Level Three ‘Extensive Preview’ Reading Passages for the Midterm Exam

# The plastic bag that disappears

***Instructions: Write the answers in the right column. The first one has already been done for you.***

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| 1. Some environmentalists have called for a total ban on plastic bags and when you look at the figures for their production, you can understand why. The UAE, is a relatively small country, and yet here some 48 million plastic bags are made every month at just one factory, Al Ain Plastics. This amounts to 600 tonnes worth of plastic bags, produced, consumed and, probably, thrown away every month. If these are the figures for one factory in a small country, what are the figures for the whole world? An accurate answer is difficult to find but estimates range from 500 billion to 1 trillion per year. What is more, plastic bags can take up to 1,000 years to biodegrade. These rates of production coupled with the incredibly long life of these bags add up to an environmental nightmare. | 1.1 Which two words mean ‘complete stop’ ***total ban***  1.2 How often are 48 million plastic bags produced by the factory? \_\_\_\_\_\_\_\_\_\_  1.3 How many plastic bags are produced in the world each year? \_\_\_\_\_\_\_\_\_\_  1.4 Write 1 trillion in numbers: \_\_\_\_\_\_\_\_\_\_  1.5 Which word means to *break down* *into tiny pieces*?  1.6 The two problems are how \_\_\_\_\_\_\_\_\_\_ plastic bags there are and how \_\_\_\_\_\_\_\_\_\_ they last. |
| 2. In the UAE, this issue was brought vividly to the public’s attention when the fate of wild camels came to light. Many of them eat plastic bags, thinking that they are food. Apparently, the bags do a good job of killing the camels’ appetite but unfortunately, over time, they also kill the camels since they form large indigestible balls in the camels’ stomachs, which prevent the ingestion of real food and eventually starve the camels to death. Obaid Al Matroushi, Director General of the Ministry for Environment and Water, said recently that it is estimated that one out of every two camels in the desert die in this way. | 2.1 T/F/NG? The camels stop feeling hungry.  2.2 T/F/NG? It is good that the camels stop feeling hungry.  2.3 T/F/NG One man says half of the desert camels die from eating plastic bags. |
| 3. To help deal with this problem, the plastics industry has come up with an additive that breaks down the plastic bag totally. The plastic is mixed with a small amount of an additive called d2w. This causes them to become *oxo-biodegradable.* Unlike normal plastic bags, oxo-biodegradable carriers disintegrate into nothing more than water, carbon dioxide and a very small amount of biomass.The bags degrade completely, regardless of location or environmental conditions, and have a pre-programmed lifespan of a few months rather than a thousand years. | 3.1 What is the name of the solution to the problem? \_\_\_\_\_\_\_\_\_\_  3.2 The new plastic bags break down into how many things? \_\_\_\_\_\_\_\_\_\_  3.3 How long do the old plastic bags last? \_\_\_\_\_\_\_\_\_\_ |
