



General Certificate of Education  
Advanced Level Examination  
June 2011

## **General Studies (Specification B)**

## **GENB4**

**Unit 4   Change**

### **Insert**

#### **STIMULUS MATERIAL**

These texts are to be read in conjunction with unit GENB4.

The questions arise from the texts, but they should **not** be answered by reference to the texts alone.

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## Text A

### Economic Growth: Change and Chance

Europe cannot hold a candle to the dynamism, flexibility and energy of American society, but when it comes to quality of life, the average citizen of the Old World – particularly its western regions – has quietly left his American cousin in the dust. Average life-expectancy in Europe is longer, there is less poverty, daily life is safer, there is considerably more leisure and holiday time for all, one can – at least for the time being – retire much earlier, social security facilities are often more generous and the infant mortality rate is lower.

‘Europe’, writes Jeremy Rifkin, ‘has been a huge laboratory for rethinking humanity’s future. In many respects, the European Dream is the mirror opposite of the American Dream: whilst the American Dream emphasises unrestrained economic growth, personal wealth and the pursuit of individual self-interest, the European Dream focuses more on sustainable development, quality of life, and the nurturing of community’.

On the other hand, whereas from the mid-1980s, the phenomenon of immigration was regarded with increasing fearfulness within the EU, the United States took in about twenty million immigrants. In the short term, America’s policy in this regard resulted in the problems regularly associated with integration. In the longer term, however, it will ensure that America remains young, ambitious, and energetic for some time to come. Unless policies change, the average age in the United States in the year 2050 will be thirty-five. In Europe, that will be somewhere around fifty-two.

Europe will gradually exhibit less vitality, and participate less and less in the global economy. Around 1950, a quarter of the world’s population was European; around the year 2000 it was twelve per cent. By 2050, it will be seven per cent. Unless policy changes, the active population of Europe will decrease in the next half-century from 331 million to 243 million. (Meanwhile, the active population in Canada and the United States will grow from 269 million to 355 million).

Yet the position of the United States is not unassailable. In economic terms, the situation in which America finds itself is actually reminiscent of Great Britain after 1918: still the most important empire in the world, still in possession of the mightiest army and the greatest fleet, but at the same time locked in a fundamental struggle with growing economic, financial, and social problems. China, where a quarter of the world’s economy will be concentrated by 2050, will ultimately surpass the United States as a superpower. China, after all, not only possesses a staggeringly huge reservoir of diligent workers, but its economy is also open to an unprecedented extent to trade and innovation. China is, therefore, generally considered the new driving force in the world economy, a motor which will also exercise a great influence on economies in other parts of the world. (It remains entirely possible, of course, that factors such as climate change or major epidemics will once again overturn all these economic forecasts).

Source: adapted from *In Europe: Travels Through the Twentieth Century*, by GEERT MAK,  
Translated by SAM GARRETT, published by Harvill Secker.  
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## Text A (Continued)

## A Selective Overview of World Economic Growth (%)

	2007	2008	2009	2010 (Projection)
<b>World output</b>	<b>5.1</b>	<b>3.1</b>	<b>-1.4</b>	<b>2.5</b>
United States	2.0	1.1	-2.6	0.8
Eurozone	2.7	0.8	-4.8	-0.3
Germany	2.5	1.3	-6.2	-0.6
France	2.3	0.3	-3.0	0.4
Italy	1.6	-1.0	-5.1	-0.1
Spain	3.7	1.2	-4.0	-0.8
United Kingdom	2.6	0.7	-4.2	0.2
Japan	2.3	-0.7	-6.0	1.7
China	13.0	9.0	7.5	8.5
India	9.4	7.3	5.4	6.5
Russia	8.1	5.6	-6.5	1.5
Brazil	5.7	5.1	-1.3	2.5
Middle East	6.3	5.2	2.0	3.7

Source: International Monetary Fund, 2009

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**Text B****Prime Time**

The story of the primes spreads well beyond the mathematical world. Technological advances have changed the way we do mathematics. The computer has provided us with the ability to see numbers that were previously confined to the unobservable universe. The language of quantum physics has allowed mathematicians to articulate patterns and connections that might never have been discovered without this cross-fertilisation of scientific cultures. The central role of the primes in computer security has forced these numbers into the limelight. The primes now affect all our lives as they protect the world's electronic secrets from the prying eyes of Internet hackers.

The primes were once regarded as the ultimate abstract concept, devoid of any significance beyond the ivory tower. Mathematicians, and G.H.Hardy was perhaps the best example, once relished the thought of being able to examine the object of their study in isolation, undistracted by concerns of relevance in the outside world. But no longer do the primes provide an escape from the pressures of the real world, as they did for Bernhard Riemann and others. The primes are central to the security of the modern electronic world, and their resonances with quantum physics may have something to tell us about the nature of the physical world.

Even if we do succeed in proving the Riemann Hypothesis\*, there are many more questions and conjectures champing at the bit, many new exciting pieces of mathematics just waiting for the Hypothesis to be proved before they can be launched. The solution will be just a beginning, an opening up of uncharted territory. In Andrew Wiles's words, the proof of the Riemann Hypothesis will allow us the possibility to navigate this world in the same way that the solution to the problem of longitude helped 18<sup>th</sup> Century explorers to navigate the physical world.

