20 － 5

医学部医学科英語入試問題

下記の注意事項をよく読んで解答してください。

◎注意事項

1. 配付された問題冊子および解答用マークシートに，それぞれ受験番号(4桁)ならびに氏名を記入し，解答用マークシートの受験番号欄に自分の番号を正しくマークしてください。
2. マークには必ずＨＢの鉛筆を使用し，濃く正しくマークしてください。

   記入マーク例：良い例 ●

   悪い例 ∅ ⓘ ∅ ⊙
3. マークを訂正する場合は，消しゴムで完全に消してください。
4. 所定の記入欄以外には何も記入しないでください。
5. 解答用マークシートを折り曲げたり，汚したりしないでください。
6. 「止め」の合図があったら，問題冊子の上に解答用マークシートを重ねて置いてください。

(受験番号のマークの仕方)

受験番号			
千	百	十	一
0	0	1	2

受験番号			
千	百	十	一
●	●	⓪	⓪
①	①	●	①
②	②	②	●
③	③	③	③
④	④	④	④
⑤	⑤	⑤	⑤
⑥	⑥	⑥	⑥
⑦	⑦	⑦	⑦
⑧	⑧	⑧	⑧
⑨	⑨	⑨	⑨

受験番号 [　　]　氏　名 [　　]

〔Ⅰ〕 次の英文を読み，後に続く質問1～12にもっとも適する答えを選びなさい。

Carcinoma is a cancer that develops in the inner and outer surfaces of the body, such as the skin, the lining of the **gastrointestinal** tract, the inside of blood vessels, and the lungs. Like all cancers, carcinomas are malignant tumors in which cells grow uncontrollably, eventually **crowding out** normal cells. Also, like other cancers, carcinomas often metastasize to other areas of the body via the blood or lymphatic system. Different kinds of carcinomas include breast cancer, cervical cancer, prostate cancer, lung cancer, colon cancer, liver cancer, and skin cancer.

Carcinoma is one of four types of cancer. The other types are cancer in muscle, connective, or bone tissue (sarcoma); cancer in blood-forming or vascular tissues (lymphoma, leukemia, and myeloma); and cancer in nerve tissues (neuroma, glioma, and neuroblastoma).

Doctors use various methods to diagnose carcinoma, depending on the site of the cancer. Diagnostic techniques include endoscopy (examination of an interior organ with a viewing instrument that has flexible glass or plastic fibers that transmit light); pap test (removal of a small sample of cells from the **cervix** to be examined under a microscope); blood tests; biopsy (removal of small amounts of suspect tissue for examination under a microscope); and imaging techniques such as X rays, CT scans (X rays that give a three-dimensional image), magnetic resonance imaging (MRI), and ultrasound imaging.

Doctors prescribe treatment based on the kind of carcinoma, the stage of its growth, whether or not it has metastasized, and the patient's age and general health. Usually, the purpose of treatment is to eliminate all or as much of the

cancer as possible. If the cancer is at a very advanced stage, however, the purpose of the treatment may be **palliative**. Cancer treatments may be administered alone, or in various combinations, simultaneously, or one after the other.

The most common cancer treatments are surgery (to remove all or part of the tumor), chemotherapy (various anticancer drugs, given orally or **intravenously**, usually several drugs in combination), and radiation therapy (aiming high-energy radiation at the tumor site). Since chemotherapy kills some normal cells at the same time that it kills cancerous ones, it can cause many side effects, including hair loss, mouth sores, **nausea**, vomiting, diarrhea, and fatigue. People undergoing chemotherapy are especially susceptible to infection because the drugs severely limit the effectiveness of the immune system. Side effects of radiation may include hair loss, nausea, loss of appetite, and moderate to extreme fatigue.

