

(一般前期)

令和2年度 医学部入学試験問題

英 語

注 意 事 項

1. 問題は、指示があるまで開かないでください。
2. マークシートへの記入は、HB黒鉛筆又は0.5mm以上の芯のシャープペンシルとします。
3. 監督者の指示に従ってマークシートに受験番号・氏名を記入してください。
4. 試験問題の数は42問で、解答時間は60分です。
5. 問題はすべて択一です。1問に2つ以上解答したときは誤りとします。
6. 各問題には最大5個の選択肢があります。それぞれの問題に応じて、解答をマークしてください。

解答例)

| | | | | |
|---|---|---|---|---|
| 1 | ア | イ | エ | オ |
|---|---|---|---|---|

 とマークする。

7. 解答を修正した場合は、消しゴムであとが残らないように完全に消してください。

鉛筆の色が残ったり

| | | | | |
|---|---|---|---|---|
| 1 | ア | イ | エ | オ |
|---|---|---|---|---|

 のような消し方などをした場合は、修正したことにはなりません。

8. マークシートは折り曲げたり汚したりしないよう注意してください。

令和2年度 入学試験問題 英語

- ◎ 英語の試験問題は5枚綴りになっています。
- ◎ 解答は必ず解答用紙に記入すること。

I. 次の英文の空所に入れるのに最も適切なものを、(ア)～(エ)の中から一つ選び、その記号をマークしなさい。大文字と小文字の区別は考慮しないこと。

- (1) At the checkout counter, he purchased some bubble gum on a (1).
(ア) whip (イ) whirl (ウ) whistle (エ) whim
- (2) I used to view everyone as either friend or (2), with no middle ground.
(ア) foe (イ) fowl (ウ) fret (エ) fright
- (3) If you approach him with that angry (3), he will meet you with the same expression.
(ア) coverage (イ) countenance (ウ) compound (エ) containment
- (4) Some people see poetry as an (4) for emotion.
(ア) outlet (イ) outfit (ウ) outburst (エ) outrage
- (5) I'm sorry I had a spelling (5) on your name.
(ア) lace (イ) lapse (ウ) lag (エ) lament
- (6) The conference was called off yesterday because of the (6) political situation in the host country, leaving several important issues unsettled.
(ア) cumulative (イ) pious (ウ) habitual (エ) turbulent
- (7) He was putting his car in the garage last night when his cell rang. He got (7) by the sound and bumped into the fence.
(ア) distorted (イ) alienated (ウ) distracted (エ) sorted
- (8) At six o'clock this morning, the police received an (8) call identifying the murder victim. It was from a pay phone.
(ア) elementary (イ) intimate (ウ) anonymous (エ) oppressive
- (9) Let's not get (9) of ourselves and start buying furniture before we've even found an apartment.
(ア) ahead (イ) before (ウ) forward (エ) front
- (10) No matter how hard Mike tries, he'll never (10) up to his father's expectations.
(ア) meet (イ) walk (ウ) live (エ) go

II. 次の各日本文の英訳として、文法や意味からみて最も適切なものを、(ア)～(エ)の中から一つ選び、その記号をマークしなさい。

- (11) 幸せかどうかは気の持ちようによることが大きい。
(ア) It draws upon how you feel that you are happy or not.
(イ) Whether you are happy or not depends much on your frame of mind.
(ウ) Emotion such as being happy or not is connected from the way you feel.
(エ) Your sentiment about the world may bring you to happiness or unhappiness.

(問題用紙 2)

