

國 立 清 華 大 學 命 題 紙

96 學年度 動力機械 系 (所) 戊 組碩士班入學考試

科目 科技英文 科目代碼 1402 共 3 頁第 1 頁 *請在【答案卷卡】內作答

Part 1 Grammar Rules (3 points each)

- a. He is (1. a 2. an 3. thus) apple-loving person.
- b. Ten plus ten (1. is 2. are 3. will be) twenty.
- c. I saw ten (1. deers 2. deer 3. dears) yesterday.
- d. There comes a man (1. whose 2. which 3. that) dog is very beautiful.
- e. His sister-in-law is (1. much pretty 2. prettier 3. more pretty) than his girl friend.
- f. The skin of the orange is different from (1. that 2. one 3. none) of the other fruits.
- g. I don't know (1. any 2. none 3. no one) of the people at the meeting.
- h. He has (1. none 2. never 3. ever) been to America.
- i. The physics teacher told us that sun (1. rose 2. rises 3. had risen) in the East.
- j. I could not remember if the subject (1. was 2. was being 3. had been) discussed by the teacher before yesterday's examination.

Part II. Reading Comprehension (3 points each)

Article 1

"Each famous author of antiquity whom I recover places a new offence and another cause of dishonor to the charge of earlier generations, who, not satisfied with their own disgraceful barrenness, permitted the fruit of other minds, and the writings that their ancestors had produced by toil and application, to perish through insufferable neglect. Although they had nothing of their own to hand down to those who were to come after, they robbed posterity of its ancestral heritage."

-- Francesco Petrarch (1304 – 1374)

In Petrarch's statement, he meant to say:

- a. Many antiquity authors
 1. offended each others
 2. offended Petrarch
 3. were recovered by Petrarch.
- b. The "earlier generations" were
 1. not satisfied with the antiquity authors
 2. to produce many things by toil and application
 3. to allow antiquity writings to perish.

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c. "Disgrace barrenness" means

1. ignorance
2. poverty
3. gracelessness.

d.

1. Antiquity authors "robbed" the earlier generations of its ancestral heritage
2. Earlier generations "robbed" the antiquity authors of its ancestral heritage
3. The insufferable "robbed" the posterity of its ancestral heritage.

Article 2 (CNN, Jan 17, 2007)

Known as delayed-onset muscle soreness, the pain is common a day or two after a workout that was more intense than normal. Exercise that involves eccentric contraction of the muscles is particularly likely to cause delayed muscle pain.

In eccentric contraction, the muscle produces a force while it's being lengthened. This happens when a person runs downhill, for example, or lowers a weight during a bicep curl.

Exercisers and researchers alike have tried many ways to prevent this post-exercise soreness, including over-the-counter painkillers, stretching and massage -- but studies have found no cure-all for the problem.

In the current study, published in the Journal of Pain, researchers at the University of Georgia in Athens looked at the effects of a caffeine supplement on delayed muscle pain in nine young women.

First, in a simulated workout, the researchers used electrical stimulation to produce eccentric contractions in the women's thigh muscles -- enough to cause moderate day-after soreness.

Next, they repeated the procedure over the next two days, but on each day, the women took either a caffeine pill or placebo pill one hour before the muscle workout. Neither the women nor the researchers knew which pill was given on which day.

Overall, the women reported significantly less muscle soreness during the workout when they took caffeine instead of the placebo. The supplement had about the amount of caffeine found in two cups of coffee.

e. Eccentric contraction of muscle is

1. not concentrated exercises
2. when muscle is being lengthened
3. curable.

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f. Post-exercise soreness happens

1. after any intense workout
2. after eccentric contraction of muscles
3. in Georgia

g. Post-exercise soreness

1. can be simulated by electrical stimulation
2. can be treated with pain-killers
3. happens after each intense exercise.

h. A “placebo pill”

1. contains caffeine
2. is the “supplement”
3. is not effective in lessening the post-exercise pain.

i. The research conducted by the University of Georgia was

1. carried out on women only
2. inconclusive
3. not known by their researchers.

j. The Journal of Pain

1. is a part of the University of Georgia
2. published a pain-killer list
3. published an article on “delayed-onset muscle soreness”.

Part III 中翻英 (8 points each)

1. 你的衣服的顏色和她衣服的顏色不太一樣。
2. 雖然他在台北長大，但是他從來就沒有在台北唸過書。
3. 我記不起我的教授昨天傍晚是幾時離開他的辦公室的。
4. 我們前天實驗的數據和 Smith 先生在 Science 雜誌發表的理論預測值有很大的差距。
5. 地球重力加速度是與地球半徑加上地面高度的平方成反比。

(Hint: 加速度=acceleration)