

2021年度 経済学部 一般選抜 問題訂正

教科・科目	ページ	設問	誤	→	正
英語	4	I	下から3行目、最後の部分 crowds,	→	crowds; (コンマをセミコロンに)

問題文 I , II , III は解答を一つずつ選び, マークシートに記入しなさい。

I . Read the following article, and answer the questions as indicated.

“Facial Recognition Technology: wrongly perceived?”

by Ai Shiyu (2019)

① Facial recognition is a fast-growing biometric technology that identifies individuals by detecting some distinguishable features of their faces. At present, it is used in a variety of ways, from allowing the unlocking of smartphones, or smoothly passing through airport security, to purchasing products at stores. [1], the facial recognition market by 2022 may be worth more than \$9.6 billion.

② Nowadays, people are overwhelmed with all kinds of data, and much of this, in particular photos and videos, constitutes the basic information required to enable facial recognition technology. Facial recognition systems utilize millions of images and videos created by high-quality surveillance cameras, smartphones, social media, and other online activity. Machine learning and artificial intelligence capabilities in the software [2] distinguishable facial features mathematically, [3] for patterns in the visual data, and [4] new images with existing data stored in facial recognition databases in order to determine identity.

③ Facial recognition technology will add convenience to our lives. You will soon be able to pay at stores without using money or credit cards; instead, your face will be scanned. Such a system could be a lifesaver for people who have complicated drug prescriptions, where any mistake could cause detrimental side effects. Facial recognition technology at the pharmacy would be able to identify both the patient and the prescription. This information could be shared with doctors and pharmacists, who could confirm [5] the patient has been given the right medication.

④ Another major advantage of facial recognition technology is in combatting crime. Police forces use the technology to uncover criminals or to find missing children. In New York, the police were able to locate a suspected rapist using facial recognition technology within 24 hours of an incident where he threatened a woman at knifepoint. In areas where the police do not have time to help fight minor crimes, they are now encouraging business owners to install facial recognition systems to watch and identify persons of interest when they come into their stores. [6]

⑤ Critics argue that this technology represents a grave threat to our civil liberties. They argue that such information should not be given to authorities in the first place. However, nothing could be further from the truth. Face scans may confirm the innocence of people suspected of crime. For example, individuals suspected of committing a crime at a certain time and location might be able to prove they were actually at a different location, since their presence would have been recorded by cameras, even in the absence of human witnesses. Many who have been wrongly convicted [7], had the technology been in place. Ultimately, scans favor law-abiding citizens and will allow them to establish their innocence.

⑥ Facial recognition can also help to keep citizens secure. There are good reasons why airports are quickly adding facial recognition technology to security checkpoints; the U.S. Department of Homeland Security predicts that it will be used on 97 percent of travelers by 2023. Clearly, most officials believe that [8]. As is known, when people suspect they are being watched, they are less likely to commit crimes. However, any technology which could recognize potential mass-murderers, either from previous activities or via a purchase history involving weapons, would reduce costs and significantly aid law enforcement.

⑦ Since no physical contact with the individual is necessary for the technology to recognize a face, unlike with fingerprinting or other security measures, facial recognition offers quick, safe, and automatic verification. Systems that rely on physical objects, such as keys or identity documents, which can be lost or stolen, will become unnecessary. Critics are keen to point out the potential flaws in facial recognition systems, but are usually unwilling to acknowledge that the current methods of verification are themselves deeply flawed: signatures can be forged, passports can be faked, and vital personal accounts can be hacked. Of course, facial recognition technology itself might be vulnerable to illegal interference. However, [9] more widely used, any potential flaws would soon be corrected.

⑧ Centuries ago, before urbanization, when the majority of us lived in small villages where everyone knew each other, there was no need to verify someone's identity. Societies could police themselves. Today we live in a chaotic age of mass-travel, migration, and huge cities filled with seemingly anonymous crowds, we need to find appropriate technology to verify who is who. This is not a development to be feared, but one which will [10] to our lives.

Answer the questions [1]—[10] as indicated.

