

Angka Giliran: .....

No. Tempat Duduk: .....

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**UNIVERSITI SAINS MALAYSIA**

Peperiksaan Semester Kedua  
Sidang Akademik 2007/2008

April 2008

**LSP 404 – Bahasa Inggeris Teknikal dan Kejuruteraan**  
*(Technical and Engineering English)*

Masa: 2 jam

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**INSTRUCTIONS:**

1. Please note that this question paper contains **2 (TWO)** questions on **14 (FOURTEEN)** printed pages. Check that the paper is complete.
2. Answer **BOTH** questions in this booklet.

UNTUK KEGUNAAN PEMERIKSA SAHAJA		
SOALAN	MARKAH PENUH	MARKAH DIPEROLEH
1	70	
2	30	
JUMLAH	100	

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**QUESTION 1** (70 marks)

Read the passage below and answer all the questions that follow.

Reduce, reuse, recycle. This familiar slogan outlines an environmentalist approach to waste disposal, minimizing the contamination of water sources and pollution of the air. **The approach** is being employed to cope with one potentially hazardous form of waste — electronic junk such as old computers, cell phones, and televisions. But the process for managing this so-called e-waste may get co- 5  
 opted for **unscrupulous** purposes more often than it is legitimately used, a recent report suggests.

"A lot of these materials are being sent to developing nations under the guise of reuse — to bridge the digital divide," said Richard Gutierrez, a toxics policy analyst for Basel Action Network (BAN). According to a report titled "The Digital Dump" 10  
 issued by the activist organization (BAN), three-quarters of the supposedly reusable electronics shipped to Africa's largest port are broken. No one certifies whether donated machines work before they hit the seaways. Because of **this**, the report says, e-waste is a growing problem in Lagos, Nigeria, and elsewhere in the  
 developing world. 15

Plenty of traders are willing to accept e-waste, even if their governments officially forbid **it**, and employ desperately poor labourers who do not understand the potential dangers. They pay workers a **pittance** to burn the plastic casings and wire insulation in broken machines and strip out the recyclable materials. According to Gutierrez, the guise of recycling and reusing electronics gives 20  
dealers "a green passport" to ship waste around the globe. Most of the waste comes from developed nations that should know better. "There is some responsibility that the developing nations must take upon themselves and a greater element of this responsibility should fall on the exporting state," Gutierrez said. 25



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China, for example, has become a **cache** for vast amounts of e-waste. "The Chinese government, after many years of denial, is finally beginning to take the helm," said Ted Smith of the Silicon Valley Toxics Coalition. Gutierrez noted that even if China enforces its existing laws and keeps e-waste out, "it will flow to the next country with lax environmental standards." "That's why we need to regulate this at the source end," Smith agreed. Laws should prevent e-waste export and require manufacturers to shoulder the responsibility of recycling their products in the most cost-effective manner, he said. 30

**Such a shift** would make electronics more expensive in the short term, he acknowledged, but environmental damage and health hazards would be minimized. Gutierrez added that as many toxic compounds as possible should be banned from new electronics. Gordon Davy, an engineer with technology firm Northrop Grumman in Baltimore, Maryland, said such a regulation would be coercive. Consumers in developed countries would have to pay more for new electronics, and poor labourers elsewhere would lose the income **they** now get from stripping apart dead electronics. Davy also questions whether e-waste is harming people. "Pollution in the third world is clearly **deplorable**," he said. "But as far as health consequences of e-waste are concerned, the environmental activists need to provide supporting evidence." Gutierrez countered, "We're dealing with toxic substances that have been studied to death. We need not come up with further studies. The e-waste crisis is relatively young. The public health disaster caused by toxic substances will occur years later." Smith, of the Silicon Valley Toxics Coalition, concurred, "Right now e-waste doesn't seem to be causing any enormous environmental hazards. But over the next several generations it is going to create a problem." 40 45 50

Last week, a new legislation came into force in the American state of Maine. With the so-called 'producer takeback' law, Maine became the first US state to

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require manufacturers to pick up the tab for recycling used electronics. This model of producer responsibility is really significant as manufacturers are paying and it is not a taxpayer burden. Environmentalists believe that at last a scheme has been devised to make manufacturers design products that are less toxic and easier to recycle. 55

The Maine law works on two fronts. Lowering the charges municipalities must pay to get rid of old TVs and computer monitors should encourage recycling over disposal in landfills. Municipalities become responsible for stipulating collection times and sites and shipping the items to consolidators appointed by the state. There, the items are sorted, and the manufacturer of each item identified. Crucially, the manufacturer is then sent a bill based on the weight of what still needs to be discarded. The bill also takes into account handling and transportation costs. This should provide extra incentive for them to use more recyclable materials in their designs. 60 65

