

注 意 事 項

1. この科目では、この問題冊子のほかに、マーク解答用紙を配付します。
2. 試験開始の指示があるまで、問題冊子および解答用紙には手を触れないでください。
3. 問題は2～11ページに記載されています。試験中に問題冊子の印刷不鮮明、ページの落丁・乱丁および解答用紙の汚損等に気付いた場合は、手を挙げて監督員に知らせてください。
4. 解答はすべて、HBの黒鉛筆またはHBのシャープペンシルで記入してください。
5. マーク解答用紙記入上の注意
 - (1) 印刷されている受験番号が、自分の受験番号と一致していることを確認したうえで、氏名欄に氏名を記入してください。
 - (2) マーク欄にははっきりとマークしてください。また、訂正する場合は、消しゴムで丁寧に、消し残しがないようによく消してください。

マークする時	<input checked="" type="radio"/> 良い	<input type="radio"/> 悪い	<input type="radio"/> 悪い
マークを消す時	<input type="radio"/> 良い	<input type="radio"/> 悪い	<input type="radio"/> 悪い

6. 解答はすべて所定の解答欄に記入してください。所定の欄以外に受験番号・氏名を記入した解答用紙は採点の対象外となる場合があります。
7. 試験終了の指示が出たら、すぐに解答をやめ、筆記用具を置き解答用紙を裏返しにしてください。
8. 問題冊子は持ち帰ってください。
9. いかなる場合でも、解答用紙は必ず提出してください。

Part I. Read Text I, Text II, and Text III and choose the best option from a – d for questions 1 – 15.

Text I

[1] The (a) asymmetric networks that make up much of the structure of a globalized world were not constructed as tools of statecraft. They typically reflect the incentives of businesses to create monopolies or semi-monopolies, increasing returns to scale in certain markets, rich-get-richer mechanisms of network attachment, and the efficiencies available to more centralized communications networks. By building centralized networks, market actors inadvertently provide states, which are concerned with political as well as economic considerations, with the necessary levers to extend their influence across borders. Thus, structures that were generated by market actors in pursuit of efficiency and market power can be put to quite different purposes by states.

※1 ページ下部に出典を追記しております。

[2] Here, we differentiate our account of power from two related but distinct sources of power that may result from economic interdependence. The first is market power. Although often underspecified, research on market power emphasizes the aggregate economic potential (measured in a variety of different ways ranging from the domestic consumer-base to total gross domestic product or GDP) of a country. States with large economic markets can leverage* market access for strategic (b) ends. National economic capabilities, then, produce power resources. The second source of power, which dates back to the pioneering work of Keohane and Nye and has been most thoroughly examined in the case of trade, involves bilateral* dependence. States that rely on a particular good from another state and lack a substitute supplier may be sensitive to shocks or manipulation.

[3] Market size and bilateral economic interactions are important, but they are far from exhaustive of the structural transformations wreaked by globalization. Global economic networks have distinct consequences that go far beyond states' unilateral decisions either to allow or deny market access, or to impose bilateral pressure. They allow some states to weaponize interdependence on the level of the network itself. Specifically, they enable two forms of weaponization. The first weaponizes the ability to obtain critical knowledge from information flows, which we label the "panopticon effect." Jeremy Bentham's conception of the Panopticon was precisely an architectural arrangement in which one or a few central actors could readily observe the activities of others. States that have physical access to or jurisdiction* over hub nodes can use this influence to obtain information passing through the hubs. Because hubs are crucial intermediaries in decentralized communications structures, it becomes difficult—or even effectively impossible—for other actors to avoid these hubs while communicating.

[4] As technology has developed, the ability of states to obtain information about the activities of their adversaries* (or third parties on whom their adversaries depend) has correspondingly become more sophisticated. The reliance of financial institutions on readily searchable archives of records converts bank branches and internet terminals into valuable sources of information. New technologies such as cell phones become active sensors. Under the panopticon effect, states' direct surveillance* abilities may be radically exceeded by their capacity to tap into the information-gathering and information-generating activities of networks of private actors.

[5] Such information offers (c) privileged states a key window into the activity of adversaries, partly compensating for the weak information environment that is otherwise characteristic of global politics. States with access to the panopticon effect have an informational advantage in understanding adversaries' intentions and tactics. This information offers those states with access to the hub a strategic advantage in their effort to counter the specific moves of their targets, conduct negotiations, or create political frames.