1. Which of the following would best fill the gap at [1] in Paragraph ① ?
Answer by filling in the corresponding slot under the number (1) on the mark sheet.
 1. Already
 2. By some estimates
 3. In all accounts
 4. Increasingly

- 2, 3, 4. Place three of the words below into the most suitable of the gaps marked [2], [3], and [4] in Paragraph ②. Each word may be used only once. Fill in the corresponding slots under the numbers marked (2), (3) and (4) on the mark sheet.
 1. analyze
 2. compare
 3. copy
 4. reuse
 5. search

5. Which of the following would best fill the gap at [5] in Paragraph ③ ?
Answer by filling in the corresponding slot under the number (5) on the mark sheet.
 1. however
 2. whatever
 3. whether
 4. while

6. Which of the following would best fill the gap at [6] in Paragraph ④ ?
Answer by filling in the corresponding slot under the number (6) on the mark sheet.
 1. In the end, crime will hardly be reduced as this trend continues.
 2. In the final analysis, the police cannot be overworked.
 3. Ultimately, such collaboration is crucial for fighting crime.
 4. With this, the number of missing-person cases will be reduced further.

7. Which of the following would best fill the gap at [7] in Paragraph ⑤ ? Answer by filling in the corresponding slot under the number (7) on the mark sheet.
1. may benefit
 2. might have benefited
 3. need benefit
 4. will benefit
8. Which of the following best fills the gap at [8] in Paragraph ⑥ ? Answer by filling in the corresponding slot under the number (8) on the mark sheet.
1. investing heavily in this technology will not be cost-effective
 2. people rarely if ever change their behavior under surveillance
 3. the chances of capturing murderers are extremely high
 4. the mere possibility that this technology is being used will deter crime
9. Which of the following best fills the gap at [9] in Paragraph ⑦ ? Answer by filling in the corresponding slot under the number (9) on the mark sheet.
1. even as it becomes
 2. if it became
 3. since it became
 4. while it will become
10. Which of the following best fills the gap at [10] in Paragraph ⑧ ? Answer by filling in the corresponding slot under the number (10) on the mark sheet.
1. bring back small-scale values
 2. highlight urban-appropriate security
 3. provide some democratic fairness
 4. restore some long-lost order

II. Read the following article, and answer the questions as indicated.

“Facial Recognition Technology: the thin edge of the wedge”

by U. C. Mee (2019)

① Exactly 70 years ago, we were warned of a future where our every action would be watched over by the government. This was introduced by George Orwell in his novel *Nineteen Eighty-Four*, wherein the leader “Big Brother” seeks to control [11] thoughts and behaviors by constantly observing them. As it happens, Orwell’s vision of the future is mild in comparison to the one in store for us. Facial recognition technology is quickly turning the notion of individual privacy into a relic of the past. Worse, governments are not alone in advancing these systems: multinational corporations, online social media services, and even local grocery stores are pushing them along. Ironically, without serious and immediate government oversight, in the near future we will be watched by everyone all the time. [12]

② Facial recognition bears little resemblance to other biometric technologies currently in use, such as fingerprint identification or DNA analysis. We have no control over who captures, records, and analyzes images of our faces. Fingerprints and eye scans, which are used to secure our homes, phones, and computers, require [13] . The problem with facial recognition systems is that individuals cannot control their personal data through a registration process. With phones, you understand such data will be secured on your personal device.

③ [14] recording your face, your friends might have more say in the matter than you yourself. Sharing photos with family and friends is natural, but it has also been essential to the development of this technology. The rapid growth of social media services that allow us to share photos with friends has allowed others to use our images in unforeseen ways. New artificial intelligence programs have pushed this technology to extremes. Today, they can identify an individual in an image more quickly than real people doing the same. At this rate, machines will soon know more about your social life than you do yourself.

④ Facial recognition technology has multiplied threats to our personal freedom. We have given permission to multi-billion-dollar companies to collect and use our personal information, including the images of our faces and those of our friends, and it seems they are free to target us in any way they choose. It will not be long until security cameras located in local stores are transformed into “customer recognition systems” that will constantly encourage you to buy more. Before you know it, it will be impossible to avoid “smart advertisements” that talk to you personally as you walk down the street. [15]

⑤ Worse still, the potential for government abuse is frightening. The right to peaceful protest is guaranteed in most democracies; however, protestors are increasingly obliged to wear masks to protect their identities from surveillance cameras employed by the state. Governments may use the facial images to arrest or imprison peaceful demonstrators – obviously [16] of these systems. Free speech under constant surveillance is ultimately not free.

⑥ Misidentification is another serious issue. On several occasions, innocent people who [17] walked into and out of stores without buying anything were unknowingly marked by the security systems. On their next visit they were asked to leave the store immediately. Similarly, in 2018, the police used facial recognition technology to identify an 18-year-old student as a shoplifter. She was arrested; however, it turned out that the student was at a school dance when the crime was committed. The charges were eventually dropped, but this traumatic experience is the result of flaws in this technology. Now this student is suing the company to [18] the emotional distress it caused.

