) outsource
 (3) outweigh (4) outgrow

(#11-20) Choose the option that is closest in meaning to the underlined part. (2.5 points for each question)

11. The employee manual clearly explains that management has little tolerance for chronic tardiness.

- (1) habitual (2) conventional
 (3) reckless (4) incompetent

12. There was a tacit agreement between the two brothers that they would jointly run the family business someday.

- (1) vague (2) unspoken
 (3) vacant (4) unaware

13. The actor had such an unassuming demeanor that people barely noticed him at events.

- (1) fragile (2) nimble
 (3) modest (4) thrifty

14. Finding serious infringement of copyright, the court ruled in favor of the plaintiff.

- (1) pretense (2) violation
 (3) infliction (4) nuisance

15. The fame of the film *Forrest Gump* easily eclipsed that of the novel on which it was based.

- (1) exposed (2) hampered
 (3) mustered (4) surpassed

16. Although he once had an equable temperament, the chess genius became excitable and unstable in his later years.

- (1) vacuous (2) persistent
 (3) abstruse (4) placid

17. To avoid being penalized for missing practice, the footballer concocted a story about getting a flat tire.

- (1) made up (2) showed off
(3) picked on (4) came by

18. Few of the workers signed the open letter criticizing the company, fearing reprisal from management.

- (1) defect (2) digression
(3) revenge (4) recess

19. The police chief insisted that not once in his career had he been remiss in his duty to protect the public.

- (1) defiant (2) susceptible
(3) negligent (4) immune

20. The dark clouds growing on the horizon presaged the start of a violent storm.

- (1) subsumed (2) portended
(3) maligned (4) expedited

(#21-30) Identify the one underlined expression that must be corrected in each sentence. (2.5 points for each question)

21. In response of the rapid rise in obesity rates among youths, the government is urgently seeking to promote healthier lifestyles.

- (1) (2)
(3)
(4)

22. Because her connection to the scandal-plagued governor, the secretary was called upon to give testimony before a public inquiry.

- (1) (2)
(3)
(4)

23. The company's executives are holding meetings to discuss the possibility of offering most of employees the opportunity to start working partly from home.

- (1) (2)
(3)
(4)

24. A major cause of the American Revolution was that the colonists' belief that the taxes being imposed on them were unfair.

- (1)
(2)
(3) (4)

25. Many people tune into psychology podcasts because they enjoy listening to the hosts give others an advice on everyday issues ranging from raising children to finding romance.

- (1) (2)
(3)
(4)

26. Would the two parties fail to settle the dispute on their own, they may have no choice but to go to arbitration, in which case they will be bound to honor the arbitrator's decision.

- (1) (2)
(3)
(4)

27. To quell the growing discontent, health officials assured the public that appropriate measures were being taken containing the disease.

- (1) (2)
(3)
(4)

28. The average lifespan of a tree surrounded by tall buildings and inner-city traffic are significantly shorter than that of a tree growing in a natural environment.

- (1) (2)
(3) (4)

29. There is no reason for the city not to complete the park restoration project on schedule, unless it avoids further funding difficulties.

- (1) (2)
(3) (4)

30. Despite there were signs explicitly prohibiting the use of cell phones in the airport customs line, some people still used them.

- (1) (2)
(3)
(4)

(#31-40) Read the following passages and choose the one best answer for each question. (3 points for each question)

Questions 31-34 are based on the following passage.

The period after the French Revolution was a time of widespread cultural reform in France, with the Republicans seeking to rid the country of various vestiges of the *ancien régime*. One particularly notable product of this reform movement was the French Republican calendar of 1793, which would remain in use until Napoleon reinstated the Gregorian calendar in 1806.

While the inventors of the French Republican calendar retained the twelve-month structure of the year, they renamed each month based on the seasons and associated natural phenomena, including rain and frost. (A), they standardized the length of the months, dividing each into three ten-day weeks, in keeping with a broader push toward utilization of the decimal system in weights and measures. When the calendar was printed, it was illustrated with gorgeous images inspired by nature and mythology.

Despite all the effort that went into the calendar project, the final product was not particularly well received. Workers complained that their weekly day of rest was reduced from one in seven days to one in ten days. At the same time, citizens of France's foreign territories felt slighted by the Paris-centric naming system, which often failed to reflect their own climates. All in all, it is perhaps unsurprising that the calendar lasted as briefly as it did.

31. Which of the following is closest in meaning to the underlined word vestiges?

- (1) remnants (2) calamities
- (3) transgressions (4) proponents

32. Which of the following is most appropriate for blank (A)?

- (1) In general (2) In addition
- (3) For that reason (4) As a matter of fact

33. Why did the French Republican calendar upset people in French overseas territories?

- (1) It tied local traditions to the *ancien régime*.
- (2) It ignored all non-French cultural traditions.
- (3) Its names for the months were all based on seasons around Paris.
- (4) Its printed images were insensitive to foreign cultures.