| 4. Al Ain Plastics factory recently partnered with Wells Plastics from the UK to supply them with the additive, which they call Reverte. "We've been giving quotes for two types of bag - normal and oxo-biodegradable. The difference in cost is just 25 fils per kilo”, said Kausar Ali Shah, procurement officer at Al Ain Plastics. Even then not everybody opts for oxo. "It is not easy to convince people, even though it is in our interest and in the environment's interest. It is their choice but it will work better when they don't have a choice. Hypermarkets are easier to convince, they are also more educated. Smaller chains or independent stores have smaller budgets." | 4.1 What is the British company’s name for ‘d2w’? \_\_\_\_\_\_\_\_\_\_  4.2 T/F/NG? The new bags each cost 25 fils more. \_\_\_\_\_\_\_\_\_\_  4.3 T/F/NG According to the article, all shops have chosen the new oxo-biodegradable bags. \_\_\_\_\_\_\_\_\_\_ |
| 5. Al Ain Plastics now boasts that 60 per cent of its production is made to biodegrade and disappear. Big supermarket chains like Carrefour, Safeer and Lulu and some cooperatives make up the bulk of Al Ain Plastic's clientele. Carrefour orders 100 tonnes, Safeer in Sharjah orders between 20 to 25 tonnes and Lulu supermarkets in Al Ain is down for between 15 to 20 tonnes. These supermarkets and others, such as Megamart, Cooperative and Geant have already switched entirely to the new biodegradable bags. If you do your shopping there, you will find a statement printed in green on their plastic bags that they are OXO-biodegradable. | 5.1 T/F/NG? More than half of the bags from Al Ain Plastics are the new type of bags. \_\_\_\_\_\_\_\_\_\_  5.2 How many big stores are mentioned? \_\_\_\_\_\_\_\_\_\_  5.2 Which store takes about 23 tonnes of bags? \_\_\_\_\_\_\_\_\_\_ |
| 6. Other shops and supermarkets will probably wait until legislation comes through at a federal level, according to Shah. By 2013, non-biodegradable plastic shopping bags will be banned throughout the UAE. Ajman Emirate has already banned them, making them illegal in June 2010. | 6.1 T/F/NG? The old type of bags is called ‘non-biodegradable’. \_\_\_\_\_\_\_\_\_\_  6.2 Which part of the UAE was the first to stop the old, dangerous type of bags? \_\_\_\_\_\_\_\_\_\_ |
| 7. Some other countries recognized the need to do something about plastic bags earlier than the UAE. In South Africa, where a common joke was to call the plastic bag, the ‘national flower’, the government passed legislation in 2007 requiring supermarkets to make plastic bags more durable and more expensive. Since then there has been a 90% drop in plastic bag production. The Irish also had a humorous name for the plastic bag – they called it the ‘national flag’. There the government acted even earlier, imposing a tax of 15 Eurocents per bag in 2002. This led to a 95% reduction in their use. | 6.3 T/F/NG Both Ireland and South Africa made plastic bags more expensive. \_\_\_\_\_\_\_\_\_\_  6.4 T/F/NG Both Ireland and South Africa made plastic bags that last longer. \_\_\_\_\_\_\_\_\_\_ |
| 8. Hopefully, other countries will soon follow these examples. In the 1990’s it was discovered that there is a ‘soup’ of plastic trash floating in the Pacific Ocean between America and Japan. This patch of ‘plastic soup’ is the size of Texas. Much of this is made up of plastic bags. Millions of sea creatures every year are killed by ingesting or getting tangled up with plastic. It is thought that the near disappearance of sea turtles in many oceans is the result of plastic bags, since they mistake them for jellyfish, which make up a large part of their diet. Like the camels in the deserts of the UAE, they eat them and die. | 8.1 T/F/NG There is a lot of soup in the Pacific Ocean. \_\_\_\_\_\_\_\_\_\_  8.2 T/F/NG There are a lot of plastic bags in the Pacific Ocean \_\_\_\_\_\_\_\_\_\_  8.3 Which animals eat plastic bags and die in the Pacific Ocean? \_\_\_\_\_\_\_\_\_\_ |

