

系所組別：電腦與通信工程研究所乙組

考試科目：通訊工程英文

考試日期：0223·節次：1

※ 考生請注意：本試題不可使用計算機 請勿在本試題紙上作答，否則不予計分

一. 請在每一題四個選項中選出一個最符合題意的答案(一題二分,共二十分)

1. Norman Davis will be remembered by many with _____ not only as a great scholar but also as a most delightful and faithful friend.
A) kindness B) friendliness C) warmth D) affection
2. Salaries for _____ positions seem to be higher than for permanent ones.
A) legal B) optional C) voluntary D) temporary
3. Most people agree that the present role of women has already affected U.S. society. _____ it has affected the traditional role of men.
A) Above all B) In all C) At most D) At last
4. Science and technology have _____ in important ways to the improvement of agricultural production.
A) attached B) assisted C) contributed D) witnessed
5. As an actor he could communicate a whole _____ of emotions.
A) frame B) range C) number D) scale
6. This is what you should bear in mind: Don't _____ a salary increase before you actually get it.
A) hang on B) draw on C) wait on D) count on
7. The ship's generator broke down, and the pumps had to be operated _____ instead of mechanically.
A) artificially B) automatically C) manually D) synthetically
8. The little girl was so frightened that she just wouldn't _____ her grip on my arm.
A) loosen B) remove C) relieve D) dismiss
9. He never arrives on time and my _____ is that he feels the meetings are useless.
A) preference B) conference C) inference D) reference
10. Mrs. Gmith was so _____ about everything that no servants could please her.
A) specific B) speeial C) precise D) particular

(背面仍有題目,請繼續作答)

二. 閱讀測驗(一題二分,共十分)

"I've never met a human worth cloning," says cloning expert Mark Westhusin from his lab at Texas A&M University. "It's a stupid endeavor." That's an interesting choice of adjective, coming from a man who has spent millions of dollars trying to clone a 13-year-old dog named Missy. So far, he and his team have not succeeded, though they have cloned two cows and expect to clone a cat soon. They just might succeed in cloning Missy this spring - or perhaps not for another 5 years. It seems the reproductive system of man's best friend is one of the mysteries of modern science.

Westhusin's experience with cloning animals leaves him upset by all this talk of human cloning. In three years of work on the Missy project, using hundreds upon hundreds of dog's eggs, the A&M team has produced only a dozen or so embryos carrying Missy's DNA. None have survived the transfer to a surrogate mother. The wastage of eggs and the many spontaneously aborted fetuses may be acceptable when you're dealing with cats or bulls, he argues, but not with humans. "Cloning is incredibly inefficient, and also dangerous," he says.

Even so, dog cloning is a commercial opportunity, with a nice research payoff. Ever since Dolly the sheep was cloned in 1997, Westhusin's phone has been ringing with people calling in hopes of duplicating their cats and dogs, cattle and horses. "A lot of people want to clone pets, especially if the price is right," says Westhusin. Cost is no obstacle for Missy's mysterious billionaire owner; he's put up \$3.7 million so far to fund A&M's research.

Contrary to some media reports, Missy is not dead. The owner wants a twin to carry on Missy's fine qualities after she does die. The prototype is, by all accounts, athletic, good-natured and supersmart. Missy's master does not expect an exact copy of her. He knows her clone may not have her temperament. In a statement of purpose, Missy's owner and the A&M team say they are "both looking forward to studying the ways that her clones differ from Missy."

Besides cloning a great dog, the project may contribute insight into the old question of nature vs. nurture. It could also lead to the cloning of special rescue dogs and many endangered animals.

However, Westhusin is cautious about his work. He knows that even if he gets a dog pregnant, the offspring, should they survive, will face the problems shown at birth by other cloned animals: abnormalities like immature lungs and heart and weight problems~ "Why would you ever want to clone humans," Westhusin asks, "when we're not even close to getting it worked out in animals yet?"

