THE BIG CATS AT THE SHARJAH BREEDING CENTRE

It is one of the few places where you will be able to spot them all at the same time… the Arabian wolf, an African cheetah, an Arabian leopard, an oryx, a gazelle. These are just some of the animals, which, on the brink of extinction, are now getting a new lease of life thanks to the exemplary work being done at the Breeding Centre for Endangered Arabian Wildlife in Sharjah.

Sharjah is one of the seven emirates that make up the United Arab Emirates. The Breeding Centre’s expertise and facilities have made it a prime destination for illegally imported animals confiscated by UAE and Sharjah authorities. In the last four years, more than 900 mammals and reptiles and 969 birds have arrived at the centre, including 25 North African cheetahs, Houbara bustard and falcons, lions, a baby Nile crocodile and a Burmese python that was left in a rental car at the airport.

The 25 cheetahs were all imported illegally into the UAE and were intercepted at the UAE harbour and airport entry points. They nearly all arrived malnourished, dehydrated and highly stressed after long voyages stuffed into boxes, crates and suitcases. Now they are bright and full of energy. The Centre’s efforts have also been rewarded when the first cheetah mating took place at the end of 2002. Playing matchmaker with these beautiful creatures is no easy task – successful breeding requires considerable patience and intimate knowledge of each animal’s personality, and it is the result of intensive and expert management of each animal within the group as well as of the group as a whole.

Because this group was still young and inexperienced in courtship matters, the keepers had to make the introductions only after careful planning and management, much like the lead role in a Jane Austen novel. The female cheetahs were initially intimidated by the presence of the male; however, as they advance to oestrus, the roles are reversed and the male cheetah becomes too wary to approach during the female’s most receptive phase of the cycle. It is the responsibility of the keeper therefore to monitor each individual and to be able to respond to any indication from the cheetahs that the time is right for introducing a pair. The close bond that invariably develops between the keeper and the cheetahs enables the keeper to spot even the most subtle signs from the animals in their care. The trust between keeper and animal has also allowed the opportunity to study cellular changes in the sexual organs of the females during the hormonal cycles that occur prior to reproduction.

The Breeding Centre’s cheetahs are also participants in the European breeding programme, which aims to ensure that the genetic diversity of this endangered species is maintained and expanded by breeding as many founder animals as possible to introduce new bloodlines into the captive population. In this way, the group held at the centre plays a very important role in the future health of the international captive population, as they are potentially all new founders.

Also very important for the Sharjah Breeding Centre is the leopard-breeding programme.
The Arabian leopard, Panthera pardus nimr, is critically endangered around the world and particularly in the Arabian peninsula, where it was once found throughout the coastal mountain ranges. Activities like hunting, trapping and habitat destruction has reduced their range to a few isolated and fragmented populations in Oman, Yemen and Saudi Arabia.

In the 1980s, a captive breeding programme was established near Muscat with the capture of three leopards in southwestern Oman. The breeding programme in the UAE was initiated by the Arabian Leopard Trust and started with the arrival of two mature specimens: a male Arabian leopard from Yemen and a female on breeding loan from Oman in 1995. The arrival of these two animals led to the construction of the Breeding Centre in which the leopard has played the role of flagship species.

Today there are twelve leopards at the Breeding centre, eight of which have been born at the centre since the first cub in 1998. Once more, the secret to the centre’s success is the close relationship between animal and keeper. The leopard is usually shy and secretive with people around, but here they react positively to the presence of their keepers, approaching the fence so they can be talked to or scratched behind an ear.

The bond is particularly important during breeding season, when keepers decide to introduce pairs to each other. Male leopards are known to have killed their partners on introduction, so it is essential for the keeper to understand the leopards’ behaviour to decide when it is safe to do so. The trust is also important if keepers need to enter dens to check on and monitor the cub’s growth. Leopard females have been known to kill their cubs if the dens have been disturbed, but the centre’s leopards are quite comfortable with the staff handling the new generation of cubs.

Questions 1-8

Use the information in the text to match the statements (1 – 8) with the animals (A – D). Write the appropriate letter (A – D) in boxes 1 – 8 on your answer sheet. Write:

A  if the statement refers to cheetahs at the Breeding Centre.
B  if the statement refers to leopards at the Breeding Centre.
C  if the statement refers to both cheetahs and leopards at the Breeding Centre.
D  If the statement refers to neither cheetahs nor leopards at the Breeding Centre.

Example: These animals are endangered

<table>
<thead>
<tr>
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<th>Answer</th>
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<tbody>
<tr>
<td>A</td>
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<td>B</td>
<td></td>
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<tr>
<td>C</td>
<td></td>
</tr>
<tr>
<td>D</td>
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1  These animals were smuggled into the UAE.
2  At first these animals did not adapt to life at the Sharjah Breeding Centre
3  These animals are regarded as the most important animal at the Centre.
4  Half of these animals were born at the Breeding centre.