[6] The second channel works through what we label the "chokepoint effect," and involves privileged states' capacity to limit or penalize use of hubs by third parties (e.g., other states or private actors). Because hubs offer extraordinary efficiency benefits, and because it is extremely difficult to get around them, states that can control hubs have considerable (d) coercive power, and states or other actors that are denied access to hubs can suffer substantial consequences.

[7] States may use a range of tools to achieve chokepoint effects, including those described in the existing literature on how statecraft, credibility, the ability to involve allies, and other such factors shape the relative success or failure of extraterritorial (a) coercive policies (e.g., Kaczmarek and Newman, 2011). In some cases, states have sole jurisdiction over the key hub or hubs, which offers them the legal authority to regulate issues of market use. In others, the hubs may be scattered across two or more jurisdictions, obliging states to work together to exploit the benefits of coercion. Our account emphasizes the crucial importance of the economic

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Text I [1]/Republished with permission of MIT Press - Journals, from *Weaponized Interdependence*:

How Global Economic Networks Shape State Coercion, HARVARD UNIVERSITY., JOHN F. KENNEDY SCHOOL OF GOVERNMENT., volume 44, Issue 1, 1976;

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network structures within which all of these (d)coercive efforts take place. Where there are one or a few hubs, it becomes far easier for actors in control of these nodes to block or restrict access to the entire network.

[Adapted from Farrell, H. & Newman, A. L. (2019). (title withheld) *International Security*, 44(1).]

*leverage = use power to influence an outcome

*lateral = relating to a side

*jurisdiction = the official power to make legal decisions and judgements

*adversary = one's opponent

*surveillance = close observation

Questions 1 – 9 refer to Text I.

- Which of the following is true of (a)asymmetric networks (which appears in paragraph [1])?
 - Asymmetric networks rely on economic interdependence.
 - Asymmetric networks create a power imbalance.
 - Asymmetric networks use hubs.
 - all of a, b, and c
- Which of the following is closest in meaning to the word (b)ends as used in paragraph [2]?
 - limits
 - final parts
 - completion
 - aims
- What is the source of power which can be used by (c)privileged states in paragraph [5]?
 - market size
 - bilateral economic relations
 - centralized information flows
 - global monopolies
- Which of the following situations is (d)coercive according to its usage in paragraphs [6] and [7]?
 - States that control access to hubs negotiate access to these hubs through a third party.
 - States use force and threats to achieve their policy objectives through the control of hubs.
 - Third parties use incentives to gain access to hubs.
 - Third parties use extraterritorial jurisdiction to avoid the use of hubs by privileged states.
- Which of the following is true of the panopticon effect and the chokepoint effect?
 - The panopticon effect restricts access to hubs, whereas the chokepoint effect requires access to hubs.
 - The panopticon effect results in the development of more hubs, but the chokepoint effect does not.
 - The restriction of access to hubs in the chokepoint effect limits the use of the panopticon effect.
 - The development of new hubs would prevent the ability of all actors to use both effects.
- Which of the following is a real world example of the panopticon effect?
 - Internet Service Providers are required to provide email data to government agencies.
 - A hacking group leaked a large amount of information held by the government.
 - A journalist received information about an illegal surveillance operation from an undisclosed source.
 - An intelligence agency used photocopyers to get information from the embassies of foreign governments.
- Which of the following is a real world example of the chokepoint effect?
 - an accident in a major canal stopping international shipping for a week
 - the presence of a foreign country's warships off the coast of Africa to police piracy
 - the threat by a country to stop ships carrying oil through a narrow sea passage
 - the requirement by a country stating that phone chargers use USB connectors
- Which of the following paragraph arrangements best shows how Text I is organized?
 - [1] – [2] – [3][4] – [5][6][7]
 - [1][2] – [3][4][5] – [6][7]
 - [1] – [2][3] – [4][5] – [6][7]
 - [1][2][3] – [4][5][6] – [7]
- What would be an appropriate title for Text I?
 - Weaponized Interdependence
 - Technology for International Security
 - Centralized Communication Networks
 - Failures of Extraterritorial Coercion

Text II

(e) International sanctions, as a foreign policy tool, are an expression of the interests of states as sovereign* actors in world politics. They are also an expression of states seeking to exert power over others beyond their borders. As much as international sanctions are an expression of (f) sovereignty, they may also amount to a challenge to the notion of sovereignty, commonly understood as the external and internal independence of a state with respect to its liberty of action (Jennings and Watts, 1992), negotiating the concept's boundaries and exposing, eventually, its limits.

