



National Admissions Test for Law (LNAT)

Sample Test 1 (2010)

The test has 2 separate sections, A and B.

Section A: Multiple Choice

This section is divided into 12 sub sections; each sub section has between 3 and 4 questions.

You should answer **all** 42 multiple choice questions in Section A, selecting **one** of the possible answers listed for each question.

Time allowed: 95 minutes

Section B: Essay

This section has 5 essay questions.

You should select and answer **one** question in Section B.

Time allowed: 40 minutes

1 Physicians and Patients

Traditional medical oaths and codes prescribe a physician's character, motives, and duties. Typically they portray ideal physicians as devoted to the welfare of patients and to advancement of the medical profession and medical knowledge, responding compassionately to the suffering of patients, humbly mindful of the limits of their curative powers and the harms they may unintentionally cause. The Hippocratic injunction "Strive to help, but above all, do no harm" is the ruling maxim.

Although still supported by religious texts and medical tradition, this ideal physician is increasingly criticized as "paternalistic", too willing to act on judgments of a patient's best interests without the patient's knowledge or consent. To treat without consulting a patient is to assume that a patient does or should share one's own assessment of the risks, benefits, and burdens of treatment. But current hospital specialists, it is said, rarely know their patients (or themselves) well enough to make this assumption without serious risk of ignorant arrogance. Given hospital hierarchies, such paternalistic physicians are seen to resemble Victorian patriarchs.

Some physicians reject such criticism as intervention by lawyers, philosophers, feminists, and other social critics ignorant of the realities of medical and hospital life. But the "neo-paternalists" admit that physicians should attend more carefully to a patient's desires and to give them greater weight in arriving at a treatment of choice. Unmollified critics, however, continue to insist that treatment choice belongs to the patient, however imprudent, and not to the physician, however attentive and knowing. To curb Hippocratic paternalism they define a range of patients' specific rights to be told about, and choose among, alternative treatments, including a right to refuse all, even life-saving treatment.

These rights confer adult status on patients whom paternalists regard as children, replacing quasi-familial with quasi-legal relations. A patient's "free and informed consent" reflects an implicit therapeutic contract, defined and reviewed as treatment proceeds. A physician who treats without such consent is not a patriarch, but a batterer. Less litigiously, these rights define a "principle of autonomy" traced to Kantian notions of respect for persons and inherent human dignity.

Attempts to apply this principle have raised questions of scope: Is a patient's "free and informed consent" needed for routine procedures with slight or rare risks? Is consent required if a patient would, in the physician's judgment, be "medically harmed" by information about diagnosis and prognosis? Are refusals to be honoured even if patients risk death, as do surgical patients religiously opposed to blood transfusion? Does the principle (contra Kant) cover voluntary euthanasia? Can children or mentally ill patients give informed consent at least for some procedures? Can parents or other surrogates give or refuse "substituted" consent when a patient is too ill to consider the options or to speak.

Whatever the scope of a principle of patient autonomy, this challenge to paternalism has shifted the categories of concern. Physicians' power, not their character, has become the issue. Consequently, "Who is to decide?" has become more pressing than "What is to be done?" Proper procedure has become as important, in medical ethics, as correct conclusions.

1. Which of the following pairs is **not** used as an **opposition** in the passage?
 - (a) ideal physician and Victorian patriarch
 - (b) adult and children
 - (c) quasi-familial and quasi-legal
 - (d) patriarch and batterer
 - (e) paternalism and autonomy

2. The **writer** takes the view that:
 - (a) physicians need to change their attitudes
 - (b) some doctors are too old-fashioned
 - (c) we need to reconsider the validity of the Hippocratic oath
 - (d) the most important issue in medical ethics today is who decides
 - (e) the patient should decide on their treatment, not the physician

3. Why might voluntary euthanasia be **against** Kantian principles?
 - (a) It is not a medical treatment
 - (b) It does not respect human dignity
 - (c) It is contrary to natural law
 - (d) It undermines the patient/physician relationship
 - (e) It is not an example of autonomy

2 Top Civil Servants

The conservatism of top civil servants in advanced capitalist countries needs to be seen not in general terms but in specific ones, related to the class configurations and hierarchies of these particular societies, and to have as its major purpose not simply the defence of *a* social order but of *the* particular social order typical of these societies in all its major manifestations. In other words, top civil servants in these countries are not simply conservative in general; they are conservative in the sense that they are, within their allotted sphere, the conscious or unconscious allies of existing economic and social elites.

There is more than one reason for this. The most obvious one is that the social provenance, and the education and class situation of top civil servants makes them part of a specific milieu whose ideas, prejudices and outlook they are most likely to share, and which is bound to influence, in fact to define, their view of the 'national interest'. But this is by no means all. There is also the fact - which is often overlooked in this context - that the ideological 'soundness' of top civil servants (and of many others as well) is not a matter which, in these countries, is now left to chance. Recruitment and promotion are no longer in the main determined on the basis of social provenance or religious affiliation. Nor are civil servants in these systems expected to subscribe to a specific political doctrine or ideology. But they are nevertheless expected to dwell within a spectrum of thought of which strong conservatism forms one extreme and weak 'reformism' the other. Outside that spectrum, there lurks a grave danger, and in some countries the absolute necessity, of a blighted administrative career or of no administrative career at all.

In all capitalist countries, though with different degrees of thoroughness (the United States easily leading the field), candidates to the civil service and members of it are subjected to screening procedures and security checks which have become a familiar and permanent feature of Western administrative life. The official reason given for these procedures is that they are required to exclude 'security risks' from employment by the state, particularly in important and 'sensitive' posts. But the notion of what constitutes a 'security risk' is an elastic one and can easily be stretched to encompass anyone whose opinions and ideas on important issues depart from a framework of 'soundness' defined in terms of the prevailing conservative consensus. Moreover, the knowledge which civil servants have of what is expected, indeed required, of them in ideological and political terms is likely to be more than sufficient to ensure that those of them who might be tempted to stray from the narrow path they are expected to tread will subdue and suppress the temptation. Their number is anyway not likely to be large.

