2024年度 産業医科大学 英語 そっくり類題演習問題

TMPS医学館 過去問解説図書館

科目：外国語（英語）　　**試験時間：100分**　　**配点：200点満点（大問〔1〕～〔4〕）**

【解答上の注意】 1. 本冊子は産業医科大学2024年度入試の出題形式・語数・難易度を忠実に再現したTMPS医学館オリジナルのそっくり類題問題冊子です。 2. 解答・解説および自己採点基準はWeb解説ページの「#ruidai（そっくり類題セット）」セクションに掲載しています。

〔1〕次の英文を読んで、空欄（ア）から（シ）に入れるのに最も適当な英語一語をそれぞれ書きなさい。

Many students have heard the popular claim that listening to recorded lectures while sleeping allows the brain to absorb complex information effortlessly. This idea has spread across social media, sells numerous audio programs, and is often cited as a shortcut to academic success. Yet it is a claim that makes (ア) neuroscientific*1 sense.

The notion that the sleeping brain can process new grammatical rules or medical terminology and that passive listening can substitute (イ) active study has become widespread among busy learners. There are many video channels where you can find "sleep-learning" tracks and which promise to teach you (ウ) to master a foreign language overnight.

This is a myth and is not based on empirical*2 research on how human memory works. While it is true that the sleeping brain is (エ) up of several distinct stages and plays a vital role in consolidating*3 memories formed during the day, wakefulness and sleep work (オ) in a strict sequence to build lasting knowledge. Encoding new semantic*4 information requires conscious attention, and it simply isn't possible for deep memory formation to occur (カ) the prefrontal cortex*5 actively engaging first. In other words, you cannot learn new facts entirely in your sleep. You need (キ) active daytime learning and adequate nighttime rest.

Some educators have pointed out that modern society places too much value on cramming late at night, and does not put enough emphasis (ク) the restorative*6 power of sleep. Healthy individuals (ケ) sufficient deep sleep show far better problem-solving skills the next morning than those who stay up all night. (コ) sacrificing sleep for extra study hours actually improves exam grades is highly doubtful. There is no validity in judging students, (サ) terms of their diligence, by how little they sleep. Yes, (シ) are individual differences in optimal sleep duration, but the belief that we can bypass conscious effort or sleep deprivation needs to be abandoned.

〔注〕*1 neuroscientific：神経科学的な　*2 empirical：実証的な　*3 consolidate：定着させる、強固にする　*4 semantic：意味的な　*5 prefrontal cortex：前頭前皮質　*6 restorative：回復させる

（ア）	（イ）	（ウ）	（エ）
（オ）	（カ）	（キ）	（ク）
（ケ）	（コ）	（サ）	（シ）

〔2〕次の英文を読んで設問に答えなさい。

Last autumn, an annual international clinical case competition gave out honors in all the traditional categories: internal medicine, pediatrics*1, and (i) surgery. But one entrant, Dr. Marcus Vance, a rural clinic physician, didn't prepare his diagnostic report solely with textbooks or hospital colleagues. He drafted it with "LogicMed," a new large language model that turns patient symptoms into comprehensive differential diagnoses*2.

Dr. Vance's analysis won the (ii) top trophy in the competition's open division — making it one of the first A.I.-assisted entries to win such recognition, and triggering a heated dispute among veteran physicians who accused him of taking an unfair shortcut.

(1) Dr. Vance defended his entry, stating that he had disclosed from the beginning that his report was drafted using A.I., and that he had not deceived the judges about his methods. "I have no reason to apologize," he said. "I followed every guideline."

These tools have made many young clinicians understandably anxious about their future careers, and sparked intense debates about the (iii) ethics of A.I.-assisted medicine. Dr. Vance began testing A.I. tools this year because he wanted to see how the new programs would compare with human specialists. After his win, critics wrote online, "We are watching the decline of clinical judgment (iv) unfold right before our eyes."

However, some physicians supported Dr. Vance, arguing that using A.I. was similar to using digital (v) screening software, and that human medical insight is still essential to ask the right clinical questions and verify the output. Historically, automated diagnostic tools were similarly rejected by (vi) purists who feared doctors would lose their bedside skills.

What makes the new generation of medical A.I. different, some bioethicists point out, is how it is built. Systems like LogicMed are created by searching millions of clinical records and medical images, then teaching algorithms to recognize disease patterns and correlations*3 in those data and generate diagnostic reasoning in the same style. (2) That means that physicians who publish detailed case reports online may be helping to train their algorithmic competitors without intending to. Dr. Vance said he sympathized with doctors worried about job security, but insisted that ethics reside in the medical professionals who use the tool, not in the software itself.