34. Which of the following is correct about the French Republican calendar?

- (1) It was originally implemented by Napoleon.
- (2) It moved away from the decimal system.
- (3) It divided all months into equal durations.
- (4) It shortened the existing working week.

일반편 입학 : 인문계·예체능계 (A형)

정답 (A형)	
문항	정답
01	3
02	4
03	2
04	4
05	1
06	1
07	4
08	3
09	2
10	3
11	1
12	2
13	3
14	2
15	4
16	4
17	1
18	3
19	3
20	2
21	1
22	1
23	2
24	2
25	3
26	1
27	4
28	2
29	4
30	1
31	1
32	2
33	3
34	3
35	2
36	1
37	3
38	4
39	3
40	4

2022학년도 편입학 필기시험 문제지 (A형)

학사편입학
농어촌학생편입학
특성화고교졸업자 편입학
기회균형선발편입학
재외국민편입학

지원캠퍼스	수원(), 서울()
지원학과	
수험번호	
성명	

◆ 수험생 유의사항 ◆

1. 문제지는 총 40문항으로 구성되어 있습니다.
2. 문항배점
1번~10번 문항 : 2.0점
11번~30번 문항 : 2.5점
31번~40번 문항 : 3.0점
3. 문제지의 유형과 답안지의 유형이 동일한지 확인하고 작성하여야 합니다.
4. 수험번호 표기란과 답안 표기란은 감독관이 지급한 컴퓨터용 사인펜만을 사용하여야 합니다.
5. 답안을 표기할 경우 “●” 같이 정확히 마킹하여야 하며, 부정확한 표기로 인하여 전산상 더블마킹 및 블랭크로 처리되는 것은 수험생의 책임으로 합니다.
▶ 잘못 표기된 예 : ⊙ ⊖ ⊕
6. 답안을 수정하고자 할 경우 감독관에게 새 답안지를 요청하여 다시 기재하여야 합니다.
▶ 한번 표기한 답은 “x” 표를 하거나 칼로 긁거나 수정액으로 지우는 등 어떠한 방법으로도 고쳐서는 안되며 고친 문항 및 이중마킹한 경우에는 “0” 점 처리합니다.

(#1-10) Choose the option that best completes each sentence. (2 points for each question)

1. With unfilled orders piling up, the company decided to hire more employees to help handle the _____.
 (1) stalemate (2) upkeep
 (3) backlog (4) loophole
2. Most scientists date the _____ of the universe to roughly 13.8 billion years ago, when the Big Bang occurred.
 (1) influx (2) exodus
 (3) genesis (4) heritage
3. The celebrity was so upset by the journalist's lies about his personal life that he considered suing her for _____.
 (1) libel (2) stigma
 (3) censure (4) rebuttal
4. After weeks of _____ about whether to support the proposed law, the senator finally agreed to vote in favor of it.
 (1) accumulating (2) vacillating
 (3) improvising (4) staggering
5. In the winter, many Canadians travel to tropical countries in search of a _____ from the cold and snow back home.
 (1) protraction (2) respite
 (3) deferral (4) moratorium
6. With his overdone showmanship and flashy costumes, the pianist Liberace was known as much for his _____ as for his music.
 (1) stringency (2) vicissitude
 (3) impartiality (4) flamboyance
7. The collection agency offered the man an _____: either pay his bills or forfeit his property.
 (1) alteration (2) impetus
 (3) ultimatum (4) expedient
8. Members of the airline's loyalty program were _____ special privileges, such as priority boarding.
 (1) afforded (2) exposed
 (3) ascribed (4) consigned

9. If you refuse to take a clear position in a debate, you might be accused of _____.

- (1) grievance (2) equivocation
 (3) imposition (4) gaudiness

10. Because her colleagues sensed that she was flattering the boss to further her own career, the woman gained a reputation as a _____.

