

机密★启封前

2020 年全国硕士研究生招生考试长江大学  
综合英语 试卷 (A 卷)

(科目代码 814)

注意事项:

1. 本试卷共 10 页, 满分 150 分; 考试时间 180 分钟。
2. 所有试题都作答在答题纸(卡)上, 答在试卷上无效。
3. 考试结束后, 考生将答题纸(卡)和本试卷一同装入试卷袋后密封, 并在密封签上签名。

**I. Vocabulary and Grammar (1'×20=20')**

*There are a number of incomplete sentences in this part. For each sentence there are four choices marked A, B, C, and D. Choose the ONE answer that best completes the sentence.*

1. Scientists will have to \_\_\_\_\_ new methods of increasing the world's food supply.  
A. invent  
B. displeasure  
C. discover  
D. come up with
2. San Francisco is usually cool in the summer, but Los Angeles \_\_\_\_\_.  
A. is rarely  
B. rarely is  
C. hardly  
D. is scarcely
3. These two will never cooperate while there's such a basic \_\_\_\_\_ of interest between them.  
A. conflict  
B. protest  
C. contrast  
D. dispute
4. He \_\_\_\_\_ sketches of the dancing girl.  
A. copied  
B. made  
C. wrote  
D. reduced
5. Faith must have adequate evidence, \_\_\_\_\_ it is superstition.  
A. except that  
B. so that  
C. or else  
D. just that
6. It will be some time \_\_\_\_\_ we know the full results.  
A. since  
B. till  
C. after  
D. before
7. Only thoroughly unpleasant people leave the \_\_\_\_\_ of their picnics to spoil the appearance of the countryside.



- C. were going to help                      D. must have helped

17. If you are to catch a train, it is always better to be comfortably early than even a fraction of a minute \_\_\_\_\_ late.

- A. too    B. very  
C. much     D. rather

18. Nowhere in nature is aluminum found free, owing to its always \_\_\_\_\_ with other elements, most commonly with oxygen.

- A. being combined                              B. having combined  
C. to combine                                     D. combined

19. Physics is the present day equivalent of \_\_\_\_\_ used to be called natural philosophy, from \_\_\_\_\_ most of present day science arose.

- A. which, what                                    B. that, which  
C. what, which                                    D. what, that

20. On no account \_\_\_\_\_ ever leave the baby at home alone.

- A. should you                                    B. you should  
C. shall you                                      D. you shall

## II. Cloze (1.5'×10=15')

*Read the following text and fill each of the numbered spaces with ONE suitable word.*

Walking - like swimming, bicycling and running - is an aerobic exercise, (21)\_\_\_\_\_ builds the capacity for energy output and physical endurance by increasing the supply of oxygen to skin and muscles. Such exercises may be a primary factor in the (22)\_\_\_\_\_ of heart and circulatory disease.

As probably the least strenuous, safest aerobic activity, walking is the (23)\_\_\_\_\_ acceptable exercise for the largest number of people. Walking (24)\_\_\_\_\_ comfortable speed improves the efficiency of the cardiorespiratory system (25)\_\_\_\_\_ stimulating the lungs and heart, But at a more gradual rate (26)\_\_\_\_\_ most other forms of exercise.

In one test, a group of men 40 to 57 years of age, (27) \_\_\_\_\_ at a fast pace for 40 minutes four days a week, showed improvement (28)\_\_\_\_\_ to men the same age on a 30 minute, three-day-a-week jogging program in the same period. Their resting heart rate and body fat decreased (29)\_\_\_\_\_. These changes suggest (30) \_\_\_\_\_ of the important - even vital - benefits walking can bring about.

## III. Error Correction (1'×10=10')

*The passage contains TEN errors. Each indicated line contains a maximum of ONE error. In each case, only ONE word is involved. You should proofread the passage and correct it in the following way:*

*For a wrong word - underline the wrong word and write the correct one in the blank provided at the*

*end of the line.*

*For a missing word— mark the position of the missing word with a “^” sign and write the correct one in the blank provided at the end of the line.*

*For an unnecessary word – cross the unnecessary word with a slash “/” and put the word in the blank provided at the end of the line.*

From what has been said, it must be clear that no one can make very positive statements about how language originated.