〔注〕*1 pediatrics：小児科学　*2 differential diagnosis：鑑別診断　*3 correlation：相関関係

〔**大問2 設問**〕

1. 下線部(i)から(vi)について、最も意味が近い英語表現を、それぞれ以下の選択肢(A)から(D)より1つ選び、その記号を書きなさい。

(i) (A) operation (B) pharmacy (C) nursing (D) nutrition 【解答： 】
(ii) (A) penalty (B) first prize (C) uniform (D) ticket 【解答： 】
(iii) (A) profits (B) morals (C) speeds (D) rumors 【解答： 】
(iv) (A) hide (B) occur (C) freeze (D) repair 【解答： 】
(v) (A) checking (B) sleeping (C) painting (D) cooking 【解答： 】
(vi) (A) tourists (B) novelists (C) traditionalists (D) botanists 【解答： 】

2. 下線部(1)を日本語に訳しなさい。

3. 下線部(2)が指していることを、本文の内容に沿って100字以内の日本語で説明しなさい。（なお、LogicMedの表記については、頭文字のLとして記入すること。）

4. 本文の内容に関する以下の文(1)から(5)を読み、正しいものには○、間違っているものには×を記入しなさい。

(1) Dr. Vance apologized to the judges for using LogicMed in the competition. 【 】
(2) Dr. Vance wanted to know how A.I. tools would compare with human medical specialists. 【 】
(3) Some doctors defended Dr. Vance, claiming that human medical knowledge is still required to ask appropriate questions and check the results. 【 】
(4) Dr. Vance has no sympathy for clinicians who worry about losing their jobs to A.I. 【 】
(5) According to Dr. Vance, ethics belong to the human users rather than the software itself. 【 】

〔3〕次の英文を読んで設問に答えなさい。

Last month, Public Health Commissioner Dr. Elena Rostova issued a national health advisory*1 warning that society does not yet know enough about how late-night digital device use is affecting children's brain maturation and emotional stability. "I released this warning because youth sleep deprivation has reached an urgent stage," Dr. Rostova explains. (ア) After reviewing existing clinical studies, she notes that there are not enough long-term data yet to conclude that unrestricted tablet and smartphone algorithms are safe for growing minds. Yet surveys show that 92% of adolescents*2 aged 13 to 17, and 38% of children aged 8 to 12, use interactive digital platforms daily.

Dr. Rostova acknowledges that young people gain important benefits from digital connectivity. Interactive platforms allow students in isolated areas to communicate with mentors and peers who share similar academic interests or personal struggles, easing feelings of loneliness. They also enable students to access video tutorials and digital libraries to learn new skills at their own pace. However, when it comes to the net*3 impact on health, Dr. Rostova points out that excessive nighttime notifications overstimulate the brain's reward pathways in ways similar to behavioral addiction*4, while exposing youths to online harassment*5. (イ)

(ウ) "Tech corporations have internal data on how their notification algorithms affect teenage sleep, and they must share it transparently with independent researchers," she insists. She compares digital platforms to children's bicycles and pharmaceuticals. (エ) Furthermore, she emphasizes that parents should not be forced to fight addictive algorithms alone. (オ) Looking ahead, Dr. Rostova urges lawmakers and tech firms to act immediately rather than waiting another decade. (カ)

〔注〕*1 advisory：勧告　*2 adolescent：思春期の若者　*3 net：正味の　*4 addiction：依存（症）　*5 harassment：嫌がらせ、いじめ

1. 空欄（ ア ）から（ カ ）に入る英文を、以下の選択肢(A)から(F)より1つ選び、その記号を書きなさい。
(A) Adolescence is a once-in-a-lifetime developmental window, and every single night of healthy sleep matters in the growth of a child.
(B) As a result, I am deeply concerned about the emotional resilience and well-being of our next generation.
(C) As a mother myself, I do not want to feel that vital safety data are being concealed from families regarding the apps our kids use every night.
(D) That designation, she says, reflects growing alarm over rising anxiety and sleep disorders among young citizens.
(E) We establish strict safety regulations and verify that companies comply with them. That is precisely what is lacking in the digital sector.
(F) Any corporation that designs a digital service targeted at minors bears a core obligation to make sure its default settings are safe.
【解答：（ア）　（イ）　（ウ）　（エ）　（オ）　（カ）　】

2. 若者がデジタル機器・プラットフォームを利用することで得られる恩恵について、本文の内容に沿って80字程度の日本語で書きなさい。

3. 下線部を日本語に訳しなさい。

4. 本文の内容に関する以下の文(1)から(5)を読み、正しいものには○、間違っているものには×を記入しなさい。
(1) According to Dr. Rostova, long-term data have already proved that digital algorithms are completely safe for children.【　】
(2) Interactive digital platforms are used daily by the majority of children aged 8 to 12, and less than half of adolescents.【　】
(3) Excessive nighttime notifications and behavioral addiction may stimulate the brain's reward pathways in similar ways.【　】
(4) Dr. Rostova believes that parents alone should bear full responsibility for protecting children from addictive algorithms.【　】
(5) Dr. Rostova argues that technology companies should transparently share their internal safety data with researchers.【　】

〔4〕（英作文）世界中で深刻化する医療アクセスの格差について、国際社会はどのように取り組むべきだと考えますか。あなたの考えを100語程度の英語で書きなさい。