- (12) 彼女は、自分が時々感情に負けてしまうことがあるのを認めたくないようだ。
- (ア) She seems to ignore the fact that she sometimes surrenders her emotions.
 - (イ) It is likely that she insists that she has never possessed with her emotions.
 - (ウ) She seemingly does not want to admit that her emotions get the better of her sometimes.
 - (エ) It seems that she does not acknowledge her irresistible and uncontrollable passion take on her.
- (13) 友人に勧められた本を読むのが良いのは、後でそれについて友人と議論できるからだ。
- (ア) Reading books recommended by your friends is good because then you can discuss them together.
 - (イ) It is really a nice thing that we can have a chat with our friends who recommend a book to us.
 - (ウ) Books which your friends suggest us read always end up with a lively discussion with all of them.
 - (エ) You would follow your friends' advice on which book you read because you can enjoy a talk with them.
- (14) ボスが不機嫌なのは彼が話をオチにもっていこうとしたときに君が邪魔したからですよ。
- (ア) You beat your boss before he was rendering his jest explicit, which makes him cross.
 - (イ) Your untimely interception of your boss, who was about to begin his joke, irritating him.
 - (ウ) Your boss has miffed at you because you have poked your nose before his exposure of the story.
 - (エ) The boss is in a foul mood because you interrupted him when he was leading up to the punch line.
- (15) 日本の多くの会社が従業員の異文化理解の増進に多くの努力を払っていることは推奨に値する。
- (ア) We agree that Japanese companies' effort to increase the workers' diversity among cultures is recommendable.
 - (イ) We can support Japanese companies in their efforts to add more recognition to a variety of cultures of their employees.
 - (ウ) It is worth considered for many Japanese firms put efforts in improving their workers' flexibility for understanding foreign cultural specifics.
 - (エ) I think it is commendable that many Japanese companies make a lot of effort to enhance their employees' understanding of different cultures.
- (16) ギフトカードに応募を希望する方のみ、下記に連絡先情報を入力し、そうでない場合は空欄のまま、次のページにお進みください。
- (ア) In case one is interested in a token gift, make sure to fill in the contact information below, or leave empty and move to the next page.
 - (イ) Input the contact information in the blank, if only you want to put your name down for gift vouchers and if not, keep it as it is and go on to the next page.
 - (ウ) If you would like to enter for a chance to win a gift certificate, please enter your contact information below, otherwise leave it blank and proceed to the next page.
 - (エ) Only for those who wish to apply for a gift card should fill out the contact information, and those who wish not to, should just go to the next page so as to keep it blank below.
- (17) 最近増え続けている留学生をより良く受け入れるために我が校ができることには、どのようなことが考えられますか？
- (ア) What can be considered for our school to improve our hospitality for students increasing abroad?
 - (イ) What can our school do to better accommodate international students whose number has been increasing recently?
 - (ウ) What kind of things can we think about to accept the increasing number of better international students in recent years?
 - (エ) What things would you say are important to our school's enhancing welcome in the recently increasing international students?
- (18) 当ホテル内で携帯電話を使用する際は、他のお客様の迷惑にならない場所でご使用ください。
- (ア) You should not use your cell phone in the hotel where other guests will not be annoyed.
 - (イ) Please limit the use of mobile phones in this hotel to areas where it will not disturb other guests.
 - (ウ) When using a mobile phone in the hotel, please restrict its use in a place that does not bother other guests.
 - (エ) The cell phone use is just about allowed in certain parts of the hotel where other guests find it inconvenient.

(問題用紙 3)

III. 次の語を並べかえて、適切な英文を完成させなさい。大文字と小文字の区別は考慮しないこと。解答は指定された箇所に入るものだけをマークしなさい。

- (19) Although he was () and (), he tried to be (19) of the () around the ().
(ア) pickpockets (イ) jet-lagged (ウ) wary (エ) weary (オ) station
- (20) The book was, ()()()(20), a mere duplication of her earlier efforts.
(ア) and (イ) to (ウ) all (エ) intents (オ) purposes
- (21) The economy has been (21) for the last few quarters, but ()()() to a () recovery.
(ア) several (イ) speedy (ウ) sluggish (エ) signs (オ) point
- (22) Lynn was ()() the () of her (22)() vacation.
(ア) anticipated (イ) by (ウ) frustrated (エ) postponement (オ) much
- (23) The ()()(23) the () in the () of the voters.
(ア) candidate (イ) eyes (ウ) embarrassing (エ) humiliated (オ) photograph
- (24) The (24)() fellow () made the ()() bearable.
(ア) tedious (イ) solidarity (ウ) work (エ) employees (オ) among
- (25) This (25) on corporate law ()() a () place on all () bookshelves.
(ア) prominent (イ) occupy (ウ) volume (エ) office (オ) should
- (26) It is time to ()(26)()() if you want to ().
(ア) your (イ) together (ウ) succeed (エ) get (オ) act

IV. 次の英文の空所に入れるのに最も適切な語句を、(ア)~(エ)の中から一つ選び、その記号をマークしなさい。

In mice whose sense of smell has been (27), a squirt of stem cells into the nose can restore olfaction, researchers report today (May 30) in Stem Cell Reports. The introduced “globose basal cells,” which are (28) to smell-sensing neurons, engrafted in the nose, matured into nerve cells, and sent along axons or nerve fibers to the mice’s olfactory bulbs in the brain.