United States (US) sanctions subject their targets to US power, but also project US power beyond its borders, by imposing its jurisdiction extraterritorially onto foreign territories not directly involved in the conflict. US sanctions regulations then employ an extensive definition of "persons subject to the jurisdiction of the United States": effectively, US persons always need to comply with US sanctions regulations, no matter whether they are in the US or not (Clark, 1999).

Crucially, these so-called 'primary sanctions' applying to US persons also leverage the central position of the US in the global financial system (Farrell and Newman, 2019). US banks need to ensure that United States Dollar (USD) payments going through them are in line with US sanctions regulations, even if they originate and end outside of the US and payer and beneficiary are non-US persons. As the US dollar is the predominant currency in global trade and capital market transactions, this provides a means to the US to project regulatory power beyond its borders. Generally, every USD transaction passes through the US financial system.

※2 [Adapted from Jaeger, M. D. (2021). Circumventing Sovereignty: Extraterritorial Sanctions Leveraging the Technologies of the Financial System. *Swiss Political Science Review*, 27(1).]

※2 WEB掲載に際し、以下のとおり出典を追記しております。
Swiss Political Science Review 27, Issue 1,
Circumventing Sovereignty: Extraterritorial Sanctions
Leveraging the Technologies of the Financial System.,
Published by John Wiley and Sons

*sovereign = acting independently without outside interference

Questions 10 – 12 refer to Texts I and II.

10. Which of the following best describes how (e) international sanctions are related to (f) sovereignty?
- Sanctions have little effect on the sovereignty of other nations.
 - Sanctions are always an exercise of US power over other nations.
 - Sanctions are a mechanism created by international banks to ensure that US sovereignty is upheld.
 - Sanctions both exert sovereignty of nations and trespass on the sovereignty of other nations.
11. According to US regulations, which of the following must US persons do?
- Ignore the sovereignty of other nations when in the US.
 - Ignore the sovereignty of other nations when in those nations.
 - Obey US sanctions even when abroad.
 - Extend US power abroad to other nations when in those nations.

Question 12 refers to the following additional text.

Predominance of the USD in global capital market transactions ensures that persons utilizing USD payments comply with US sanctions. This is an example of ().

12. Which of the following best fills the blank in the above statement?
- primary sanctions
 - the chokepoint effect
 - liberty of action
 - the panopticon effect

Text III

Historically, Europe's alignment* to US geopolitical power secured a space of relative autonomy for European institutions and member states. It gave European elites the ability to sidestep difficult questions on defense and foreign policy integration (Cotter, 2019), made it possible for member states to minimize military expenditure and to reallocate those resources elsewhere (Aggestam and Hyde-Price, 2019), and allowed Europe to imagine itself as a normative global actor defined by its orientation towards free trade, cooperation, and the promotion of democracy (Manners, 2002).

Patterns of geopolitical turbulence in the new global disorder are disrupting this form of alignment in a number of ways. First, the US has partially disengaged from Europe and is orienting its attention towards other regions in the world. This process, which started at the end of the Cold War, accelerated substantially after 2008, as the Obama and Trump (US presidents) administrations sought to respond to the perceived weakening of US power with a greater focus on its emerging challenger, China (Babic, 2020). This was

coupled, under Trump, with an ^(g)aversion* to multilateral cooperation, leading to serious disagreements with the European Union (EU) over the Paris climate agreement and the Iran nuclear deal (Aggestam and Hyde-Price, 2019). US disengagement from Europe was also manifested in tensions over the future of NATO, with recurring disputes over burden-sharing as well as doubts over the US's continued commitment to collective defense (Schwarzer, 2017). The gulf between the US and the EU on trade, foreign policy, and international cooperation fueled the recognition amongst EU policy-makers that a greater emphasis on self-reliance and strategic autonomy is necessary (Aggestam and Hyde-Price, 2019; European Commission, 2016).

※3 [Adapted from Lavery, S. & Schmid, D. (2021). European Integration and the New Global Disorder. *Journal of Common Market Studies* 2021.]

*alignment = a position of agreement
 *aversion = a strong dislike or reluctance

※3 WEB掲載に際し、以下のとおり出典を追記しております。
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Questions 13 – 15 refer to Texts I, II, and III.

13. Based on the US policy decisions in Text III, which of the following would EU policy-makers recommend?
- a. Re-implement the Paris climate agreement.
 - b. Rely more on the US for foreign policy decisions.
 - c. Cancel the Iran nuclear deal.
 - d. Increase military spending.