Source: The Gulf News, UAE
These animals can be dangerous to one another.
The role of the keeper is vital in the breeding programme of these animals.
The first of these animals at the Breeding Centre were relatively young.
It is normally difficult for humans to approach these animals.

**Questions 9 – 13**

Complete the summary below.

Choose your answers from the box below the summary and write them in boxes 9 – 12 on your answer sheet.

**NB** There are more words than spaces, so you will not use them at all.

**Example**

The Sharjah Breeding Centre now has a __________ of animals including birds,…

**Answer**

variety

**SUMMARY**

The Sharjah Breeding Centre now has a variety of animals including birds, mammals and (9) __________. As its name suggests, the Centre is primarily involved in breeding and (10) __________ the numbers of the species housed there whilst still maintaining the (11) __________ of bloodlines in order to retain genetic health. In spite of problems involving the complex (12) __________ of the animals, a fair amount of (13) __________ has been achieved with North African cheetahs and Arabian leopards.

<table>
<thead>
<tr>
<th>reptiles</th>
<th>variety</th>
<th>behaviour</th>
<th>success</th>
<th>creating</th>
<th>expanding</th>
<th>difficulty</th>
<th>diversity</th>
<th>action</th>
<th>habitat</th>
<th>season</th>
<th>fish</th>
<th>change</th>
<th>working</th>
<th>programme</th>
</tr>
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READING PASSAGE 2 Questions 14 - 27

You should spend about 20 minutes on Questions 14 – 27 which are based on Reading Passage 2 on the following pages.

INSOMNIA – THE ENEMY OF SLEEP

A

It is not unusual to have sleep troubles from time to time. But, if you feel you do not get enough sleep or satisfying sleep, you may have insomnia, a sleep disorder. People with insomnia have one or more of the following: difficulty falling asleep, waking up often during the night and having trouble going back to sleep, waking up too early in the morning and unrefreshing sleep. Insomnia is not defined by the number of hours you sleep every night. The amount of sleep a person needs varies. While most people need between 7 and 8 hours of sleep a night, some people do well with less, and some need more.

B

Insomnia occurs most frequently in people over age 60, in people with a history of depression, and in women, especially after menopause. Severe emotional trauma can also cause insomnia with divorced, widowed and separated people being the most likely to suffer from this sleep disorder. Stress, anxiety, illness and other sleep disorders such as restless legs syndrome are the most common causes of insomnia. An irregular work schedule, jet lag or brain damage from a stroke or Alzheimer’s disease can also cause insomnia as well as excessive use of alcohol or illicit drugs. It can also accompany a variety of mental illnesses.

C

The mechanism that induces sleep is not known. When it becomes dark, the pineal gland in the brain secretes a hormone called melatonin, which is thought to induce sleep. Exactly why sleep is necessary for good health and efficient mental functioning is unknown. We do know that sleep consists of two very different states: rapid eye movement (REM) sleep and non-REM sleep. In REM sleep, dreams occur, the eyes move under the closed lids and there is an increase in oxygen consumption, blood flow and neural activity. REM sleep occurs four or five times during a night. Beginning periods last about ten to fifteen minutes but the periods get longer as the night goes on. The periods of REM sleep alternate with longer periods of non-REM sleep, when body functions slow. Non-REM sleep has four stages. During the deepest stages (3 and 4) it is hard to rouse a sleeper. As the night goes on, the periods of non-REM sleep become progressively lighter. Sleep in stages 1 and 2 are felt to be restorative as during this time the body repairs itself utilising a hormone called somatostatin. Lack of stage 4 sleep is believed to be important in chronically painful conditions such as fibromyalgia.

D

Healthcare providers diagnose insomnia in several ways. One way is to categorize insomnia
by how often it occurs. Another way is to identify the insomnia by what is causing the sleep deprivation. The two main types of insomnia have been described as Primary Insomnia and Secondary Insomnia. Primary Insomnia is a chronic condition with little apparent association with stress or a medical problem. The most common form of primary insomnia is psychophysiological insomnia. Secondary insomnia is caused by symptoms that accompany a medical condition such as anxiety, depression or pain.

E

Improving one’s sleep hygiene helps improve insomnia in all patients. Relaxing during the hour before you go to sleep and creating a comfortable environment suited for sleep can be helpful. Older people who wake up earlier than normal or have trouble falling asleep may need less sleep than they used to. Changing one’s sleep pattern, either by going to bed later or waking up earlier, can be effective in dealing with insomnia in older people. Therapy also depends on the cause and severity of the insomnia. Transient and intermittent insomnia may not require any direct action since these conditions last only a few days at a time. However, if insomnia interferes with a person’s daily activities, something should be done. Usually the best method of dealing with insomnia is by attacking the underlying cause. For example, people who are depressed often have insomnia and looking at this problem may eliminate it.