Adapted from Gulf News, The Khaleej Times and Worldwatch. Org

Words: 804 FK: 10.3

<http://www.khaleejtimes.com/DisplayArticle08.asp?xfile=data/theuae/2010/February/theuae_February160.xml&section=theuae>

<http://gulfnews.com/news/gulf/uae/environment/the-plastic-bag-that-disappears-1.57525>

<http://www.worldwatch.org/node/1499>

2. Were Humans Born to Run?

***Instructions: Highlight the answers. The first one is already done for you.***

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| 1. Compared to cheetahs, whose bursts of speed reach 70 miles per hour, we humans must seem lead-footed homebodies. As big as we are, we cannot seem to catch a cat or dog or even a chicken unless we can corner it or trick it. | 1.1 The fastest land animals.  1.2 Two words that mean ‘slow people that don’t go far’. |
| 1. But are we underestimating ourselves? University of Utah biologist Dennis Bramble and Harvard University paleoanthropologist Daniel Lieberman think so. In fact, they maintain that decades of research indicates that humans are very good runners indeed - perhaps the best in the world – when the distance gets long and the weather gets hot. | 2.1 Two scientists.  2.2 Humans may be the best at running a \_\_\_\_\_\_\_\_\_\_ way in \_\_\_\_\_\_\_\_\_\_ temperatures. |
| 1. To understand how they can make this claim, let’s consider what humans can do. The very best long-distance runners can run five-minute miles for several hours. These efforts are amazing achievements, but even the casual jogger can often keep up an 8-10 minute a mile pace for several miles. Only a few animals of similar weight – large dogs, hyenas, wolves, and wildebeests – are capable of maintaining such speeds and actually prefer to trot a bit slower. Even a thousand-pound horse will not cover long distances any faster than a good recreational jogger. | 3.1 Only the \_\_\_\_\_\_\_\_ can run at 12 miles per hour for more than two hours.  3.2 An ordinary runner  3.3 Fit humans can run as far and fast as these 5 animals. |
| 4. And in hot weather, humans may hold a decided advantage. One of the most incredible feats of human endurance is the annual race from Badwater to Mt. Whitney. The race begins in Death Valley, California, at an elevation 285 feet below sea level, in July, the hottest month of the summer. The runners run 135 miles, crossing several mountain ranges with a cumulative elevation of 8,360 feet at the Whitney Portal trailhead, about halfway up the 14,440 foot mountain. Each year approximately 75 men and women enter the race with 60-80% finishing within 60 hours and with the winning time usually well under 30 hours. Despite temperatures reaching 130⁰F, there have been no fatalities so far. These men and women can probably outrun any animal on the planet. | 4.1 The place where the race starts.  4.2. The place where it ends.  4.3. How far it is.  4.4. Lines of mountains  4.5 Most runners finish in \_\_\_\_\_\_\_\_\_\_ hours.  4.6 These runners can run faster for longer than any \_\_\_\_\_\_\_\_\_\_. |
| 5. What makes it possible for these people to undergo such an ordeal? It turns out that humans are beautifully designed to run long distances in hot weather. Long-distance running requires the ability to keep from overheating, and we humans have several advantages in this regard. First, we release heat by sweating through millions of sweat glands rather than through panting. And because we have no fur, sweat evaporates quickly. Our upright posture also helps immensely by exposing less area to direct sunlight and more surface area to the cooling effect of the wind we create as we run. We humans are the best at keeping cool – this is why we can run so far in the heat. | 5.1 One big advantage is that we keep cool by \_\_\_\_\_\_\_\_\_\_ and standing \_\_\_\_\_\_\_\_\_\_. |
| 6. But cooling is not enough to explain our speed over long distances. A second advantage is our long stride. When Professor Bramble filmed his student David Carrier running alongside a horse moving at an easy gallop, he noticed that Carrier took fewer strides than the horse, indicating that Carrier’s strides covered more distance than the horse’s. Bramble was surprised by this and began considering what elements of human biomechanics make this possible. | 6.1 Another advantage is that our steps are \_\_\_\_\_\_\_\_\_\_.  6.2 The name of the runner.  6.2 A word for a ‘horse’s run’.  6.3 Whose strides were shorter? |
| 7. It turns out that walking is a distinctively different motion than running. When walking we use our legs as levers and supports, but when running, the legs also become large springs. We land more heavily than when walking. The force from this hard landing is captured by the tendons of the foot and leg, particularly the Achilles tendons, which spring us forward as the tendons recoil. According to Bramble, these huge, springy tendons are not necessary for walking. | 7.1 Running is not the same as \_\_\_\_\_\_\_\_\_\_.  7.2 Things that store energy and release it quickly.  7.3 Things which connect muscles and bones.  7.4. Connectors in our heels. |
| 8. Huge springy tendons explain where the energy comes from, but how do humans maintain their balance and keep from falling over? All other two-legged animals that run fast, such as kangaroos and roadrunners, have large tails that serve as a counterweight to keep the animal balanced. We have no tails, so how do we do it? Motion studies of runners on treadmills suggest that the large muscles that we call the *buttocks* are the answer. They are the two largest muscles in our bodies. These muscles, whose scientific name is the *glutei maximi*, connect our hips to our lower back. These muscles do not do much when we walk, but they work very hard when we run. Dr Bramble explains that the main role of these muscles is to hold our body upright and stop it from going too far forward when our foot hits the ground and by this means we are able to run on two legs without the aid of a tail. | 8.1. What keeps us standing up.  8.2 What most other two-legged animals have but we don’t.  8.3 Glutei maximi are our biggest \_\_\_\_\_\_\_\_\_\_. |
| 9. Other anatomical features that facilitate running are our long necks and our shoulders. We are able to twist our shoulders without moving our head, allowing us to pump our arms as another steadying mechanism that helps counterbalance our head and keep it upright. | 9.1 Three more parts of our bodies that help us to run. |
| 10. Scientists are not sure why it is that we have become such good runners. It could be because in the not so distant past it helped us to hunt or scavenge over long distances. It could be that our running ability is a by-product of other abilities, like the ability to climb trees, to stand up quickly or to fight. Whatever the answer, it is clear from those Badwater-to-Whitney runners, and the hundreds of thousands of people that enter the marathons held in cities throughout the world, that humans were born to run. | 10.1 Two words that mean ‘look for food’.  10.2 Four abilities.  10.3 One word for long running races |

Adapted from ‘Born to Run’, by Kent Richmond, ‘’Inside Reading’’, OUP, 2009.and ‘Born to Run’, by Ingfei Chen, Discovery Magazine: <http://discovermagazine.com/2006/may/tramps-like-us> Words: 882 FK: 9.9