⑦ Indeed, news of racial bias linked to facial recognition errors seems to appear daily. The problem is that these technologies have been shown to more frequently misidentify people of color. This, in turn, can result in police officers conducting home or body searches that are not warranted. Since these mistakes largely affect communities of color, this [19] further inflame distrust of law enforcement. This has prompted widespread protests against police prejudice throughout the world.

⑧ Fortunately, there is some hope on the horizon. Concerned individuals have launched lawsuits against social media companies that one can hope will stop the collection and sharing of facial data. Protest marches are prompting discussion of possible reforms. In recent months, cities in California and Massachusetts passed laws to ban “live” facial recognition technology that surveys people in real time. Fingers crossed, the ultimate goal of national legislation may soon be within reach. Indeed, Orwell would surely have recognized the irony of a situation in which it is up to the government to guarantee our privacy from the all-seeing eyes of facial recognition technology. [20]

Answer the questions [11] — [23] as indicated.

11. Which of the following would best fill the gap at [11] in Paragraph ① ?
Answer by filling in the corresponding slot under the number (11) on the mark sheet.

1. our
2. the characters’
3. the readers’
4. their

12. According to the article, when was the novel mentioned in Paragraph ① published? Answer by filling in the corresponding slot under the number (12) on the mark sheet.

1. 1914
2. 1949
3. 1951
4. 1984

13. Which of the following would best fill the gap at [13] in Paragraph ② ?
Answer by filling in the corresponding slot under the number (13) on the mark sheet.

1. activation from online servers
2. government authorization
3. passwords to work
4. users’ consent to function

14. Which of the following would best fill the gap at [14] in Paragraph ③ ? Answer by filling in the corresponding slot under the number (14) on the mark sheet.
1. As far as
 2. To the extent that
 3. When it comes to
 4. Whenever
15. In Paragraph ④, which of the following does the author view as the greatest threat to personal freedom posed by the widespread use of facial recognition technology? Answer by filling in the corresponding slot under the number (15) on the mark sheet.
1. advertising companies
 2. government agencies
 3. images of friends
 4. large corporations
16. Which of the following would best fill the gap at [16] in Paragraph ⑤ ? Answer by filling in the corresponding slot under the number (16) on the mark sheet.
1. a convenient benefit
 2. a gross misuse
 3. a smart application
 4. an inevitable consequence
17. Which of the following best fills the gap at [17] in Paragraph ⑥ ? Answer by filling in the corresponding slot under the number (17) on the mark sheet.
1. barely
 2. hardly
 3. never
 4. simply

18. Which of the following best fills the gap at [18] in Paragraph ⑥ ? Answer by filling in the corresponding slot under the number (18) on the mark sheet.
1. appeal to
 2. compensate for
 3. cut up
 4. make for
19. Which of the following best fills the gap at [19] in Paragraph ⑦ ? Answer by filling in the corresponding slot under the number (19) on the mark sheet.
1. could preferably
 2. may potentially
 3. might necessarily
 4. must possibly
20. Which of the following does the author view as the most important source of “hope” in paragraph ⑧ ? Answer by filling in the corresponding slot under the number (20) on the mark sheet.
1. city governments
 2. individual citizens
 3. the federal government
 4. widespread protests
- 21, 22. Look at the statements below. Then, based on **BOTH** articles, under the corresponding number (21) and (22), fill in

Slot 1, if only Ai Shiyu would agree with that statement

Slot 2, if only U. C. Mee would agree with that statement

Slot 3, if both authors would agree with that statement

Slot 4, if neither author would agree with that statement

21. Facial-recognition technology should only be used by governments.
22. Individual security is improved by facial recognition technology.

23. Each of the following pairs of words contains a noun and a verb. Which of the pairs contains words that have **the same stress** (アクセント) **pattern**? Answer by filling in the corresponding slot under the number (23) on the mark sheet.