Source: adapted from *The Music of the Primes*, MARCUS DU SAUTOY, reprinted by permission of Harper Collins Publishers Ltd, 2004

\*concerning the regular distribution of prime numbers

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**Text C****X Factor Democracy**

Voting is unpopular. That's what they tell you at Westminster, and MPs from all parties have been agonising about how to get the public more interested ever since the general election turnout hit a record low of 59% in 2001. Simon Cowell, on the other hand, knows how to run a popular election. More than 10 million voted in the *X Factor* final at the weekend – which may explain why the reception at Westminster has been surprisingly warm to Cowell's idea, floated on *Newsnight* earlier this week, for a political version of the show.

David Cameron has already said Cowell is 'incredibly talented. There's probably something we could learn in politics from him'. The Tory leader watched Cowell explain his idea on *Newsnight*, for 'some kind of referendum-type show where you can speak on both sides and then open it up to the public to get an instant poll', although Cameron was a bit more wary of the suggestion that Cowell would plonk a red telephone on stage so that No.10 could ring in to make its case. If the programme ever happened, Cameron will probably be on the other end.

What do other MPs think? Paul Flynn, a Labour backbencher who sits on the public administration committee, says he would be particularly keen on a referendum-type show if it ended up being presented by someone like Andrew Marr or Jeremy Paxman. 'Politicians have to engage their audience,' he says. 'You cannot expect people to be interested in politics if you present it in a dull way. If we have to do it in a Simon Cowell format, so be it'.

But Charles Walker, Flynn's colleague on the public administration committee disagrees. He fears the proposal could lead to 'mob rule' and that the death penalty would never have been abolished or homosexuality legalised if these issues had been decided in the 1960s via mass-market television programmes.

Sunder Katwala, general secretary of the Fabian Society, however, believes that Cowell would be doing us a service if his programme demonstrated that politics is more complicated than people tend to assume.

Source: 'Can Simon Cowell save democracy', ANDREW SPARROW, *The Guardian*, December 2009  
guardian.co.uk © Guardian News and Media Limited 2010

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**Text D****One ideology trumps another**

The Civil Partnership Act became law in December 2005. Since then, homosexual partners have enjoyed the same rights as heterosexual married couples. This caused problems for Lillian Ladele, a registrar employed by Islington Council, in North London: she claimed that it ran counter to her Christian beliefs to sanction the 'marriage' of same-sex couples.

At first, by juggling duty-rosters, she was able to leave the responsibility for civil-partnership procedures to her colleagues. Then the 2007 Sexual Orientation Regulations passed into law which made it illegal to refuse services to anyone on the grounds of their sexual preferences. Her avoidance of the duty to conduct civil-partnership ceremonies fell foul of the new regulations, and homosexual colleagues laid a complaint against her: she was accused, in effect, of homophobia.

A dispute ensued between Miss Ladele and Islington Council; Miss Ladele was disciplined; she invoked a legal process; and an employment tribunal ruled that she had suffered discrimination and harassment. The case went to the Appeal Court, but by the time it ruled, in December 2009, Miss Ladele had left her job with Islington Council.

Whilst the appeal judges expressed some sympathy with Miss Ladele in her predicament, and criticised the council for treating her unfairly, they nevertheless ruled against her. Master of the Rolls, Lord Neuberger, declared that it was 'simply unlawful' for Miss Ladele to refuse to conduct civil-partnership ceremonies:

'The prohibition of discrimination by the 2007 Regulations takes precedence over any right which a person would otherwise have by virtue of his or her religious belief or faith, to practise discrimination on the ground of sexual orientation.'

This was an important test case: it is now enshrined in common law that a religious belief cannot justify discrimination. The relatively new ideology of (gender) equality, in effect, trumps a very old ideology of religious tradition or custom – the very tradition, some would say, that made this a 'Christian' country.

Source: 16 December 2009

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**Text E****Slavery on the small screen**

The television series *Roots* (1977) had a dramatic impact upon the perception of enslavement and the representation of slavery. Based on the bestselling novel by Alex Haley, the series followed the 'saga of an American family'. Beginning with the capture and enslavement of the initial protagonist, Kunte Kinte in The Gambia in the mid-eighteenth century, the programme charted the life of Kunte and his family to the end of the American Civil War. What was significant about *Roots* was that for the first time viewers were shown the brutality of enslavement, the lack of representation for the enslaved, and the legacy of racism that blights post-emancipation societies. Significantly, *Roots* also depicted the strength which made possible the resistance to oppression. The series contained some very powerful scenes: of capture; enslavement; the Middle Passage; punishment in the labour camps of the plantation; Kunte's capture and struggle as the manacles were placed on his wrists; the rape of enslaved women; the holds of the ships with chains and shackles imprisoning the enslaved; the whipping of Kunte for his attempt at escape. These scenes had a dramatic effect on the audience, evidenced by viewing figures of nearly 19 million people in Britain. Significantly, these scenes also set the agenda by which slavery has been remembered in Britain.

Audience surveys conducted at Liverpool's new International Museum of Slavery in August 2007 revealed the ingrained perception of the series, as interviewees would often cite *Roots* as the basis for their impression of slavery. The programme was praised for its 'realism' and the fact that it 'told the truth'. Particular scenes and themes have been re-used by subsequent films and television programmes as the '*Roots* version of history' was seen by producers as the accepted version of history. The manner in which these scenes have been recycled in subsequent programmes, though, evidences the tastes, desires, and needs of society at a particular moment in time. The notion of 'realism' is certainly not static, and what constitutes 'the real' is a continually changing phenomenon.

Source: adapted from '*1807 Commemorated; Representation equals recognition? The portrayal of Slavery on screen*', ROSS WILSON,  
Institute for the Public Understanding of the Past (IPUP)

**END OF STIMULUS MATERIAL**

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