F

Not getting enough sleep can make you less productive, irritable and unable to concentrate. Lack of sleep can make it seem as if you “got up out of the wrong side of the bed.” Early morning headaches and waking up feeling as if you never went to sleep can result in frustration. Stress can cause insomnia but insomnia also increases stress. Insomnia can make driving unsafe as well. Insomnia can result in missed work, which can cause you to become less productive and miss promotions. It can leave you feeling as if you just can’t get enough done. Insomnia can also mask serious mental disorders. People with insomnia may think that not getting enough sleep is their only problem, but the insomnia may actually be one symptom of a larger disorder, such as depression. Studies show that people with insomnia are four times more likely to be depressed than people with a healthy sleeping pattern. In addition, lack of sleep can tax the heart and lead to serious conditions like heart disease. All of these are important problems that can affect every part of your life.

G

Establishing certain set routines can help insomniacs get better sleep. Examples of these routines include: going to bed and getting up at the same time every day, avoiding napping, avoiding caffeine, nicotine, alcohol and eating heavily late in the day, exercising regularly and making your bedroom comfortable in terms of the bed, noise and temperature. Insomniacs should also only use their bedroom for sleep so that their bodies associate the room with sleep. Finally, if you can’t get to sleep, don’t toss and turn all night. Get up and read or do something that is not overly stimulating until you feel really sleepy again.

Source: 4woman.gov + McKinley Health Centre, Illinois

Ieltsfever.com
Questions 14 - 19

The reading passage on Insomnia has 7 paragraphs (A – G).

From the list of headings below choose the most suitable headings for paragraphs B – G.

Write the appropriate number (i – xi) in boxes 14 – 19 on your answer sheet.

NB There are more headings than paragraphs, so you will not use them all.

<table>
<thead>
<tr>
<th>Example</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paragraph A</td>
<td>iv</td>
</tr>
</tbody>
</table>

i  The Role of Sleep
ii Insomnia Medication
iii Habits to Promote a Good Night’s Sleep
iv What is Insomnia
v Complications for Insomniacs
vi Government Action
vii Available Treatment for Insomnia
viii The Causes of Insomnia
ix Therapy Solutions
x Types of Insomnia
xi Current Research

14 Paragraph B
15 Paragraph C
16 Paragraph D
Questions 20 - 27

Do the following statements agree with the views of the writer of the reading passage on Insomnia?

In Boxes 20 - 27 write:

YES  if the statement agrees with the writer

NO   if the statement doesn’t agree with the writer

NOT GIVEN  if it is impossible to say what the writer thinks about this

20 Someone who only gets four hours of sleep a night must be suffering from insomnia.

21 Travelling can cause insomnia.

22 REM sleep is felt to be the most important for the body’s rest.

23 Secondary insomnia is far more common than primary insomnia.

24 Sufferers of insomnia can attend specialist sleep clinics.

25 Many people suffering from insomnia don’t realise that they suffer from it.

26 There is no actual correlation linking insomnia and depression.

27 Sleeping during the day can make insomnia worse.
ALTERNATIVE FARMING METHODS IN OREGON

Onion growers in eastern Oregon are adopting a system that saves water and keeps topsoil in place, while producing the highest quality “super colossal” onions. Pear growers in southern Oregon have reduced their use of some of the most toxic pesticides by up to two-thirds, and are still producing top-quality pears. Range managers throughout the state have controlled the poisonous weed tansy ragwort with insect predators and saved the Oregon livestock industry up to $4.8 million a year.

These are some of the results Oregon growers have achieved in collaboration with Oregon State University (OSU) researchers as they test new farming methods including integrated pest management (IPM). Nationwide, however, IPM has not delivered results comparable to those in Oregon. A recent U.S General Accounting Office (GAO) report indicates that while integrated pest management can result in dramatically reduced pesticide use, the federal government has been lacking in effectively promoting that goal and implementing IPM. Farmers also blame the government for not making the new options of pest management attractive. “Wholesale changes in the way that farmers control the pests on their farms is an expensive business.” Tony Brown, of the National Farmers Association says. “If the farmers are given tax breaks to offset the expenditure, then they would willingly accept the new practices.” The report goes on to note that even though the use of the riskiest pesticides has declined nationwide, they still make up more than 40 percent of all pesticides used today; and national pesticide use has risen by 40 million kilograms since 1992. “Our food supply remains the safest and highest quality on Earth but we continue to overdose our farmland with powerful and toxic pesticides and to under-use the safe and effective alternatives,” charged Patrick Leahy, who commissioned the report. Green action groups disagree about the safety issue. “There is no way that habitual consumption of foodstuffs grown using toxic chemicals of the nature found on today’s farms can be healthy for consumers,” noted Bill Bowler, spokesman for Green Action, one of many lobbyists interested in this issue.

