



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education
Advanced Subsidiary Level and Advanced Level

THINKING SKILLS

9694/21

Paper 2 Critical Thinking

October/November 2009

1 hour 30 minutes

Additional Materials: Answer Booklet/Paper

READ THESE INSTRUCTIONS FIRST

If you have been given an Answer Booklet, follow the instructions on the front cover of the booklet.

Write your Centre number, candidate number and name on all the work you hand in.

Write in dark blue or black pen.

Do not use staples, paper clips, highlighters, glue or correction fluid.

DO NOT WRITE IN ANY BARCODES.

Answer **all** the questions.

Start each question on a new answer sheet.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [] at the end of each question.

This document consists of **6** printed pages and **2** blank pages.



1 Study the following evidence and answer the questions which follow.

Mrs Vanessa Alvarez is consulting her lawyer because of problems she claims result from her mother's eye operation.

Box A

Statement from Mrs Innocence Gomez, 78, (mother of Mrs Vanessa Alvarez):

I went to St Cruz hospital for an operation to remove the cataract¹ on my right eye on Friday 19th December 2008. They told me it would be a simple operation and that I would be able to see perfectly within a week. Since then my eye is very sore and I can't see properly. The anaesthetist² was not concentrating properly and I think he stuck a needle in the wrong part of my eye. He was too busy talking to the nurse about the wedding at the weekend. His sister, Sonita, was getting married to the manager of a pharmaceutical company.

Box B

St Cruz Hospital
Bazaar Road

15.01.2009

Dear Mrs Alvarez,

We note your concern about your mother's recovery from her operation. Every care is taken in this hospital to ensure that operations run as smoothly as possible. All our staff follow proper procedures.

However, no operation is without risk, and patients of your mother's age do sometimes recover slowly. Older patients also tend to develop further health problems which are not associated with any care they have received in hospital.

We wish your mother full recovery.

Yours,

Jishan Patel
Hospital Administrator.

Box C

Statement from Independent Consultant Ophthalmologist³ Dr Mahsati Latif:

I examined Mrs Gomez's right eye on February 12th 2009. Her eye was swollen and painful. On close examination I could see that there was a significant scratch on the retina⁴. This scratch appeared to have been caused by a sharp implement, like the sort of needle that an anaesthetist would use. It is possible that Mrs Gomez will never fully regain her sight.

Box D

Statement from Dr Edward Higes, anaesthetist:

Records show that I was the anaesthetist for Mrs Gomez's operation on 19th December. I was involved with many operations in December. I do not remember Mrs Gomez in particular. In a cataract operation I routinely inject local anaesthetic into a patient's eye. I would remember if something had gone wrong. I did not discuss my sister's wedding with the nurse. That would be most unprofessional. I do not have much respect for Dr Latif's professional judgement. In my opinion she tends to exaggerate the seriousness of injuries.

Box E

Statement from Raquel Ines, Nurse.

I remember Mrs Gomez. She complained about everything. The hospital was too dirty. The food was terrible. The nurses were rough and rude and why was she spending good money on hospital treatment? Her daughter, Mrs Alvarez, was worse. I've heard that she takes law suits out against anyone who annoys her. Edward and I have talked about Sonita's wedding, he was very pleased that she was marrying so well. Her husband owns an export company, I think. I can't imagine we would talk about that during an operation, though.

¹cataract: grey film over the eye. Removing it is normally a simple operation.

²anaesthetist: doctor giving pain killers during an operation.

