TMPS医学館 過去問解説図書館・実践演習用

英　語

2026年度 藤田医科大学 医学部 一般入試 そっくり類題セット（試験時間 90分 ／ 配点 200点）

注意：第1問から第4問まではマークシートに解答しなさい。第5問と第6問は記述用解答用紙に解答しなさい。
第1問から第4問では、問題文の中の［　］内の数字はマークシートの問番号を示している。※解答・解説はTMPS解説Webページ内の「そっくり類題セット」を開いて確認してください。

第1問　次の問1～8の空所［1］～［8］に入れるのに最も適切なものを(1)～(4)から1つ選び、その番号をマークしなさい。

問 1.　Ken realized at that moment that his sister［1］on her medical school application essay for the past three hours.
(1) had been working　(2) had worked　(3) has been working　(4) has worked

問 2.　Sarah insisted to her brother that he should undergo the operation right away, but I suspect he will［2］not to.
(1) mind　(2) choose　(3) postpone　(4) escape

問 3.　The attending physician listened patiently to the anxious patient［3］his fingers folded and a gentle smile on his face.
(1) by　(2) for　(3) into　(4) with

問 4.　I will always be grateful that a specialist［4］my uncle was acquainted diagnosed my mother's rare condition in time.
(1) to which　(2) to whom　(3) with which　(4) with whom

問 5.　Isn't it essential for first-year medical students to take［5］in such a community health volunteer program?
(1) care　(2) charge　(3) part　(4) place

問 6.　The researcher sighed with relief, finally［6］in isolating the target protein from the sample.
(1) succeed　(2) succeeded　(3) succeeding　(4) success

問 7.　His hasty remarks during the press conference left the audience［7］than convinced.
(1) sad　(2) sadder　(3) more sad　(4) much sad

問 8.　What would you［8］to reviewing the anatomy flashcards together after lunch?
(1) say　(2) speak　(3) tell　(4) talk

第2問　次の問1～4においては、それぞれ日本語の意味に合うように下の(1)～(7)の語句を並べかえて空所を補い、最も適切な文を完成させなさい。解答は［9］～［16］に入れるものの番号のみをマークしなさい。ただし文頭にくる文字も小文字にしてある。

問 1.　ヨーロッパ諸国はプラスチック廃棄物削減の合意に向けて一歩近づいている。
European nations are ＿＿［9］＿＿ ＿＿［10］＿＿ ＿＿ plastic waste.
(1) an agreement　(2) closer　(3) on　(4) one step
(5) reaching　(6) reducing　(7) to

問 2.　多くの研究員が難病治療に挑戦するこの研究所は、前途有望と評される。
［11］＿＿ ＿＿ ＿＿ ＿＿［12］intractable diseases is regarded as promising.
(1) many　(2) of　(3) on　(4) researchers
(5) take　(6) this institute　(7) whose

問 3.　その交渉は期待通りには進まなかったとだけ言っておこう。
［13］＿＿ ＿＿ ＿＿［14］＿＿ as expected.
(1) did not go　(2) it　(3) say　(4) suffice
(5) that　(6) the negotiation　(7) to

問 4. いかなる状況下でも、非倫理的な圧力に決して屈するべきではない。

Under _____ _____ [15] _____ _____ [16] _____ unethical pressure.

(1) circumstances	(2) give	(3) in	(4) no
(5) should	(6) to	(7) you	

第3問 Read the article and answer the questions that follow.

Microscopic traces of ancient proteins and genetic material trapped on prehistoric teeth are unlocking remarkable chapters of human history. Yet conventional sampling of skeletal remains typically requires grinding down part of a tooth or bone, causing permanent structural damage to irreplaceable museum specimens.

Recently, biomolecular archaeologists developed a gentle surface-rinse protocol to harvest ancient biomolecules in a non-destructive way, applying the technique to calcified dental plaque—known as tartar or dental calculus—on a 14,000-year-old jawbone. Rather than scraping off the hardened mineral deposit with metal instruments, the team immersed the crown of the tooth in a mild chelating buffer solution at controlled temperatures, releasing trapped salivary proteins and oral bacterial DNA into the liquid without altering the tooth's enamel surface.

Analysis of the solution revealed not only the biological sex and maternal lineage of the prehistoric hunter-gatherer, but also specific milk proteins showing that the individual consumed dairy products far earlier than previously assumed for that region. In addition, the team detected genetic sequences from ancient oral bacteria associated with periodontal gum disease.