The big bang that could end it all

***Highlight T F NG for True, False or Not Given for each question. The first on has already been done for you.***

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| A.  In 2002 a 300-metre-wide rock, an asteroid, traveling through space was heading for earth at a speed of several thousand kilometers per second. It missed, but it was worryingly close. This led to calls for an international plan to guard against the world’s worst possible eco-disaster – the high speed impact of an asteroid. Every day, small objects, meteorites, hit the earth. Astronomers have known for a long time that larger objects from space occasionally hit our planet too, and cause massive destruction. Indeed, this is probably what caused the extinction of dinosaurs 65 million years ago. | A.1 An asteroid is a big space-rock.  T F NG  A.2 About 11 years ago a space rock almost hit the earth.  T F NG  A.3 Meteorites rarely hit the earth.  T F NG |
| B.  Direct hits by large space rocks are very rare, but they are not unknown. In 1908, thousands of square kilometers of Siberian forest were flattened when an asteroid the size of a 10 storey building exploded over the tundra with the power of a 15-megaton bomb. Fortunately, this happened in a region with a very small population so the number of deaths was low. | B.1 An asteroid destroyed lots of trees in Siberia.  T F NG  B2 A space rock flattened a 10-storey building.  T F NG  B3. A large bomb killed a small number of people there.  T F NG |
| C.  Scientists believe that explosions of this size happen somewhere on Earth once or twice a century. However, they are more worried about bigger bangs. If a one-kilometer-wide asteroid struck at a typical speed of 30 kilometers per second, the effects would be disastrous. The strike would make a crater 20 kilometers across, and send huge quantities of dust and rock into the atmosphere. Molten and burning debris would rain down all over the world causing great firestorms. The shock would cause a super-hurricane that would flatten buildings for thousands of kilometers. As the sun would be blocked for months by the dust in the atmosphere, a world-wide winter would follow, causing massive crop failures and famine. It would be even worse if the same object fell into the sea; tsunamis hundreds of feet high would be created, flooding coastal cities throughout the world. | C.1 Asteroids can hit the Earth every 50 to 100 years or so.  T F NG  C.2 If a one-kilometer asteroid hit us, it would cause a lot of damage to the whole world.  T F NG  C.3 One effect would be global food shortages.  T F NG |
| D.  Astronomers believe about 1000 asteroids of a kilometer or more in size are currently crossing the Earth’s orbit; each one could be a killer. Strikes from asteroids are completely unpredictable. On average, our planet takes a hit from one of them every 100,000 years or so. This means that there is about a million-to-one chance that a billion people will die this month from a crashing asteroid. | D1 We know when a large asteroid will hit.  T F NG |
| E.  For years astronomers have catalogued the orbits of asteroids they have accidentally found while looking in the skies for other objects, but dedicated searches are relatively rare. Using a network of telescopes, we will have the technology to track down the most dangerous killer asteroids within a decade or so. | E1. Scientists spend a lot of time tracking asteroids.  T F NG |
| F.  Australia once had a flourishing asteroid-detection program led by Duncan Steel at the Anglo-Australian Observatory. For a time, Steel and his colleagues were second only to the US in finding space objects that were a danger to the Earth. And, crucially for mapping asteroid orbits, they were the only group based in the Southern Hemisphere. Sadly, the Australian government stopped paying for the program and so it has now stopped. | F.1 Australia has a program to find dangerous asteroids.  T F NG  F.2 The US is in the Northern Hemisphere.  T F NG |
| G.  The threat of an impact from space objects is truly global and each nation should play a part. Several years ago in Davos, Switzerland world leaders were told by Professor Paul Davies that in spite of its past work, Australia was no longer prepared to do anything about this threat. Fortunately, Britain’s Science Minister, who was also at the meeting in Davos, took up the case with his government. The British government agreed to spend 30 million pounds on an asteroid hunting project. Since then, both the Organization for Economic Cooperation and Development and the United Nations have agreed to watch out for asteroids. Britain will lead the international program. | G.1 World leaders met in Switzerland.  T F NG  G.2 Australia is going to lead an international program to watch out for asteroids.  T F NG |
| H.  The relatively small sum of $1 million a year would give Australia a place on this program. Far greater amounts are spent on protecting this nation against other rare disasters such as large earthquakes. Furthermore, given our history of leadership in this area, Australia could make a vital contribution. | H.1 There are several arguments why Australia should join the program.  T F NG |
| I.  People often ask what use it would be to know when the next big impact will happen. What could we do about it anyway? Scientists do not agree on the question of whether we could stop an incoming asteroid. However, it is possible that controlled nuclear explosions near the surface of a threatening object could change its direction so that it would miss the earth rather than hitting it. However, we would need time to do this. At the moment, we would probably get just a few seconds warning. Really several years would be needed to plan an operation like this. A large asteroid might not hit the Earth for thousands of years, or one might hit in the next thirty years. Nobody knows. But if the day of impact turned out to be in 2030 or 2040 we would need to start thinking about it now. | I.1 We have the technology to stop asteroids.  T F NG  I.2 The article suggests that we have plenty of time to decide what to do.  T F NG |

Adapted from ‘Big bang that ends it all’, P. Davies, *The Age*, 10th Jan, 2002

Wordcount: 839 FK: 10.00