1. the balance – to balance
2. the conduct – to conduct
3. the project – to project
4. the rebel – to rebel
5. the record – to record

III. Read the following article, and answer the questions as indicated.

“Driving the Future of Driverless Cars”

by Otto Matick and Newt Rall (2019)

① In April 2019, Tesla CEO Elon Musk hosted a major event focusing on the future of self-driving cars. Musk announced, “Tesla cars being produced all have the hardware necessary – computer and otherwise – for full self-driving.” The only thing [24] to make this a reality is a software update to turn on the feature. Musk also announced that Tesla vehicles would soon allow individual owners to loan out their cars to drive people automatically. These “robotaxis” would work without human intervention and could make their owners as much as \$21,000 in profit per year.

② The future of autonomous vehicles is speeding along, built upon many technological advances: cameras and radar to detect surrounding cars, telecommunications to make updates on the go, and computer processors that recognize dangerous conditions faster than humans. The global market for autonomous vehicles reached \$10.5 billion in 2017 and is forecast to increase to over \$65 billion by 2027. The economic opportunities are [25] no automaker, let alone any nation, can ignore them. Those same opportunities, however, are equaled by significant new risks and challenges that may put the brakes on the expansion of driverless cars.

③ Driverless cars provide a vision of an ideal world in which traffic accidents are a thing of the past. In terms of safety, the WHO estimated a record high 1.35 million deaths worldwide from road crashes in 2016. By contrast, the European Commission [26] a decline in traffic deaths in the European Union by more than 50% between 2001 and 2018, an achievement that was partially [27] to automation. Pedestrian deaths, however, have [28] at a much lower rate and continue to make up 29% of all fatalities in the EU. With reduced potential for human error with driverless cars, urban streets can be redesigned for bicycles, which will make walking and cycling safer and more enjoyable.

④ Safety is not the only benefit. With an automated car, the morning commute to work can be used to get an early start on work or to catch up on needed sleep – a concern for the 19 million workers in the US who drive at least 2.5 hours a day. For many, the quality of life can be vastly improved. Disabled individuals can gain the benefits of enhanced freedom, and the elderly will no longer need to worry about losing their mobility. The social dimensions of driving will likely change too, as the ease of summoning a driverless car reduces the need for individual ownership, thereby allowing cars to be communally shared. [29] As a result, with the reduction in traffic violations police departments will have more time to focus on other problems facing the community.

⑤ Nevertheless, the broad adoption of driverless cars faces many speed bumps. The most obvious is the cost involved, as the current generation of automated cars offered by leading car manufacturers can easily reach more than \$100,000. As the cars are highly dependent upon several integrated technologies, there are concerns that failed programming updates, a downed satellite system, or damaged systems could make the cars prone to error – much like how failing to update a smartphone operating system can render it useless. [30]

⑥ Worse yet, as driverless cars will be connected to wireless networks, someone else may take over control of your car. In 2015, researchers remotely hacked into a car via its internet connection, giving them the ability to change its GPS position and to prevent the driver from using the brakes. Moreover, serious concerns remain about the collection of personal data. Driverless cars might require collecting private information about the people in the car and automatically storing and sharing this information.

⑦ Furthermore, there are real concerns about liability. When driving today, it is the responsibility of the car owner and driver to keep their car in proper working condition, and to be insured in the case of an accident. With driverless cars, the question of who is responsible for an accident would become unclear. One suggestion is to assign responsibility solely to car manufacturers; however, they object that doing so would raise costs so high that it would make the cars simply too expensive. Not all accidents can be foreseen, and [31]. Whatever the case, minimum standards for insurance and maintenance must be implemented. Few governments could tolerate a situation in which the legal consequences of accidents are unclear.

⑧ For all the benefits and despite some real concerns, the true limit on the advancement of driverless cars is a question of [32]. The full effects of self-driving vehicles will inevitably be met by resistance from the automotive industry, labor unions, legislative regulations, and the perceived dangers to people's lives and their livelihoods. Nitin Gadkari, India's Transport and Highways minister said, "We won't allow driverless cars in India." No government, especially in a country with high unemployment, will endorse a technology that ends up taking away jobs. According to a report from Goldman Sachs Economic Research, there were four million driver jobs in the US in 2014, and driverless trucks could reduce the number of jobs by as many as 300,000 per year at its peak.

⑨ Some argue that the real impact of driverless cars will be to improve the more routine driving jobs which already exist, allowing drivers to reduce the stress and danger of their jobs. It is likely that most drivers will still be needed. Automation in airplanes, for example, has not reduced the need for pilots. Driverless cars will profoundly alter our lives: the question is, who will benefit? Will it be the average driver or the executives of global automotive companies?

Answer the questions [24] — [36] as indicated.