1. Which of these pairs (one drawn from each paragraph) offers the probable reasons for the writer's use of italics for certain words in the first paragraph, and inverted commas around certain words in the third paragraph?

First paragraph	Third paragraph
(a) Because he is drawing attention to the difference between these words	Because these words are technical terms
(b) Because he wants to emphasise these words	Because he has used these words incorrectly
(c) Because he wants to draw the reader's attention to the way these words are used	Because these words are being used colloquially
(d) Because he wants to draw the reader's attention to the way these words are used	Because he has used these words ironically
(e) Because he is drawing attention to the difference between these words	Because he wants to emphasise these words

2. The writer here uses the word 'conservative' to mean:

- (a) consciously sympathetic to the elites
- (b) a group on the right of a 'spectrum of thought'
- (c) those who are ideologically 'sound'
- (d) those educated at private schools
- (e) a group who understand the 'national interest'

3. The writer suggests that the recruitment procedures for top civil servants:

- (a) can be manipulated to suit the situation
- (b) allow candidates to say what is expected
- (c) are essentially a matter of chance
- (d) no longer depend on religious affiliations
- (e) are applied with different degrees of thoroughness

3 A New Strange Mask For Science

The public image of science changed in [the twentieth] century. It changed because the smiling mask it had been wearing suddenly fell away to reveal a face that was as horrible as it was wonderful. Primarily this happened because science over the last hundred years has become so visible to so many. A technological explosion as well as environmental anxiety, nuclear weapons, mechanized total war and all the moral and political complexities of economic growth have put science at the centre of the public realm. It has been brought to trial before a new kind of jury - the jury of popular sentiment, whose verdicts are cruder and whose anxieties more politically potent than those of the philosophers. Suddenly science's achievements can simply be viewed as crimes, its knowledge as sin.

The importance of this for my argument is that it means science has been judged from the outside. The pursuit of objective knowledge for its own sake is no longer the private mission of an elite, subject only to its own demands and sense of virtue. In such an enclosed context it could allow itself to believe its knowledge did include the only truth, that it would one day encompass the entire universe both human and inhuman. But its sudden obvious success both as creator and destroyer convinced us all that science lacked some vital human input. If it could do so much for our world, science could no longer be free. For its very autonomy, which had once been its proud badge of independence from authority, might now be seen as a blank cheque, rashly handed to a greedy and destructive child.

From this perspective, faith in science begins to look like irresponsibility. We had allowed science a dangerous liberty, a removal from the limitations of ordinary human concerns. We had done this in honour of its rigour and effectiveness. And we had done so because, according to the wisdom of the Enlightenment, knowledge must, by its very nature, be free of our subjective values. It was the only way the scientific world could be certain that it *was* knowledge as opposed to just another point of view. Science, indeed, had offered us an escape from the tyranny of mere 'points of view'.

But what the horrors and anxieties of the twentieth century revealed was that such a severance of knowledge from value has terrible implications. Philosophers may have been aware of them for centuries. Now, after Hiroshima, after Dachau, after Cuba, we all are.

All of which is true. But the point is that the scientist himself can - and does - ignore such anxieties. A physicist, chemist or biologist can easily construct a wall in his imagination between his work and the wider issues of science in the world. He will argue, as most do, that human knowledge is a progressive, inevitable and value-free investigation of the nature of the world. It will happen whether we worry about it or not. Certainly he may be aware of real ethical and political problems, but these occur only *after* the facts of the hard science. The atom is 'split' and later comes the moral quandary over the use of nuclear weapons.

This division allows science to retain its authority. In spite of what may happen in the outside world, the scientist can still be convinced he is on the one true path to truth, complete truth. Any shortcomings of science when it is brought into contact with the world arise because the truth is as yet inadequate, incomplete.

1. In the passage the writer argues that
 - (a) science can be equated with explosive developments in technology
 - (b) science is a value-free form of knowledge
 - (c) science involves the pursuit of knowledge for its own sake
 - (d) scientific investigation is an elite pursuit
 - (e) scientific investigation must involve experimental tests

2. In the passage the writer **does not claim** that science
 - (a) is at the centre of the public realm
 - (b) has become much more visible
 - (c) requires some human input
 - (d) has been judged from the outside
 - (e) should be free of our subjective values

3. Which of the following **most closely** corresponds to the link made in the passage between the splitting of the atom and the development of nuclear weapons?
 - (a) The flight of the first jet plane and the rise in global temperatures.
 - (b) The invention of the printing press and the destruction of the world's forests.
 - (c) The launch of the drug thalidomide and the appearance of limbless babies.
 - (d) The first manufacture of cigarettes and the spread of lung cancer.
 - (e) The discovery of DNA's structure and the technique of human cloning.

4 University of Google

Google is “white bread for the mind”, and the internet is producing a generation of students who survive on a diet of unreliable information, a professor of media studies will claim this week.

In her inaugural lecture at the University of Brighton, Tara Brabazon will urge teachers at all levels of the education system to equip students with the skills they need to interpret and sift through information gleaned from the internet. She believes that easy access to information has dulled students’ sense of curiosity and is stifling debate. She claims that many undergraduates arrive at university unable to discriminate between anecdotal and unsubstantiated material posted on the internet and peer-reviewed scholarly research. “I call this type of education ‘the University of Google’. Google offers easy answers to difficult questions. But students do not know how to tell if they come from serious, refereed work or are merely composed of shallow ideas, superficial surfing and fleeting commitments. Google is white bread for the mind - it is filling but it does not necessarily offer nutritional content,” she said.

