



Trial Examination 2018

# **VCE Health and Human Development Units 3&4**

Written Examination

**Suggested Solutions**

**Question 1** (2 marks)

Spiritual health and wellbeing refers to ideas, beliefs, values and ethics that a person holds. It can relate to religious beliefs, but can also relate to a person's sense of purpose in life and their sense of belonging.

2 marks

*One mark for a description of the meaning of this dimension.*

*One mark for a correct example.*

**Question 2** (3 marks)

*For example:*

The Gross National Income (GNI) of a country is used to classify countries into these categories. Countries that experience similar GNI often display similar characteristics in terms of the main types of industries and the opportunities for trade that exist nationally or globally. This means similar strategies and interventions can be used across many countries to improve health and wellbeing. However, not all regions in larger countries – such as China – experience the same GNI, meaning international aid organisations must take this into account.

3 marks

*One mark for identifying GNI as the measure used to classify countries.*

*One mark for an advantage of using this method.*

*One mark for a disadvantage of using this method.*

**Question 3** (8 marks)

**a.** *For example, any three of the following forms of assistance:*

- working with Emma to develop an individualised plan to meet her mobility needs for both work and other social interaction
- providing information on, and access to, medical support services; for example, doctors and allied health practitioners specialising in MS care and treatment
- providing funding for assistive technology such as a wheelchair
- providing funding for a carer to allow her husband to continue working
- providing access to community services and activities to improve her independence.

3 marks

*For full marks, examples must include the development of an individual plan.*

**b.** *For example, any two of:*

- By supporting Emma's ability to continue working, she will be less reliant on social welfare and therefore less of a burden on the country's economy.
- Productivity increases as more people are working and contributing to the country's economy.
- With improved mobility and independence, Emma is less likely to be absent from work or take sick days. This enhances productivity and the economy.
- Improved mobility and a sense of independence would enhance both Emma's physical and mental health and wellbeing, meaning she is less likely to access government-subsidised health services.

2 marks

c. *For example:*

The Australian Government works to achieve a sustainable healthcare system by ensuring efficiency in relation to the health workforce and administration systems. This includes access to a sufficient number and range of highly trained health professionals, maintaining high-quality training facilities and stringent registration processes for medical professionals. The system must keep abreast of advances in medical technology and the most efficient record-keeping methods.

3 marks

*One mark for identifying a way in which the Australian Government aims to achieve a sustainable health system.*

*Two marks for two examples of how this is achieved*

**OR** *for one well-explained example.*

*Note: Alternative options could include: providing for research and monitoring effectiveness in the system; or providing for early intervention and disease prevention strategies.*

#### Question 4 (8 marks)

a. *Any two of:*

- **Priority:** Universal health coverage

**Explanation:** The goal of universal health coverage is to ensure that all people obtain the health services they need without suffering financial hardship when paying for them. In the case of a major disease outbreak, the WHO could provide specialist medical professionals or train local health workers to deliver essential medical aid for all citizens free of charge.

- **Priority:** International Health Regulations (IHR)

**Explanation:** The IHR are laws that aim to help the international community prevent and respond to acute public health risks that have the potential to cross borders and threaten people worldwide. The WHO could work with local authorities to restrict travel to and from affected areas, as well as providing quarantine facilities.

- **Priority:** Increasing access to medical products

**Explanation:** By increasing access to essential, high-quality and affordable medicines and medical technologies, the WHO would more quickly detect and treat infected individuals. It would also be able to vaccinate other members of communities to prevent further spread of disease.

6 marks

*For each example (two required):*

*One mark for correctly naming the WHO leadership priority.*

*Two marks for relating the WHO's response to major infectious disease outbreaks to the priority selected.*

*Note: Marks cannot be awarded for the explanation if the priority is incorrect.*

b. **Type of aid:** multilateral

**Justification:** Multilateral aid refers to aid that is collected from a number of sources and provided through international bodies. The WHO is an international organisation which addresses global health concerns.