“We were a bit surprised to find that cells could engraft fairly robustly with a simple nose drop delivery,” senior author Bradley Goldstein of the University of Miami Miller School of Medicine says in a press release. “To be potentially useful in humans, the main hurdle would be to identify a source of cells capable of engrafting, (29) into olfactory neurons, and properly connecting to the olfactory bulbs of the brain. (30), one would need to define what clinical situations might be appropriate, rather than the animal model of acute olfactory injury.”

Goldstein and others have independently tried stem cell therapies to restore olfaction in animals previously, but he and his coauthors note in their study that it’s been difficult to determine whether the (31) function came from the transplant or from self repair stimulated by the experimental injury to induce a loss of olfaction. So his team developed a mouse whose resident globose basal cells only made nonfunctional neurons, and any restoration of smell would be (32) to the introduced cells.

The team developed the stem cell transplant by engineering mice that produce easily (33) green fluorescent cells. The researchers then harvested glowing green globose basal cells (as identified by the presence of a receptor called c-kit) and delivered them into the noses of the genetically engineered, smell-impaired mice. Four weeks later, the team observed the green cells in the nasal cavity, with axons (34) their way into the olfactory bulb.

Behaviorally, the mice appeared to have a functioning sense of smell after the stem cell treatment. Unlike untreated animals, they avoided an area of an enclosure that had a bad smell to normal mice.

To move this technology into humans suffering from a loss of olfaction, more experiments in animals are necessary, says James Schwob, an olfactory researcher at Tufts University who has collaborated with Goldstein but was not involved in the latest study.

- (27) (ア) disabled (イ) disarmed (ウ) dislocated (エ) disembodied
(28) (ア) mergers (イ) clearance (ウ) stressors (エ) precursors
(29) (ア) digging (イ) diffusing (ウ) differentiating (エ) disembarassing
(30) (ア) Causing (イ) Further (ウ) Addition (エ) Resulting

- | | | | | |
|------|---------------|---------------|----------------|-----------------|
| (31) | (ア) earned | (イ) leased | (ウ) regained | (エ) abandoned |
| (32) | (ア) blamed | (イ) praised | (ウ) endorsed | (エ) attributed |
| (33) | (ア) pivotable | (イ) traceable | (ウ) profitable | (エ) forgettable |
| (34) | (ア) keeping | (イ) looking | (ウ) sending | (エ) working |

V. 次の英文を読んで、下の問いに答えなさい。

Humans have two types of abilities—physical and cognitive. In the past, machines competed with humans mainly in raw (35) abilities, while humans retained an immense edge over machines in cognition. Therefore, as manual jobs in agriculture and industry were automated, new service jobs emerged that required the kind of cognitive skills only humans possessed: learning, analyzing, communicating, and above all understanding human emotions. However, AI is now beginning to outperform humans in more and more of these skills, including the understanding of human emotions. (36) We don't know of any third field of activity—beyond the physical and the cognitive—where humans will always retain a secure edge.

It is crucial to realize that the AI revolution is not just about computers getting faster and smarter. It is (37) by breakthroughs in the life sciences and social sciences as well. The better we understand the biochemical mechanisms that underpin human emotions, desires, and choices, the better computers can become in analyzing human behavior, predicting human decisions, and replacing human drivers, bankers, and lawyers.

In the last few decades research in areas such as neuroscience and behavioral economics allowed scientists to hack humans, and in particular to gain a much better understanding of how humans make decisions. It turns out that our choices of everything from food to mates result not from some mysterious free will but rather from billions of neurons calculating probabilities within a split second. Vaunted “human intuition” is in reality “pattern cognition.” Good drivers, bankers, and lawyers don't have magical intuitions about traffic, investment, or negotiation; rather, by recognizing recurring patterns, they spot and try to avoid careless pedestrians, inept borrowers, and sly crooks. It also turns out that the biochemical algorithms of the human brain are far from perfect. They rely on heuristics, shortcuts, and outdated circuits adapted to the African savannah rather than to the urban jungle.

This means that AI can outperform humans even in tasks that supposedly demand “intuition.” (39). But if AI really needs to compete against neural networks in calculating probabilities and recognizing patterns, that sounds far less daunting.

