

(一般前期)

平成 28 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50問で、解答時間は90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 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。

(一般前期) 平成28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。

(1) When I was cruising in the Atlantic, I was lucky enough to witness a (1) of whales passing by.
(ア) pod (イ) wave (ウ) festival (エ) block

(2) After Taro showed up late, Mayumi acted like she wasn't mad, but he could see (2) her calm.
(ア) against (イ) on (ウ) through (エ) in front of

(3) The director insisted on his opinion (3) strong opposition.
(ア) though (イ) accordingly (ウ) because (エ) despite

(4) The teacher (4) on her extensive experience of volunteering in hospitals.
(ア) explained (イ) elaborated (ウ) described (エ) estimated

(5) In (5), I wish I had talked to the counselor sooner.
(ア) regret (イ) retrospect (ウ) regards (エ) renouncement

(6) As (6) the announcement, please swiftly evacuate the building.
(ア) mentioned (イ) according (ウ) was (エ) per

(7) The man next door is on antagonistic (7) with everyone in the neighborhood.
(ア) terms (イ) mood (ウ) situations (エ) temperament

(8) The company president entrusted the employee (8) the important account even though she was a new recruit.
(ア) at (イ) for (ウ) with (エ) in

(9) It was (9) I visited Mary that I realized how ill she was.
(ア) so long as (イ) not only (ウ) before long (エ) not until

(10) I told Jane to restrain herself (10) too much.
(ア) drinking (イ) to drink (ウ) from drinking (エ) of drinking

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) 火星人が攻めてくるというデマのおかげで人々が逃げまどい、たくさんの人がケガをした。
(ア) It was due to the disinformation of the Martians attack that urged many people escape.
(イ) The hearsay that Martians were coming to attack us made people run around with injury.
(ウ) A false alarm that the Martians were to invade us dispersed and wounded the crowd.
(エ) A rumor that Martians were going to attack led to a stampede, injuring many.

(12) もし我々が過去の成功にこだわっていては、外国との競争に太刀打ちできなくなる。
(ア) If we stick with what we have successfully done in the past, we won't be able to compete with foreign countries.
(イ) Being fixated in our success of the past, we would find ourselves incapable to be competitive with other countries.
(ウ) When we are persistent in our succeeding story of the past, we cannot survive the race with foreigners.
(エ) Being caught by our own successful memory of the past, we lose ourselves in the competition with others.

(問題用紙 2)