2 marks

*One mark for correctly naming multilateral as the type of aid.*

*One mark for a justification that reflects the definition of multilateral aid.*

**Question 5** (12 marks)

- a. This is a measure based on a person's own opinion or perception of their level of health and wellbeing at a given point in time.

1 mark

- b. i. *For example:*

In 2012–2013, Indigenous Australians aged 15 years and over who were living in very remote areas self-assessed their health status more favourably compared with those living in other areas. For example, 16% in very remote areas viewed their health as 'fair/poor', whereas 24% or more were in this category in other areas.

2 marks

*One mark for identifying that Indigenous Australians living in very remote areas self-assessed their health more favourably than those living in other areas.  
One mark for providing accurate data to support the conclusion.*

- ii. *For example, any one of:*

- Indigenous Australians living in very remote areas may view health more holistically to include social, cultural, emotional and spiritual wellbeing, whereas those living in other areas may link health purely to the absence of disease.
- Indigenous Australians living in very remote areas may view health with feeling safe, and feeling connected to family, community, land and spiritual beliefs. Indigenous Australians living in other areas may assess their health more in terms of biomedical factors.

1 mark

*One mark for discussing the influence of dimensions of health other than the physical dimension on self-assessed health status.*

- c. i. *For example:*

- **Factor:** Socioeconomic status (SES)  
**Explanation:** Indigenous Australians are more likely to experience low SES and are therefore more likely to achieve lower educational outcomes. This contributes to lower levels of health literacy, placing them at greater risk of smoking. Smoking is a major risk factor for developing lung disease and therefore contributes to higher rates of respiratory disease in Indigenous Australians.
- **Factor:** Cultural factors  
**Explanation:** Indigenous Australians are less likely to access health services if these are not culturally sensitive. Lack of access may result in less knowledge of risk factors for respiratory disease, such as exposure to environmental tobacco smoke, therefore resulting in higher rates of respiratory disease in Indigenous Australians.

4 marks

*For each example (two required):*

*One mark for identifying one sociocultural factor.*

*One mark for correctly linking the selected factor to higher rates of respiratory disease in Indigenous Australians.*

*Note: Alternative options could include: unemployment; or early life experiences (linked to exposure to environmental tobacco smoke).*

ii. *For example, any two of:*

- **Action area:** Reorient health services  
**Outline:** The *Breathe Easy, Walk Easy* program includes the training of health providers working in Indigenous communities to assist them to deliver respiratory rehabilitation/exercise programs. For such programs to be successful, they must be culturally appropriate for Indigenous people.
- **Action area:** Creating supportive environments  
**Outline:** The training provided to health service personnel working in Indigenous communities would prepare them with the knowledge, skills and resources needed to deliver culturally appropriate programs. This would serve as encouragement to community members to access and actively participate in the respiratory rehabilitation/exercise programs.
- **Action area:** Developing personal skills  
**Outline:** The *Breathe Easy, Walk Easy* brochure helps Indigenous patients with lung disease to create their own personal disease management plan. This indicates that patients are provided with enough knowledge of their condition to enable them to participate in the development of an appropriate plan.

4 marks

*For each action area (two required):*

*One mark for correctly naming an action area of the Ottawa Charter.*

*One mark for correctly identifying how the selected action area is reflected in the program.*

#### Question 6 (14 marks)

a. *For example, any two of:*

- Australia would provide aid for humanitarian reasons, by providing food, water, shelter and medical aid following a natural or man-made disaster.
- Australia would want to reduce poverty in the Philippines, which is beneficial to the country's economy, while also potentially benefiting Australia's economy through the development of future trade opportunities.
- As the Philippines is in the Indo-Pacific region, the Australian Government would wish to promote regional security. Providing aid towards developing more effective governance and reducing poverty can potentially increase political stability.
- Australia would wish to assist in achieving the Sustainable Development Goals (SDGs), especially SDG 1: No Poverty and SDG 3: Good Health and Wellbeing.