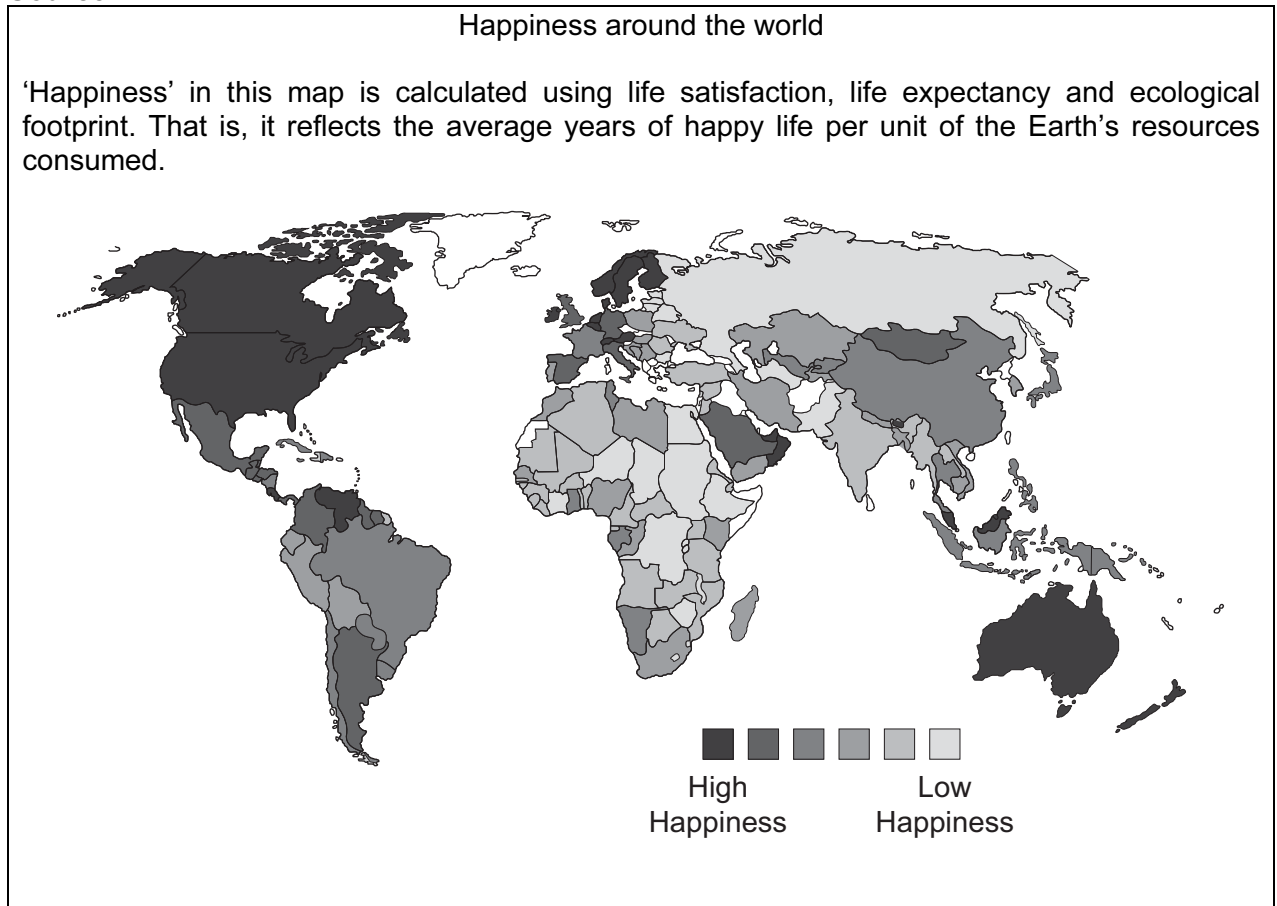
³ophthalmologist: doctor specialising in eyes.

⁴retina: back of the eye.

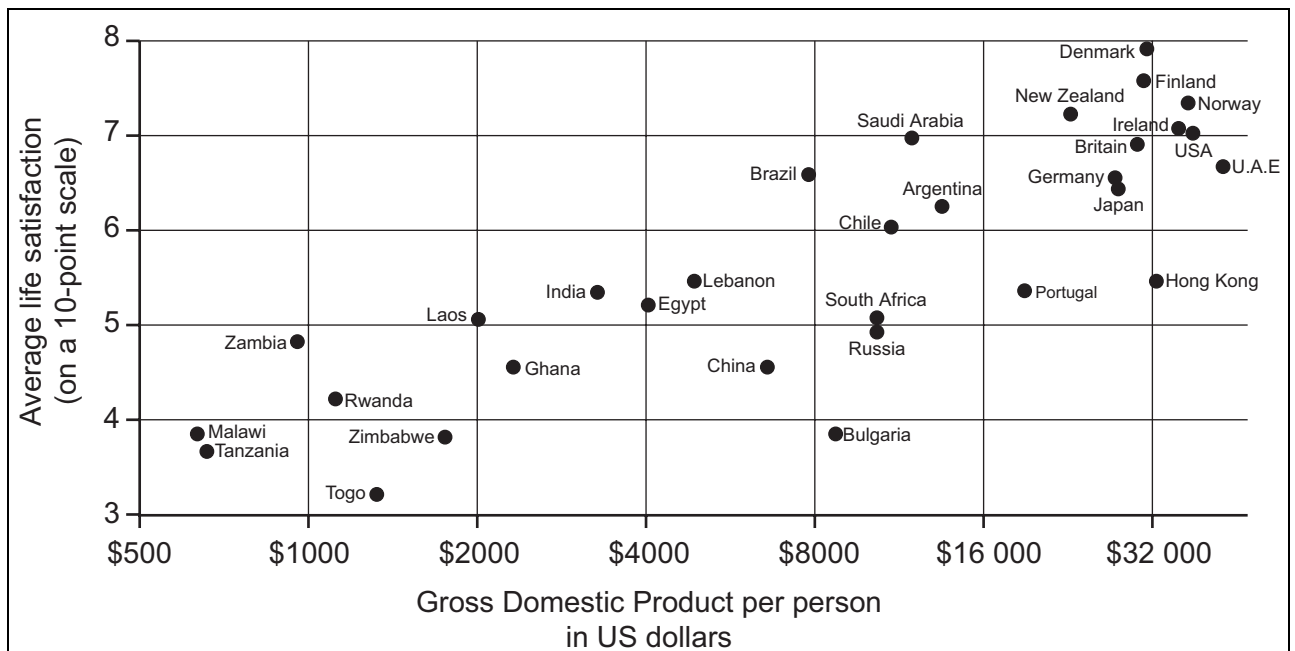
- (a) Explain the significance of Sonita's wedding. [2]
- (b) How reliable is Mrs Gomez's evidence? Justify your answer. [4]
- (c) Whose evidence is more reliable, Dr Higes's or Dr Latif's? Justify your answer. [4]
- (d) How likely is it that Dr Higes is responsible for Mrs Gomez's continuing problems with her right eye? Write a short reasoned argument to support your conclusion. In your answer you should use the evidence provided and consider plausible alternatives. [5]