- (1) demagogue (2) firebrand
 (3) misanthrope (4) sycophant

(#11-20) Choose the option that is closest in meaning to the underlined part. (2.5 points for each question)

11. Even though the ambassador's comments were mostly innocuous, they caused a diplomatic dispute between the two countries.
 (1) vague (2) gracious
 (3) harmless (4) incompetent
12. The new evidence fully exonerated the accused, so the prosecutor dropped all charges.
 (1) condoned (2) absolved
 (3) evacuated (4) obliged
13. The congressman was such an articulate speaker that even his political opponents admired his way with words.
 (1) gratuitous (2) evasive
 (3) eloquent (4) solemn
14. The giveaway advertised by the supermarket was mostly a ploy to lure consumers into the store.
 (1) tactic (2) jest
 (3) prank (4) pose
15. The local government is trying to ameliorate the difficult conditions caused by the ongoing drought.
 (1) improve (2) provoke
 (3) remove (4) spread
16. The timing of the man's investment in the mining company turned out to be fortuitous, resulting in an unexpectedly quick profit.
 (1) lucky (2) rational
 (3) careful (4) sensible

17. The president exerted his influence to cajole other leaders at the summit into supporting his agenda.

- (1) yank (2) dodge
(3) tout (4) coax

18. Although the two colleagues did not like each other, they managed to maintain amicable relations in the workplace.

- (1) expert (2) courteous
(3) veteran (4) authoritative

19. The election of the divisive mayor heralded a difficult period of political polarization for the city.

- (1) divulged (2) foreshadowed
(3) solicited (4) decompressed

20. While the woman enjoyed talking freely, her husband was a taciturn man who preferred to listen.

- (1) disconcerted (2) undaunted
(3) astounded (4) reserved

(#21-30) Identify the one underlined expression that must be corrected in each sentence. (2.5 points for each question)

21. Because the confession letter had been signed

- (1) (2)

under duress, the lawyer demanded that it

- (3)

immediately was declared inadmissible as

- (4)

evidence.

22. Scientists warn that climate change could impact

- (1)

millions upon millions of people around the

- (2)

world in the coming years by greatest increasing

- (3)

- (4)

the severity of storms and droughts.

23. The CEO is rumored to be considering to offer

- (1)

- (2)

all employees an additional two weeks per year

- (3)

of paid leave.

- (4)

24. After months spend assembling a formidable

- (1)

roster, the team seems once again to be reaching

- (2)

the caliber attained in years past.

- (3)

- (4)

25. The rapid adoption of battery-powered vehicles

will contribute to a significantly reduction in

- (1)

- (2)

carbon emissions, though much more must be

- (3)

done to achieve the goals set at recent climate

- (4)

summits.

26. Had the contractor known that the materials used

- (1)

in the construction of the tower were faulty, he

- (2)

very likely would have been held criminally

- (3)

liable by the tower's collapse.

- (4)

27. Should the reports of the company dumping toxic

- (1)

- (2)

waste into the river prove to be true, the

- (3)

company could not face only enormous fines but

- (4)

also a possible criminal investigation.

28. One of the main aims of the downtown

revitalization project are to stimulate activity in

- (1)

the downtown core by repurposing unused

- (2)

buildings that are of historical significance to our

- (3)

- (4)

city.

29. The committee will probe the issue of whether

- (1)

- (2)

the senator's financial transactions constitute a

- (3)

violation of the rules pertain to conflicts of

- (4)

interest.

30. Having been devoted his life to building up his
 (1) (2)
 business empire, the tycoon could not help but
feel a slight twinge of sadness when it came time
 (3) (4)
 for him to pass on control to his successor.

(#31-40) Read the following passages and choose the one best answer for each question. (3 points for each question)

Questions 31-34 are based on the following passage.

Throughout the first half of the 20th century, India was engaged in an ongoing struggle for independence. One tool in India's resistance against its colonizer, Great Britain, was a practice called *satyagraha*, which was advocated by the Indian activist Mohandas Gandhi. *Satyagraha* emphasized resistance to authority through nonviolent measures.

One particular event, known as the Salt March, was pivotal in establishing the effectiveness of *satyagraha*. This march was held to protest against the India Salt Act of 1882. On top of forbidding Indians from manufacturing and selling their own salt, this law imposed a heavy tax on the salt Indians were forced to buy from the British. Gandhi believed that flouting this law by illegally extracting the mineral would inspire others to embrace nonviolent resistance.

To thwart the protest, the British attempted to destroy the salt deposits on the beach where Gandhi and his many followers planned to harvest the mineral. However, they found it impossible to entirely rid the beach of salt deposits, so Gandhi was able to publicly defy the law. The protest led to the arrest of around 60,000 Indians, including Gandhi. (A), the people's will to fight for justice survived. Indeed, it was only strengthened by the increasingly harsh attempts of the British to counter Gandhi's protest methods.

31. Which of the following is closest in meaning to the underlined word thwart?

- (1) track (2) revoke
 (3) detect (4) hinder

32. Which of the following is most appropriate for blank (A)?

- (1) In conclusion (2) Similarly
 (3) Nevertheless (4) For instance

33. How did Gandhi defy the India Salt Act of 1882?

- (1) By refusing to collect taxes on sales of salt
 (2) By openly collecting salt from the seaside
 (3) By transporting salt to coastal communities
 (4) By selling salt without British permission

34. What can be inferred from the passage?

- (1) Gandhi's companions on the march were mostly salt merchants.
 (2) *Satyagraha* continued in India despite Gandhi's arrest.
 (3) The Salt March was responsible for hundreds of deaths.
 (4) India's independence quickly followed the Salt March.