2 marks

*Note: Each point must be outlined – that is, in sentence form – for a mark to be awarded.*

**b.** *Priorities could include:*

- Building resilience: humanitarian assistance, disaster risk reduction and social protection
- Education and health
- Infrastructure, trade facilitation and international competitiveness

*For example:*

**Priority:** Building resilience: humanitarian assistance, disaster risk reduction and social protection

**Explanation:** The Australian Government's support in the Philippines would initially be focused on providing food, water, shelter and medical aid to areas affected by the typhoon.

To protect people from falling into poverty after the typhoon, the Government could work with local authorities to develop a social protection program where survivors receive support through cash transfers and food transfers, or a cash-for-work scheme which helps survivors rebuild their lives.

3 marks

*One mark for correctly identifying one of the three relevant priorities of Australian Government aid initiatives.*

*Two marks for outlining two examples of strategies that reflect the selected priority.*

**c.** *For example:*

- Physical health and wellbeing is greatly impacted by extreme weather events, firstly through injuries inflicted by either wind- or water-borne debris during a storm. As water and sanitation infrastructure is often damaged, there is a strong likelihood of outbreaks of water-related communicable diseases such as cholera and typhoid.
- As dwellings, transport infrastructure and communication systems are destroyed, survivors may experience separation from families and friends. This impacts on social health and wellbeing due to the loss of social connections as well as the ability to communicate and gain support during a traumatic event.
- Emotional health and wellbeing is impacted as survivors suffer extreme grief and anguish as they grapple with the serious outcomes of such an event, including loss of loved ones, personal injury, loss of property, crops and livelihoods.

3 marks

*One mark for outlining the implications of more frequent extreme weather events such as typhoons for each of the three dimensions of health and wellbeing.*

- d. i.** Sustainability refers to ensuring the needs of the current generation are met without compromising the ability of future generations to meet their own needs.

1 mark

*Note: To be awarded one mark, the response must reflect the full meaning of the definition of sustainability.*

**ii.** *For example:*

Addressing environmental sustainability in order to minimise climate change has significant consequences for both the social and economic dimensions of sustainability. Climate change has been linked to increased levels of carbon dioxide and other greenhouse gases in the atmosphere since the beginning of the twentieth century – largely due to the burning of fossil fuels for transport and industry. The gases trap heat radiated from the Sun, creating a warming of Earth’s atmosphere. This in turn causes more frequent extreme weather events and rising sea levels.

These events have the potential to force the displacement of populations, leaving people vulnerable to falling into poverty due to loss of work and lack of access to social protection systems (social sustainability).

Rising sea levels cause soils to become more saline, which results in crop failure as well as the disruption of livelihoods and local economies based on agricultural production. If people are unable to engage in productive work and participate in local trade, they cannot contribute to their country’s economy. This prevents economic growth and the development of new industries (economic sustainability).

5 marks

*One mark for identifying at least one action that represents the environmental dimension of sustainability to minimise climate change.*

*One mark for one example of social sustainability.*

*One mark for link between climate change example and social sustainability.*

*One mark for one example of economic sustainability.*

*One mark for link between climate change example and economic sustainability.*

**Question 7** (7 marks)**a.** SDG 3: Good Health and Wellbeing

1 mark

**b.** *For example:*

**Progress:** Many countries with high or moderate rates of malaria have adopted measures supported and recommended by the WHO to prevent, diagnose and treat malaria for all people at risk of the disease. These include a huge increase in the number of people sleeping under insecticide-treated bed nets and insecticide spraying of homes, as well as a huge increase in early diagnosis and treatment, which has greatly reduced the impact of malaria on those infected and significantly reduced mortality rates.

**Challenges:** In a globalised world with rapidly changing dynamics in environment, climate, migration and governance, it is difficult to achieve universal health coverage across regions where malaria is endemic. Therefore progress has varied due to variations in the strength of local health systems, the amount of investment in malaria control, and the ability to address social and cultural factors to help control malaria, such as removal of stagnant water in communities to eliminate mosquito breeding grounds.