- (13) 子供の時に読んだものに戻ってみると思っていたよりもっと奥行きがあることが分かることも多い。
(ア) If you return to your old books of your child days, they may give you more depth perception which you might not think of.
(イ) Reading again what we did in our childhood, we may find something much deeper in them which we missed.
(ウ) When you go back to something that you read as a child, you may often find that it has so many more layers than you thought.
(エ) It often occurs to us that reading the same book as the children teaches something important we didn't notice.
- (14) 新郎の健二君の紹介のスライドを映します。これは彼が生まれた 1990 年にさかのぼります。
(ア) We will show you an introductory slide for our groom Kenji that dates back to 1990 of his birth.
(イ) We're going to have a slideshow to introduce the groom Kenji, which starts all the way back in 1990, when he was born.
(ウ) A slideshow for introducing our groom Kenji started in 1990 when he was born.
(エ) The slide presentation which introduces you to our groom Kenji will be traced back to his birth year 1990.
- (15) 月の表面に反射した太陽の光が月を明るく見えさせている。
(ア) The light of the sun reflecting off the moon's surface makes it look bright.
(イ) The moon looks shining because of the reflection of the sun light on the surface.
(ウ) The reflective surface of the moon from the sun light contributes its luminous image.
(エ) The moon is blowing on the surface by the reflected light of the sun.
- (16) 今の自分ではない「何者か」になりたいという隠れた願望が人の生きる力ともなることがある。
(ア) The hidden desire for leaving yourself and becoming somebody else at times bring you to life worth living for.
(イ) The secret desire that you want to be somebody different from who you are now may sometimes energize you.
(ウ) Our covert hunger for replacing somebody may invigorate us for a lively life once in a while.
(エ) Deep down hunger for masquerading somebody else hiding real self activates people moving.
- (17) 彼の古い作品を読むたびに感心するのはそれが常に斬新な感じがするということだ。
(ア) I have never been disappointed with his old work since I find it conventional.
(イ) His old work never fails surprising me by something new each time I read it.
(ウ) It is always seeing that his work brings me a new excitement when I read it.
(エ) What amazes me every time I read his old work is how modern it always feels.
- (18) その歌手の人気は大阪から広まったみたいだ。でもそうではないという人もたくさんいる。
(ア) The singer's popularity seems to have spread from Osaka, but there are plenty of people who'll tell you otherwise.
(イ) It looks like that popularity of the singer started from Osaka, but many people are opposed the idea.
(ウ) A lot of people seem to oppose to the idea that the popularity of the singer permeated from Osaka.
(エ) Many of people say it is not true that the singer seems to have caught on in Osaka.
- (19) 私達の多くにとって新しい仕事に移るのは大変です。特に前の仕事に愛着があれば。
(ア) It is painful for many of us to make the transition to new jobs, especially when we have a strong fondness for the previous ones.
(イ) We all know that changing jobs is tough for most of us particularly in case where we have a strong attachment to our former jobs.
(ウ) Alteration in our career bothers a lot of us specially if we have an affinity for our present jobs so much.
(エ) Most people do not like changing because they like to stay in the same place which they prefer.
- (20) 彼は次の会議で基調講演をしてくださるとずいぶん前に約束して下っています。
(ア) He has promised to make a keynote speech on the next conference a long time ago.
(イ) He has been committed to delivering a keynote speech at the next conference for a long time.
(ウ) He pledged that he would give a keynote speech about the next meeting a while ago.
(エ) He engaged himself in speaking as a keynote speaker in the next meeting a while back.

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。

- (21) () it was easy to () and because it was (21), () () very well.
(ア) use (イ) cheap (ウ) it (エ) sold (オ) since

(問題用紙 3)

- (22) The term (), as an adjective, was () to describe a used (22) in ()().
(ア) condition (イ) coin (ウ) mint (エ) coined (オ) perfect
- (23) () the (), it was impossible () Gerry to keep his head (23)().
(ア) above (イ) under (ウ) for (エ) water (オ) circumstances
- (24) The ()(24)()()() soldiers and their families.
(ア) married (イ) complex (ウ) and (エ) houses (オ) single
- (25) The () we () to () trip to Boston, the (25)() the students become.
(ア) closer (イ) excited (ウ) our (エ) are (オ) more
- (26) (26) the ()() the whaling industry came hard times () people () Nantucket.
(ア) end (イ) in (ウ) with (エ) of (オ) for
- (27) () one's () are reduced to (), one (27) appreciates everything one () have.
(ア) expectations (イ) zero (ウ) when (エ) really (オ) does
- (28) I () noticed (28) people who () everything is decided, () when they () the road.
(ア) even (イ) look (ウ) have (エ) cross (オ) claim
- (29) The traveler sees what ()(), while the tourist sees what he () come (29)().
(ア) sees (イ) he (ウ) to (エ) see (オ) has
- (30) Don't () each () by the () you reap but by the seeds that ()(30).
(ア) day (イ) judge (ウ) you (エ) harvest (オ) plant

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。

Neuroscientists from Sweden's Karolinska Institutet gave 125 study participants the illusion of being invisible. The researchers described the invisibility illusion in the journal *Scientific Reports*. For the experiment, a participant stands and wears a (31) display, which plays a real-time video feed from a camera pointed down at an empty space (32). So when the participant looks down, she sees an empty space (33) her body. The scientist touches various locations on the participant's body with a large paintbrush. At the same time, with a paintbrush in his opposite hand, he imitates these (34) in mid-air beneath the camera. The participant simultaneously feels the brush poke and sees the brush poking into empty space. The trick leads to a Harry Potter-like sensation of invisibility.

