

STUDENT NUMBER

Letter

Figures

Words

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HEALTH AND HUMAN DEVELOPMENT

Trial examination 2010

Reading time: 15 minutes

Writing time: 2 hours

QUESTION AND ANSWER BOOK

Structure of book

<i>Section</i>	<i>Number of questions</i>	<i>Number of questions to be answered</i>	<i>Number of marks</i>
A	8	8	31
B	7	7	69
			Total 100

Students are permitted to bring into the examination room: pens, pencils, highlighters, erasers, sharpeners and rulers.

Students are NOT permitted to bring into the examination room: blank sheets of paper and/or white out liquid/tape.

No calculator is allowed in this examination.

Materials supplied

Question and answer book.

Instructions

Write your **student number** in the space provided above on this page.

All written responses must be in English.

Students are NOT permitted to bring mobile phones and/or any other unauthorised electronic devices into the examination room.



Please note

This sample examination paper is by no means intended to be an indication of the structure, format, emphasis, weighting of marks or content of the Victorian Curriculum and Assessment Authority's VCE Health and Human Development examination paper.

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SECTION A

Question 1

Consider the following table that compares burden of disease for different conditions.

Table 1

Broad cause group	Proportion of burden of disease (per cent)	Fatal component (a) (per cent)
Cancers	19.4	82
Cardiovascular disease	18.0	78
Diabetes	5.5	22
Chronic kidney disease ^(b)	n.a.	n.a.
Chronic respiratory disease	5.7	30
Musculoskeletal disease	4.0	7
Neurological & sense disorders	3.6	26
Mental disorders	13.3	7
Oral health problems	0.9	0
Injury	7.0	76
Infectious disease	1.7	69

^{a)}Proportion of burden of disease due to premature death, with the remainder being due to years lived with disability

^(b)Chronic kidney disease is not quantified separately in the Burden of Disease study.

Adapted from: Australia's Health 2008, AIHW, June 2008

a. Define the term burden of disease.

2 marks

- b. Use data in Table 1 to compare and contrast the burden of disease attributable to cardiovascular disease and mental disorders. In your answer comment on the total burden of disease as well as the fatal component and years lived with a disability.

2 marks

Question 2

Consider the following table, an international comparison of health status.

Table 2

Country	HALE at birth, both sexes, 2003	Life expectancy at birth, both sexes, 2006	Infant mortality rate (per 1000 live births), both sexes, 2006	Maternal mortality ratio (per 100,000 live births), 2005	Under 5 mortality rate (Probability of dying by age 5 per 1000 live births), 2006
Australia	73	82	5	4	6
Japan	75	83	3	6	4
Sweden	73	81	3	3	4
United Kingdom	71	79	5	8	6
United States of America	69	78	7	11	8

Source: Adapted from WHO

- a. Define the term HALE.

2 marks

- b. Use data in Table 2 to compare the health status of Australia with the health status of **two** of the other countries shown in the table.

3 marks

Question 3

For each of the nutrients in the table below describe one major function as a determinant of health.

Nutrient	One major function as a determinant of health
Folate	
Calcium	
Vitamin B12	
Iodine	

4 marks

Question 4

a. Medicare is one of the federal government's major health care responsibilities. What is Medicare?

1 mark

b. Identify **two** of the values that underpin Australia's health care system and explain how Medicare achieves each of the two values.

Value 1 _____

Value 2 _____

2 marks

Question 5

Australia's governments play important roles in promoting healthy eating.

a. Explain the ways in which the government agency Food Standards Australia New Zealand assists in promoting healthy eating.

2 marks

b. Explain the purpose of the Australian Nutrient Reference Values.

2 marks

Question 6

In 2008 obesity became the eighth National Health Priority Area.

a. What is obesity?

1 mark

b. Explain how the Dietary Guidelines for Australian Adults may help to prevent obesity through promoting healthy eating.

3 marks

Question 7

Describe AusAid and the role it plays in programs to improve global health and sustainable human development.

4 marks

Question 8

The World Health Organization (WHO) has classified its member states into five mortality strata.

List and briefly detail the five mortality strata by completing the table below.

Mortality strata	Child mortality	Adult mortality

3 marks

SECTION B

Question 1

a. Describe the role of VicHealth in promoting health. In your answer include a description of VicHealth’s priorities.

3 marks

b. Describe the social model of health.

2 marks

Read the information below about VicHealth's Food for All program and answer the questions that follow.

The Food for All program

Why is the program necessary?

Most of the strategies to improve access to healthy eating for vulnerable groups have focused on short-term emergency food relief or individual counselling and health education.

Research shows that people on the lowest incomes cannot afford to choose to eat a variety of food easily and many are more likely to be overweight or even obese. There are also reports that increasing numbers of Australians are experiencing food insecurity in the last 10 years. Food insecurity is much more common than we think or would like and it has much broader consequences than just diet – it impacts on people's physical, mental and social wellbeing.