**There is no material in any language today and in the earliest records of ancient languages show us language in a new and emerging state. It is often said, of course, that the language originated in cries of anger, fear, pain and pleasure, and the**

31 \_\_\_\_\_

32 \_\_\_\_\_

33 \_\_\_\_\_

34 \_\_\_\_\_

necessary evidence is entirely lacking: there are no remote tribes, no ancient records, providing evidence of

**a language with a large proportion of such cries than**

35 \_\_\_\_\_

we find in English. It is true that the absence

of such evidence does not disprove the theory, but

**in other grounds too the theory is not very attractive.**

36 \_\_\_\_\_

People of all races and languages make rather similar

**noises in return to pain or pleasure. The fact that**

37 \_\_\_\_\_

such noises are similar on the lips of Frenchmen

and Malaysians whose languages are utterly different,

**serves to emphasize on the fundamental difference**

38 \_\_\_\_\_

between these noises and language proper. We may

say that the cries of pain or chortles of amusement

**are largely reflex actions, instinctive to large extent,**

39 \_\_\_\_\_

whereas language proper does not consist of signs

**but of these that have to be learnt and that are**

40 \_\_\_\_\_

wholly conventional.

#### IV. Paraphrasing (3'×5=15')

*Read the following passage, paraphrase the five underlined sentences marked with numbers 41-45. Write your answers on the answer sheet.*

More than 160 million years ago, during the Jurassic period, a fanciful group of animals crept, swam, and flew through the cool, damp forests of what is now northeastern China. Then, almost in a geologic instant, the air grew warmer and the land dried out. As the water disappeared, so too did the life. And yet, (41) researchers have struggled to pin down a climate-related culprit behind this ecological collapse.

Now, a study published in the journal *Geology* suggests that it wasn't the climate that changed, but the geographic location of the landscape. Paleomagnetic signatures in the area's rocks indicate that sometime between 174 and 157 million years ago, (42) the whole region shifted southward by a startling 25 degrees, plunging once lush landscapes into zones of desiccating heat.

The ancient rocky lurch was part of a phenomenon known as true polar wander, in which the topmost layers of the planet, likely all the way down to the liquid outer core, rotate significantly even as Earth continues its daily turn around its usual spin axis.

In the Jurassic, the surface and mantle made this twist around an imaginary line through the crook in Africa's west coast known as the Bight of Benin. The change would have been massive: (43) If a similar shift were to happen today, a flag planted in Dallas, Texas, would end up where Northern Manitoba, Canada, currently sits. On the other side of the world, (44) the continent of Asia would soar southward.

Earth has likely experienced smaller amounts of true polar wander throughout its past, and some scientists think it continues today.

“(45) We're experiencing true polar wander as we speak,” says Dennis Kent, a paleomagnetist at both Rutgers and Columbia University who wasn't part of the new study team.

## V. Reading Comprehension (2'×20=40')

*You're going to read three passages with 20 questions. Answer the questions based on your comprehension of each passage. Write your answers on the answer sheet.*

### Passage 1

Refrigerators are the epitome of clunky technology: solid, reliable and just a little bit dull. They have not changed much over the past century, but then they have not needed to. They are based on a robust and effective idea--draw heat from the thing you want to cool by evaporating a liquid next to it, and then dump that heat by pumping the vapour elsewhere and condensing it. This method of pumping heat from one place to another served mankind well when refrigerators' main jobs were preserving food and, as air conditioners, cooling buildings. Today's high-tech world, however, demands high-tech refrigeration. Heat pumps are no longer up to the job. The search is on for something to replace them.