Question 14 refers to the following additional text.

If the EU decided against using the USD for financial transactions, choosing instead to use the Euro (EU currency), the US would lose the ability to use () to coerce the EU to abide by US sanctions.

14. Which of the following best fills the blank in the above statement?
- a. the chokepoint effect
 - b. third parties
 - c. foreign territories
 - d. international sanctions
15. How might a US president's ^(e)aversion to multilateral cooperation influence the ability of the US to use the panopticon effect?
- a. States might reduce their use of the US Dollar, which might mean that the US would no longer be able to enforce sanctions on aggressor states.
 - b. States might reduce their use of the US Dollar, which might mean that information from transactions through US banks would no longer be available.
 - c. The reduction in the levels of cooperation between the US and other states might reduce the amount of trade between those states.
 - d. The reduction in the levels of cooperation between the US and other states might reduce the ability of the US to negotiate sanctions against aggressor states.

Part II. Read the passage and rearrange the seven words in 1 – 5 in the correct order. Then choose from a – d the option that contains the third and fifth words.

The focus of this edition has changed slightly from previous editions. Certainly the primary objectives of a course in Statistical Methods and Data Analysis include developing the student's appreciation and understanding of the role of statistics in their field and an ability to apply appropriate statistical methods to summarize and analyze data for ₁(the / of / more / some / routine / settings / experimental). While fulfilling these objectives, we also want to focus the student ₂(where / on / the / these / fit / methods / into) context of making sense of data. To this end we have approached the fourth edition by considering the four steps in making sense of data: gathering data, summarizing data, analyzing data, and communicating the results of data analyses. The text ₃(include / parts / is / divided / chapters / into / which) on the four steps of making sense of data as well as separate chapters which contain the necessary background or connective material. With this organization and emphasis, we want the student to understand that the summarization and analysis of data are steps in the larger problem of making sense of data. Thus, this edition aims at ₄(more / editions / practical / being / than / previous / ever) by relating the methods and data analysis techniques of the text to the context ₅(they / to / are / which / in / used / solve) real life, practical problems.

[Adapted from Ott, L. (1993). *An Introduction to Statistical Methods and Data Analysis*, 4th edition. Duxbury Press.]

1. a. 3rd: the b. 3rd: more c. 3rd: routine d. 3rd: more
 5th: routine 5th: the 5th: of 5th: experimental

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 Lymann Ott, pp15-16, 1993; permission conveyed through
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- | | | | | |
|----|--------------------------------|-------------------------------|-------------------------------|-----------------------------|
| 2. | a. 3rd: the
5th: fit | b. 3rd: these
5th: fit | c. 3rd: fit
5th: the | d. 3rd: methods
5th: fit |
| 3. | a. 3rd: chapters
5th: parts | b. 3rd: is
5th: into | c. 3rd: which
5th: divided | d. 3rd: into
5th: which |
| 4. | a. 3rd: than
5th: practical | b. 3rd: previous
5th: more | c. 3rd: than
5th: ever | d. 3rd: more
5th: than |
| 5. | a. 3rd: to
5th: which | b. 3rd: they
5th: used | c. 3rd: used
5th: solve | d. 3rd: are
5th: to |

Part III. Answer the questions in Sections A and B.

Section A: Read the text and choose the best option from a – d for questions 1 – 6.

Over the last 50 years, history of science has evolved from a subject studied seriously by only a few scholars (A) widely used in science teaching, to an established academic discipline somewhat isolated from the scientific community. Professional historians of science, seeing themselves as historians rather than scientists, criticized scientists for promulgating “Whiggism”, and some of (B)them overemphasized the social context at (i) expense of the technical content of science.

(C), having attained (ii) degree of maturity and acceptance within the humanities and social sciences, history of science has started to rebuild the bridges to science. Historians of science welcome scientists with an interest in history and offer a variety of materials for explaining science to students and the public. (D) for their part have (iii) better understanding of the value of sound historical research, and have given substantial support to historical sections and centers in their own societies, (E) reading scholarly books and journals on topics in (iv) history of science. This is especially true of physics, (A) other sciences have also moved in this direction. The public relations (E) the educational benefits of history are now recognized.

[Adapted from Brush, S. G. (1989). History of science and science education. *Interchange*, 20(2).]

