

IELTSFever Academic IELTS Reading Test 165

Reading Passage 1

You should spend about 20 minutes on Questions 1-13, which are based on the IELTSFever Academic IELTS Reading Test 165 How Mobile Telephony Turned into a Health Scare below.

How Mobile Telephony Turned into a Health Scare

{A} The technology which enabled mobile phones was previously used in the kind of two-way radio which could be found in taxis and emergency vehicles. Although this was a great development, it was not really considered mobile telephony because it could not be used to dial into existing phone networks. It was known as simplex technology, operating on the same principles as a walkie-talkie, which required that a user press a button, meaning that only one person at a time could talk. Simplex meant that there was only one communication frequency in use at any one time.

{B} The first mobile phones to connect to telephone networks were often installed in cars before the hand-held version came on the market and the revolution in mobile technology began. The first generation of mobile phones (called 1G) was large, heavy and analogue and it was not until the invention of the second generation (2G) in the 1990s that digital networks could be used. The digital element enabled faster signalling. At the same time, developments in battery design and energy-saving electronics allowed the phones themselves to become smaller and therefore more truly mobile. The second generation allowed for text messaging too, and this began with the first person-to-person text message in Finland in 1993, although a machine-generated text message had been successfully sent two years earlier.

{C} None of this would have been possible without the development of duplex technology to replace the relatively primitive simplex technology of the first phase of mobile communication. In duplex technology, there are two frequencies available simultaneously. These two frequencies can be obtained by the principle of Frequency Division Duplex (FDD). To send two signals wirelessly, it is necessary to create a paired spectrum, where one band carries the uplink (from phone to antenna) and the other carries the downlink (from the antenna to phone). Time Division Duplex (TDD) can achieve the same thing, but instead of splitting the frequency, the uplink and downlink are switched very rapidly, giving the impression that one frequency is used.

{D} For mobile telephony to work to its fullest potential, it needs to have a network through which it can relay signals. This network depends on base stations which send and receive the signals. The base stations tend to be simple constructions, or masts, on top of which are mounted the antennas. With the rapid increase in demand for mobile services, the infrastructure of antennas in the United Kingdom is now huge. Many thousands of reports have appeared claiming that the signals relayed by these antennas are harmful to human and animal health. The claims focus on the fact that the antennas are transmitting radio waves in microwave form. In some ways, public demand is responsible for the increase in the alleged threat to health. Until quite recently, voice and text messages were transmitted using 2G technology. A 2G mast can send a low-frequency microwave

signal approximately 35 kilometres. Third generation (3G) technology allows users to wirelessly download information from the internet and is extremely popular. The difference is that 3G technology uses a higher frequency to carry the signals, allowing masts to emit more radiation. This problem is intensified by the need to have masts in closer proximity to each other and to the handsets themselves. Whatever danger there was in 2G signals is greatly multiplied by the fact that the 3G masts are physically much closer to people.

{E} Government authorities have so far refused to accept that there is a danger to public health, and tests carried out by governments and telecommunications companies have been restricted to testing to see if heat is being produced from these microwaves. According to many, however, the problem is not heat, but electromagnetic waves which are found near the masts. It is believed that some people, though not all, have a condition known as electro-sensitivity or electro-hypersensitivity (EHS), meaning that the electromagnetism makes them ill in some way. The actual health threat from these pulsed microwave signals is an area which greatly needs more research. It has been claimed that the signals affect all living organisms, including plants, at a cellular level and cause symptoms in people ranging from tiredness and headaches to cancer. Of particular concern is the effect that increased electromagnetic fields may have on children and the fear is that the negative effects on their health may not manifest themselves until they have had many years of continued exposure to high levels.

{F} Tests carried out on animals living close to this form of radiation are particularly useful because scientists can rule out the psychological effect that humans might be exhibiting due to their fear of possible contamination. Of course, the danger of exposure exists when using a mobile phone but since we do this for limited periods, between which it is believed our bodies can recover, it is not considered as serious as the effect of living or working near a mast (sometimes mounted on the very building we occupy) which is transmitting electromagnetic waves 24 hours a day.

Questions 1-6

Answer the questions below.

Write **NO MORE THAN THREE WORDS** for each answer.

- (1) What were early two-way radios unable to use?
- (2) What did you have to do in order to talk on the radio using simplex technique?
- (3) Where were early mobile phones generally used?
- (4) What development introduced digital technology into mobile telephony?
- (5) Apart from the area of electronics, in which area did developments help make phones more mobile?
- (6) What type of text message was the first one ever sent?