One set of candidates are known as paraelectric materials. These act like batteries when they undergo a temperature change: attach electrodes to them and they generate a current. This effect is used in infra-red cameras. An array of tiny pieces of paraelectric material can sense the heat radiated by, for example, a person, and the pattern of the array's electrical outputs can then be used to construct an image. But until recently no one had bothered much with the inverse of this process. That inverse exists, however. Apply an appropriate current to a paraelectric material and it will cool down.

Someone who is looking at this inverse effect is Alex Mischenko, of Cambridge University. Using commercially available paraelectric film, he and his colleagues have generated temperature drops five times bigger than any previously recorded. That may be enough to change the phenomenon from a laboratory curiosity to something with commercial applications.

As to what those applications might be, Dr Mischenko is still a little hazy. He has, nevertheless, set up a company to pursue them. He foresees putting his discovery to use in more efficient domestic fridges and air conditioners. The real money, though, may be in cooling computers.

Gadgets containing microprocessors have been getting hotter for a long time. One consequence of Moore's Law, which describes the doubling of the number of transistors on a chip every 18 months, is that the amount of heat produced doubles as well. In fact, it more than doubles, because besides increasing in number, the components are getting faster. Heat is released every time a logical operation is performed inside a microprocessor, so the faster the processor is, the more heat it generates. Doubling the frequency quadruples the heat output. And the frequency has doubled a lot. The first Pentium chips sold by Dr Moore's company, Intel, in 1993, ran at 60m cycles a second. The Pentium 4--the last "single-core" desktop processor--clocked up 3.2 billion cycles a second.

Disposing of this heat is a big obstruction to further miniaturisation and higher speeds. The innards of a desktop computer commonly hit 80°C. At 85°C, they stop working. Tweaking the processor's heat sinks (copper or aluminium boxes designed to radiate heat away) has reached its limit. So has tweaking the fans that circulate air over those heat sinks. And the idea of shifting from single-core processors to systems that divided processing power between first two, and then four, subunits, in order to spread the thermal load, also seems to have the end of the road in sight.

One way out of this may be a second curious physical phenomenon, the thermoelectric effect. Like paraelectric materials, this generates electricity from a heat source and produces cooling from an electrical source. Unlike paraelectrics, a significant body of researchers is already working on it.

The trick to a good thermoelectric material is a crystal structure in which electrons can flow freely, but the path of phonons--heat-carrying vibrations that are larger than electrons--is constantly interrupted. In practice, this trick is hard to pull off, and thermoelectric materials are thus less efficient than paraelectric ones (or, at least, than those examined by Dr. Mischenko). Nevertheless, Rama Venkatasubramanian, of Nextreme Thermal Solutions in North Carolina, claims to have made thermoelectric refrigerators that can sit on the back of computer chips and cool hotspots by 10°C. Ali Shakouri, of the University of California, Santa Cruz, says his are even smaller--so small that they can go inside the chip.

The last word in computer cooling, though, may go to a system even less techy than a heat pump--a miniature version of a car radiator. Last year Apple launched a personal computer that is cooled by liquid that is pumped through little channels in the processor, and thence to a radiator, where it gives up its heat to the atmosphere. To improve on this, IBM's research laboratory in Zurich is experimenting with tiny jets that stir the liquid up and thus make sure all of it eventually touches the outside of the channel--the part where the heat exchange takes place. In the future, therefore, a combination of microchannels and either thermoelectrics or paraelectrics might cool computers. The old, as it were, hand in hand with the new.

#### Questions 46-50

Complete each of the following statements with the scientist or company name from the box below. Write the appropriate letters A-F for questions 46-50 on your answer sheet.

A. Apple	B. IBM	C. Intel
D. Alex Mischenko	E. Ali Shakouri	F. Rama Venkatasubramanian

46. \_\_\_ and his research group use paraelectric film available from the market to produce cooling.
47. \_\_\_ sold microprocessors running at 60m cycles a second in 1993.
48. \_\_\_ says that he has made refrigerators which can cool the hotspots of computer chips by 10°C.
49. \_\_\_ claims to have made a refrigerator small enough to be built into a computer chip.
50. \_\_\_ attempts to produce better cooling in personal computers by stirring up liquid with tiny jets to make sure maximum heat exchange.