1. By "stupid endeavor" (Line 2, Para. 1), Westhusin means to say that _____.

A) animal cloning is not worth the effort at all B) animal cloning is absolutely impractical C) human cloning should be done selectively D) human cloning is a foolish undertaking

2. What does the first paragraph tell us about Westhusin's dog cloning project?

A) Its success is already in sight. B) Its outcome remains uncertain. C) It is doomed to utter failure. D) It is progressing smoothly.

3. By cloning Missy, Mark Westhusin hopes to _____.

- A) study the possibility of cloning humans
- B) search for ways to modify its temperament
- C) examine the reproductive system of the dog species
- D) find out the differences between Missy and its clones

4. We learn from the passage that animal clones are likely to have _____.

- A) a bad temper
- B) immune deficiency
- C) defective organs
- D) an abnormal shape

5. It can be seen that present cloning techniques _____.

- A) still have a long way to go before reaching maturity
- B) have been widely used in saving endangered species
- C) provide insight into the question of nature vs. nurture
- D) have proved quite adequate for the cloning of humans

三. S1 至 S10 每一行皆有一個錯誤，請指出該錯誤並加以改正(一題三分，共三十分)

More people die of tuberculosis than of any

other disease caused by a single agent. This has probably

been the case in quite a while. During the early stages of

the industrial revolution, perhaps one in every seventh

deaths in Europe's crowded cities were caused by the

disease. From now on, though, western eyes, missing the

global picture, saw the trouble going into decline. With

occasional breaks for war, the rates of death and

infection in the Europe and America dropped steadily

through the 19th and 20th centuries. In the 1950s, the

introduction of antibiotics strengthened the

trend in rich countries, and the antibiotics were allowed

to be imported to poor countries. Medical researchers

declared victory and withdrew.

S1. _____

S2. _____

S3. _____

S4. _____

S5. _____

S6. _____

S7. _____

S8. _____

S9. _____

They are wrong. In the mid-1980s the frequency of

infections and deaths started to pick up again around the

world. Where tuberculosis vanished, it came back; in

many places where it had never been away, it grew better.

The World Health Organization estimates that 1.7

billion people (a third of the earth's population) suffer

(背面仍有題目，請繼續作答)

from tuberculosis. Even when the infection rate was falling, population growth kept the number of clinical cases more or less constantly at 8 million a year. Around 3 million of those people died, nearly all of them in poor countries.

S10. _____

四. 中翻英 (四十分)

Mobility is one of the characteristics emphasized in the IEEE 802.16e standard. Handover occurs when a Mobile Station (MS) transfers its connection from the original serving Base Station (BS) with worse and worse link qualities to a neighboring BS with better qualities. There are three different modes for handover mechanism in the mobile WiMAX networks, including hard handover (HHO), macro-diversity handover (MDHO), and fast base station switching (FBSS). These handover modes are triggered when the signal level between the MS and serving BS is too weak. The HHO is an obligatory handover mode, but MDHO and FBSS are optional. In the HHO mode, the MS connects to only one BS when transmitting. Once the MS performs handover, it must break the link with the serving BS before establishing communication with the target BS. The HHO mechanism is easy to implement, but it can cause a temporary break of wireless links and result in packet losses, which is unfavorable for real-time services. The other two modes use the diversity set, maintained in the MS, to achieve seamless handover. The MS has to remain the list of the entire neighbor BSs, and connect to each other with a least data rate for status updating. The benefits of the diversity set include a short handover delay and stable transmission, but the handover procedure and special configuration become substantially more complicated. Figure 2 illustrates scenarios for these modes. In this study we consider HHO as the handover mode to analyze system performance. (source: "Utility-based admission control for mobile WiMAX networks", Chiapin Wang • Kun-Yeh Chan, ACM/Springer Wireless Networks, Volume 19, Issue 2, February 2013, Pages 207-218)