Questions 35-37 are based on the following passage.

In the mid-19th century, most of London's human waste was dumped into the Thames River, which ran directly through the city center. When London was struck by a heat wave in 1858, the waste-filled waterway emitted a pestilential odor that came to be dubbed the Great Stink. The stench was so intense in the (A) summer heat that London's public was driven to desperation.

Despite the British Parliament being on the banks of the river, the country's leaders had long resisted taking steps to fix London's waste problem. However, even after retreating into their offices and dousing their curtains with lime and carbolic acid, the men could no longer ignore the unhealthy stench. Eventually, the Chancellor of the Exchequer, Benjamin Disraeli, tabled an ambitious bill to solve the problem. After 18 days of debate, the bill was passed, clearing the way for the construction of a sophisticated sewer system. The noted civil engineer Joseph Bazalgette was put in charge of this project.

Because London was the world's largest city and the center of a massive trading empire, no cost was spared on the system, which consisted of an elaborate series of tunnels, embankments, and pumping stations. When completed, the system diverted London's human waste into a largely uninhabited stretch of the Thames downstream from London. As a result, London's air quality improved, and incidences of water-borne diseases fell.

35. Which of the following is most appropriate for blank (A)?

- (1) stifling (2) profane
(3) typical (4) elusive

36. What did Joseph Bazalgette's system accomplish?

- (1) It treated waste before releasing it into the Thames.
(2) It prevented most of London's waste from entering the Thames.
(3) It collected pollutants from the most contaminated portion of the Thames.
(4) It redirected waste into a less populated stretch of the Thames.

37. What can be inferred from the passage?

- (1) The majority of lawmakers immediately embraced Disraeli's bill.
(2) Lawmakers were personally affected by the stench.
(3) London struggled to raise the funds needed by Bazalgette.
(4) The waste in the Thames mostly originated outside of London.

Questions 38-40 are based on the following passage.

Niagara Falls on the border between the United States and Canada is one of the world's mightiest waterfalls. However, on March 30, 1848, the water completely stopped flowing over the falls.

During the previous month, the weather became bitterly cold, and thick ice formed upriver on Lake Erie. Then, in March, a warm spell caused the ice sheet to break up. On March 28 and 29, high winds blew chunks of loose ice across the lake. The current drew these chunks into the mouth of the Niagara River, which feeds Niagara Falls. Eventually, the ice chunks piled up, creating a blockage between the cities of Buffalo and Fort Erie. The waterfall ran dry for around 30 hours.

Since this incident, the "horseshoe" portion of the falls, which lies on the Canadian side of the border, has never ceased flowing. A structure called a boom is now installed on Lake Erie every winter. This structure **regulates** ice formation and ice flow, ensuring that water continues to flow over the Horseshoe Falls.

The American section of the falls, which receives far less water than the Canadian side, was effectively shut off by the US government in 1969. This disruption lasted from June to November 1969 and was intended to facilitate research on the geology of the falls.

38. Which of the following is closest in meaning to the underlined word **regulates**?

- (1) controls (2) halts
(3) advances (4) creates

39. Why did American officials stop the US section of Niagara Falls in 1969?

- (1) To divert water to a different section of the falls
(2) To study the effects of reduced water flow on the falls
(3) To prevent a large buildup of ice in the Niagara River
(4) To assist in the investigation of the rock structure of the falls

40. Which of the following is correct according to the passage?

- (1) The cold spell in 1848 extended throughout March.
(2) The Niagara River carried chunks of ice into Lake Erie.
(3) The blockage of Niagara Falls in 1848 lasted for less than a day.
(4) The horseshoe portion of the falls receives more water than the other portion.

정 원 외 편 입 학 (A 형)

정답 (A형)	
문항	정답
01	3
02	3
03	1
04	2
05	2
06	4
07	3
08	1
09	2
10	4
11	3
12	2
13	3
14	1
15	1
16	1
17	4
18	2
19	2
20	4
21	4
22	4
23	2
24	1
25	2
26	4
27	4
28	1
29	4
30	1
31	4
32	3
33	2
34	2
35	1
36	4
37	2
38	1
39	4
40	4

2022학년도 편입학 필기시험 문제지 (A형)

일반편입학 : 자연계

지원캠퍼스	수원(), 서울()
지원학과	
수험번호	
성명	

◆ 수험생 유의사항 ◆

1. 문제지는 총 45문항으로 구성되어 있습니다.