※5 ページ下部に出典を追記しております。

- Which of the following best fits in the two blanks labeled A?
a. but b. thus c. indeed d. even
- Which of the following does the word (B)them in the text refer to?
a. Whiggists b. scientists
c. scientific communities d. professional historians
- Which of the following best fits in blank C?
a. Next b. Now c. That is to say d. Thus
- Which of the following best fits in blank D?
a. Historians b. Students c. Scientists d. Journalists
- Which of the following best fits in the two blanks labeled E?
a. such as b. as part of c. as well as d. as though
- Which of the blanks i, ii, iii, and iv can be filled with the article ‘a’ or ‘an’?
a. i and ii only b. i and iii only c. ii and iii only d. ii and iv only

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Section B: The five paragraphs [A] – [E] below make up a passage but are not properly ordered. Moreover, the five sentences (1) – (5) in paragraph [A] are not properly ordered, either. Read the entire passage and choose the best option from a – d for questions 7 and 8.

AF = Australian Rules football AFL = Australian Football League

- [A] (1) Examples within the notational analysis literature include Stewart et al. (2007) who created a player ranking model by identifying the most important performance indicators, and including those with the strongest relationship to team winning margin. Heasman et al. (2008) created a player impact rating which assigned numerical values to each performance indicator relative to its perceived worth.
- (2) AF is a dynamic invasion team sport played on a large oval field between two opposing teams consisting of 22 players each (18 on the field and four interchange).
- (3) Despite this, various objective player performance measures have been created based on player performance in the elite competition of AF, the AFL.
- (4) Due to the dynamic nature of the sport and the complex interactions which occur in AF, individual performance is difficult to analyze, both subjectively and objectively.
- (5) These values were then weighted relative to environmental situations of the match, and adjusted relative to a player’s time on ground.

[B] A common criticism of player performance evaluation in AF is their bias towards players whose specific role involves being more frequently involved in the play, enabling their actions to have a more tangible effect on performance evaluation. These biases have been noted within the notational team sport literature in relation to both subjective and objective player performance analyses. For AF, this specifically relates to midfield players whose role is more centered on following the play to obtain/maintain possession of the ball and improving their team’s field position. Previous objective player performance measures have combatted this by suggesting that player performance comparisons should be only made within players who play the same player roles.

[C] Player evaluation plays a fundamental role in the decision-making processes of professional sporting organizations, including player monitoring, team selection, player contracting and scouting. There has been various literature outlining the benefits of considering objective evaluations of performance to support organizational decision-making processes. Though these studies proclaim the benefits of objective evaluations (i.e., reliability and consistency), they each emphasize the importance of utilizing both objective and subjective evaluations of performance in a complementary manner.

[D] Subjective analyses of performance are also commonplace within the AFL. Examples include the AFL Coaches Association award and the AFL’s award for the fairest and best player. Further, various clubs use subjective coach ratings as a way of determining club based awards, and various media sources publish subjective ratings for public interest.

[E] Various objective player performance measures also exist for commercial purposes. Examples include the ‘AFL Player Rankings’ and the ‘AFL Player Ratings’, which are both produced by a statistics provider. The former takes a similar approach to that of Stewart et al. (2007), however extends this model to include over 50 variables. The latter takes an alternate approach to most player performance rating systems, and is based on the principle of field equity. In this system, each action is quantified relative to how much the action increases or decreases their team’s expected value of scoring next. A player’s overall performance is then measured by the overall change in equity that is created by that player’s actions during the game.

[Adapted from McIntosh, S., Kovalchik, S., & Robertson, S. (2019). Comparing subjective and objective evaluations of player performance in Australian Rules football. *PLoS ONE* 14(8): e0220901.]

※6 ページ下部に出典を追記しております。

7. Which of the following shows the best (most coherent) sentence order for paragraph [A]?
- a. 1-3-2-5-4 b. 2-4-3-1-5 c. 2-5-1-4-3 d. 4-3-5-1-2
8. Which of the following shows the best (most coherent) paragraph order for the passage?
- a. A-C-B-E-D b. B-D-A-E-C c. C-A-E-D-B d. C-E-A-B-D

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Part IV. Answer the questions in Sections A and B.

Section A: Read the text and choose the best option from a – d for questions 1 – 5.

Fallacies are mistakes in reasoning which lead to a false conclusion. There are many types of fallacies, and here we introduce two types of correlational fallacies that assign causality between two phenomena. They are the *correlation-proves-causation* fallacy and the *post hoc* fallacy.