“This liquid extraction approach allows us to reconstruct both ancient diets and host-pathogen interactions while leaving delicate fossils completely intact for future generations,” said lead researcher Dr. Clara Lindqvist. However, the team noted that the rinse method only succeeded on freshly unearthed specimens stored in sterile containers immediately after excavation. When tested on museum jawbones excavated in the 1960s that had been washed with tap water and handled with bare hands, modern microbial contamination overwhelmed the faint ancient signals.

dental calculus: 歯石	chelating buffer: キレート緩衝液	enamel: エナメル質
periodontal: 歯周の	intact: 無傷のまま	sterile: 無菌の、清潔な

問 1. Choose the meaning of the underlined word “non-destructive” that best fits the context within the article. Write the number of your answer in [17] .

(1) causing no physical damage to the specimen	(2) preventing bacterial growth in the mouth
(3) requiring no chemical solutions during testing	(4) avoiding painful medical procedures on patients

問 2. According to the article, what is one valuable insight gained by applying the newly developed extraction protocol? Write the number of your answer in [18] .

(1) It proved that prehistoric hunter-gatherers never suffered from oral infections or gum disease.
(2) It identified evidence of dairy consumption and oral pathogens alongside the individual's sex.
(3) It enabled researchers to repair damaged tooth enamel using synthetic milk proteins.
(4) It determined the exact age at death of individuals excavated in the 1960s.

問 3. Which of the following statements about the new surface-rinse protocol is TRUE according to the article? Write the number of your answer in [19] .

(1) It relies on mechanical drills to grind dental calculus into fine powder.
(2) It works equally well on museum specimens washed with tap water in the 1960s.
(3) It requires freshly excavated specimens kept free from modern contamination to work effectively.
(4) It dissolves the entire tooth root so that internal bone marrow DNA can be sequenced.

第4問 Read the article and answer the questions that follow.

A modern diet dominated by ultra-processed foods, refined sugars, and saturated fats significantly reduces the diversity of the human gut microbiome. While broad-spectrum antibiotics are

indispensable for treating life-threatening bacterial infections, they act like a sweeping wildfire in the digestive tract: they indiscriminately (　あ　) both harmful pathogens and beneficial commensal microbes that protect our intestinal lining.

In a recent clinical and animal study, immunologists investigated how dietary habits influence microbiome restoration after a course of antibiotics. Returning a damaged gut ecosystem to a stable, healthy state requires an orderly ecological succession—a step-by-step chain of events in which primary pioneer bacteria break down complex plant fibers into short-chain fatty acids, creating a chemical environment that allows secondary beneficial species to thrive.

Subjects consuming a diet rich in soluble plant fibers and fermented foods rapidly re-established a diverse and resilient microbial community following antibiotic therapy. By contrast, when subjects remained on a low-fiber, high-sugar diet, opportunistic bacteria monopolized simple sugars, preventing cooperative microbial networks from forming and leaving the host highly susceptible to secondary intestinal inflammation.

broad-spectrum: 広域スペクトルの　commensal: 共生の　succession: （生態系の）遷移、連続
short-chain fatty acid: 短鎖脂肪酸　opportunistic: 日和見性の　monopolize: ～を独占する

問 1.　Based on the context of the article, which phrase best fits (　あ　)? Write the number of your answer in **[20]** .

(1) build up　(2) look into　(3) hand over　(4) wipe out

問 2.　Which statement is closest in meaning to what is mentioned in this article? Write the number of your answer in **[21]** .

(1) A diet abundant in plant fibers and fermented foods promotes the recovery of a diverse gut microbiome after antibiotic treatment.
(2) Broad-spectrum antibiotics selectively target pathogens without affecting beneficial commensal bacteria.
(3) High-sugar diets accelerate cooperative metabolite networks among gut microbes after antibiotics.
(4) Plant-based fiber intake should be avoided while the intestinal lining recovers from antibiotic therapy.

問 3.　According to the article, what is necessary for the damaged gut microbiome to return to a stable, healthy state? Write the number of your answer in **[22]** .

(1) an orderly sequence of ecological steps in which pioneer microbes process plant fibers for subsequent species
(2) a complete elimination of all short-chain fatty acids from the digestive tract prior to antibiotic use
(3) a rapid monopolization of refined sugars by a single dominant bacterial species
(4) random microbial growth occurring independently of dietary fiber or metabolite production

第5問　次の英文を読み、後の問いに答えなさい。

What enables an animal to plan for the future? For decades, behavioral scientists assumed that mental time travel—the ability to anticipate a future need and prepare for it without relying on immediate instinct—was an exclusive trait of humans and great apes. This long-held assumption that only large mammalian brains with a layered cerebral cortex could plan ahead, however, had rarely been tested systematically across distant evolutionary lineages.