What is the Food for All program?

VicHealth's Food for All program is designed to increase regular access to and consumption of a variety of foods (particularly fruit and vegetables) by people living in disadvantaged communities.

A key strategy of Food for All is to encourage local government authorities to improve integrated planning of those things that influence access to food, such as transport, housing, economic development and land use. Funding was open to local government authorities with 20 per cent or more of their population living in disadvantaged neighbourhoods.

VicHealth believes that local councils are best placed to develop relevant, integrated and long-lasting strategies to tackle this problem. Action is required on many fronts, including:

- making sure there are local sources of fresh fruit and vegetables at affordable prices
- ensuring that those living in poor quality housing have access to food storage and cooking facilities
- improving food and cooking knowledge amongst disadvantaged groups
- improving transport options for those without a car
- increasing community awareness of the problem of food insecurity.

Source: www.vichealth.vic.gov.au/Programs-and-Projects/Healthy-Eating/Food-for-All-Program.aspx, accessed May 2010

c. i. Explain the ways in which the Food for All program reflects the social model of health.

3 marks

ii. Identify and explain potential outcomes for health from the Food for All program.

3 marks

Question 2

a. Explain what is meant by the glycaemic index (GI) of a food.

2 marks

b. Briefly describe the effect of low GI foods on blood glucose levels.

1 mark

c. Describe the role of low GI foods in preventing and /or managing one of the National Health Priority Areas.

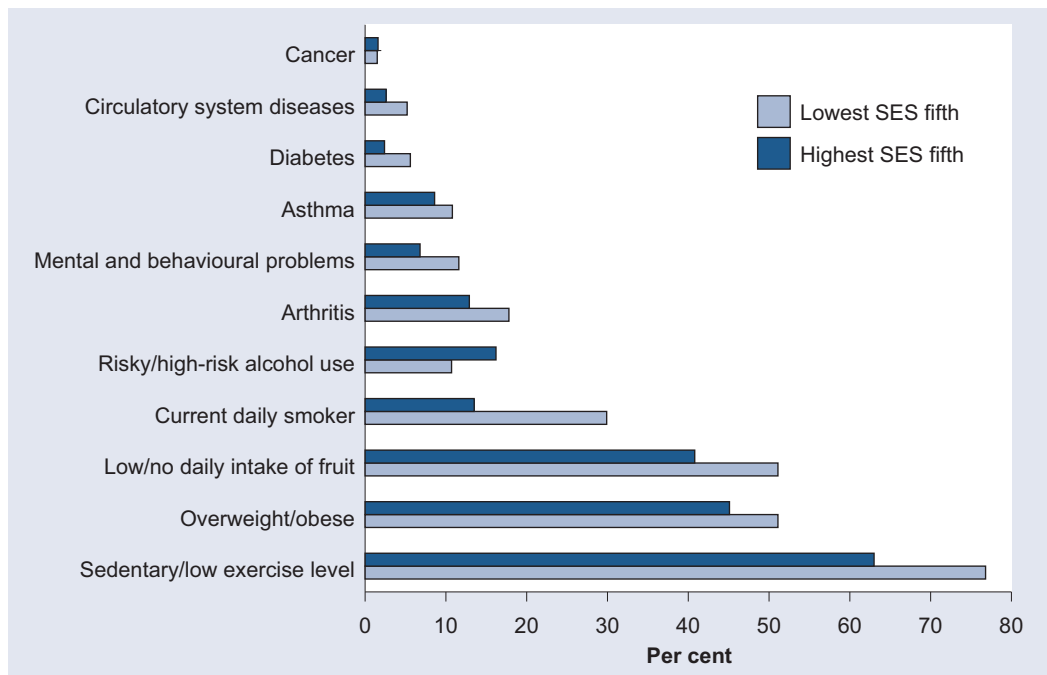
Name of National Health Priority Area _____

Role of low GI foods _____

3 marks

Question 3

The graph below shows the proportion of people aged 18 years and over reporting selected health risk factors and long-term conditions, by socio-economic status, 2004–2005.

Figure 1

Source: Australia's Health 2008

a. Explain the term determinant of health.

1 mark

b. Using the data in Figure 1, identify **one** biological and **three** behavioural determinants of health.

Biological determinant _____

Behavioural determinants (3) _____

2 marks

c. Using data from Figure 1 above, compare the health status of people with high and low socioeconomic status.

2 marks

d. Cardiovascular health is one of Australia's National Health Priority Areas (NHPAs). Provide **three** reasons for cardiovascular health being included as an NHPA. Use statistics to support your answer.