2. 문항배점

1번~10번 문항(영어) : 1.5점

11번~20번 문항(영어) : 2.0점

21번~25번 문항(영어) : 3.0점

26번~35번 문항(수학) : 2.0점

36번~45번 문항(수학) : 3.0점

3. 문제지의 유형과 답안지의 유형이 동일한지 확인하고 작성하여야 합니다.

4. 수험번호 표기란과 답안 표기란은 감독관이 지급한 컴퓨터용 사인펜만을 사용하여야 합니다.

5. 답안을 표기할 경우 “●” 같이 정확히 마킹하여야 하며, 부정확한 표기로 인하여 전산상 더블마킹 및 블랭크로 처리되는 것은 수험생의 책임으로 합니다.

▶ 잘못 표기된 예 : ⊙ ⊖ ⊕

6. 답안을 수정하고자 할 경우 감독관에게 새 답안지를 요청하여 다시 기재하여야 합니다.

▶ 한번 표기한 답은 “x” 표를 하거나 칼로 긁거나 수정액으로 지우는 등 어떠한 방법으로도 고쳐서는 안되며 고친 문항 및 이중마킹한 경우에는 “0” 점 처리합니다.

(#1-10) Choose the option that best completes each sentence. (1.5 points for each question)

1. With unfilled orders piling up, the company decided to hire more employees to help handle the _____.
(1) stalemate (2) upkeep
(3) backlog (4) loophole
2. Most scientists date the _____ of the universe to roughly 13.8 billion years ago, when the Big Bang occurred.
(1) influx (2) exodus
(3) genesis (4) heritage
3. The celebrity was so upset by the journalist's lies about his personal life that he considered suing her for _____.
(1) libel (2) stigma
(3) censure (4) rebuttal
4. After weeks of _____ about whether to support the proposed law, the senator finally agreed to vote in favor of it.
(1) accumulating (2) vacillating
(3) improvising (4) staggering
5. In the winter, many Canadians travel to tropical countries in search of a _____ from the cold and snow back home.
(1) protraction (2) respite
(3) deferral (4) moratorium
6. With his overdone showmanship and flashy costumes, the pianist Liberace was known as much for his _____ as for his music.
(1) stringency (2) vicissitude
(3) impartiality (4) flamboyance
7. The collection agency offered the man an _____: either pay his bills or forfeit his property.
(1) alteration (2) impetus
(3) ultimatum (4) expedient
8. Members of the airline's loyalty program were _____ special privileges, such as priority boarding.
(1) afforded (2) exposed
(3) ascribed (4) consigned

9. If you refuse to take a clear position in a debate, you might be accused of _____.

- (1) grievance (2) equivocation
(3) imposition (4) gaudiness

10. Because her colleagues sensed that she was flattering the boss to further her own career, the woman gained a reputation as a _____.

- (1) demagogue (2) firebrand
(3) misanthrope (4) sycophant

(#11-15) Choose the option that is closest in meaning to the underlined part. (2 points for each question)

11. Even though the ambassador's comments were mostly innocuous, they caused a diplomatic dispute between the two countries.
(1) vague (2) gracious
(3) harmless (4) incompetent
12. The new evidence fully exonerated the accused, so the prosecutor dropped all charges.
(1) condoned (2) absolved
(3) evacuated (4) obliged
13. The congressman was such an articulate speaker that even his political opponents admired his way with words.
(1) gratuitous (2) evasive
(3) eloquent (4) solemn
14. The giveaway advertised by the supermarket was mostly a ploy to lure consumers into the store.
(1) tactic (2) jest
(3) prank (4) pose
15. The local government is trying to ameliorate the difficult conditions caused by the ongoing drought.
(1) improve (2) provoke
(3) remove (4) spread

(#16-20) Identify the one underlined expression that must be corrected in each sentence. (2 points for each question)

16. Because the confession letter had been signed
 (1) (2)
under duress, the lawyer demanded that it
 (3)
 immediately was declared inadmissible as
 (4)
 evidence.
17. Scientists warn that climate change could impact
 (1)
 millions upon millions of people around the
 (2)
 world in the coming years by greatest increasing
 (3) (4)
 the severity of storms and droughts.
18. The CEO is rumored to be considering to offer
 (1) (2)
 all employees an additional two weeks per year
 (3)
 of paid leave.
 (4)
19. After months spend assembling a formidable
 (1)
 roster, the team seems once again to be reaching
 (2)
 the caliber attained in years past.
 (3) (4)
20. The rapid adoption of battery-powered vehicles
will contribute to a significantly reduction in
 (1) (2)
 carbon emissions, though much more must be
 (3)
 done to achieve the goals set at recent climate
 (4)
 summits.

(#21-25) Read the following passages and choose the one best answer for each question. (3 points for each question)

Questions 21-22 are based on the following passage.