In particular, AI can be better at jobs that demand intuitions *about other people*. Many lines of work—such as driving a vehicle in a street full of pedestrians, lending money to strangers, and negotiating a business deal—require the ability to correctly assess the emotions and desires of others. As long as it was thought that such emotions and desires were generated by (40) an immaterial spirit, it seemed obvious that computers would never be able to replace human drivers, bankers, and lawyers. For how could a computer understand the divinely created human spirit? (41) Yet if these emotions and desires are in fact no more than biochemical algorithms, there is no reason computers cannot decipher these algorithms – and do so far better than any *Homo sapiens*.

A driver predicting the intentions of a pedestrian, a banker assessing the credibility of a potential borrower, and a lawyer gauging the mood at the negotiating table don't rely on witchcraft. Rather, unbeknownst to them, their brains are recognizing biochemical patterns by analyzing facial expressions, tones of voice, hand movements, and even body odors. An AI equipped with the right sensors could do all that far more accurately and reliably than a human.

問1 空所(35)に入る最も適切なものを、(ア)～(エ)の中から一つ選び、その記号をマークしなさい。

- (ア) mental (イ) emotional (ウ) physical (エ) cognitive

問2 下線部(36)の英文の意味に最も近いものを、(ア)～(エ)の中から一つ選び、その記号をマークしなさい。

- (ア) There is a possible field where AI is fully controlled by human activities in physical and cognitive sense.
 (イ) Aside from physical and cognitive abilities, there is no known field where humans will always be superior to AI.
 (ウ) We cannot enter the world where humans always outperform AI unless we go beyond our physical and cognitive limits.
 (エ) You never know the existence of the other field than the cognitive and the physical where humans act on automated machine technology.

問3 空所(37)に入る最も適切なものを、(ア)～(エ)の中から一つ選び、その記号をマークしなさい。

- (ア) distracted (イ) suspended (ウ) fueled (エ) added

問4 第3段落の内容に最も適合するものを、(ア)～(エ)の中から一つ選び、その記号を(38)にマークしなさい。

- (ア) Mysterious free will helps humans' decision making in choosing everything from food to mates.
 (イ) Humans' decision making is really pattern cognition in our brain, which is based on probability calculation.
 (ウ) Human free will and intuition are fields where neuroscience is still unable to find any clue to understanding them.
 (エ) Human intuition is in a sense magical since it supplements the imperfect biochemical algorithms of the human brain.

(問題用紙 5)

問5 次の語句(a)~(e)を並びかえて、空所(39)に入れるのに最も適切なものを(ア)~(エ)の中から一つ選びなさい(ただし(a)~(e)の中で使
用しないものが一つある。また文のはじめに来る語も小文字になっている)。

- (a) against the human soul (b) in terms of mystical hunches (c) the task sounds impossible
(d) if you think AI needs to compete (e) against neural networks

(ア) (c a d e) (イ) (b c a d) (ウ) (d e c b) (エ) (d a b c)

問6 下線部(40) an immaterial spirit に最も近いものを、(ア)~(エ)の中から一つ選び、その記号を(40)にマークしなさい。

- (ア) a spiritual self
(イ) an immortal strength
(ウ) a raw physical ability
(エ) an unimportant way of thinking

問7 下線部(41)の伝えようとする意味と最も近い文を、(ア)~(エ)の中から一つ選び、その記号を(41)にマークしなさい。

- (ア) Human emotions and desires, which are supposedly based on sets of biochemical rules, can be analyzed by computers.
(イ) Since the emotions and desires of others are far from rigid algorithms, there are no computers available to analyze them.
(ウ) Human emotions and desires are nothing but biochemical rules and processes; therefore, computers cannot calculate them precisely.
(エ) Suppose that the emotions and desires of others are biochemically calculable, then computers soon will be equipped with those sentiments.

問8 本文の内容に適合しないものを、(ア)~(エ)の中から一つ選び、その記号を(42)にマークしなさい。

- (ア) The AI revolution can mean more than just improvements in computer speed and efficiency.
(イ) AI is beginning to outperform humans not only in physical abilities but also in cognitive abilities.
(ウ) Humans can predict others' intentions by recognizing and analyzing the signs that biochemical patterns produced.
(エ) In the past, humans were able to retain immense superiority over machines because they were better at manual jobs.