1. The word "gastrointestinal" in line 2 refers to the
   (a) liver
   (b) trachea
   (c) digestive canal extending from the stomach to the anus
   (d) body organs involved in respiration

2. The expression "crowding out" in line 4 is closest in meaning to
   (a) absorbing
   (b) differentiating
   (c) covering
   (d) displacing

3. The word "cervix" in line 17 refers to a part of the
   (a) kidney
   (b) uterus
   (c) lung
   (d) liver

4. The word "palliative" in line 26 is closest in meaning to
   (a) curing the disease
   (b) testing the effectiveness of a new drug or treatment
   (c) using a placebo
   (d) alleviating symptoms, without curing

5. The word "intravenously" in line 31 is closest in meaning to
   (a) by mouth
   (b) within an artery or arteries
   (c) ventrally
   (d) within a vein or veins

6. The word "nausea" in line 34 is closest in meaning to
   (a) tiredness
   (b) feeling of dizziness
   (c) decreased appetite
   (d) urge to vomit

7. According to the text, carcinoma
   (a) is benign
   (b) does not metastasize
   (c) can spread
   (d) is divided into four types

8. Carcinoma is a type of cancer that is **NOT** normally found in

(a) neurons

(b) the intestine

(c) pulmonary tissue

(d) the stomach

9. All of the following methods of diagnosing carcinoma are mentioned **EXCEPT**

(a) urinalysis

(b) biopsy

(c) endoscopy

(d) computed tomography

10. According to the text, treatment of carcinoma

(a) involves therapies given alone, simultaneously, or consecutively

(b) involves nutritional therapy

(c) does not result in adverse effects

(d) strengthens the immune system

11. Patients being treated for carcinoma typically experience

(a) hair loss

(b) loose stools

(c) tiredness

(d) all of the above

12. The paragraph after this text most likely deals with

(a) the causes of carcinoma

(b) carcinoma prognosis

(c) an example of one type of carcinoma

(d) the epidemiology of carcinoma

〔Ⅱ〕 次の英文を読み，後に続く質問 13～25 にもっとも適する答えを選びなさい。

Measles, also called rubeola, is an acute, highly **contagious**, fever-producing disease caused by a virus different from that which causes the less serious disease German measles, or rubella. Measles is characterized by small red dots appearing on the surface of the skin, **irritation** of the eyes (especially on exposure to light), coughing, and a runny nose. About 12 days after first exposure, the fever, sneezing, and runny nose appear. Coughing and swelling of the neck glands often follow. Four days later, red spots appear on the face or neck and then on the trunk and limbs. In two or three days the rash **subsides** and the fever falls; some peeling of the involved skin areas may take place. Infection of the middle ear may also occur.

Measles was formerly one of the most common childhood diseases. Since the development of an effective vaccine in 1963, it has become much less frequent. By 1988 annual measles cases in the United States had been reduced to fewer than 3,500, compared with about 500,000 per year in the early 1960s. However, the number of new cases jumped to more than 18,000 in 1989 and to nearly 28,000 in 1990. Most of these cases occurred among inner-city preschool children and recent immigrants, but adolescents and young adults, who may have lost immunity from their childhood vaccinations, also experienced an increase. The number of new cases declined rapidly in the 1990s and early 21st century, and by 2004 fewer than 40 cases were reported in the United States. The reasons for this **resurgence** and subsequent decline are not clearly understood.

In other parts of the world measles is still a common childhood disease, and in developing countries it kills as many as 30 percent of the children it infects. In 2006 the World Health Organization(WHO) reported that the number of

measles deaths worldwide had dropped by 60 percent, from 873, 000 per year in 1999 to 345, 000 in 2005. Health officials have a goal of reducing measles deaths by 90 percent by 2010. In the United States measles is rarely fatal. Should the virus spread to the brain, however, it can cause death or brain damage.

No specific treatment for measles exists. Patients are kept isolated from other susceptible individuals, usually resting in bed, and are treated with aspirin, cough syrup, and skin lotions to lessen fever, coughing, and itching. The disease usually **confers** immunity after one attack, and an immune pregnant woman passes the antibody in the globulin fraction of the blood **serum**, through the placenta, to her fetus. These maternal antibodies can protect infants from measles infection for a period of months after birth but this temporary immunity will eventually disappear.