24. Which of the following would best fill the gap at [24] in Paragraph ① ?
Answer by filling in the corresponding slot under the number (24) on the mark sheet.

1. available
2. left
3. right
4. suitable

25. Which of the following would best fill the gap at [25] in Paragraph ② ?
Answer by filling in the corresponding slot under the number (25) on the mark sheet.

1. so attractive as
2. so compelling as
3. so grand that
4. such vast that

26, 27, 28. Place three of the words below into the most suitable of the gaps marked [26], [27], and [28] in Paragraph ③. Each word may be used only once. Fill in the corresponding slots under the numbers marked (26), (27) and (28) on the mark sheet.

1. attributed
2. granted
3. fallen
4. found
5. risen

29. Which of the following would best fill the gap at [29] in Paragraph ④ ?
Answer by filling in the corresponding slot under the number (29) on the mark sheet.

1. Commuting will become a pleasure.
2. Driverless cars will never exceed the speed limit.
3. Parking fines will nonetheless continue to occur.
4. Some traffic accidents will still occur.

30. Which of the following issues does the author mention as potentially problematic in Paragraph ⑤ ? Answer by filling in the corresponding slot under the number (30) on the mark sheet.
1. Interdependency
 2. Inefficiency
 3. Mobility
 4. Security
31. Which of the following would best fill the gap at [31] in Paragraph ⑦ ? Answer by filling in the corresponding slot under the number (31) on the mark sheet.
1. governments should cover the costs of accidents
 2. insurers should not bear all accident risks
 3. manufacturers should not bear the cost of this uncertainty
 4. owners should not bear responsibility for insurance and maintenance
32. Which of the following would best fill the gap at [32] in Paragraph ⑧ ? Answer by filling in the corresponding slot under the number (32) on the mark sheet.
1. finance
 2. politics
 3. technology
 4. time
- 33, 34. Read the statements below. Then, based on the article as a whole, under the corresponding number (33) or (34) on the mark sheet, fill in **slot 1** if you think the author would agree with the statement, or fill in **slot 2** if you think the author would disagree with the statement, or fill in **slot 3** if you think the author does not express an opinion about the statement.
33. Driverless cars will improve safety for cyclists.
34. The environmental impact of driverless cars will be positive.

35, 36. Which of the following pairs of words **do not have matching vowel sounds** (do not rhyme) when spoken? Answer by filling in the corresponding slots under the numbers (35) and (36) on the mark sheet.

35. 1. bird – heard

2. chew – flew

3. grown – crown

4. own – sewn

36. 1. allow – arrow

2. charity – parity

3. lighting – writing

4. towel – bowel

IV. 以下の会話文を英語に直して、解答用紙BのIV. のB1, C1, B2, C2と記載されている行に書きなさい。

注意点：

日本語の表現をうまく英語にできない場合は、別の言い方に変えてから英語にしてみましょう。(例) 難解 → 分かりにくい → hard to understand

会話の場面：

同じコンビニでバイトしている学生同士の会話です。

会話文：

B1： 久しぶりだけど、三日連続の無断欠勤、どうしたの？

C1： 色々あってさ。でも辞めさせられたら困るなー。

B2： 僕が店長なら、当然首にするよ。やる気がないなら、さっさと辞めれば。

C2： いや、そんなことは親に言えないよ。今度店長に会ったら謝ってみるよ。

V. 以下の設問 (A), (B) の中から一つ選んで, 問題文 I ~ III を基にして, 自分の意見を解答用紙 B の V. 欄に英語で書きなさい。注意点をよく読んでから書くこと。

(A) Should the Japanese government regulate the use of facial recognition technology? Why or why not?

(B) Should the Japanese government promote driverless cars in Japan? Why or why not?

注意点：

(1) 箇条書きは不可。

(2) 自分の意見と異なる見解に言及し, それに反論すること。

(3) 問題文 I, II または III で言及されている見解やことがらを最低一つ引用して, 自分の意見をまとめること。引用する際には, 下の例を参考にと。

引用例：

- In her 2010 article “Against Zoos”, Faerrer claims, “Nature is not ours to control”. She argues that However, I strongly disagree with that statement, because
- I agree only to a certain extent with Eve N. Suzuki who argues, “Schools do not protect the rights of students enough” in the essay by Foane (2010). Her claim that X is Y may be true, but
- According to O’Werke (2012, paragraph 7), one option is indirect taxation. Although this argument ...,