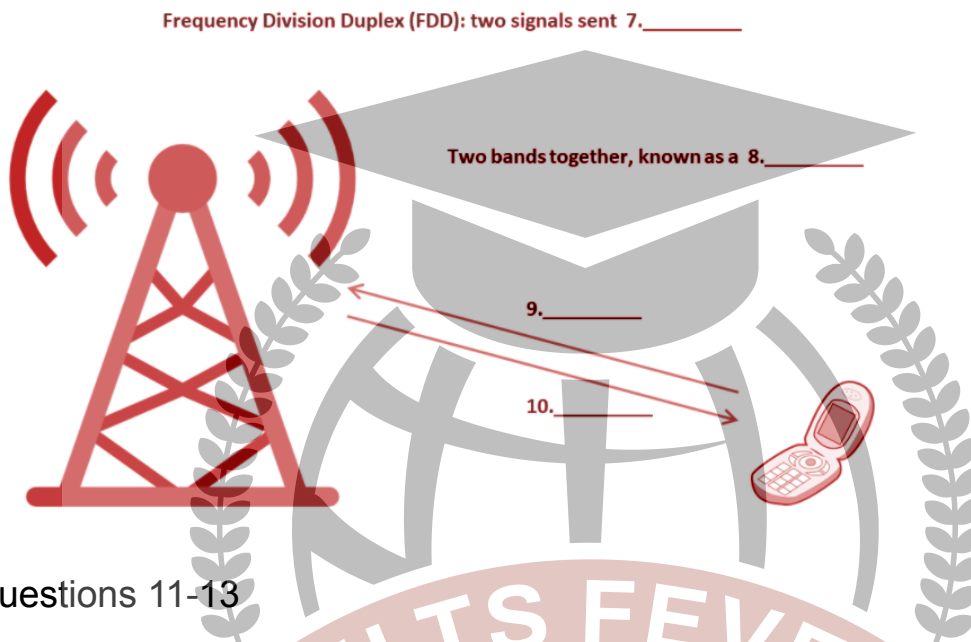
Questions 7-10

Complete the diagram.

Choose **NO MORE THAN TWO WORDS** from the IELTSFever Academic IELTS Reading Test 165 passage for each answer.

Frequency Division Duplex (FDD) two signals sent (7) _____

Two bands together, known as a (8) _____



Questions 11-13

Choose the correct letter, A, B, C or D.

Question 11. 3G technology is believed to be more of a threat to health because

- (A). the signals are transmitted over much greater distances than before.
- (B). The masts are closer together and emit higher frequencies.
- (C). The signals are carrying both voice and text messages.
- (D). the modern handsets needed to emit more radiation.

Question 12. Why might the testing of animals give us more reliable results?

- (A). because most of them live closer to the masts
- (B). because they are continually exposed to higher levels of radiation
- (C). because they are not affected at a cellular level
- (D). because they are not afraid of the effects of radiation

Question 13. What is believed to limit the danger from mobile phones?

- (A). not using them continuously
- (B). turning them off when not in use
- (C). mounting a mast on the building where you live or work
- (D). keeping healthy and getting enough sleep

Reading Passage 2

You should spend about 20 minutes on Questions 14-26, which are based on the IELTSFever Academic IELTS Reading Test 165 Reading Passage How to run a... below.

How to run a...

Publisher and author David Harvey on what makes a good management book.

{A} Prior to the Second World War, all the management books that had ever been written could be comfortably stacked on a couple of shelves. Today, you would need a sizable library, with plenty of room for expansion to house them. The last few decades have seen the stream of new titles swell into a flood. In 1975, 771 business books were published. By 2000, the total for the year had risen to 3,203, and the trend continues.

{B} The growth in publishing activity has followed the rise and rise of management to the point where it constitutes a mini-industry in its own right. In the USA alone, the book market is worth over \$1 billion. Management consultancies, professional bodies and business schools were part of this new phenomenon, all sharing at least one common need: to get into print. Nor were they the only aspiring authors. Inside stories by and about business leaders balanced the more straight-laced textbooks by academics. How-to books by practising managers and business writers appeared on everything from making a presentation to developing a business strategy. With this upsurge in output, it is not really surprising that the quality is uneven.