13. The word "contagious" in line 1 is closest in meaning to
    (a) transmissible
    (b) debilitating
    (c) intractable
    (d) dangerous

14. The word "irritation" in line 4 is closest in meaning to
    (a) tearing
    (b) uncontrolled, rapid blinking
    (c) inflammatory reaction
    (d) abnormal movement of the pupils

15. The word "subsides" in line 9 is closest in meaning to
    (a) decreases to normal
    (b) spreads over a larger area
    (c) spreads beneath the skin
    (d) worsens

16. The word "resurgence" in line 21 is closest in meaning to
    (a) ineffectiveness of vaccinations
    (b) rapid decrease
    (c) renewal
    (d) loss of immunity

17. The word "confers" in line 34 is closest in meaning to
    (a) requires
    (b) decreases
    (c) damages
    (d) gives

18. The word "serum" in line 35 is closest in meaning to
    (a) fluid portion of the blood
    (b) antibodies
    (c) protein portion of the blood
    (d) cells

19. According to the text, measles
    (a) is also called rubella
    (b) has symptoms that begin immediately after exposure
    (c) causes a watery discharge from the nose
    (d) all of the above

20. All of the following are symptoms of measles **EXCEPT**

(a) red spots on the arms and legs

(b) decreased body temperature

(c) coughing

(d) swollen glands

21. In the United States, the measles vaccine

(a) eradicated measles

(b) reduced the incidence of measles by 99% in one generation

(c) is much less frequently given now

(d) all of the above

22. After 1988,

(a) measles cases continued to decrease

(b) an increase in measles cases occurred mostly in adolescents

(c) inner-city youngsters lost immunity from their measles vaccinations

(d) measles cases increased, then decreased

23. According to the text, measles

(a) is frequently fatal in American adults

(b) is frequently fatal in adults in developing countries

(c) is a growing international health problem

(d) can spread to the brain

24. Which of the following is **NOT** recommended as a means of treating or controlling measles?

(a) bed rest

(b) administration of anti-fever medication

(c) cough medicine

(d) isolation of susceptible individuals

25. It can be inferred from the text that

(a) all infants are temporarily immune to measles

(b) individuals do not usually get measles twice

(c) pregnant women can pass the measles virus to their fetus

(d) maternal antibodies give offspring permanent immunity against measles

〔Ⅲ〕 以下の文をもっとも適当な順序に並べ替えなさい。

26.

a) Researchers confronted volunteers with similar scenarios and found that those with VMPC injury were three times more likely than healthy people to advocate throwing the person to certain death for the good of the many.

b) Their study also shows that such decisions result not from a single moral faculty but from two different processes that can compete with each other.

c) How long would you hesitate before pushing someone in front of a runaway train to keep it from killing five other people?

d) The answer may be no time at all, if you have damage to the ventromedial prefrontal cortex (VMPC) — a region in the forebrain associated with emotional response.

e) University of Southern California researchers say that these patients are not amoral but seem to lack the natural conflict between emotion and reason.

(a) c—a—b—e—d　　(b) c—b—a—d—e

(c) c—b—d—a—e　　(d) c—d—a—e—b

(e) c—d—b—a—e

27.

a) A decade ago IBM's chess program, Deep Blue, beat world champion Garry Kasparov in a six-game match.

b) Go has proved enormously difficult for computer programmers because of the game's deceptive complexity.

c) The event marked a milestone, forcing humans to yield dominance of yet another strategic diversion.

d) Only the Asian board game Go seemed to be computer science's Achilles' heel: humans could soundly beat the machines.

e) Now a new computer program created by two Hungarian researchers has surpassed the win rates of the best Go programs by 5 percent and can compete with professional Go players on small boards.

(a) a—b—e—c—d　　(b) a—c—d—b—e

(c) a—d—b—e—c　　(d) a—d—e—c—b

(e) a—e—d—b—c

28.

a) The scaly swimmers — the "Doctor Fish of Kangal" — supposedly have curative powers.

b) These fish have acquired a taste for humans largely because they have little choice: the spring is too hot to sustain enough algae and plankton to feed them all.

c) Tucked between the brown hills in central Turkey is a natural hot spring where, for a fee, you can become fish food.

d) But in this unusual case of adaptive ecology, the human visitors may be helping the fish more than themselves.

e) Dip in a hand or foot, and within seconds small fish swarm, bump and nibble it.