Question 51

Which of the following statements agree with the information given in the reading passage?

- A. Paraelectric materials can generate a current when electrodes are attached to them.
- B. Dr. Mischenko has successfully applied his laboratory discovery to manufacturing more efficient refrigerators.
- C. Doubling the frequency of logical operations inside a microprocessor doubles the heat output.
- D. IBM will achieve better computer cooling by combining microchannels with paraelectrics.

Question 52

Which method of disposing heat in computers may have a bright prospect?

- A. Tweaking the processors' heat sinks.
- B. Tweaking the fans that circulate air over the processor's heat sinks.
- C. Shifting from single-core processors to systems of subunits.
- D. None of the above.

**Passage 2**

The Native Americans of northern California were highly skilled at basketry, using the reeds, grasses, barks, and roots they found around them to fashion articles of all sorts and sizes- not only trays, containers, and cooking pots, but hats, boats, fish traps, baby carriers, and ceremonial objects.

Of all these experts, none excelled the Pomo — a group who lived on or near the coast during the 1800's, and whose descendants continue to live in parts of the same region to this day. They made baskets three feet in diameter and others no bigger than a thimble. The Pomo people were masters of decoration. Some of their baskets were completely covered with shell pendants; others with feathers that made the baskets' surfaces as soft as the breasts of birds.

Moreover, the Pomo people made use of more weaving techniques than did their neighbors.

Most groups made all their basketwork by twining — the twisting of a flexible horizontal material, called a weft, around stiffer vertical strands of material, the warp. Others depended primarily on coiling — a process in which a continuous coil of stiff material is held in the desired shape with tight wrapping of

flexible strands. Only the Pomo people used both processes with equal ease and frequency. In addition, they made use of four distinct variations on the basic twining process, often employing more than one of them in a single article.

Although a wide variety of materials was available, the Pomo people used only a few. The warp was always made of willow, and the most commonly used weft was sedge root, a woody fiber that could easily be separated into strands no thicker than a thread. For color, the Pomo people used the bark of redbud for their twined work and dyed bullrush root for black in coiled work. Though other materials were sometimes used, these four were the staples in their finest basketry.

If the basketry materials used by the Pomo people were limited, the designs were amazingly varied. Every Pomo basket maker knew how to produce from fifteen to twenty distinct patterns that could be combined in a number of different ways.

53. The Pomo people used each of the following materials to decorate baskets EXCEPT \_\_\_\_.
- A. shells          B. feathers          C. leaves          D. bark
54. What is the author's main point in the second paragraph?
- A. The neighbors of the Pomo people tried to improve on the Pomo basket weaving techniques.  
B. The Pomo people were the most skilled basket weavers in their region.  
C. The Pomo people learned their basket weaving techniques from other Native Americans.  
D. The Pomo baskets have been handed down for generations.
55. The word "others" in line 7 refers to \_\_\_\_.
- A. masters          B. baskets          C. pendants          D. surfaces
56. According to the passage, a weft is a \_\_\_\_.
- A. tool for separating sedge root          B. process used for coloring baskets  
C. flexible material woven around the warp          D. pattern used to decorate baskets
57. According to the passage, what did the Pomo people use as the warp in their baskets?
- A. bulrush          B. willow          C. sedge          D. redbud
58. The word "article" in line 15 is close in meaning to \_\_\_\_.
- A. decoration          B. shape          C. design          D. object
59. Which of the following statements about Pomo baskets can be best inferred from the passage?
- A. Baskets produced by other Native Americans were less varied in design than those of the Pomo people.  
B. Baskets produced by Pomo weavers were primarily for ceremonial purposes.  
C. There were a very limited number of basket making materials available to the Pomo people.