Professor Brabazon’s concerns echo the author Andrew Keen’s criticisms of online amateurism. In his book *The Cult of the Amateur*, Keen says, “Today’s media is shattering the world into a billion personalised truths, each seeming equally valid.”

Professor Brabazon said: “I’ve taught all through the digitisation of education. We can no longer assume that students arrive at university knowing what to read and knowing what standards are required of the material that they do read”. “Students live in an age of information, but what they lack is correct information. They turn to Wikipedia. Why wouldn’t they? It’s there,” she said.

With libraries in decline, media platforms such as Google made perfect sense. According to Professor Brabazon, the trick was to learn to use them properly. “We need to teach our students the interpretative skills first before we teach them the technological skills. Students must be trained to be dynamic and critical thinkers rather than drifting to the first site returned through Google,” she said. Her own students are banned from using Wikipedia or Google in their first year of study, but instead are provided with 200 extracts from peer-reviewed printed texts at the beginning of the year, supplemented by printed extracts from eight or nine texts for individual pieces of work. There have been concerns about students plagiarising from the internet and the growth of a new online “coursework industry”, in which websites produce tailor-made essays, some selling for up to £1,000 each.

Wikipedia, containing millions of articles, contributed by users, was founded in 2001. It has been criticised for being riddled with inaccuracies.

Google is the dominant search engine on the internet, it uses a formula designed to place the most relevant content at the top of its listings. But a multimillion-pound industry has grown up concerned with manipulating Google rankings through a process called “search engine optimisation”.

1. The main criticism in the passage of the use by students of the internet is:
 - (a) the material is unsubstantiated
 - (b) it means that students use material indiscriminately
 - (c) the information is incorrect
 - (d) it leads to online amateurism
 - (e) it leads to plagiarism

2. What is suggested by the last paragraph?
 - (a) There is too much information on Google.
 - (b) Students can't distinguish between good and bad content.
 - (c) Google has too much power.
 - (d) The material isn't always accurate.
 - (e) The rankings may not be reliable.

3. Which of the following is intended to convey approval?
 - (a) 'anecdotal'
 - (b) 'peer-reviewed'
 - (c) 'filling'
 - (d) 'equally valid'
 - (e) 'tailor-made'

4. Which of the following comes closest to the meaning of Andrew Keen's criticism?
 - (a) Online information is amateurish.
 - (b) Online information is too easily available.
 - (c) There is too much online information.
 - (d) Online information lacks authority.
 - (e) Students don't know how to use online information effectively.

5 Pilgrims and Pioneers

Across the Atlantic in the middle of the nineteenth century the independent spirit of America's pioneers still flourished. Neither prosperity nor the bitter divisions of the Civil War subdued its energy, which spilled over into many aspects of life, including fiction and popular song. "Uncle Sam's Farm" was written by the Hutchinson family singers in the 1840s. It reflected the pride felt by many Americans in the land and opportunity which had been won by their fathers and consolidated through later technical achievements. However the lyric substituted enthusiasm for accuracy. Suffrage was still denied to a large proportion of the community, including all white women and of course negro slaves of both sexes. Also educational facilities for children were fragmented and far from universal.

As they entertained, the Hutchinson family campaigned for women's suffrage, temperance and the abolition of slavery, three causes which were often interrelated, and for which support was increasing, especially in the northern states. Traditions of feminine inferiority had been meaningless in pioneer life: freer attitudes developed among early immigrants who had escaped from religious and political oppression in Europe. (The Quakers, for instance, accepted the equality of men and women, and had made education available to girls as well as boys since the seventeenth century. Quaker women did not promise to obey their husbands and were encouraged to speak in public at religious meetings.) Men and women facing hard-ship and danger together had wrested farmlands and homes from the wild country. Even when pioneering days were over, self-reliance, rather than over-sentimentalized femininity, remained the quintessence of many American women. They were becoming real partners in marriage, no longer dominated, pampered or hoisted on to pedestals.

Yet women's legal position remained as anachronistic and degrading as in early Victorian England. In 1849 the Tennessee Legislature solemnly decreed that women should not be given the right to own property as they had no souls. This was bigotry at its most ludicrous, but legal and economic control remained entirely in the hands of men, and double standards of sexual morality persisted. In 1848 the first Women's Rights Convention took place. This was organized at Seneca Falls by Mrs Lucretia Mott and Mrs Elizabeth Cady Stanton, two Americans who had met in 1840 at an Anti-Slavery Convention in London. Ironically, because of their sex, Mrs Mott and Mrs Cady Stanton were debarred from taking part in this conference as many of the male delegates, though sufficiently progressive to seek the abolition of slavery, still held entrenched prejudices against women. The Seneca Falls meeting demanded suffrage and equality for women, and marked the beginning of an organized American feminist movement. Its leaders were colourful and determined, and in 1849 *The Lily* appeared. This was a monthly journal devoted to women's interests, which became increasingly outspoken and challenging. Its editor was Mrs Amelia Bloomer, who is more famous for the bifurcated garment which bears her name than for her literary achievement.

American girls and women were as handicapped by their restrictive clothes as their English counterparts. Multiple underskirts were reinforced with horsehair and straw, while waists and midriffs were tortured by steel and whalebone corsets. *The Lily* came out strongly against stupidities of dress, and drew attention to the disproportionate amount of time spent by many women on the

drudgery of making over-decorated clothes and household linen. In the spirit of vegetarians advocating that all meat eaters should themselves kill the animals for their table, Mrs Cady Stanton suggested that everyone, men and boys included, should be made to do their own sewing and that clothes should be kept functional. The Bloomer was one result in 1851 of women's efforts to produce a sensible item of clothing. Contemporary illustrations of these ankle-length Turkish pantaloons, worn under a skirt reaching below the knee, suggest impeccable propriety. However bloomers produced apoplectic resentment among conservative factions of society when they were adopted for three or four years as the battle uniform of leading feminists. The Bloomer had great publicity value, and became synonymous with the demand for physical and psychological emancipation.