In the mid-19th century, most of London's human waste was dumped into the Thames River, which ran directly through the city center. When London was struck by a heat wave in 1858, the waste-filled waterway emitted a pestilential odor that came to be dubbed the Great Stink. The stench was so intense in the (A) summer heat that London's public was driven to desperation.

Despite the British Parliament being on the banks of the river, the country's leaders had long resisted taking steps to fix London's waste problem. However, even after retreating into their offices and dousing their curtains with lime and carbolic acid, the men could no longer ignore the unhealthy stench. Eventually, the Chancellor of the Exchequer, Benjamin Disraeli, tabled an ambitious bill to solve the problem. After 18 days of debate, the bill was passed, clearing the way for the construction of a sophisticated sewer system. The noted civil engineer Joseph Bazalgette was put in charge of this project.

Because London was the world's largest city and the center of a massive trading empire, no cost was spared on the system, which consisted of an elaborate series of tunnels, embankments, and pumping stations. When completed, the system diverted London's human waste into a largely uninhabited stretch of the Thames downstream from London. As a result, London's air quality improved, and incidences of water-borne diseases fell.

21. Which of the following is most appropriate for blank (A)?
 (1) stifling (2) profane
 (3) typical (4) elusive
22. What did Joseph Bazalgette's system accomplish?
 (1) It treated waste before releasing it into the Thames.
 (2) It prevented most of London's waste from entering the Thames.
 (3) It collected pollutants from the most contaminated portion of the Thames.
 (4) It redirected waste into a less populated stretch of the Thames.

Questions 23-25 are based on the following passage.

Niagara Falls on the border between the United States and Canada is one of the world's mightiest waterfalls. However, on March 30, 1848, the water completely stopped flowing over the falls.

During the previous month, the weather became bitterly cold, and thick ice formed upriver on Lake Erie. Then, in March, a warm spell caused the ice sheet to break up. On March 28 and 29, high winds blew chunks of loose ice across the lake. The current drew these chunks into the mouth of the Niagara River, which feeds Niagara Falls. Eventually, the ice chunks piled up, creating a blockage between the cities of Buffalo and Fort Erie. The waterfall ran dry for around 30 hours.

Since this incident, the "horseshoe" portion of the falls, which lies on the Canadian side of the border, has never ceased flowing. A structure called a boom is now installed on Lake Erie every winter. This structure **regulates** ice formation and ice flow, ensuring that water continues to flow over the Horseshoe Falls.

The American section of the falls, which receives far less water than the Canadian side, was effectively shut off by the US government in 1969. This disruption lasted from June to November 1969 and was intended to facilitate research on the geology of the falls.

23. Which of the following is closest in meaning to the underlined word **regulates**?

- (1) controls (2) halts
- (3) advances (4) creates

24. Why did American officials stop the US section of Niagara Falls in 1969?

- (1) To divert water to a different section of the falls
- (2) To study the effects of reduced water flow on the falls
- (3) To prevent a large buildup of ice in the Niagara River
- (4) To assist in the investigation of the rock structure of the falls

25. Which of the following is correct according to the passage?

- (1) The cold spell in 1848 extended throughout March.
- (2) The Niagara River carried chunks of ice into Lake Erie.
- (3) The blockage of Niagara Falls in 1848 lasted for less than a day.
- (4) The horseshoe portion of the falls receives more water than the other portion.

26. 다음 중 극한값이 존재하지 않는 것은? [2점]

① $\lim_{x \rightarrow 0} x \cos \frac{1}{x}$

② $\lim_{x \rightarrow 0} x \sin \frac{1}{x}$

③ $\lim_{x \rightarrow 0} \frac{1}{x} \cos x$

④ $\lim_{x \rightarrow 0} \frac{1}{x} \sin x$

27. 다음 중 역쌍곡함수 $\sinh^{-1}x$ 와 같은 함수는? [2점]

① $\ln(x + \sqrt{x^2 + 1})$

② $\ln(x + \sqrt{x^2 - 1})$

③ $\ln(-x + \sqrt{x^2 + 1})$

④ $\ln(-x + \sqrt{x^2 - 1})$

28. 곡면 $xy + yz + zx = 3$ 에 대하여 점 $(1, 1, 1)$ 에서의 접평면과 점 $(3, 3, -1)$ 에서의 접평면이 이루는 각은?
[2점]

① $\cos^{-1} \frac{5}{\sqrt{33}}$

② $\cos^{-1} \frac{5}{\sqrt{57}}$

③ $\cos^{-1} \frac{5}{2\sqrt{33}}$

④ $\cos^{-1} \frac{5}{2\sqrt{57}}$

29. xy 평면 위의 곡선 $x^{2/3} + y^{2/3} = 1 (x \geq 0, y \geq 0)$ 을 x 축으로 회전시켜 얻은 곡면의 넓이는? [2점]