(a) a—b—c—d—e　　(b) b—d—c—a—e

(c) c—e—a—d—b　　(d) d—e—a—c—b

(e) e—d—c—b—a

29.

a) Ink-jet printers work by spraying drops of ink from nozzles onto a sheet, and conventional machines shuffle their nozzles back and forth across paper.

b) Memjet, however, has fixed rows of nozzles stretching from one edge of the page to the other that all fire simultaneously — thereby cutting down noise and vibration — and finishes one color page a second.

c) Stealthily, over more than a decade, a new kind of printer has been under development in Australia.

d) The original vision was to create a printer small enough to fit inside a digital camera.

e) Instead the research has yielded an ink-jet printer dubbed the Memjet, which can print color photographs up to 30 times faster than any other printer.

(a) a—c—e—d—b
(b) b—d—e—a—c
(c) c—d—e—a—b
(d) d—a—b—e—c
(e) e—b—c—d—a

30.

a) Using their AFM approach, Oscar Custance and his collaborators at Osaka University, along with Perez, were able to discern the chemically similar tin, silicon, and lead.

b) The resulting image of the atoms resembles a granulated painting, where the "grains"— the individual atoms — are distinguishable in false colors.

c) Using an atomic-force microscope(AFM), however, an international team of physicists has developed a method of atomic "fingerprinting" that can determine the identity of mixed individual atoms on a surface.

d) "Until now, there was not any technique that would allow us to identify atom by atom and see them at the same time," says Ruben Perez of the Autonomous University of Madrid.

e) Deciding whether a substance is steel, brick, wood or plastic is easy — but not on the atomic scale, which lacks information about important characteristics.

(a) a—c—d—e—b
(b) a—d—c—e—b
(c) c—d—a—b—e
(d) e—d—a—c—b
(e) e—c—d—a—b

〔Ⅳ〕 次の英文を読み，31から40までの空所に最も適する語句を一つ選び，その記号をマークしなさい。

Many years ago, Norman Cousins __31__ as "terminally ill." He was given six months to live. His chance for recovery was one in 500.

He could see that the worry, depression and __32__ in his life contributed to, and perhaps helped cause, his disease. He wondered, "If illness can be caused by __33__, can wellness be created by __34__?"

He decided to make an experiment of himself. Laughter was one of the most positive activities he knew. He rented all the funny movies he could find — Keaton, Chaplin, Fields, the Marx Brothers. (This was before VCRs, so he had to rent the actual films.) He read funny stories. He asked his friends to call him __35__ they said, heard or did something funny.

His pain was so great he could not sleep. Laughing for 10 solid minutes, he found, __36__ the pain for several hours so he could sleep.

He fully recovered from his illness and lived another 20 happy, healthy and productive years. (His journey is detailed in his book, *Anatomy of an Illness.*) He credits visualization, the love of his family and friends, and laughter for his recovery.

Some people think laughter is a waste of time. It is a luxury, they say, a frivolity, something to indulge in only every so often.

__37__ could be further from the truth. Laughter is essential to our equilibrium, to our well-being, to our aliveness. If we're not well, laughter helps us get well; if we are __38__, laughter helps us stay that way.

Since Cousins' ground-breaking subjective work, scientific studies have shown that laughter has a curative effect on the body, the mind and the emotions.

So, if you like laughter, consider it sound medical advice to indulge in it as often as you can. If you don't like laughter, then take your medicine — laugh anyway.

Use __39__ makes you laugh — movies, sitcoms, Monty Python, records, books, *New Yorker* cartoons, jokes, friends.

Give yourself permission to laugh — long and loud and out loud — whenever anything strikes you as funny. The people around you may think you're strange, but sooner or later they'll join in even if they don't know what you're laughing about.

Some diseases may be contagious, but __40__ is as contagious as the cure... laughter.