In the first three paragraphs of this passage, all of the following words advance the argument **except**:

- (a) 'However...'
 - (b) 'Also...'
 - (c) 'Even...'
 - (d) 'Yet...'
 - (e) 'Ironically...'
2. Which of the following are **not** put forward by the writers as **contrasting** ideas?
- (a) Freer attitudes and religious and political oppression in Europe.
 - (b) Self-reliance and over-sentimentalized femininity.
 - (c) Real partners in marriage and wives being dominated, pampered or hoisted on to pedestals.
 - (d) Restrictive clothes and functional clothes.
 - (e) Physical emancipation and psychological emancipation.
3. What is the main argument in the passage about the situation of women in 19th century America?
- (a) They were free but subject to moral double standards.
 - (b) They had become more self-reliant but were legally inferior to men.
 - (c) They wanted to be free but were forced into restrictive clothing.
 - (d) They were proud of their land but no freer than slaves.
 - (e) They were independent but could not vote.

4. In the third paragraph the writer uses the word 'ironically' when discussing the situation of women in nineteenth century America. What best describes the irony the writer is referring to?
- (a) Though they were American, Mrs Mott and Mrs Cody Stanton had met in England.
 - (b) Mrs Mott and Mrs Cody Stanton were not allowed to attend the first Women's Rights Convention.
 - (c) Mrs Mott and Mrs Cody Stanton were victims of male prejudice.
 - (d) Men who sought to ban slavery were prejudiced against women.
 - (e) Mrs Amelia Bloomer is better known for the garment named after her than for her writing.

6 Helicopter Parents

- A A controversial new book - which has sparked a massive debate in America about the relationship between money and parenting - has blamed high-earning, high-achieving mothers and fathers for inadvertently causing their children's problems by pushing them so hard to succeed that they feel like failures. Parents interfere in their children's lives so much that they can't look after themselves. They give them every gadget and luxury imaginable but far too little time, love and affection.

In *The Price of Privilege: How parental pressure and material advantage are creating a generation of disconnected and unhappy kids*, American clinical psychologist Dr Madeline Levine accuses middle-class parents who earn at least £63,000 a year of failing to prepare their offspring properly for the adult world because they are so obsessed with ensuring their sons and daughters excel at everything they do. While superficially well-developed, their children are actually sad, lonely, confused and lack self-confidence because they haven't fulfilled parental expectations Levine says.

Levine criticises over-intrusive 'helicopter parents', so-called because they constantly hover over every aspect of their children's lives, for example going into their school to challenge a teacher about a mark their child has received. Although they are trying to help, they are actually damaging their offspring's development because, she says, leaving children alone, and learning how to handle difficult situations, helps them acquire independence, coping skills, a sense of right and wrong, and a sense of who they are.

- B It's the hectoring call that university tutors have learned to dread: "Now, about my son's/daughter's latest assessment - that B grade clearly can't be right."

They've been at their student children's open days, interfered with the UCAS form and swooped in to challenge anything from essay marks to college accommodation.

Meet the helicopter parents, so-called because they hover over their children, interfering and directing their lives in a way that would probably have embarrassed standard pushy parents.

A phenomenon already established in the US, British universities are now beginning to suffer at the hands of the new breed, particularly at careers fairs.

Helicopter parents oversee their child's first graduate job application, prep them for tests and interviews - and have even tried to renegotiate starting salaries.

Paul Redmond, head of careers at Liverpool University, said their arrival was evident at careers fairs across the country last year, and that some students had been barged aside. "In future we will have to be more open and say it doesn't look particularly impressive to have your parents with you at a fair," said Redmond.

- C The headmistress of a leading girls' school has warned that 'helicopter parenting' is preventing children from growing into healthy, self-sufficient adults.

Vicky Tuck, the principal of Cheltenham Ladies' College, claims that some mothers and fathers are hindering their child's ability to learn and become self-sufficient because they are constantly hovering overhead, supervising and directing.

The trend towards parents confiding in their children and treating them like mini-counsellors is also preventing children from being carefree and learning from their mistakes, she believes.

The "least selfish thing" a parent can do for their child was send him or her to boarding school, she told the *Daily Telegraph*.

"Growing up is a slow process with ups and downs. Children need to work out who they are, with a lot of support, but not in an intrusive way," said Mrs Tuck, whose school charges boarding fees of £24,528-a-year for girls aged 11 to 18.

- D I have two kids in secondary education and I get phone calls at work if they misbehave in class... If they fail to complete homework on time I get letters home. If they have even the most minor illness or accident at school, I am contacted and expected to drop everything to pick them up. If they were to truant, I could end up in court or even prison. Do these teachers perhaps get the helicopter parents they deserve?

1. Which of the passages **implies** but **does not state** that 'helicopter parents' are financially well off?
 - (a) A
 - (b) B
 - (c) C
 - (d) D
 - (e) None of them

2. All the passages suggest that the **main** damage caused by 'helicopter parents' is that young people:
 - (a) can't deal with their own job and university applications
 - (b) need support for all they do
 - (c) are often lonely
 - (d) have too many material possessions
 - (e) cannot become independent

3. The last sentence of Passage D **implies** that:
 - (a) children need more freedom
 - (b) schools should not contact parents
 - (c) parents ought not to be legally responsible for older children's behaviour in school
 - (d) teachers should resolve more problems with the child rather than the parents
 - (e) children are better off in boarding school

4. Which of the following statements about 'helicopter parents' would the writers of A, B, and C all agree with?
 - (a) They make their children feel failures.
 - (b) They don't prepare their children properly for adult life.
 - (c) They confide in their children too much.
 - (d) Their expectations of their children are too high.
 - (3) They hinder their children's education.