① $\frac{3}{5}\pi$

② $\frac{4}{5}\pi$

③ π

④ $\frac{6}{5}\pi$

30. 급수 $\sum_{n=0}^{\infty} \frac{1}{(2n)!}$ 의 값은? [2점]

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

31. 벡터공간 V 의 부분집합 $A = \{v_1, v_2, \dots, v_n\}$ 에 대한 설명 중 옳지 않은 것은? [2점]

- ① A 가 일차종속이면 v_1 은 v_2, v_3, \dots, v_n 의 일차결합이다.
 ② $n > \dim(V)$ 이면 A 는 일차종속이다.
 ③ A 의 원소의 모든 일차결합의 집합은 V 의 부분공간이다.
 ④ A 가 일차독립이면 $\dim(V) \geq n$ 이다.

32. 실 정사각행렬 A, B 에 대하여 $\det(ABA) = 9, \det(BAB) = -3$ 일 때, $\det(A) + \det(B)$ 의 값은? [2점]

- ① 1 ② -1 ③ 2 ④ -2

33. 다음 <보기> 중 행렬 $\begin{pmatrix} 1 & 1 & 1 \\ 1 & 2 & 3 \\ 3 & 2 & 1 \end{pmatrix}$ 과 행동치인 것을 모두 고르면? [2점]

<보기>

가. $\begin{pmatrix} -1 & -1 & -1 \\ -1 & -2 & -3 \\ -3 & -2 & -1 \end{pmatrix}$	나. $\begin{pmatrix} 1 & 1 & 1 \\ 3 & 2 & 1 \\ 1 & 2 & 3 \end{pmatrix}$	다. $\begin{pmatrix} 1 & 1 & 1 \\ 4 & 4 & 4 \\ 3 & 2 & 1 \end{pmatrix}$	라. $\begin{pmatrix} 0 & 0 & 0 \\ 1 & 2 & 3 \\ 3 & 2 & 1 \end{pmatrix}$
---	--	--	--

- ① 가, 나 ② 나, 다 ③ 가, 나, 다 ④ 가, 나, 다, 라

34. 벡터공간 V 의 각 원소 $v \in V$ 에 대하여 사상 $f: V \rightarrow V$ 를 아래와 같이 정의할 때 선형사상이 아닌 것은? [2점]

- ① $f(v) = 0$ (단, 0 은 V 의 영벡터)
- ② $f(v) = 2v$
- ③ $f(v) = v + w$ (단, $w \in V$ 는 주어진 영이 아닌 벡터)
- ④ $f(v) = -v$

35. 정사각행렬 A 가 어떤 자연수 n 에 대하여 $A^n = 0$ 을 만족할 때, $\sum_{k=0}^{n-1} A^k$ 의 역행렬은? (단, A^0 은 단위행렬 I 로 정의한다.) [2점]

- ① $I + A$
- ② $I - A$
- ③ $-I + A$
- ④ $-I - A$

36. 주기가 $c > 0$ 인 미분가능한 주기함수 $f: \mathbb{R} \rightarrow \mathbb{R}$ 에 대하여 다음 <보기>에서 항상 참인 것을 모두 고르면? [3점]

<보기>

- 가. $f(a)$ 가 폐구간 $[0, c]$ 에서 f 의 최댓값이어도 $f'(a) \neq 0$ 일 수 있다.
- 나. $f(b)$ 가 f 의 극솟값이면 $f(b)$ 는 개구간 $(b - \frac{c}{2}, b + \frac{c}{2})$ 에서 f 의 최솟값이다.
- 다. $f'(x) = 0$ 인 x 가 폐구간 $[0, c]$ 에 2개 이상 존재한다.

- ① 가, 나
- ② 다
- ③ 가, 다
- ④ 가, 나, 다

37. 정의역 $x > 1$ 에서 정의된 함수 $f(x) = \lim_{n \rightarrow \infty} \sum_{k=1}^n \frac{x-2}{n} \ln\left(2 + \frac{x-2}{n} k\right)$ 의 역함수를 g 라고 할 때, $g'(0)$ 의 값은? [3점]

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

38. 극좌표로 주어진 곡선 $r = 3 + 2\sin\theta$ 의 내부와 $r = 2$ 의 외부에 놓여 있는 영역을 D 라 할 때, 이중적분

$$\iint_D \frac{1}{\sqrt{x^2 + y^2}} dx dy \text{의 값은? [3점]}$$

- ① $\frac{4}{3}\pi$ ② $\frac{4}{3}\pi + \frac{\sqrt{3}}{2}$ ③ $\frac{4}{3}\pi + \sqrt{3}$ ④ $\frac{4}{3}\pi + 2\sqrt{3}$