31. (a) diagnosed
    (b) examined
    (c) was diagnosed
    (d) was examined

32. (a) anger
    (b) addiction
    (c) betrayal
    (d) luxury

33. (a) positivity
(b) negativity
(c) activity
(d) passivity

34. (a) positivity
(b) negativity
(c) activity
(d) passivity

35. (a) whatever
(b) wherever
(c) however
(d) whenever

36. (a) extinguished
(b) deducted
(c) erased
(d) relieved

37. (a) Something
(b) Anything
(c) Nothing
(d) Things

38. (a) ill
(b) well
(c) sad
(d) happy

39. (a) whatever
(b) wherever
(c) however
(d) whenever

40. (a) everything
(b) not everything
(c) all
(d) none

〔V〕 次の英文を読み，後に続く質問 41～50 にもっとも適する答えを選びなさい。

We all know that brown rice is better for you than white rice, and whole wheat bread comes out on top over white bread, but does this pattern extend to sugar as well? [41]

It is often said that brown sugar is a healthier option than white sugar. But you can chalk that up to clever marketing [42] or plain and simple illusion. In reality, brown sugar is most often ordinary table sugar that is turned brown by the reintroduction of molasses. Normally, molasses is separated and removed [43] when sugar is created from sugarcane plants.

In some cases, brown sugar — particularly when it is referred to as "raw sugar" — is merely sugar that has not been fully refined. But more often than not [44], manufacturers prefer to reintroduce molasses to fine white sugar [45] — creating a mixture with about 5 percent to 10 percent molasses — because it allows them to better control the color and size of the crystals in the final product [46].

So the two varieties [47] of sugar are similar nutritionally. According to the United States Department of Agriculture, brown sugar contains about 17 kilocalories per teaspoon, compared with 16 kilocalories per teaspoon for white sugar.

Because of its molasses content, brown sugar does contain certain minerals, most notably [48] calcium, potassium, iron and magnesium (white sugar contains none of these). But since these minerals are present in only minuscule [49] amounts, there is no real health benefit [50] to using brown sugar. The real differences between the two are taste and the effects on baked goods. Nutritionally, brown sugar and white sugar are not much different.

41. Underlined part [41] is closest in meaning to
(a) is it true that brown sugar is healthier than white sugar?
(b) is it true that brown sugar is better than brown rice or brown bread?
(c) can we say that white sugar is usually healthier than white rice or white bread?
(d) can we say for sure which is the best among brown rice, brown bread and brown sugar?

42. Underlined part [42] is closest in meaning to
(a) But it is a good idea to put both on the market
(b) But the reverse is actually true in the market
(c) But it is not quite profitable to sell brown sugar
(d) But it is due to skillful advertisement

43. The word [43] is closest in meaning to
(a) taken away
(b) taken in
(c) set away
(d) set in

44. The phrase [44] is closest in meaning to
(a) once in a while
(b) less often
(c) usually
(d) rarely

45. The phrase [45] is closest in meaning to
(a) white sugar of high quality
(b) white sugar in very small pieces
(c) refine white sugar
(d) healthy white sugar

46. The phrase 46 is closest in meaning to

(a) white sugar

(b) brown sugar

(c) a mixture of white and brown sugar

(d) sugar put on the market

47. The word 47 is closest in meaning to

(a) qualities

(b) differences

(c) types

(d) changes

48. The phrase 48 is closest in meaning to

(a) best known

(b) in particular

(c) most often

(d) for example

49. The word 49 is closest in meaning to

(a) very few

(b) very minor

(c) very small

(d) miniature

50. The word 50 is closest in meaning to

(a) affection

(b) influence

(c) profit

(d) merit

〔Ⅵ〕 次の英文を読み，それぞれのカッコ内のもっとも適する語句を選びなさい。

Public health officials today urged the passengers and crew of two recent trans-Atlantic flights 51 (a. carefully b. who c. to d. help) get checked for tuberculosis, after learning that a man 52 (a. who b. that c. of d. with) an exceptionally deadly and drug-resistant form of the disease had flown on the planes.

The man, an American 53 (a. is not identified b. was not identified c. who is not identified d. who was not identified), flew on May 12 from Atlanta to Paris aboard Air France Flight 385, then traveled on May 24 from Prague to Montreal aboard Czech Air Flight 410 before driving back to the United States, the Centers for Disease Control announced. He is currently 54 (a. in hospitality b. in hostility c. hosted d. hospitalized) in an isolation ward.