4 marks

*Two marks for two examples of progress being made*

***OR** a detailed explanation of progress being made.*

*Two marks for two examples of the challenges faced*

***OR** a detailed explanation of the challenges faced.*

*Note: Marks are not awarded for simply quoting or comparing data from the stimulus material.*

- c. By adopting measures to prevent, diagnose and treat malaria, such as insecticide-treated bed nets, insecticide spraying of homes and accessing diagnostic testing and treatment, people in affected areas are able to continue as productive members of their communities. They are able to earn an income or continue as small-scale food producers in order to provide safe, nutritious and sufficient food for their families.

2 marks

*One mark for at least two examples of malaria prevention or treatment.*

*One mark for a strong link between at least one example of malaria prevention or treatment and the achievement of food security.*

### Question 8 (10 marks)

- a. Guideline 3: Limit intake of foods containing saturated fat, added salt, added sugars and alcohol.

1 mark

- b. *For example:*

Sugars are a source of energy and, when eaten in excess, are stored as body fat. Over time a person may become obese and therefore be at risk of developing type 2 diabetes, which is a major cause of morbidity in Australia.

Sugars also feed harmful bacteria in the mouth, causing dental decay. Poor oral health has been linked to many serious conditions including heart disease, which is a leading cause of mortality in Australia.

2 marks

*Two marks for two key points on the impact of high sugar intake on the burden of disease in Australia.*

*Note: Each point must be linked to a different health condition for full marks.*

*Simply re-stating that high sugar intake causes 'toxic fat' would not be awarded a mark.*

- c. i. *For example:*

- **Willpower:** Changing food habits requires a level of self-control and commitment to resist short-term temptations. This is particularly true for young adults in social situations where there is pressure to consume popular drinks which are often high in sugar. An individual could make sure they either buy or bring their own water or sugar-free drinks to social events and insist that is their preferred choice.
- **Food marketing and media:** Advertisements promoting sugary drinks on television, websites and sporting events mainly target the younger population. Special deals at fast food outlets often include a free sugary drink with food purchased. In this situation an individual could ask to replace the default sugar-sweetened beverage with water.

4 marks

*For each challenge (two required):*

*One mark for correctly identifying and explaining a challenge relevant to young adults.*

*One mark for outlining one example of a strategy to overcome the challenge.*



ii. *For example:*

**Willpower:** Young adults would most likely want to continue to socialise and interact with their network of friends (social) while, at the same time, wanting to avoid sugary drinks. During social situations where an individual exerts self-control over their choice of drinks and maintains that water is their preferred drink, they are managing emotions effectively and showing resilience to potential peer pressure (emotional). Displaying self-control and succeeding to resist temptation to give in to peer pressure can have a positive effect on a person's self-esteem (mental). This in turn can influence a person's level of confidence, and the likelihood of acting independently and responsibly. Such behaviours may attract like-minded people, thereby widening the person's circle of friends and social connections (social).

3 marks

*One mark for providing a link between each example of a dimension to demonstrate the interrelationships between the three dimensions.*

*Note: Students may address the dimensions in any order, but must provide a link between each for full marks.*

### Question 9 (8 marks)

a. Infant mortality rate refers to the rate of deaths of infants between birth and their first birthday, usually per 1000 live births.

1 mark

b. i. *For example:*

Both male and female rates have decreased between 1901 and 1998; for example, in 1901 male rates were approximately 125 per 1000 live births and declined to approximately 3 per 1000.

1 mark

ii. *For example:*

- Following the discovery of vaccines in the early 1900s, the Australian Government implemented mass vaccination campaigns for many infectious diseases in the 1930s, 1950s and 1960s. Diseases such as diphtheria, tetanus, polio and measles were common causes of infant death prior to these campaigns.
- In the early 1900s the Australian Government introduced what is known as the 'old public health', which focused on the elimination of disease-causing bacteria in the physical environment. Safe water and sewerage systems were developed, and contributed significantly to a reduction in infant deaths from infectious diseases such as cholera and other diarrhoeal diseases.