In an April fool's joke, the magazine *Economist* (April 1, 2016) published a graph showing a correlation between a country's ice cream consumption and academic performance. They concluded that increased ice cream consumption improved academic performance. This is an example of a *correlation-proves-causation* fallacy. Even though the two phenomena look correlated, one phenomenon does not cause the other. In this case, the correlation is likely explained by the country's gross domestic product (GDP). The economic wealth of the country may have caused both increased ice cream consumption and improved academic performance.

The *post hoc* fallacy, on the other hand, is a mistake in reasoning which assumes that an earlier phenomenon has caused a later phenomenon, even though they are not causally related. Advertising often relies on this fallacy to sell products. An example is an advertisement that shows a person drinking a soft drink, and then performing sports at a high level of expertise, clearly implying that (A).

1. Which of the following best fills blank A to show that these advertisers committed the *post hoc* fallacy?
 - a. only people who drink soft drinks excel at sports
 - b. people who excel at sports drink soft drinks
 - c. drinking soft drinks leads to excellence in sports
 - d. everybody should drink soft drinks
2. What is the difference between the two types of fallacies introduced in the text?
 - a. In the *post hoc* fallacy, the phenomena are necessarily sequential, but not in the other fallacy.
 - b. In the *correlation-proves-causation* fallacy, the phenomena are sequential, but not in the other fallacy.
 - c. The *post hoc* fallacy assumes that the phenomena cause each other, whereas the other fallacy does not.
 - d. The *correlation-proves-causation* fallacy assumes that one phenomenon causes another one, whereas the other fallacy does not.

Question 3 refers to the following additional text.

There has been an observed increase in children diagnosed with autism spectrum disorder (ASD) in the past 20 years. At the same time, there has been an increase in the vaccination of children for measles. These facts have led some parents to refuse to vaccinate their children.

3. Which of the correlational fallacies do these parents commit?
 - a. the *post hoc* fallacy
 - b. the *correlation-proves-causation* fallacy
 - c. both of the correlational fallacies
 - d. neither of the correlational fallacies

Questions 4 and 5 refer to the following additional text.

In 1959 research by Gardener and Lambert found a correlation between motivation and second language achievement. They concluded that the intensity of motivation to learn another language predicted success in learning the language. However, according to Wolter's Advancing Achievement Goal theory, this relationship may be circular. That is, higher levels of achievement cause higher motivation which in turn causes better achievement. Furthermore, Bandura's Social Cognitive Model predicts that self-efficacy, which is related to both motivation and achievement, may be another factor explaining the correlation observed by Gardener and Lambert.

4. Which of the following researchers may have committed the *correlation-proves-causation* fallacy?
 - a. Gardener and Lambert
 - b. Wolter
 - c. Bandura
 - d. Gardener, Lambert, and Bandura
5. According to the texts, what should we be careful about when interpreting a correlation?
 - a. Correlations show a possible relationship between two phenomena.
 - b. There could be a relationship even though there is no correlation.
 - c. The observed correlation might be caused by the existence of a third factor.
 - d. The size of the correlation only indicates the strength of a relationship.

Section B: Read the text and choose the best option from a – d for questions 6 – 10.

The architect Takaharu Tezuka asserted that a good kindergarten needs to be designed based on the purpose of use. Kindergartens should have enough openness to make children feel relaxed and less constrained. This design would enable kindergarteners to be their natural selves, moving around freely, and creating noise all of the time.

This is in contrast to traditional kindergartens, which restrict children in classrooms enclosed between walls for most of their activities. This design results in a much more controlled and quiet environment while the children sit at their desks to do their learning. Children in these kindergartens do have periods of activity where they are allowed to move around freely and be themselves, but the only place they can do so is in the playground located outside the building during predesignated break times.

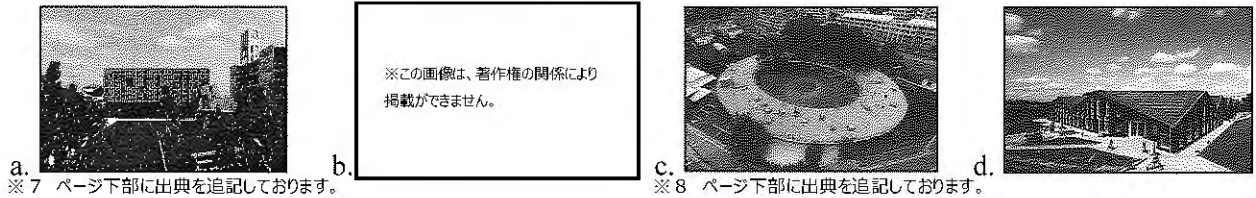
To realize his ideal, Tezuka designed the “Fuji Kindergarten,” an award-winning kindergarten in Tokyo, which has four “teaching spaces” as classrooms without walls, enclosed only by sliding doors leading outside. The concept of the building, as shown in Figure 1, was an annular shape around a playground which occurred to the architect when he recalled that his children liked to run around in a circle.

