

HONG KONG EXAMINATIONS AUTHORITY
HONG KONG ADVANCED LEVEL EXAMINATION 1995

LIBERAL STUDIES (ENVIRONMENTAL STUDIES) AS-LEVEL

9.00 am–11.30 am (2½ hours)
This paper must be answered in English

1. This paper consists of Sections 1, 2 and 3. Sections 1 and 3 both carry 25% of the module marks, and Section 2 carries 50%.
2. Candidates are required to answer ALL questions from Sections 1 and 2, and ONE question from Section 3. They are advised to spend 40 minutes on each of Sections 1 and 3, and 70 minutes on Section 2.
3. Answers to all questions should be written in the same answer book.
4. The weighting of each question is indicated in brackets. It is a guide to the length of answer required, which may vary from one to several paragraphs.
5. Candidates are reminded that this subject emphasises the ability to present and support points of view in a clear, concise and logical manner, rather than the ability to recite facts.

SECTION 1

[25% of the module marks]

Answer all the questions in this section.

1. Consider this extract from a letter to the editor of a local newspaper:

World leader in recovering waste

In a recent letter Mr Peter Wong, the Chairman of the Legislative Council's Environmental Affairs Panel, severely criticized the Environmental Protection Department (EPD) for not paying more attention to waste recovery. Mr Wong supported the use of incineration as the best solution to the territory's waste disposal needs.....

Earlier this year, we provided evidence to show that Hong Kong is in fact a world leader in recovering waste.

For example, in 1993 we recovered 80 per cent of non-ferrous metals, compared with 45 per cent in the United States and 35 per cent in the United Kingdom. We also recovered 55 per cent of paper from the waste stream, compared with 35 per cent in the United Kingdom and 30 per cent in the United States.....

Dr Mike Chiu
Environmental Protection
Department

- (a) How would you explain the data provided by Dr Chiu in the last paragraph? Explain whether you think Hong Kong's achievement in this area is due to the efforts of the EPD. (8%)
- (b) In your view, what factors will make further improvement in waste recovery difficult to achieve? (8%)
- (c) Mr Wong supported the use of incineration in waste disposal. Do you agree with his view? Explain your answer. (9%)

SECTION 2

[50% of the module marks]

Answer *all* the questions in this section.

2. Consider the following data extracted from the *Report of the Working Party on Measures to Address Traffic Congestion* (November 1994):

Table 1 – Number of Licensed Vehicles in Hong Kong

Year	Private Vehicles*		Goods Vehicles	
	Number	% Increase over Previous Year	Number	% Increase over Previous Year
1983	176,300	–	59,400	–
1984	163,000	-7.6	62,500	5.2
1985	158,800	-2.6	69,700	11.5
1986	152,400	-4.0	79,300	13.8
1987	159,300	4.6	94,400	19.1
1988	174,500	9.6	105,100	11.3
1989	195,700	12.2	112,400	6.9
1990	214,500	9.6	117,700	4.8
1991	229,800	7.1	118,100	0.3
1992	255,700	11.3	119,800	1.5
1993	279,100	9.1	120,700	0.7

* Private vehicles comprise motor cycles and private cars.

Table 2 – Number of Licensed Vehicles by Type (1993)

Vehicle Type	Number	Percentage
private car	259,900	59.1
motor cycle	19,200	4.4
goods vehicle	120,700	27.4
taxi	17,600	4.0
public bus	8,200	1.9
private bus	260	0.1
public light bus	4,300	1.0
private light bus	2,400	0.5
others	7,200	1.6

Table 3 – Average Travel Speeds of Vehicles (km/h)

	1993	1996		2001	
		Strategy ¹ (Travel speeds aimed at under the government plan)	Trend ² (Probable travel speeds without government intervention)	Strategy ¹ (Travel speeds aimed at under the government plan)	Trend ² (Probable travel speeds without government intervention)
Hong Kong Island	21	19	14	17	10
Kowloon	23	27	21	20	13
New Territories	41	37	32	31	27

Notes: 1 Strategy – a target which aims to limit the yearly increases in private vehicles to 5% for the period 1991–1996 and 1.6% for the period 1996–2001.

2 Trend – the current pattern indicates an average annual increase of 9–10% in private vehicles up to 2001.

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Table 4 – Measures to Address Traffic Congestion in Hong Kong

I. Short-Term Corrective Measures

already approved or underway

- spending \$30 billion by 2001 on new roads, bridges and tunnels
- establishing a new rail link to the Northwest New Territories and increasing the carrying capacities of the Kowloon-Canton Railway and the Mass Transit Railway
- completing the Western Harbour Crossing

proposed

- more bus lanes and tighter control over road works
- more vigorous enforcement of traffic laws including higher fines
- reducing private car growth, as was done in 1982/84, by increasing First Registration Tax and Annual Licence Fee (this would raise car prices on average by \$25,000–\$55,000 and licence fees by \$1,500–\$4,500)
- controlling congestion in the two cross harbour tunnels by
 - either*
 - increasing the passage tax to bring tolls to \$20 for private cars and \$8 for motor cycles
 - or*
 - restricting the use of the tunnels by allowing access to cars with odd or even licence-plate numbers on alternate days