Arvid Guterstam, the lead author of the study, explains in a press release, "Within less than a minute, the majority of the participants started to transfer the sensation of touch to the (35) of empty space where they saw the paintbrush move and experienced an invisible body in that position."

To test how well the illusion (36), the researchers made stabbing motions with a knife toward the empty space that represented the invisible body. When participants were under the (37) of the illusion, they perceived these jabs as threats to their invisible bodies, and their sweat and heart rates were elevated. But when the illusion was broken--for instance, when the brushstrokes they felt and those they saw weren't in sync--they weren't (38) by the knife.

Interestingly, the illusion of being invisible changed participants' responses during stressful situations. The researchers positioned the participants in front of a virtual audience of strangers, measuring their heart rate and self-reported stress levels. Unsurprisingly, participants were less stressed when they thought they were invisible.

So basically, pretending you're invisible seems to be a more effective way to handle stage (39) than imagining everyone in their underwear. Looking (40), the researchers hope to find out what else an illusion of invisibility might affect. This study might be useful for social anxiety disorder therapies or to examine decision-making.

- (31) (ア) heads-up (イ) head-on (ウ) heads-held (エ) head-mounted
(32) (ア) convenient (イ) about (ウ) nearby (エ) nigh
(33) (ア) contrary to (イ) instead of (ウ) or rather (エ) in reverse

- | | | | | |
|------|----------------|--------------|--------------|---------------|
| (34) | (ア) motions | (イ) sounds | (ウ) figures | (エ) shapes |
| (35) | (ア) total | (イ) portion | (ウ) extract | (エ) cut |
| (36) | (ア) worked | (イ) handled | (ウ) managed | (エ) fulfilled |
| (37) | (ア) spasm | (イ) stroke | (ウ) spell | (エ) seizure |
| (38) | (ア) unquiet | (イ) unnerved | (ウ) unstable | (エ) unmoved |
| (39) | (ア) fright | (イ) anxious | (ウ) afraid | (エ) fringe |
| (40) | (ア) beforehand | (イ) above | (ウ) beyond | (エ) ahead |

V. 次の英文を読んで、下の問いに答えなさい。

Using sunlight, researchers and students at MIT are trying to change how medical equipment is sterilized in remote clinics — and a pilot project in Nicaragua has begun to show (41)promising results.

In that nation, a mostly rural population of six million is served by some 11 hospitals, dozens of health centers, and some 1,300 “health posts” that provide emergency care, obstetric services and the occasional baby delivery. Most of these posts, staffed by nurse practitioners, either lack equipment to sterilize surgical tools and bandages or have kerosene-powered autoclaves. Often, nurses (42)resort to boiling tools or swabbing them with alcohol, or must travel long distances for proper sterilization at larger centers or hospitals.

But an MIT team called the Little Devices group, part of the Institute’s D-Lab series of classes, workshops and labs, has developed (44)an alternative called SolarClave, a solar-powered autoclave that can be built and repaired using locally available parts and materials. The device would cost less than existing kerosene or electric sterilizers and would require no fuel or power.

The device, explains Anna Young, a D-Lab Scale-Ups Fellow and leader of the SolarClave project, is an example of a different approach to creating technologies for use in the developing world: Rather than having teams of engineers in a place like Cambridge come up with an invention, and then try to get people in developing countries to use it, the D-Lab group emphasizes an (45) approach in which end-users play an integral role in developing and refining a product.

SolarClave is an example of that process in action, Young says. In the more than three years it has been under development, (46)“the design has changed drastically” in response to feedback from users at the health posts in Nicaragua.

The changes have simplified the design, making it easier to build and less prone to failure; improved its safety by reducing the number of connections where hot steam might leak out; and increased the number of components available in Nicaragua.

An early prototype used a boiler suspended over a foil-covered parabolic reflector. From that boiler, tubing carried steam to a sterilizing vessel several feet away. But in tests in Nicaragua, the team soon found problems with the system: The foil was vulnerable to damage and hard to replace locally, and the tubing that carried the steam was inefficient, and prone to leakage and damage.