7 Car Ownership

In 1989, when the environment was briefly top of the UK national agenda, a group of Chinese planners came to London. Many of the people who met them wanted to know how the country had managed to get so many citizens to ride bicycles - something the British authorities were unable to do. The Chinese were perplexed. "You don't understand", said one. "In 20 years time, no more bicycles. All cars." That prediction is being realised. Beijing's roads, once kerb-to-kerb with bikes, are now choked with cars. In terms of traffic, noise and air pollution, Shanghai could be Lagos or Cairo.

City after Chinese city is widening its roads, building flyovers and underpasses to cater for the increasing number of cars. The fastest automobile explosion the world has ever known is underway across the world's most populous country. The bike, just a generation ago the transport of choice, is being driven off the street.

Last year, the Chinese reportedly bought four million new cars. Auto numbers there, says the World Bank, are now doubling roughly every four years. Commentators suggest that the country's 1.3bn people will have more cars than the US within 25 years. Even now, the world's leading carmakers are spending billions on setting up plants, vehicle prices are dropping precipitously, and the car has become the object of the new consumer's dreams.

It is a similar story throughout the developing world. For the first time, more than one million new cars were sold in India last year, and the automobile industry there is growing at a rate of about 20% a year. The car fleets of Brazil, Indonesia, South Africa, and Nigeria are growing at similar rates.

But compared to the West, these numbers are as nothing. Private car ownership in the US is about 745 vehicles per 1,000 people, with slightly lower rates in Europe. There may be one car for every 2.4 British people, but only eight Indians and Chinese in 1,000 so far have a car.

Transport, says the Energy Saving Trust, accounts for 26% of all Britain's greenhouse gas emissions and is the fastest growing source of global emissions. While the US is by far the greatest source, figures released this month by the European Environment Agency figures show emissions are still rising in Europe, making it unlikely that EU countries, as a bloc, will meet their Kyoto target.

Transport in developing countries, however, could exceed those in the industrialised world within five years.

Three years ago, US energy secretary Spencer Abraham suggested that there would be 3.5bn motor vehicles by 2050, almost four times as many as there are today. Unless there is a dramatic switch away from inefficient petrol and gas-driven cars towards biofuels, hydrogen, solar and clean electric power, this growth will be an impossibility. At the simplest level, there will not be enough oil. At the moment, oil supplies and refinery capacity can only just meet world demand from 795m vehicles.

Andrew McKillop, author of *The World's Final Energy Crisis*, calculates that China, India and other developing countries will never be able to achieve the vehicle "saturation" ownership levels of the US. "There is simply no prospect of China, India, Malaysia, Brazil, Turkey, Iran, Ukraine, Mexico and other emerging car

producers being able to achieve US, west European, Australian or Japanese rates of car production and ownership," he says. "At current consumption rates, the estimate of 3.5bn motor vehicles would increase world oil consumption by about 70%." In fact, the petrol used to fuel a car is the very end of a massive industrial process that requires oil at every point. Each car requires up to the equivalent of 55 barrels of oil, and runs on tyres that are about 40% oil by weight, often on tarmac (oil-based) roads. The real volume of oil needed to equip the world with cars is much higher than expected. "Not only is an explosion of the world car fleet a serious threat to the global environment," McKillop says, "but through its impact on oil demand, it will become a threat to international stability."

1. All these examples illustrate China's actual growth in car usage **except**:
 - (a) 'roads, once kerb-to-kerb with bikes'
 - (b) 'Shanghai could be Lagos or Cairo'
 - (c) 'widening its roads'
 - (d) 'building flyovers'
 - (e) '...no more bicycles. All cars.'

2. What is the **main cause** of the problem posed by cars today?
 - (a) The car fleets of Brazil, Indonesia, South Africa, and Nigeria.
 - (b) The level of car ownership in the US.
 - (c) 20% growth in the car industry in India.
 - (d) The level of car ownership in EU countries.
 - (e) Four million new cars in China.

3. According to the passage, why will car ownership in emerging countries not be able to reach Western levels?
 - (a) There will not be enough oil.
 - (b) People will not be able to afford the increasing costs of ownership.
 - (c) It would be too much of a threat to international stability.
 - (d) It would be too much of a threat to the global environment.
 - (e) There is already an energy crisis.

4. Which of the following, according to the passage, is a **fact**?
 - (a) Last year the Chinese bought four million new cars.
 - (b) Within 25 years there will be more cars in China than the US.
 - (c) The EU countries will not meet their Kyoto target.
 - (d) China, India and other developing countries will never be able to achieve the vehicle ownership levels of the US.
 - (e) 3.5bn motor vehicles would increase world oil consumption by about 70%.

8 Right and Wrong Language

Our problem now is, to look at some of the ways in which we are supposed to be speaking wrongly, and to see whether there really exists a choice between "right" and "wrong", and, if so, what "right" and "wrong" consist of.

Our first approach may be made through very ordinary, everyday instances of "mistakes" like *I ain't, he don't, we seen him, you done it* or *hisn*. Most of us know that these are condemned as "errors", when used instead of the corresponding *I am not* or *I'm not, he doesn't, we saw him, you did it, his*. But what is it that makes them "mistakes" or "errors"? If we drive through a traffic light, steal somebody's property, or kill someone, we know exactly what provides sanctions against these actions: the law of the land; and we know what will punish us if we disobey the law: the government. Is there any law of the land to set up rules about our speech, or any branch of the government that will enforce them? Obviously not. There are books that contain rules for speaking and writing, and there are people who will raise objections and criticize us if we fail to follow these rules; but those books and those people have no legal authority over us (outside of the rather special and limited situation in the schoolroom, where of course the teacher can give us a bad mark for not obeying the rules). Not only have they no legal authority, they have no authority whatsoever conferred on them by any power. Some countries, it is true, have had regulators of language with a kind of authority, such as the national Academies of France and Spain, which were set up by the king with the specific duty of "regulating and preserving the purity of the language". Even in those countries, very few people ever took the Academies' authority over language too seriously; but, technically speaking, their authority did exist in a way. But no such authority has ever existed in any English-speaking country, nor does it seem likely that speakers of English would ever be willing to accept the decrees of an Academy or similar institution, or of a Ministry of Education.