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Neurobiologist Dr. Henrik Lindholm and his colleagues examined this hypothesis by studying corvids, the avian family that includes crows, ravens, and jays. Their latest study provides compelling evidence that ≪A≫flexible tool manufacture—one of the key behavioral markers of foresight—is closely linked to self-control and episodic-like memory. Birds capable of shaping tools and saving them for later use also showed higher neuron densities in their forebrain.

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The research team conducted five behavioral experiments on 160 birds from 18 corvid species, comparing 15 tool-using or food-caching species with three closely related species that do not cache food or use tools in the wild. In the tests, the birds had to solve novel mechanical puzzles and resist an immediate small food reward in order to obtain a tool needed for a much larger reward later.

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The researchers found a striking correlation between tool-related foresight and problem-solving flexibility. Tool-using corvid species devised inventive strategies, such as bending a straight piece of wire into a hook, trimming twigs to a specific length, or dropping stones into a narrow tube to raise the water level and reach a floating treat. “It is remarkable that these planning skills cluster together independently of other general motor traits we tested,” explains coauthor Dr. Elena Vance.

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High neuron packing density in a region called the nidopallium was another advantage shared by the 15 planning species. Yet one question remains unresolved: why tool manufacture and delayed gratification are so tightly coupled when the neural clusters active during motor tool shaping are distinct from those governing impulse control. The next step for the researchers is to map the neural pathways of corvids at the cellular level and identify which molecular signals or intermediate brain circuits bridge these two separate regions.

cerebral cortex: 大脳皮質　corvid: カラス科の鳥　foresight: 先見性、将来予測
cache: （食料を）隠し蓄える　twig: 小枝　delayed gratification: 満足の遅延（我慢）

問 1.　カラス科の鳥に関する Lindholm たちの研究は、これまで体系的な検証がほとんどなされていなかったどのような通説を検証するに至ったのか、本文の内容に即して日本語で答えなさい。

記述欄（字数指定なし）：

問 2.　下線部≪A≫は、実験における道具を使うカラス科の鳥のどのような具体的行動によって裏づけられたのか、本文の内容に即して **50字〜60字** の日本語で答えなさい。

記述欄（50字〜60字）：

問 3. (i)　Lindholm たちがまだ解明していないことは何か、本文の内容に即して **60字〜70字** の日本語で答えなさい。

記述欄（60字〜70字）：

(ii)　それを解明するために今後どのようなことを行う必要があるのか、本文の内容に即して日本語で答えなさい。

記述欄（字数指定なし）：

問 4.　次の段落は本文のどの位置に置くのが最も適切か、【あ】〜【え】の記号で答えなさい。（解答欄：【　　】）

This does not imply that the three corvid species that did not use tools or cache food lacked general intelligence. Rather, it indicates that they did not develop this specific suite of future-oriented skills. “We must be cautious when defining animal intelligence because everything depends on which specific cognitive traits we are evaluating,” she notes.

第6問　次の英文を読み、下線部(1)〜(3)の内容を英語にしなさい。

The global aviation industry has committed to achieving net-zero carbon emissions by 2050, relying heavily on Sustainable Aviation Fuel (SAF) to replace conventional jet kerosene.

(1)航空分野は現在、世界の二酸化炭素排出量の約2.5%を占めており、長距離フライトにおいて化石燃料の現実的な代替となる持続可能な航空燃料（SAF）の需要が急速に高まっている。

SAF can be synthesized from used cooking oil, agricultural waste, or energy crops such as corn and oilseeds. Governments have introduced blending mandates requiring airlines to mix an increasing percentage of SAF into their fuel supply over the next decade.

What is the ecological impact of scaling up crop-based aviation fuel?

(2)エネルギー作物は成長する際に、後に燃料の燃焼によって放出される二酸化炭素を大気から吸収するので、理論上、植物由来の航空燃料は従来のジェット燃料と比べて温室効果ガスの排出量を削減するはずである—meaning the carbon cycle remains balanced on paper.

However, meeting global airline demand solely with crop-based fuels would require vast tracts of new farmland. Natural forests and peatlands store far more carbon per hectare than annual agricultural crops.

(3)もし森林を伐採してそれらのエネルギー作物に置き換えれば、大気から吸収される二酸化炭素が少なくなり、結果として地球温暖化を加速させることにつながってしまう。

Therefore, environmental scientists emphasize that future aviation fuels must prioritize genuine waste oils and synthetic power-to-liquid technologies rather than expanding crop plantations into intact ecosystems.

aviation: 航空（産業）　Sustainable Aviation Fuel (SAF): 持続可能な航空燃料　conventional jet fuel: 従来のジェット燃料

account for ~: （割合を）占める

下線部 (1) 英訳解答欄：

下線部 (2) 英訳解答欄：

下線部 (3) 英訳解答欄：