(ア) Over time, they arrived at a much more robust system: (イ) The unwieldy tubing system was replaced by an ordinary pressure cooker, suspended directly over the reflector, to contain the tools and materials being sterilized. (ウ) “If a rock falls on a mirror, just the mirror breaks, not the whole array,” Young says. (エ)

The upgraded system is now in use at three test locations in Nicaragua; by this summer, the team plans to put several more units in use. The next step will be to work with a Nicaraguan company to manufacture and sell the devices.

“It will be made using local supply chains,” Young says, “and it is easily repairable and modifiable.” Users will be able to (48) the system based on their own experience with it and on local availability of parts and materials.

The system delivers heat and pressure that meet sterilization standards set by the U.S. Centers for Disease Control — standards widely adopted by health agencies around the world, Young says. Under a clear sky, the system takes 45 to 60 minutes to heat the pressure cooker to the required temperature — 121 degrees Celsius — then 20 minutes to carry out the sterilization. Typically, at a village health post, the device would run through this cycle about three times a week, she says.

Once the devices have been fully tested in Nicaragua, Young says, she expects the project will expand to other areas in Central America and Africa. “We’re looking for local partners,” she says, “and we’ll be able to (49)license the device to them, and work with them on installation and assembly.”

※ autoclave: 滅菌用高圧釜

問1 下線部(41)のpromisingと意味の最も近いものを、(ア)～(エ)の中から一つ選び、その記号をマークしなさい。

- (ア) authentic
- (イ) authorized
- (ウ) auspicious
- (エ) audible

(問題用紙 5)

問2 下線部(42)のresort toと意味の最も近いものを、(ア)～(エ)の中から一つ選び、その記号をマークしなさい。

- (ア) fall back on
- (イ) anticipate in
- (ウ) are up to
- (エ) yearn for

問3 第2段落の内容から最も正しいものを、(ア)～(エ)の中から一つ選び、その記号を(43)にマークしなさい。

- (ア) In Nicaragua, most health facilities have nurses and autoclaves.
- (イ) Nicaragua has health posts that lack equipment for sterilization.
- (ウ) Nicaragua's urban population is about six million people.
- (エ) Sometimes patients need to travel long distances to get properly sterilized.

問4 下線部(44)のan alternativeの意味として、最もふさわしくないものを、(ア)～(エ)の中から一つ選び、その記号をマークしなさい。

- (ア) an alternative to a situation of having no equipment to sterilize surgical tools
- (イ) an alternative to kerosene-powered autoclaves
- (ウ) an alternative to using electric sterilizers
- (エ) an alternative to solar powered sterilizing devices

問5 空所(45)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。

- (ア) interactive
- (イ) involuntary
- (ウ) instant
- (エ) inherent

問6 下線部(46)の理由として、最もふさわしくないものを、(ア)～(エ)の中から一つ選び、その記号をマークしなさい。

- (ア) There was a risk of leakage in the connections.
- (イ) It was extremely difficult to find the tubing that was used.
- (ウ) The foil covering the parabolic reflector was easily damaged.
- (エ) The simpler the design is, the easier it is to construct.

問7 第8段落に、以下の文章を入れる際、最も適切な場所を、文中の(ア)～(エ)の中から一つ選び、その記号を(47)にマークしなさい。

The reflector is now an array of small pocket mirrors, which are readily available in Nicaragua and less prone to damage.

問8 空所(48)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。

- (ア) advocate
- (イ) addict
- (ウ) address
- (エ) adapt

問9 下線部(49)のlicenseと意味の最も近いものを、(ア)～(エ)の中から一つ選び、その記号をマークしなさい。

- (ア) sanction
- (イ) induce
- (ウ) manifest
- (エ) weed

問10 本文の内容から最も正しいものを、(ア)～(エ)の中から一つ選び、その記号を(50)にマークしなさい。

- (ア) Medical practitioners in Central America and Africa are looking forward to working with the team who started the pilot study in Nicaragua.
- (イ) According to Anna Young, it takes three years for locals to manufacture the system.
- (ウ) The leader of the SolarClave project claims that the upgraded system meets standards commonly accepted world-wide.
- (エ) A village health post has the ability to perform sterilization just about three times a week.