2 Study this evidence and then answer the questions that follow.

Source A



Source B



Source C

After World War II, the Japanese economy went through one of the greatest booms the world has ever known. From 1950 to 1970, the economy's output per person grew more than sevenfold. Japan, in just a few decades, remade itself from a war-torn country into one of the richest nations on earth.

Yet, strangely, Japanese citizens didn't seem to become any more satisfied with their lives. Between 1950 and 1970, polls were carried out in which people filled in a questionnaire choosing their answers from lists of possible answers. People ticked the answer that best matched their feelings. The percentage of people who gave the most positive possible answer about their life satisfaction actually fell from the late 1950s to the early '70s. They were richer but apparently no happier.

Source D

Mayr, a psychologist at the University of Oregon, gave a group of subjects \$100 each. He then used functional Magnetic Resonance Imaging to monitor activity in the parts of the brain that signal reward (such as when we eat or drink or do something pleasurable).

People's brains lit up when the \$100 was paid into their accounts. When he transferred some of the money without permission from their accounts to that of a local charity which helped the poor, the subjects' brains lit up again. People were pleased to be taxed for a good cause.

- (a) Explain **one** problem with the method used to calculate happiness in the map (Source A). [3]
- (b) In 1964 the possible answers to the question in the Japanese poll (Source C) 'How satisfied are you with life?' changed, as seen in the box below.

Before 1964:	After 1964:
<input type="checkbox"/> I am generally satisfied with life now	<input type="checkbox"/> Completely satisfied
<input type="checkbox"/> I am somewhat satisfied with life now	<input type="checkbox"/> Moderately satisfied
<input type="checkbox"/> I am not at all satisfied with life now	<input type="checkbox"/> Not satisfied

How does this additional information affect the conclusions drawn from the poll? Explain your answer. [3]

- (c) 'People were pleased to be taxed for a good cause.' (Source D).
How far is this conclusion supported by Mayr's experiments? Explain your answer. [3]
- (d) Does money make you happy?
Write a short, reasoned case to support your conclusion, using and evaluating the information provided in sources A – D. [6]

3 Read the passage and answer the questions that follow.

- 1 Paying your way through university is likely to be the one of the largest purchases you ever make. This expense is not worthwhile, because most students actually get very little from university education.
- 2 It is often claimed that graduates earn more than non-graduates. Well, of course they do. These are the brightest, most hard-working, creative young people. We could stick them in a box for four years, and they would still earn more than the others afterwards. We do not medicate those who least need medicine, so why do we teach those who least need teaching?
- 3 Many great individuals had minimal formal education. Louis Armstrong, perhaps the world's greatest ever jazz musician, left school after 5th grade. Charlie Chaplin, the most successful silent movie actor, claimed that, 'arithmetic [is] at best a protection against being short-changed'. Einstein* dropped out of school when he was 15. Galileo** considered university an obstacle to scientific progress. So formal education does not make you successful.
- 4 Very little learning goes on at university: employers claim that graduates don't even have basic reading, writing and thinking skills. Research indicates that 40% of students frequently feel bored in class, and 60% of American first-year students never graduate at all. What kind of business would survive if 60% of its products fell off the assembly line before they reached the end? In addition, people are making millions of dollars selling student assignments because students don't find the learning that comes from doing the work themselves worth the effort.
- 5 Teachers can do more harm than good. 75% of trainee teachers have trouble writing essays that are free of grammatical and spelling mistakes. Tutors tend to be graduate students rather than professors. And even if you are lucky enough to be in a class taught by an expert, you will probably find that the expert has no communication skills, lives on a different mental planet and would rather be researching something totally obscure than teaching you. A teacher who prepares a young person to think beyond what is in the textbook is a rare find indeed.

* Physicist who developed the theory of relativity and changed our understanding of the physical world.

** Astronomer who lived from 1564 - 1642. He used telescopes to observe planets and moons to demonstrate that the Earth travelled round the Sun, rather than the Sun travelling round the Earth.

- (a) Identify the main conclusion. [1]
- (b) 'Most students actually get very little from university education' (paragraph 1). Identify **three** reasons given in paragraphs 3 - 5 to support this claim. [3]
- (c) Evaluate the reasoning in paragraphs 1 - 5. You should identify any assumptions, flaws, analogies and weaknesses, and assess their effect on the strength of the reasoning. [6]
- (d) 'Everyone should remain in education until the age of 18.' Write your own argument to support or challenge this claim. [5]

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