{C}. Few people are probably in a better position to evaluate the management canon than Carol Kennedy, a business journalist and author of Guide to the Management Gurus, an overview of the world's most influential management thinkers and their works. She is also the books editor of The Director. Of course, it is normally the best of the bunch that are reviewed in the pages of The Director. But from time to time, Kennedy is moved to use The Director's precious column inches to warn readers off certain books. Her recent review of The Leader's Edge summed up her irritation with authors who over-promise and under-deliver. The banality of the treatment of core competencies for leaders, including the 'competency of paying attention', was a conceit too far in the context of a leaden text. 'Somewhere in this book,' she wrote, there may be an idea worth reading and taking note of, but my own competency of paying attention ran out on page 31.' Her opinion of a good proportion of the other books that never make it to the review pages is even terser. 'Unreadable' is her verdict.

{D}. Simon Caulkin, contributing editor of the Observer's management page and former editor of Management Today have formed a similar opinion. A lot is pretty depressing, unimpressive stuff.' Caulkin is philosophical about the inevitability of finding so much dross. Business books, he says, 'range from total drivel to the ambitious stuff. Although the confusing thing is that the really ambitious stuff can sometimes be drivel.' Which leaves the question open as to why the subject of management is such a literary wasteland. There are some possible explanations.

{E}. Despite the attempts of Frederick Taylor, the early twentieth-century founder of scientific management, to establish a solid, rule-based foundation for the practice, management has come to be seen as just as much an art as a science. Once psychologists like Abraham Maslow, behaviorists and social anthropologists persuaded business to look at management from a human perspective, the topic became more multidimensional and complex. Add to that the requirement for management to reflect the changing demands of the times, the impact of information technology and other factors, and it is easy to understand why management is in a permanent state of confusion. There is a constant requirement for reinterpretation, innovation and creative thinking: Caulkin's ambitious stuff. For their part, publishers continue to dream about finding the next big management idea, a topic given an airing in Kennedy's book. The Next Big Idea.

{F}. Indirectly, it tracks one of the phenomena of the past 20 years or so: the management blockbusters which work wonders for publishers' profits and transform authors' careers. Peters and Waterman's In Search of Excellence: Lessons from America's Best-Run Companies achieved spectacular success. So did Michael Hammer and James Champy's book. Reengineering the Corporation: A Manifesto for Business Revolution. Yet the early euphoria with which such books have greeted tends to wear off as the basis for the claims starts to look less than solid. In the case of In Search of Excellence, it was the rapid reversal of fortunes that turned several of the exemplary companies into basket cases. For Hammer's and Champy's readers, disillusion dawned with the realisation that their slash-and-burn prescription for reviving corporate fortunes caused more problems than it solved.

{G}. Yet one of the virtues of these books is that they could be understood. There is a whole class of management texts that fail this basic test. 'Some management books are stuffed with jargon,' says Kennedy. 'Consultants are among the worst offenders.' She believes there is a simple reason for this flight from plain English. 'They all use this jargon because they can't think clearly. It disguises the paucity of thought.'

{H}. By contrast, the management thinkers who have stood the test of time articulate their ideas in plain English. Peter Drucker, widely regarded as the doyen of management thinkers, has written a steady stream of influential books over half a century. 'Drucker writes beautiful, dear prose,' says Kennedy, 'and his thoughts come through.' He is among the handful of writers whose work, she believes, transcends the specific interests of the management community. Caulkin also agrees that Drucker reaches out to a wider readership. 'What you get is a sense of the larger cultural background,' he says. 'That's what you miss in so much management writing.' Charles Handy, perhaps the most successful UK business writer to command an international audience, is another rare example of a writer with a message for the wider world.

Questions 14-15

Choose the correct letter, A, B, C or D. Write your answers in boxes 14 and 15 on your answer sheet.

Question 14. What does the writer say about the increase in the number of management books published?

- (A). It took the publishing industry by surprise.
- (B). It is likely to continue.
- (C). It has produced more profit than in other areas of publishing.
- (D). It could have been foreseen.

Question 15. What does the writer say about the genre of management books?

- (A). It includes some books that cover topics of little relevance to anyone.
- (B). It contains a greater proportion of practical than theoretical books.
- (C). All sorts of people have felt that they should be represented in it.
- (D). The best books in the genre are written by business people.

Questions 16-20

Reading Passage 1 has eight paragraphs A-H.

Which paragraph contains the following information?