4 marks

*For each example of government health policy or practice (two required):  
One mark for a description of the policy or practice.*

*One mark for linking the policy or practice to a reduction in infant mortality rates.*

iii. *For example, any one of:*

- **Addresses the broader determinants of health:** These include social, biological, geographical and physical environment factors that influence health. By developing safe water and sewerage systems, the Australian Government changed physical environment factors that were causing infectious diseases in communities.
- **Acts to enable access to healthcare:** By the Australian Government funding and implementation of mass vaccination campaigns, all children would receive vaccinations regardless of a family's income, cultural background or location.

2 marks

*One mark for correctly naming one principle of the social model of health.*

*One mark for linking the principle to the example selected from part b. ii.*

### Question 10 (6 marks)

*For example:*

**SDG(s) addressed:** SDG 4: Quality Education

**Name of program:** Basic Education Quality and Access in Laos (BEQUAL)

**Purpose:** This program aims for more disadvantaged girls and boys to complete a quality basic education.

**Implementation:** This bilateral aid program between the Australian and Laos governments also draws on the skills and expertise of multilateral agencies as well as non-government organisations (NGOs). Features include: training large numbers of adults – mostly women – from ethnic minority groups to become teachers within their communities; providing school meals in provinces where food security is low to increase primary school enrolment and attendance; rebuilding schools that are damaged or unsafe; and providing books and other resources to teach literacy and other skills.

**Contribution to health and wellbeing and human development:** As children gain literacy skills and knowledge, they have the capacity to enter higher paid employment in the future. Increased income provides greater access to nutritious food, which improves immunity and thereby reduces the risk of contracting diseases, as well as improving recovery from disease or injury. With greater access to knowledge and higher income, individuals have greater capacity to make decisions that affect their lives, such as ownership of property, timing of marriage and controlling fertility.

6 marks

*One mark for the name of the SDG.*

*(A mark is not awarded if students select SDG2: Zero Hunger as this is named in a previous question.)*

*One mark for the name and purpose of the program.*

*(A mark is not awarded for the name of the program alone.)*

*Two marks for a description of at least two key points on implementation of the program.*

*One mark for the program's contribution to health and wellbeing.*

*One mark for the program's contribution to human development.*

### Question 11 (6 marks)

a. *For example:*

- The HDI moves beyond purely economic indicators to evaluate the level of development of a country. As it includes indicators representing levels of health and education, it provides a more complete guide to the level of development experienced.
- As the HDI arrives at a single statistic based on a number of indicators, it is a useful tool when comparing countries and assessing the relative level of development between countries. The single statistic also provides a means to monitor progress over time.

2 marks

*One mark for each advantage outlined.*

b. *For example:*

The much higher adult mortality rate in Sierra Leone compared to Australia could be the result of more adults dying before 60 years from AIDS in Sierra Leone, where access to antiretroviral drugs for those infected with HIV is limited or non-existent. Access to ART drugs prevents the virus from becoming AIDS, which is fatal.

1 mark

c. *For example:*

Australia has a much higher health status than Morocco, as shown by adult mortality rates – 74/44 (Australia) compared with 104/86 (Morocco) per 1000 population male/female, and U5MR in Australia at 4 per 1000 live births compared to Morocco at 30 per 1000. At the same time, Australia's HDI (0.939) is significantly higher than Morocco (0.647). Gross National Income per capita is one of four indicators of the HDI and therefore contributes to Morocco's lower score. A lower level of income limits access to healthcare, including maternal health care. Data shows that 100% of women in Australia have skilled attendance during childbirth compared to Morocco's 82%. If complications occur, women in Australia are therefore more likely to survive childbirth, and infants born in a sterile, monitored environment are less likely to die before the age of 5 than those in Morocco.