3 marks

e. Explain the role of **three** of the determinants of health shown in Figure 1, as risk or preventative factors for cardiovascular disease.

Determinant of health 1 _____

Determinant of health 2 _____

Determinant of health 3 _____

3 marks

f. Describe one direct cost of cardiovascular disease to the individual.

1 mark

g. Describe one indirect cost of cardiovascular disease to the community.

1 mark

h. Name and describe one health promotion program that has been developed by a non-government organisation (NGO) to help to address cardiovascular health in Australia. In your answer include the name of the program, the name of the organisation that developed and implemented the program, and a description of the strategies used in the program, including the way in which the strategies address cardiovascular health.

Name of program: _____

Name of organisation: _____

5 marks

Question 4

Consider the table below which shows selected Human Development Report data.

Table 3

Human Development Index rank	Country	Human Development Index value	Life expectancy at birth	Female adult literacy rate (% aged 15 & above)	Children underweight (% under age 5)	HALE Health Adjusted Life Years
2	Australia	0.97	81.4	100	Not recorded	75
92	China	0.772	72.9	90	7	68
137	Cambodia	0.593	60.6	67.7	36	55
147	Kenya	0.541	53.6	70.2	20	48
160	Malawi	0.493	52.4	64.6	19	44

Source: United Nations Development Programme, <http://hdr.undp.org/en/statistics>, accessed May 2010

- a. What is the Human Development Index? In your answer include the three indicators used in calculation of the Human Development Index.

2 marks

- b. Define the term life expectancy.

1 mark

- c. Using the data in the table above, compare the health status of the countries in the table.

3 marks

- d. Explain the ways in which the literacy rate in a country is likely to affect the life expectancy of the population of that country.

3 marks

Question 5

Read the information in the box below about programs run by World Vision to increase access to safe water and sanitation.

No other humanitarian intervention produces a more dramatic effect on life than access to clean water and sanitation. It is foundational to all aspects of development, and often the first work World Vision does in a community.

Provision

- *Wells* – In many regions, women and girls walk for hours every day to collect water that often isn't even clean. In partnership with other organisations, World Vision has plans to drill 825 deep wells in rural West Africa that will bring the gift of health and clean water to nearly 500,000 people over a six-year period.
- *Water-storage containers* – During the rainy seasons in arid regions, World Vision helps communities collect, purify, and store fresh rainwater in safe containers for use later in the year.
- *Water-piping systems* – We help transform arid land into fertile fields through the construction of gravity-fed clean water systems. In southern Ethiopia, for example, formerly unproductive land is now bursting with food thanks to a system like this that benefits almost 64,000 farmers. There is extensive community consultation and involvement in the planning and on-going implementation of these programs.

Purification

- *Protection of natural springs* – World Vision helps communities protect natural springs from contamination by livestock and wild animals.
- *Purification of water* – World Vision supplies equipment to treat and purify water contaminated by bacteria, pesticides, animal waste, and waterborne disease carriers. Members of the community are trained in the correct use of this equipment.

Sanitation

- *Latrine construction* – Because good sanitation helps keep water sources cleaner, World Vision provides waste product management to increase health and decrease disease.
- *Laundry pad construction* – World Vision builds concrete laundry pads to protect water sources such as wells from contamination by detergents and waste water.

Through the support of partners like you, our water projects have given more than 10 million people access to clean water and improved sanitation.

Adapted from: www.worldvision.org, Water and Sanitation, accessed May 2010

- a. Using the information presented on the previous page, identify **two** Millennium Development Goals (MDGs) that the safe water and sanitation programs run by World Vision may help to address.

2 marks

- b. Choose **one** of the Millennium Development Goals you identified in part a. Explain the ways in which this MDG is important in promoting global health.

3 marks

- c. Identify **three** elements of the World Vision safe water and sanitation programs and explain the ways in which these elements will assist the sustainability of the programs.

3 marks

Question 6

The United Nations plays a central role in providing global health and sustainable human development through several areas of action. These areas of action include: world peace and security, human rights, humanitarian assistance and social and economic development.

Describe the ways in which **social and economic development** contributes to global health and sustainable development.

6 marks

Question 7

Malaria and HIV/AIDS are two diseases that contribute significantly to the burden of disease in developing countries. There are a number of large scale global initiatives aimed at preventing and treating these two diseases.

For this question you may **choose** to discuss **either** malaria **or** HIV/AIDS

a. Describe a program that focuses on malaria or HIV/AIDS. In your answer you need to include:

- reasons why the program is needed
- strategies used in the implementation of the program
- elements of the program that will ensure sustainability of the program.

Name of program: _____

Program focus: _____

8 marks

- b.** Describe the ways in which the prevention and treatment of malaria or HIV/AIDS would contribute to sustainable human development.

3 marks

END OF QUESTION AND ANSWER BOOK