And yet, if we say *I ain't, you done it, or hisn*, we are likely to run into trouble. Trouble with whom? - with everybody? No. A foreigner using some completely abnormal turn of phrase, such as *this must we first do*, will confuse the ordinary speaker of English considerably, and will run no chance of finding anybody who would accept that as normal English. He would have trouble with everybody. But with *I ain't* and the like, some people would not be in the slightest upset; in fact, more than a few would find those "incorrect" forms more normal than the supposedly "correct" usage that they "ought" to be following themselves and insisting on in others. With some other people, however, our use of *he don't* and similar expressions may get us into more or less serious trouble. Our hearers may correct us on the spot, and tell us "Don't say *I ain't*, say *I'm not*; not *hisn*, but *his*"; or, even though they may not correct our usage then and there, they are nevertheless likely to hold it against us, and to allow it to determine their attitude toward us in one way or another. They may, perhaps, not consider us their social equals; they may not invite us to their home again; they may object to our marrying into their family; they may pick someone else, who says 'I'm not' and 'his', to give a job or a promotion to; or some other form of unfavorable reaction may result from our using a form or word which is the wrong one for the given situation.

1. The writer puts inverted commas round "mistakes" and "errors" because:
 - (a) he doesn't think they really are mistakes and errors
 - (b) they are used in an unusual way
 - (c) they are quotations
 - (d) he wants to draw attention to them
 - (e) he is emphasising them

2. By comparing "mistakes" in language with breaking the law, the writer is:
 - (a) suggesting that mistakes in speech ought to be taken more seriously
 - (b) pointing out that speaking incorrectly is as bad as breaking the law
 - (c) debating whether it is possible to punish those who speak incorrectly
 - (d) challenging ideas of rules about right and wrong speech
 - (e) showing that there is no authority responsible for standards in language

3. The writer uses the example of the foreigner's 'abnormal turn of phrase' primarily in order to make the point that:
 - (a) incorrect English is confusing
 - (b) using *I ain't* and similar phrases is less confusing
 - (c) using *I ain't* and similar phrases is more confusing
 - (d) we can all agree that it's incorrect English
 - (e) foreigners can't speak correct English

4. Which of the following is **not** a logical step in the writer's argument in the second paragraph?
 - (a) Why do we consider certain usages of English to be 'errors'?
 - (b) There is no legal enforcement for 'right' or 'wrong' speech.
 - (c) Schoolteachers do have the right to enforce rules about language use.
 - (d) Countries with language regulators do not take them too seriously.
 - (e) It is unlikely that English speakers would accept any kind of language usage authority.

9 A global dilemma

A famous game theory thought experiment is the prisoner's dilemma. Two convicts, P and Q, are arrested by the police. Because the police do not have enough evidence to convict either of them, they offer each of the prisoners a deal: if one testifies for the prosecution of the other and the other remains silent, the betrayer walks free and the other prisoner receives the full sentence in jail for the crime. If neither admits to the crime, they both receive a short sentence for a minor charge. If both betray each other, they both receive a medium-length sentence. Each prisoner makes his decision in isolation.

This can be compared to the global situation at the moment by replacing prisoners with countries. The table illustrates (for simplicity) two countries considering climate change.

	Country Q acts to prevent climate change	Country Q ignores climate change
Country P acts to prevent climate change	Both spend money but also both profit from end result	P has to spend more money and so its economy falls behind that of Q
Country P ignores climate change	Q has to spend more money and so its economy falls behind that of P	Problem slowly gets worse until eventually both suffer

This idea works no matter how many countries are involved: in fact the more there are the worse the problem is. It illustrates how if a lone country tries to tackle the problem (properly) on its own it will cost a lot of money and put its future at risk. More importantly, as climate change is a global issue, the work one isolated country does will help not just itself but the entire planet, meaning that everybody gains whereas only one nation has to pay. It is clear that the only possible solution is global cooperation. But world governments are unwilling to commit themselves to this. The rich and therefore dominant nations do not want to threaten their position, whilst the poor have little control and aside from this produce such a negligible fraction of world emissions that their effect on climate change is minimal. This reluctance to cut emissions stems from the same cause as the lack of real investment into new technologies: there is a global unwillingness to risk political and economic power for the sake of the environment.

This lack of cooperative action is inherently counterproductive and very damaging to the environment. In order to develop a realistic and effective approach to climate change we must go beyond the simplistic assumption that technology alone has the key. Saving the environment and realistic economics are not polar opposites, they can be made to work alongside each other. Erasing our carbon footprints and repairing the damage done should not be viewed as a menacing cost but rather as a joint economic and scientific challenge with the goal of improving the standard of living for future generations.

1. Which box in the table showing an interpretation of the prisoner's dilemma is **incorrect**?

	Prisoner Q remains silent	Prisoner Q betrays
Prisoner P remains silent	Both get less than a year in jail	Q walks free, whereas P spends many years in jail
Prisoner P betrays	P walks free, whereas Q spends many years in jail	Both receive a few years in jail

- (a) Both get less than a year in jail
 - (b) Q walks free, whereas P spends many years in jail
 - (c) P walks free, whereas Q spends many years in jail
 - (d) Both receive a few years in jail
 - (e) None of the above
2. The writer states that 'the only possible solution is global cooperation'. To what problem is the writer proposing a solution?
- (a) Damaging carbon footprints.
 - (b) Adverse climate change.
 - (c) Rising world emissions.
 - (d) Retaining realistic economies.
 - (e) Excessive economic development.