3 marks

*One mark for a comparison of health status between Australia and Morocco using data from the table.*

*One mark for contrasting the levels of poverty between the two countries by comparing HDI data with reference to GNI as one of four indicators of the HDI.*

*One mark for linking this to access to healthcare, as shown by percentage of skilled attendance at birth.*

## Question 12 (13 marks)

a. *For example:*

**Equity:** To reduce inequities in tobacco use by reducing smoking rates in low socioeconomic status (SES) groups, interventions could include: further increases in tobacco taxation, as these groups are more sensitive to price increases; funding of more intense, targeted, longer-running mass media campaigns using highly emotional messages which communicate more effectively with low SES groups; and subsidising the cost of pharmaceutical products known to support quitting smoking.

**Education:** This empowers individuals to take control of their lives, making them more likely to engage in health-promoting behaviours. Specialised campaigns could be introduced into secondary schools where students are most at risk. Funding and resources could be provided to community groups in low SES areas to support smoke-free environments and deliver anti-smoking information to participants.

4 marks

*For each prerequisite of health named:*

*One mark for showing an understanding of the prerequisite itself.*

*One mark for linking the prerequisite to potentially reducing smoking rates in low SES groups.*

*Note: For full marks, an answer must relate specifically to low SES groups rather than reducing smoking rates generally.*

**b.** *For example:*

Smoking is a preventable risk factor, and therefore all smoking-related diseases are deemed to be avoidable through behavioural changes. Smoking is also a major cause of health conditions that place the greatest economic and social burden on the community; that is, cardiovascular disease and cancer.

Australia has a relatively low smoking rate, with a significant decline seen since the 1970s when health promotion programs to reduce smoking began. For example, smoking rates for males declined from 44% in 1976 to 16.9% in 2014. Advocacy through programs such as ‘Quit’ has resulted in increased tobacco-related legislation; for example, laws related to smoking in public places, workplaces and in cars carrying children, as well as laws on packaging and sales.

‘Quit’ is an excellent example of ‘strengthening community action’. It works with governments towards changes to legislation; assists health professionals, educators and community organisations to deliver programs and messages that support quitting; and works with groups that are most vulnerable to taking up smoking, such as Indigenous groups and those experiencing mental disorders.

6 marks

*Two marks for two reasons why smoking is targeted.*

*Two marks for two points on the effectiveness of the health promotion in improving health.*

*Two marks for two features of the health promotion that reflect one action area of the Ottawa Charter.*

*Note: A mark is not awarded for the name of the action area, but one must be given to be awarded any marks for this part of a given answer.*

**c.** *For example:*

Increased globalisation through advancements in communication technology, trade and transport has enabled greater distribution of tobacco to low- and middle-income countries. Large transnational tobacco companies target these countries to make up for lost revenue in developed countries, such as Australia, where tightly controlled laws and interventions are in place to limit the prevalence of smoking. As a result, consumption of tobacco is very high in low- and middle-income countries, causing high rates of diseases such as cancer, cardiovascular disease and respiratory diseases, and therefore an increase in burden of disease.

3 marks

*One mark for describing the concept of global marketing in regard to increased distribution of tobacco in low-and middle-income countries.*

*Two marks for two further points on reasons why transnational tobacco companies target these countries.*

*Note: A mark is not awarded for simply naming global marketing as a reason; students must show an understanding of this concept.*

*A final link to an increase in burden of disease must be made for full marks.*

**Question 13** (3 marks)

*For example:*

A social action could include seeking out a non-government agency that works to address the challenges facing female factory workers in Cambodia, donating funds to the NGO and investigating the best ways to support their work. An NGO will have the expertise and resources to effect change. They have well-established relationships with key stakeholders within the sector, as well as providing programs for the workers; for example, education programs on financial planning, nutrition and understanding rights. These actions could promote mental health and wellbeing as the women feel more empowered to make informed choices, experience less stress from their work environment and have greater financial security.

3 marks

*One mark for describing a social action that clearly relates to the case study.*

*One mark for providing justification for the action chosen.*

*One mark for describing at least one potential improvement to the health and wellbeing of female garment factory workers in Cambodia.*