Maine 'producer takeback' law could make waves far beyond its borders, as more populous states use it as a template for their own measures. Legislative change is an uphill battle, however. Some members of the electronics industry are fighting very hard to keep electronics recycling bills from passing. While some companies, like Hewlett Packard, Target and Best Buy are **embracing** this concept, others are fighting it with all they have. Environmentalists say manufacturers must be proactive from the **outset**. Manufacturers have got to get toxic chemicals out of electronic goods, governments have got to start enforcing international law, and we consumers have got to be a lot more careful about what our local 'recycler' is really doing. It is time we all get serious about toxic e-waste making its way from rich to poor countries, and start taking some responsibility. 70 75

Adapted from: Washington Post

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SECTION A (12 marks)

Give the meanings of the following words as they are used in the passage.

1. unscrupulous (line 6)

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2. pittance (line 18)

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3. cache (line 26)

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4. deplorable (line 42)

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5. embracing (line 71)

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6. outset (line 73)

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SECTION B (9 marks)

What do the following words or phrases refer to?

1. The approach (line 3)

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2. this (line 13)

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3. it (line 17)

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4. Such a shift (line 34)

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5. they (line 40)

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6. its (line 67)

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**SECTION C** (20 marks)

For each question, circle the letter corresponding to the correct answer, e.g. (A).

1. According to Richard Gutierrez
  - A. laws should be stricter in countries that are presently importing e-waste.
  - B. developed nations should be more responsible in disposing hazardous used electronics.
  - C. reducing, reusing and recycling is the most cost effective way of disposing toxic e-waste.
  - D. sending electronic equipment to developing nations to be reused will close the gap in the use of digital technology.
  
2. Preventing the flow of e-waste into poor countries is a problem because of the
  - A. lack of strict environmental standards in those countries.
  - B. absence of international law concerning shipping of e-waste.
  - C. high demand for jobs in the recycling industry of those countries.
  - D. willingness of traders in developed nations to transport the waste.
  
3. Gordon Davy is not in favour of banning toxic compounds in new electronics because
  - A. there will be less job opportunities in poor countries.
  - B. manufacturers will have to pay more for alternative materials.
  - C. the rise in cost will burden the consumers in developed nations.
  - D. no studies have been conducted to investigate the harmful effects of these compounds.

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4. Environmentalists are concerned that improper disposal of e-waste may lead to the
- i. contamination of water supplies.
  - ii. increase in price of electronic products.
  - iii. exploitation of workers in poor countries.
  - iv. use of banned compounds in new electronics.
- A. i and iii  
B. i and iv  
C. ii and iii  
D. ii and iv
5. Which of the following statements are **TRUE**?
- i. Maine's approach could not be adopted by the more populous states in America.
  - ii. Most e-waste comes from nations that are aware of its environmental hazards.
  - iii. Gutierrez agreed that environmentalists need to provide evidence of the health hazards of e-waste.
  - iv. Maine is the first state in America to introduce a legislation making manufacturers responsible for the disposal of their e-waste.
- A. i and iii  
B. i and iv  
C. ii and iii  
D. ii and iv

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SECTION D (17 marks)

Answer the following questions.

1. Explain what Richard Gutierrez meant by "... gives dealers "a green passport" ..." (lines 20-21).

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(4 marks)

2. Will the Chinese government's stricter action be effective in solving the e-waste problem? Explain.

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(2½ marks)

3. Why does Smith, of the Silicon Valley Toxics Coalition, agree that the e-waste crisis needs to be tackled?

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(3 marks)

4. What makes changing the legislation regarding e-waste a difficult task?

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(3 marks)



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**SECTION E** (12 marks)

Using the information in the passage, complete the diagram below regarding the "producer takeback" law in Maine.

<p>1. Actions taken by municipalities:</p> <p>a) Recycling used electronic items instead of throwing them into landfills</p> <p>b) _____</p> <p>_____</p> <p>c) _____</p> <p>_____</p> <p>(2 marks)</p>		<p>Benefits of the law:</p> <p>a) Encourages manufacturers to use less toxic materials</p> <p>b) _____</p> <p>_____</p> <p>_____</p> <p>c) _____</p> <p>_____</p> <p>_____</p> <p>d) _____</p> <p>_____</p> <p>_____</p> <p>(6 marks)</p>
<p>2. Actions taken by consolidators:</p> <p>a) _____</p> <p>_____</p> <p>b) _____</p> <p>_____</p> <p>(2 marks)</p>		
<p>3. Manufacturers pay bills based on:</p> <p>a) _____</p> <p>b) _____</p> <p>(2 marks)</p>		

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