D. The basket making production of the Pomo people has increased over the years.

### Passage 3

Psychologists agree that I.Q. contributes only about 20 percent of the factors that determine success. A full 80 percent comes from other factors, including what I call emotional intelligence. Following are two of the major qualities that make up emotional intelligence, and how they can be developed:

**Self-awareness.** The ability to recognize a feeling as it happens is the keystone of emotional intelligence. People with greater certainty about their emotions are better pilots of their lives.

Developing self-awareness requires tuning in to what neurologist Antonio Damasio calls “gut feelings”. Gut feelings can occur without a person being consciously aware of them. For example, when people who fear snakes are shown a picture of a snake, sensors on their skin will detect sweat, a sign of anxiety, even though the people say they do not feel fear. The sweat shows up even when a picture is presented so rapidly that the subject has no conscious awareness of seeing it.

Through deliberate effort we can become more aware of our gut feelings. Take someone who is annoyed by a rude encounter for hours after it occurred. He may be unaware of his irritability and surprised when someone calls attention to it. But if he evaluates his feelings, he can change them. Emotional self-awareness is the building block of the next fundamental of emotional intelligence: being able to shake off a bad mood.

**Mood Management.** Bad as well as good moods spice life and build character. The key is balance.

We often have little control over when we are swept by emotion. But we can have some say in how long that emotion will last. Psychologist Dianne Tice asked more than 400 men and women about their strategies for escaping foul moods. Her research, along with that of other psychologists, provides valuable information on how to change a bad mood. Of all the moods that people want to escape, rage seems to be the hardest to deal with. When someone in another car cuts you off on the highway, your reflexive thought may be, That jerk! He could have hit me! I can't let him get away with that! The more you stew, the angrier you get. Such is the stuff of hypertension and reckless driving. What should you do to relieve rage? One myth is that ventilating will make you feel better. In fact, researchers have found that's one of the worst strategies. A more effective technique is “reframing”, which means consciously reinterpreting a situation in a more positive light. In the case of the driver who cuts you off, you might tell yourself: Maybe he had some emergency. This is one of the most potent ways, Tice found, to put anger to rest.

Going off alone to cool down is also an effective way to refuse anger, especially if you can't think clearly. Tice found that a large proportion of men cool down by going for a drive—a finding that inspired her to drive more defensively. A safer alternative is exercise, such as taking a long walk. Whatever you do, don't waste the time pursuing your train of angry thoughts. Your aim should be to distract yourself.

The techniques of reframing and distraction can alleviate depression and anxiety as well as anger. Add to them such relaxation techniques as deep breathing and meditation and you have an arsenal of weapons against bad moods.

60. What are gut feelings?
- A. They are feelings one is born with.                      B. They are feelings one may be unaware of.  
C. They are feelings of fear and anxiety.                      D. They are feelings felt by sensible people.
61. According to the author, the importance of knowing one's gut feelings is that
- A. one can develop them.    B. one can call others' attention to them.  
C. one may get rid of them.    D. one may control them.
62. The word "spice" in paragraph five is closest in meaning to \_\_\_\_.
- A. add interest to    B. lengthen.  
C. make dull    D. bring into existence.
63. On mood control, the author seems to suggest that we \_\_\_\_.
- A. can control the occurrence of mood.                      B. are often unaware of what mood we are in.  
C. can determine the duration of mood.                      D. lack strategies for controlling moods.
64. The essence of "reframing" in paragraph six is \_\_\_\_.
- A. to forget the unpleasant situation.                      B. to adopt a positive attitude.  
C. to protect oneself properly.                                      D. to avoid road accidents.
65. What is the best title for the passage?
- A. What is emotional intelligence?                      B. How to develop emotional intelligence.  
C. Strategies for getting rid of foul moods.                      D. How to control one's gut feelings.

**VI. Writing (50')**

*Write on the answer sheet a composition of about 400 words to state your opinion and argument on the following question:*

Do you agree or disagree with: in order to make ourselves happy, we should learn how to make others happy first?