

# 逢甲大學95學年度碩、博士班甄試入學試題

科目	化工英文文獻閱讀測驗	適用 系所	化學工程學系	時間	五〇分鐘
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※請務必在答案卷作答區內作答。 共 頁第 頁

化工英文文獻閱讀測驗 試題 共2頁第1頁

Part I. (60%) Read the following paragraphs and answer questions below

(IA) (30%)

A Thousand Chinese soldiers were drafted in this weekend to stack 300 tons of filters at a waterworks in the industrial city of Harbin in a desperate effort to solve a pollution crisis that has cut off water to more than 3m people. Mains supplies were shut off for a fifth day as a 50-mile slick of toxic chemicals in the Songhua River slid past the city a fortnight after an explosion at a chemical plant upstream poured 100 tons of benzene and other cancer-causing pollutants into the river. The disaster has become political as well as environmental: there was a cascade of public fury over the disclosure that Communist party officials covered up the leak on November 13, then lied to the citizens of Harbin, setting off mass panic and an exodus from the city.

A diplomatic catastrophe is looming, too. The slick is now oiling its way down the slowly freezing Songhua to the border with Russia, where it joins the mighty Heilongjiang, the Black Dragon River, then flows past the Siberian city of Khabarovsk. And the Russians have only just been told.

- a. (6%) Summarize the story in a brief paragraph.
- b. (6%) What causes the disaster?
- c. (6%) What did the government do after the incident?
- d. (6%) What is the city residents' reaction to this disaster?
- e. (6%) How does this disaster affect people in other countries?

(IB) (30%)

Researchers have known since at least the 1990s that trans fats are doubly bad for the heart. They boost bad-cholesterol (LDL) levels and depress good-cholesterol (HDL) levels in the blood. The U. S. Department of Health and Human Services estimates that processed foods and oils account for 80% of Americans' intake of trans fats. The FDA suggests people cut down as much as possible on the fats. One study concluded that eliminating hydrogenated oils could prevent up to 100,000 premature coronary deaths a year in the U. S.

- f. (6%) When did researchers found that trans fats are bad?
- g. (6%) Which cholesterol is harmful in the blood?
- h. (6%) How many percentage of trans fats were eaten by the American people?
- i. (6%) Which organization advice people to reduce the intake of trans fats?
- j. (6%) At least how many lives can be saved from premature coronary death if people avoid using hydrogenated oils in the processed foods in the U. S.?

Part II (40%) Translate the following paragraphs in Chinese.

(IIA) (20%)

Chemical engineering deals with the design, construction, and operation of plants and machinery for making such products as acids, dyes, drugs, plastics, and synthetic rubber by adapting the chemical reactions discovered by the laboratory chemist to large-scale production. The chemical engineer must be familiar with both chemistry and mechanical engineering.

(IIB) (20%)

Trans fats are formed when liquid oils are solidified by adding hydrogen, which also makes them resistant to rancidity and the adverse effects of reheating. They are harmful to the heart because they boost bad blood cholesterol and depress the good kind.