One of the criticisms that has been aimed at Tezuka and his design is that the freedom of movement can have negative consequences, as shown in Figure 2 for example. However, Tezuka says that parents often protect children too much and that kindergarten designs need to be a little risky so that children are helped to “learn how to live in this world.”

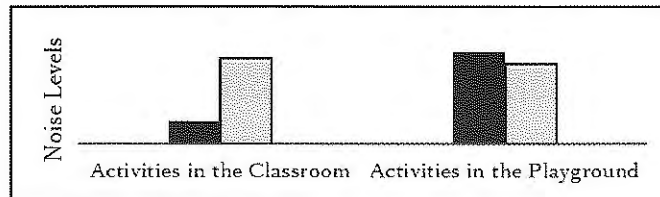
[Adapted from <https://www.upworthy.com/a-new-kind-of-kindergarten-design-encourages-kids-to-be-their-silly-selves>;
Lin, C. (2017). The STG pattern – application of the “Semantic-Topological-Geometric information conversion pattern to knowledge-based modeling in architectural conceptual design. *Computer-Aided Design & Applications*. Vol. 14(3).]

6. Which of the following best characterizes the traditional kindergarten described in the text?
 a. more rules, more control, more sitting
 b. more rules, less control, more sitting
 c. less rules, more control, more sitting
 d. less rules, less control, less sitting

7. Which of the following best represents Figure 1 explained in the text?

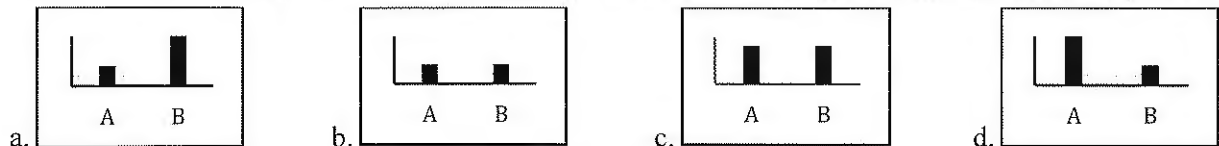


Question 8 refers to the graph below, showing relative noise levels during different activities.



8. Which of the following do the dark bars in the graph above best represent?
 a. a traditional kindergarten
 b. the new kindergarten
 c. inside the buildings of both kindergartens
 d. outside the buildings of both kindergartens

9. Which of the following best represents Figure 2, which shows the number of injuries in kindergartens?



(A = new kindergartens; B = traditional kindergartens)

10. Which of the following best represents the educational philosophy at the new kindergarten?
 a. Children need to be kept safe.
 b. Children need to learn naturally.
 c. Children need standardized education.
 d. Children need to be organized.

※WEB掲載に際し、以下のとおり出典を追記しております。

7 撮影：曾我 俊成 (スタジオ パウハウス)

8 Educational architecture: Fuji Kindergarten in Tokyo by Takaharu + Yui Tezuka Architects

Part V. Answer the questions in Sections A, B, and C.

Section A: For questions 1 – 7, two definitions of a word are given, along with one sample sentence for each. Think of a word that matches both definitions and also fits in the blanks of both sentences. Convert each letter of the word into a number 1 to 4 according to the table below: number 1 represents letters *a – g*, 2 represents *h – m*, 3 represents *n – s*, and 4 represents *t – z*. Then choose the matching sequence of numbers from options a – d. For example, if the word you think of is *wise*, for which the first letter *w* is given, the remaining letters would be converted into 2 for *i*, 3 for *s*, and 1 for *e*. Hence, the correct answer would be *w231*.

Number	Letters
1	a, b, c, d, e, f, g
2	h, i, j, k, l, m
3	n, o, p, q, r, s
4	t, u, v, w, x, y, z

- (i) firmly or solidly established: The pharmaceutical company needed to show (*s*) evidence that a newly developed drug does not have serious side effects.

(ii) of considerable importance, size, or worth: If you wish, add cooked shrimp to the salad or, for a more (*s*) meal, include slices of cold chicken and rye bread.

a. *s434123111* b. *s43112121* c. *s412114* d. *s4134134212*
- (i) based on reasons rather than emotions: Humans are (*r*) animals.