3. If one rich nation alone stopped producing emissions completely it would reduce total emissions worldwide by about 6%. According to the writer that nation would probably:
- (a) stabilise its own environment
 - (b) put a halt to global climate change
 - (c) encourage other countries to do likewise
 - (d) produce a deterioration in its own economy
 - (e) stimulate investment in new technologies

10 Thomas Aquinas

The five “proofs” asserted by Thomas Aquinas in the 13th century don’t prove anything, and are easily - though I hesitate to say so, given his eminence - exposed as vacuous. The first three are just different ways of saying the same thing, and they can be considered together. All involve an infinite regress - the answer to a question raises a prior question, and so on *ad infinitum*.

1 The Unmoved Mover

Nothing moves without a prior mover. This leads us to an infinite regress, from which the only escape is God. Something had to make the first move, and that something we call God.

2 The Uncaused Cause

Nothing is caused by itself. Every effect has a prior cause, and again we are pushed back into infinite regress. This has to be terminated by a first cause, which we call God.

3 The Cosmological Argument

There must have been a time when no physical things existed. But, since physical things exist now, there must have been something non-physical to bring them into existence, and that something we call God.

All three of these arguments rely upon the idea of an infinite regress and invoke God to terminate it. They make the entirely unwarranted assumption that God himself is immune to the regress. Even if we allow the dubious luxury of arbitrarily conjuring up a terminator to an infinite regress and giving it a name, simply because we need one, there is absolutely no reason to endow that terminator with any of the properties normally ascribed to God; omnipotence, omniscience, goodness, creativity of design, to say nothing of such human attributes as listening to prayers, forgiving sins and reading innermost thoughts.

Edward Lear’s *Nonsense Recipe for Crumboblious Cutlets* invites us to “Procure some strips of beef, and having cut them into the smallest possible pieces, proceed to cut them still smaller, eight or perhaps nine times”. Some regresses do reach a natural terminator. Scientists used to wonder what would happen if you could dissect, say, gold into the smallest possible pieces. Why shouldn’t you cut one of those pieces in half and produce an even smaller smidgin of gold? The regress in this case is decisively terminated by the atom. The smallest possible piece of gold is a nucleus consisting of exactly 79 protons and a slightly larger number of neutrons, surrounded by a swarm of 79 electrons. If you “cut” gold any further than the level of the single atom whatever else you get it is not gold. The atom provides a natural terminator to the *Crumboblious Cutlets* type of regress. It is by no means clear that God provides a natural terminator to the regresses of Aquinas.

Let's move on down Aquinas's list.

4 The Argument from Degree

We notice that things in the world differ. There are degrees of, say, goodness or perfection. But we judge these degrees only by comparison with a maximum. Humans can be both good and bad, so the maximum goodness cannot rest in us. Therefore there must be some other maximum to set the standard for perfection, and we call that maximum God.

That's an argument? You might as well say, people vary in smelliness but we can make the comparison only by reference to a perfect maximum of conceivable smelliness. Therefore there must exist a pre-eminently peerless stinker, and we call him God. Or substitute any dimension of comparison you like and derive an equivalently fatuous conclusion.

1. Which of these best sums up the idea of 'infinite regress'?
 - (a) 'There must have been a time when no physical things existed.'
 - (b) 'Something had to make the first move'
 - (c) '*ad infinitum*'
 - (d) 'Nothing is caused by itself'
 - (e) 'the only escape is God'

2. What does the writer suggest is the main flaw in these first three arguments?
 - (a) They are too similar.
 - (b) They are arbitrary.
 - (c) They only name the terminator because a name is needed.
 - (d) There is no reason to endow the terminator with god-like qualities.
 - (e) There is no evidence for the arguments.

3. What does the writer suggest is the **main difference** between the 'argument from degree' and the first three arguments?
 - (a) The argument from degree deals with questions of morality.
 - (b) The argument from degree relies on an invalid comparison.
 - (c) The argument from degree assumes we understand divine qualities.
 - (d) The argument from degree has a fatuous conclusion.
 - (e) The argument from degree doesn't rely on infinite regression.

4. What comes closest to the main argument in the paragraph which begins '*Edward Lear's Nonsense Recipe for Crumboblious Cutlets?*'
 - (a) The idea of infinite regress is nonsense.
 - (b) The concept of God as a natural terminator is meaningless.
 - (c) The concept of God as a natural terminator is unnecessary.
 - (d) Aquinas's 'regresses' are not really regresses at all.
 - (e) The atom is the natural terminator of physical substances.

11 Faith and the theologian

Theology, I have argued, cannot be content with a ghetto existence. It is not an esoteric subject intelligible only to a select group of believers. But even if it aims to be intelligible to all, should it equally welcome all men as its practitioners? Most theologians are practising members of the religion whose theology they study. But is this a necessary connection? Is faith a prerequisite for the proper prosecution of the theologian's task? And whatever the answer to that question, we still need to ask about the relation between the believing theologian's faith and his theological work.

Theology is parasitic upon religion. If there were no religious faith, there would be no theology. It would therefore be absurd to suggest that there is not or should not be a close connection between faith and theology. Moreover it is grossly misleading to suggest that an attitude of no faith represents a desirable position of neutrality. Absence of faith arises either from lack of interest in or attention to the subject (and it is difficult to regard that as an essential precondition for being a good scholar of the subject) or else it represents one particular standpoint comparable with the standpoint of faith.