Dr. Julie Gerberding, director of the Centers for Disease Control, announced the matter personally.

While tuberculosis is not highly 55 (a. transmitted b. transmitting c. transmissible d. transmission), the deadliness of this strain — and the ease of modern transportation — underscored the need for rapid response, as with the SARS virus epidemic of a few years ago.

A federal 56 (a. quarantine b. impeachment c. office d. sanction) order has been issued — the first in decades — and the CDC is working with state and local health departments, airline officials, international health ministries and the World Health Organization. "We felt it was our responsibility to err on the side of abundant caution and issue the isolation order," Dr. Gerberding said.

Tuberculosis had been a leading cause of death even in the developed world [57] (a. since b. from c. until d. without) the development of streptomycin in the 1940s. Today, treatment by anti-tuberculosis drugs like isoniazid and rifampicin can cure up to 95 percent of patients.

But those and other so-called first-line drugs do [58] (a. a little b. little c. much d. too much) against a type of tuberculosis known as multidrug-resistant TB, or MDR TB. More worryingly, the type of tuberculosis found in the infected American — known as extensively drug-resistant tuberculosis, or XDR TB — resists treatment even by three of the six second-line drugs [59] (a. use b. used c. using d. to use) when first-line drugs fail. Only two cases of the strain were found last year in the United States.

Tuberculosis is typically spread by [60] (a. snoring b. sniffing c. sneezing d. sneering) or coughing, and the CDC said the man potentially was infectious during the two flights.

Health officials recommended medical exams for cabin crew members on the flights, as well as passengers [61] (a. sit b. sat c. who sit d. sitting) within a few rows of the man. Dr. Gerberding would not say the row in which he sat, but the doctor said the nearby passengers would be contacted. More information can be obtained at the website of the Centers for Disease Control.

Antibiotics have helped [62] (a. low b. lower c. lowing d. to low) tuberculosis rates for years, although the CDC found some resurgence starting in 1985, particularly among recent immigrants and people infected with HIV, the virus that causes AIDS. Still, TB cases hit an all-time low last year in the United States of 13, 767, according to The Associated Press.

But tuberculosis is still deadly, particularly in countries where medical care is lacking, [63] (a. kill b. killed c. to kill d. killing) about 1.6 million people each year worldwide. It is particularly deadly among those infected with HIV.

At any given time, one person in three worldwide [64] (a. is infected with b. are infected with c. infected with d. who infected with) dormant tuberculosis germs, according to the World Health Organization. People become ill when the bacteria become active, usually when a person's [65] (a. immune b. immunity c. immunization d. immunology) declines, whether because of advancing age, HIV infection or some other medical problem.

[66] (a. Because b. Although c. Unless d. Even) first-line drugs usually are effective, multidrug-resistant tuberculosis can develop if those medications are misused or improperly administered. That requires treatment with more expensive — and less well-tolerated — second-line drugs, which require treatment courses of 18 to 24 months, compared with six to nine months for first-line drugs.

Misuse or mismanagement of those drugs, [67] (a. in turn b. at length c. in short d. at all), can render them ineffective, leading to the extensively drug resistant TB, or XDR TB. Options for treating it are extremely limited, according to the WHO. Only about 30 percent of patients can be cured.

A 2005 survey by the CDC and the WHO found that 10 percent of multidrug-resistant tuberculosis [68] (a. strains b. treatments c. syndromes d. injections) met the definition for XDR TB, Dr. Gerberding testified before

Congress in March. Cases of the latter were found in 17 countries, most often in the former Soviet Union and Asia. While in the United States just 2 percent of multidrug-resistant TB cases were XDR TB, the figure was 15 percent in South Korea and 19 percent in Latvia.

In one outbreak in South Africa, Dr. Gerberding testified, 41 percent of the 544 patients infected with tuberculosis [69] (a. found b. that found c. were found d. who were found) to have multidrug-resistant strains; of those, 53 met the definition of XDR TB.

In the latter group, all [70] (a. but b. however c. for d. of) one person died, on average just 16 days after health workers had tested them.

◇M3(377—90)