Write the correct letter A-H in boxes 16-20 on your answer sheet.

- (16). reasons for the deserved success of some books
- (17). reasons why managers feel the need for advice
- (18). a belief that management books are highly likely to be very poor
- (19). a reference to books not considered worth reviewing
- (20). an example of a group of people who write particularly poor books

Questions 21-26

Look at the statements (Questions 21-26) and the list of books below.

Match each statement with the book it relates to.

Write the correct letter A-E in boxes 21-26 on your answer sheet.

NB You may use any letter more than once.

- (21). It examines the success of books in the genre.
- (22). Statements made in it were later proven incorrect.
- (23). It fails to live up to claims made about it.
- (24). The advice given in it is seen to be actually harmful.
- (25). It examines the theories of those who have developed management thinking
- (26). It states the obvious in an unappealing way.

List of Books

- (A) Guide to the Management Gurus
- (B) The Leader's Edge
- (C) The Next Big Idea
- (D) In Search of Excellence
- (E) Reengineering the Corporation

Reading Passage 3

You should spend about 20 minutes on Questions 27-40, which are based on the IELTSFever Academic IELTS Reading Test 165 Reading Passage *Diprotodon, human, Pleistocene & modern wombat skeletons* below.

Diprotodon, human, Pleistocene & modern wombat skeletons

Imagine a bird three times the size of an ostrich, or a burrowing animal as big as an elephant. How about a kangaroo three metres tall? Such creatures were all Australian megafauna, alive during the Pleistocene.¹

Fifteen million years ago, 55 species of megafauna were widespread in Australia, the largest of which was the marsupial diprotodon, weighing around 2700 kilograms (5952 lb). Giant snakes, crocodiles, and birds were also common. Wombats and kangaroos reached more than 200 kg (440 lb), and even koalas weighed 16 kg (35 lb). Then, rather suddenly, around 46 thousand years ago (46 kyr), all these animals became extinct. Some scientists claim this was due to environmental pressures, like climate change or fire; others favour predation.³

At the end of the Pleistocene, humans reached Australia via Indonesia, and, according to the archaeological record, by 45 kyr their settlement was widespread. One hundred and sixty archaeological sites in Australia and New Guinea have been surveyed. There is some disagreement about the dates of these sites; meantime, a forceful movement aims to push human settlement back before 45 kyr.

Dating the rare bones of megafauna was highly controversial until 20 years ago when a technique called optically stimulated luminescence (OSL) was developed. With OSL, the age of minerals up to 200 kyr can be established with + / - 10% accuracy. The largest OSL dating of megafauna was carried out in 2001 by Roberts, who put the extinction date for megafauna at around 46 kyr, very early on in the time of human habitation.

Megafaunal bones are rare enough, but, at archaeological sites with human habitation, they are extremely rare with fewer than 10% of the 160 sites containing them. Bones that show cutting, burning, or deliberate breaking by humans are virtually non-existent, and thus far, not one megafaunal skeleton showed conclusively that an animal was killed by humans. There are no 'kill sites' either whereas, in New Zealand, where the giant moa bird became extinct in the 18th century due to hunting, there are sites with hundreds of slaughtered creatures. As a result, many scientists still believe that humans were not responsible for megafaunal extinction – especially as the weapons of Australian Aborigines at 45 kyr were only wooden clubs and spears.

There is, perhaps, a cultural record of megafauna in Aboriginal myths. The Adnyamathanha people of South Australia tell of the Yamuti, something like a diprotodon. An ancient rock painting in Arnhem Land shows an extinct giant echidna. But this record is small and open to interpretation.

If the Aborigines were not technologically advanced enough to kill them, what else might have destroyed megafauna? One theory has been climate change – perhaps there was a relatively hot, dry period between 60-40 kyr. Research suggests otherwise. Indeed, at 40 kyr, the climate was moderate, and Lake Eyre, in central Australia, grew. If there was desertification, scientists would expect megafauna to have moved towards the coast, looking for food and water, but instead, the fossil record details an equal distribution of the dead inland and on the coast.

In addition, changes in specific vegetation occurred after the extinction of the megafauna. Trees that relied on large animals to eat their fruit and disperse their seed covered far smaller areas of Australia post 40 kyr. These plants were not threatened by climate change; rather, they died off because their megafaunal partners had already gone.