II. Medium-Term Proposals

- restricting private car ownership through a quota system, with those wanting to buy a car having to tender for a certificate of entitlement to purchase a car – the certificate would go with a particular car and become invalid when the car was scrapped
- company cars would lose their current tax privileges

III. Long-Term Proposals

- reducing entry to the most congested roads through Electronic Road Pricing

- (a) Explain how you would respond if someone were to say to you that, because of their large numbers, private vehicles are the main cause of congestion on Hong Kong's roads. (10%)
- (b) Explain what you would consider to be the likely reaction to the average travel speeds of vehicles listed in the two *strategy* columns of Table 3 from
- ▶ a typical motorist.
 - ▶ an environmentalist.
- (10%)
- (c) Explain whether or not you consider the proposed new tax measures, listed under Short-term Corrective Measures in Table 4, will be effective in limiting the growth of private vehicles. (10%)
- (d) Explain whether or not you consider the medium and long-term proposals, listed in Table 4, will be effective in solving the environmental problems caused by traffic congestion. (20%)

SECTION 3

(25% of the module marks)

Answer *one* question from this section.

3. Consider these extracts from a speech by Dr Stuart Reed, the Director of Environmental Protection on the subject of 'Green Productivity':

Dr Reed saw the role of the government in encouraging green productivity as follows:

- the promotion of environmental values in the community so that young and old alike are educated to protect and care about the environment
- the application of the 'polluter pays principle' by charging for the proper treatment and disposal of sewage, as well as chemical, commercial and industrial wastes
- the enforcement of environmental laws
- the provision of an environmental infrastructure for the collection, treatment and disposal of all kinds of domestic, commercial and industrial wastes

How much progress do you consider that the Hong Kong Government has made in the above areas, and what else, in your view, still remains to be done? (25%)

4. Consider this statement:

Industrial plants have been blamed as the major cause of acid rain. 'However, because the chemical reactions involved in the production of acid rain are not well understood, industrialists have frequently challenged this view. They have been very reluctant to improve the current situation and in many countries they have lobbied hard to prevent new environmental protection laws being passed. In most developed countries, as far as the passing of environmental protection laws is concerned, governments have been very slow to act.

Over the years the scientific evidence suggesting that industrial emissions are the principal source of acid rain has been steadily growing. As a result, in 1988 a United-Nations-sponsored Air Pollution Agreement, freezing the rate of emissions of nitrogen oxides at 1987 levels, was signed by 25 nations including the United States.

The United States, because of the size of its industrial base, produces more dangerous emissions than any other single nation. In 1990, the United States government amended its 1967 Clean Air Act to bring about a 50% reduction in the amount of sulphur dioxide released from its power plants. This has to be done by the year 2000 when the level of this gas will still be a staggering 10 million tons a year.

- (a) Apart from the growing scientific evidence, what other factors do you consider have been important in forcing governments in Europe and the United States to pass new laws to take action to limit the damage being caused by acid rain? (13%)
- (b) Why do you think these same governments have taken much more decisive measures to control ozone depletion in the upper atmosphere? (12%)

5. Consider this extract from a local newspaper:

Horns of a dilemma

The African black rhinoceros is entering its final hour. It is losing its battle with ruthless poachers¹ who indiscriminately shoot them for their horns.

Rhino horn is prized in traditional Chinese medicine for its fever-reducing and aphrodisiac² properties. It fetches an average of HK\$190,000 a kilogram in Hong Kong, which is much higher than tiger penises and bear gall.

Since 1979 Hong Kong has banned imports or exports of rhino horns and in 1989 the ban was extended to include the internal sale of rhino horn and products claiming to contain it.

Despite this, the territory was identified earlier this year by the United States (US) as the main source of rhino medicines intercepted at US ports of entry.

A famous South African conservationist, Clive Walker, believes that the 18-year ban on rhino horn trading hasn't saved a single rhino. He is fighting to have the ban lifted in favour of rhino farming. He said the money gained from the legal sale of horns could be used to ensure the conservation of the species and better protection against poachers.

Notes: 1 poachers means illegal hunters.

2 an aphrodisiac is used to arouse sexual desire.

- (a) Explain why you agree or disagree with Mr Walker's proposals. (15 %)
- (b) Explain what you think the Chinese and Hong Kong governments should be doing to help protect species which are endangered because of their traditional use in Chinese medicines. (10 %)

6. A survey conducted by the Conservancy Association in 1991 showed that the majority of Hong Kong people think that humans have the right to modify the natural environment to suit their needs. In referring to the results of this survey, a university lecturer believes that 'the outlook for environmental protection will remain very gloomy if the mentality of Hong Kong people remains *anthropocentric*^{*} and their attitude towards nature is that it exists for human exploitation'.

(* anthropocentric is defined as 'regarding mankind as the centre of existence'.)

Explain whether or not you share the university lecturer's pessimistic view of the future of the Hong Kong environment. (25 %)

END OF PAPER