(ii) able to make sensible judgments: Consumers need to be fully informed so they can make a (*r*) decision.

a. *r233131* b. *r2124* c. *r1423312* d. *r2214124*
- (i) to become involved in a difficult situation in order to change what happens: The police don't like to (*i*) in disputes between husbands and wives.

(ii) to exist between two events or places: A desert (*i*)s between the two cities.

a. *i243431131* b. *i34134131* c. *i34131131* d. *i2341241*
- (i) a calculation of the value of something made using the information that you have: We just need a rough (*e*) of the number of students who will take this course.

(ii) to try to judge the value of something without calculating it exactly: Scientists (*e*) that smoking reduces life expectancy by about 12 years on average.

a. *e4124141* b. *e1212341* c. *e23124141* d. *e3422141*
- (i) the opinions and feelings that you usually have about something, especially when this is shown in your behavior: As soon as they found out I was a professor, their whole (*a*) changed.

(ii) confident, sometimes aggressive behavior that shows you do not care about other people's opinions and that you want to do things in an individual way: You'd better get rid of that (*a*) and shape up.

a. *a1241223* b. *a4424411* c. *a14233* d. *a423412*
- (i) to make something visible or bright by shining a light on it: The street was (*i*)d by the full moon.

(ii) to help clarify or explain something: My physics textbook (*i*)d how carbon is formed in stars.

a. *i224223141* b. *i24322111* c. *i334413221* d. *i2322443*
- (i) a formal document submitted to be considered for a position, such as for a job: An (*a*) was submitted to the university.

(ii) the action of putting something into operation: Usually (*a*) of the law pertains to all persons residing in a country.

a. *a432134* b. *a3322114233* c. *a311223* d. *a21222113*

Section B: For questions 8 – 10, a definition of an idiomatic expression is given, along with two sample sentences. Think of an idiomatic expression that matches the definition and also fits in the blanks of both sentences. Convert each letter of the expression into a number according to the table in Section A, and choose the matching sequences of numbers from options a – d. For example, if the idiomatic expression you think of is *hit the books*, for which the first letter *h* is given, the remaining letters would be converted to *h24* for *hit*, *421* for *the*, and *13323* for *books*. Hence, the correct answer would be (*h24*) (*421*) (*13323*).

8. very uncertain, not decided, or not concluded:

(i) Our plans for the summer are still up (*i*) () ().

(ii) The entire proposal has just been left (*i*) () ().

- a. (*i3*) (421) (123) b. (*i3*) (122) (1144) c. (*i3*) (421) (4143) d. (*i343*) (421) (33111)

9. to pretend that something is true:

(i) Let's (*m*) () we have a million dollars.

(ii) I often (*m*) () that my late father is advising me and it always helps.

- a. (*m2124*) (1131233) b. (*m4121*) (4134134) c. (*m2312*) (11423) d. (*m121*) (1122141)

10. only just in time:

(i) He arrived at the birthday party in the (*n*) () ().

(ii) The patient was administered the lifesaving medicine just in the (*n*) () ().

- a. (*n312*) (12) (2343) b. (*n34*) (21) (232) c. (*n212*) (31) (4221) d. (*n223*) (321) (23212)

Section C: For questions 11 – 15, two sample sentences are given. Choose the best word from options a – d that fills the blanks of both sentences.

11. (i) It is often the case that () people are blind to their own faults.

(ii) That athlete is so () that he thinks he'll never lose.

- a. arrogant b. charismatic c. courageous d. humble

12. (i) It is reported that () sea turtles have not developed this ability and must sleep afloat at the water's surface.

(ii) Many () court advocates harshly criticized how the police handled young criminals.

- a. vital b. adult c. mortal d. juvenile

13. (i) Because the denim jacket is so () and so sturdy, you can always find one in a second-hand shop.

(ii) Companies that provide shopping online are now ().

- a. dubious b. ubiquitous c. pathetic d. therapeutic

14. (i) The senate is also the highest court of justice in the case of political offences or the () of ministers.

(ii) Judges are appointed for life and can be removed only by judicial sentence and ().

- a. realization b. absorption c. impeachment d. legitimacy

15. (i) It is a sign of () vision loss when you cannot see objects unless they are right in front of you.

(ii) Recently people prefer to buy houses in the () areas of large cities.

- a. peripheral b. perceptual c. tentative d. endoscopic

End of Exam