Typically, climate change affects almost all species in an area. Yet, around 46 kyr, only the megafauna died. Previously, there had been many species of kangaroo, some as heavy as 200 kg (440 lb), but, after, the heaviest weighed only 32 kg (70 lb). This phenomenon is known as dwarfing, and it occurred with many animals in the Pleistocene.

Dwarfing has been studied extensively. In 2001, Law published research related to fish farming. Despite excellent food and no predators, farmed fish become smaller as generations continue. This adaptation may be a response to their being commercially useless at a smaller size, meaning they hope to survive the harvest. Of the dwarf marsupials, the most notable development over the giants was their longer reproductive lives, which produced more young. They were better runners as well, or, those that were slow-moving retreated to the mountainous forest, beyond the reach of humans.

If climate change isn't a credible factor in extinction, what about fire? Fire is caused naturally by lightning strikes as well as by humans with torches. Surprisingly, the charcoal record for many thousands of years does not show a marked increase in fire after human habitation of Australia – there is only a slow increase over time. Besides, it could be argued that forest fires aid megafauna since grass, their favoured food, invariably replaces burnt vegetation.

Johnson, an archaeologist, has proposed that the Aborigines could have wiped out all 55 megafaunal species in just a few thousand years. He believes that the 45 kyr human settlement date will be pushed back to make this extinction fit, and he also maintains that 700 years are enough to make one species extinct without large-scale hunting or sophisticated weapons. Johnson used computer modelling on a population of only 1000 animals to demonstrate this. If just 30 animals are killed a year, then the species becomes extinct after 520-700 years. Human populations in Australia were small at 45 kyr – only 150 people occupied the same 500 square kilometres as 1000 animals. However, at a rate of killing just two animals a year by each group of ten people, extinction is highly likely.

A recent study on the albatross has shown the bird has almost disappeared due to females' occasionally being hooked on fishing lines. A large number of animals do not need to be killed to effect extinction especially if an animal breeds late and infrequently like the albatross and like megafauna.

- (1) A period of 2.6 million-10,000 years ago.
- (2) This mammal, like a kangaroo, keeps its very young baby in a pouch.
- (3) The killing of a group or groups of animals by another group.

Questions 27-30

Complete each sentence with the correct ending, A-G, below.

Write the correct letter, A-G, in boxes 27-30 on your answer sheet.

- (27) Many animals in the Pleistocene were
 (28) Australian megafauna became extinct
 (29) The figure 45 kyr refers to
 (30) OSL represented

- (A) Surprisingly swiftly.
 (B) optically stimulated luminescence.
 (C) over a long period of time.
 (D) considerably larger than their modern equivalents.
 (E) the date of megafaunal disappearance.
 (F) human habitation of Australia.
 (G) a breakthrough in dating technology.

Questions 31-34

Choose **NO MORE THAN TWO WORDS** from the IELTSFever Academic IELTS Reading Test 165 passage for each answer.

Write your answers in boxes 31-34 on your answer sheet.

- (31) 'Kill sites' for moas have been found in , but no equivalents have been found for megafauna in Australia.
 (32) It seems unlikely megafaunal extinction was caused by
 (33) Modern kangaroo species bear more than megafaunal species.
 (34) Johnson does not think it is strange that megafaunal with proof of hunting have not yet been found.

Questions 35-39

Look at questions 35-39 and the list of people below.

Match each statement with a person or group of people.

Write the letters in boxes 35-39 on your answer sheet.

List of people

(A) The Adnyamathanha

(B) Johnson

(C) Law

(D) Roberts

Question 35 This scientist used reliable dating techniques to propose a likely extinction date for megafauna.

Question (36) These people have a mythical description of a creature like a diprotodon.

Question (37) This scientist drew on data from fish farming to understand dwarfing.

Question (38) This person believes dates will be revised so that the period between human settlement in Australia and the extinction of megafauna is longer.

Question (39) This scientist developed a theory that even with basic weapons, Aborigines made megafauna extinct.

Question 40

Choose the correct letter: A, B, C, D, or E.

Write the correct letter in box 40 on your answer sheet.

Which of the following is the most suitable title for IELTSFever Academic IELTS Reading Test 165 Reading Passage 3?

- (A) The rise and fall of giant mammals in Australia
- (B) Is a koala still cute at 16 kilograms?
- (C) Climate change: killer of Australian megafauna
- (D) Modern research techniques solve an archaeological puzzle
- (E) Invisible hunters caused mass extinctions