39. 삼엽장미곡선의 매개변수함수 $v(\theta) = (\cos 3\theta \cos \theta, \cos 3\theta \sin \theta)$ ($0 \leq \theta \leq \pi$)에 대하여 $v(\theta) \cdot v'(\theta) = 0$ 를 만족하는 곡선 위의 점의 개수는? (단, \cdot 은 내적기호이다.) [3점]

- ① 3 ② 4 ③ 5 ④ 6

40. 멱급수 $\sum_{n=0}^{\infty} a_n x^n$ 의 수렴반지름이 $R > 0$ 일 때 $f(x) = \sum_{n=0}^{\infty} a_n x^n$ 로 정의되는 함수 f 에 대하여 다음 <보기>에서 항상 참인 것을 모두 고르면? [3점]

<보기>

가. f 는 개구간 $(-R, R)$ 에서 미분가능하다.

나. 이상적분 $\int_{-R}^R f(x) dx$ 가 존재한다.

다. $a_n > 0$ 이면 좌극한 $\lim_{x \rightarrow R^-} f(x)$ 이 존재한다.

- ① 가, 다 ② 나, 다 ③ 가, 나 ④ 가

41. 행렬 $\begin{pmatrix} 1 & 0 & 1 & 0 \\ 0 & 2 & 0 & 2 \\ 6 & 7 & 6 & 7 \\ 6 & 7 & 8 & 9 \end{pmatrix}$ 의 열공간의 차원은? [3점]

- ① 1 ② 2 ③ 3 ④ 4

42. 다음 중 내적공간 (V, \cdot) 의 부분공간이 아닐 수 있는 것은? [3점]

- ① 0이 V 의 영벡터일 때, 집합 $\{0\}$
- ② $S \subset V$ 일 때, 집합 $\{v \in V \mid \text{모든 } w \in S \text{에 대하여 } v \cdot w = 0\}$
- ③ $S \subset V$ 일 때, 집합 $\{av_1 + bv_2 \mid a, b \text{는 스칼라, } v_1, v_2 \in S\}$
- ④ V 의 부분공간 $V_n (n = 1, 2, \dots)$ 에 대하여 집합 $\bigcap_{n=1}^{\infty} V_n$

43. 다음과 같이 정의된 행렬 $A = \begin{pmatrix} \cos \frac{\pi}{4} & \sin \frac{\pi}{4} \\ -\sin \frac{\pi}{4} & \cos \frac{\pi}{4} \end{pmatrix} \begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix} \begin{pmatrix} \cos \frac{\pi}{4} & -\sin \frac{\pi}{4} \\ \sin \frac{\pi}{4} & \cos \frac{\pi}{4} \end{pmatrix}$ 의 고유벡터는? [3점]

- ① $\begin{pmatrix} 1 \\ -1 \end{pmatrix}$
- ② $\begin{pmatrix} 1 \\ 0 \end{pmatrix}$
- ③ $\begin{pmatrix} 2 \\ 1 \end{pmatrix}$
- ④ $\begin{pmatrix} 0 \\ -1 \end{pmatrix}$

44. 실 직교행렬 A 에 대한 설명 중 옳지 않은 것은? [3점]

- ① $A^T A = I$ 이다. (단, I 는 단위행렬)
- ② A 의 실 고윳값이 적어도 하나 존재한다.
- ③ $\det(A)$ 는 1 또는 -1 이다.
- ④ λ 가 A 의 실 고윳값이면 λ 는 1 또는 -1 이다.

45. $n \times n$ 실 대칭행렬 A 에 대한 다음 명제 중 거짓은? [3점]

- ① A 는 서로 다른 n 개의 고윳값을 갖는다.
- ② A 의 서로 다른 고윳값에 대응하는 고유벡터들은 서로 수직이다.
- ③ A 는 항상 대각화 가능하다.
- ④ 모든 $n \times 1$ 실 벡터 v 와 w 에 대하여 $Av \cdot w = v \cdot Aw$ 이다. (단, \cdot 은 내적기호이다.)

일반편 입학 : 자연계 (A형)

정답 (A형)	
문항	정답
01	3
02	3
03	1
04	2
05	2
06	4
07	3
08	1
09	2
10	4
11	3
12	2
13	3
14	1
15	1
16	4
17	4
18	2
19	1
20	2
21	1
22	4
23	1
24	4
25	4
26	3
27	1
28	1
29	4
30	2
31	1
32	4
33	4
34	3
35	2
36	2
37	3
38	4
39	2
40	4
41	3
42	3
43	1
44	2
45	1