The problem here is one which arises in relation to any study dealing with matters of profound human concern. Someone who is profoundly uninterested in political affairs is unlikely to make a good political scientist. But nor on the other hand is the most passionately committed party politician. The general point might be put something like this. Where there is not enough love, there is likely to be a lack of penetration into the inwardness of the subject studied. But too much love may blind a man and prevent him from seeing some of the inherent problems and difficulties. If we apply the principle to theology we may say first that where there is no inkling of faith whatever, there is likely to be a lack of sensitivity towards the issues at stake. This does not mean that every unbeliever is automatically ruled out from the possibility of having such insight, but that there is likely to be a difference between the unbeliever who has never had the temptation to believe and one who has, however successfully he may have resisted it. But on the other hand too fanatical a faith is equally unlikely to contribute to the making of the theologian.

It is not just a matter of how much faith a man has but how he has it. What is called for in the theologian who is also a man of faith, is not that he should have less faith, but that his faith should co-exist with a certain capacity for detachment. This is not an easy thing to achieve, nor is it without its dangers. It is also a very necessary one, for uncritical religion is a dangerous phenomenon.

1. The writer argues for a **necessary** link between:
 - (a) theology and faith
 - (b) religion and insight
 - (c) theology and religion
 - (d) religion and faith
 - (e) theology and belief

2. The writer contends that to be emotionally attached to one subject may lead to:
 - (a) a fanatical advocacy of the subject
 - (b) an excessive preoccupation with the subject
 - (c) an involvement only with like-minded students
 - (d) an inability to see the subject's difficulties
 - (e) a detachment from the subject's deep truths

3. Which of these quotations in their context in the passage offers support to the proposition that 'faith is a prerequisite for the proper prosecution of the theologian's task'?
 - (a) 'Most theologians are practising members of the religion whose theology they study.'
 - (b) 'This is not an easy thing to achieve, nor is it without its dangers.'
 - (c) '... too fanatical a faith is equally unlikely to contribute to the making of the theologian.'
 - (d) 'What is called for in the theologian who is also a man of faith, is ... that his faith should co-exist with a certain capacity for detachment.'
 - (e) '...uncritical religion is a dangerous phenomenon.'

12 Theories of Colour

In 1957, something singular happened. Edwin Land (already famous for his invention of the Polaroid instant camera, but also an experimenter and theorist of great audacity, indeed genius) staged a demonstration that stunned everybody who saw it and was wholly inexplicable according to classical colour theory.

Newton had shown that if one mixed coloured lights (for example, orange and yellow), one obtained something intermediate (an orange-yellow). Almost three hundred years later, Land repeated this, but he used coloured lights to project black-and-white transparencies of a still life taken through filters of these same colours. If only the yellow beam was used, one saw a monochromatic, yellow still life; if only the orange beam was used, a similar, orange monochrome. When both beams were turned on, the audience expected something intermediate, but what they saw instead was a sudden bursting into full colour, with reds, blues, greens, purples, every colour in the original still life. Impossible! An illusion!

It is indeed an illusion, but such an illusion as Goethe considered coloured shadows to be - the sort of illusion which prompted him to say, "Optical illusion is optical truth!" He was intensely aware that there was not any simple equivalence of wavelength and colour (as Newton thought), and felt that colour was not a simple sensation but an "inference" or "act of judgement." Feeling this intuitively, but wholly ignorant of what physiological mechanisms could allow such an inference, Goethe made a great error: he bypassed physiology, made a mystical leap to "the mind", and proposed an entire mental or subjective theory (or pseudo-theory) of colour.

What Land was able to do was to "save the phenomena", to re-explore the very real phenomena which so fascinated Goethe, while giving them an objective explanation such as Goethe could not (not least because the needed advances in physiology and psychophysics were only made after his death). Thus Land showed that colours are not perceived in isolation, a scene is not an aggregate of coloured points; there is, instead, a complete surveying of the scene as a whole, and a minute comparison and correlation of the sensations from each part. This involves, first, an extraction of "colour-separation" images, records of the lightness and darkness of each part of the scene as transmitted by the three different colour receptors in the retina, and then a comparison of these three "lightness records" in the brain.

It is the brain's act of comparing these three records that forms the basis of our inference or judgement of colour. Thus it is only now, with the dazzling demonstration of Land and the physiological work of Zeki (who has shown the area of the brain where such "inferences" are made) that Goethe's insights have been confirmed.

1. Seeing colour, the writer claims, is now recognised as being
 - (a) a wholly subjective phenomenon
 - (b) a pseudo-scientific phenomenon
 - (c) an explicable physiological phenomenon
 - (d) no more than an optical illusion
 - (e) a mysterious 'influence' in the brain

2. The modern theory of colour vision depends on
 - (a) classical theories for mixing coloured lights
 - (b) Edwin Land's experiments with coloured filters
 - (c) the brain's recognition of light's different wavelengths
 - (d) a comparison of recorded lightness levels in the brain
 - (e) the perception of colour by different receptors in the retina

3. Goethe realized that his observations of 'coloured shadows'
 - (a) represented a physiological mystery
 - (b) were inexplicable on current theories
 - (c) needed an advance in psychophysics
 - (d) suggested a mental theory of colour
 - (e) meant colour was a simple sensation

Section B: Essay

Answer ONE of the following questions.

Your answer should be a reasoned and substantiated argument which justifies your response to the question.

1. In what circumstances should abortion be permitted and why?
2. Would you agree that travel and tourism exploit poorer nations and benefit only the richer ones?
3. The Olympic games, today, are less a test of personal athleticism and more a measure of national investment and authority. Do you agree?
4. Wearing a burkha in Western countries is just as offensive as wearing a bikini in Arab countries. Do you agree?
5. 'Women now have the chance to achieve anything they want.' How do you respond to this statement?