The GAO report singles out Oregon’s apple and pear producers who have used the new IPM techniques with growing success. Although Oregon is clearly ahead of the nation, scientists at OSU are taking the Government Accounting Office criticisms seriously. “We must continue to develop effective alternative practices that will reduce environmental hazards and produce high quality products,” said Paul Jepson, a professor of entomology at OSU and new director of OSU’s Integrated Plant Protection Centre (IPPC). The IPPC brings together scientists from OSU’s Agricultural Experiment Station, OSU Extension service, the U.S. Department of Agriculture and Oregon farmers to help develop agricultural systems that will save water and soil, and reduce pesticides. In response to the GAO report, the Centre is putting even more emphasis on integrating research and farming practices to improve Oregon agriculture environmentally and economically.

“The GAO report criticizes agencies for not clearly communicating the goals of IPM,” said Jepson.
“Our challenge is to greatly improve the communication to and from growers, to learn what works and what doesn’t. The work coming from OSU researchers must be adopted in the field and not simply languish in scientific journals.”

In Oregon, growers and scientists are working together to instigate new practices. For example, a few years ago scientists at OSU’s Malheur Experiment Station began testing a new drip irrigation system to replace old ditches that wasted water and washed soil and fertilizer into streams. The new system cut water and fertilizer use by half, kept topsoil in place and protected water quality. In addition, the new system produced crops of very large onions, rated “super colossal” and highly valued by the restaurant industry and food processors. Art Pimms, one of the researchers at Malheur comments: “Growers are finding that when they adopt more environmentally benign practices, they can have excellent results. The new practices benefit the environment and give the growers their success.”

OSU researchers in Malheur next tested straw mulch and found that it successfully held soil in place and kept the ground moist with less irrigation. In addition, and unexpectedly, the scientists found that the mulched soil created a home for beneficial beetles and spiders that prey on onion thrips – a notorious pest in commercial onion fields – a discovery that could reduce the need for pesticides. “I would never have believed that we could replace the artificial pest controls that we had before and still keep our good results,” commented Steve Black, a commercial onion farmer in Oregon, “but instead we have actually surpassed expectations.”

OSU researchers throughout the state have been working to reduce dependence on broad-spectrum chemical sprays that are toxic to many kind of organisms, including humans. “Consumers are rightly putting more and more pressure on the industry to change its reliance on chemical pesticides, but they still want a picture-perfect product,” said Rick Hilton, entomologist at OSU’s Southern Oregon Research and Extension Centre, where researchers help pear growers reduce the need for highly toxic pesticides. Picture perfect pears are an important product in Oregon and traditionally they have required lots of chemicals. In recent years, the industry has faced stiff competition from overseas producers, so any new methods that growers adopt must make sense economically as well as environmentally. Hilton is testing a growth regulator that interferes with the molting of codling moth larvae. Another study used pheromone dispensers to disrupt codling moth mating. These and other methods of integrated pest management have allowed pear growers to reduce their use of organophosphates by two-thirds and reduce all other synthetic pesticides by even more and still produce top-quality pears. These and other studies around the state are part of the effort of the IPPC to find alternative farming practices that benefit both the economy and the environment.

Source: Peg Herring / Oregon State University

leltsfever.com
Questions 28 – 35

Match the views (28 – 35) with the people listed below.

28   There is a double advantage to the new techniques.
29   Expectations of end users of agricultural products affect the products.
30   The work on developing these alternative techniques is not finished.
31   Eating food that has had chemicals used in its production is dangerous to our health.
32   Changing current farming methods is not a cheap process.
33   Results have exceeded anticipations.
34   The research done should be translated into practical projects.
35   The U.S. produces the best food in the world.

| TB  | Tony Brown          |
| PL  | Patrick Leahy      |
| BB  | Bill Bowler        |
| PJ  | Paul Jepson        |
| AP  | Art Pimms          |
| SB  | Steve Black        |
| RH  | Rick Hilton        |
Questions 36 - 40

Read the passage about alternative farming methods in Oregon again and look at the statements below.

In boxes 36 - 40 on your answer sheet write:

TRUE

if the statement is true

FALSE

if the statement is false

NOT GIVEN

if the information is not given in the advertisement

36 Integrated Pest Management has generally been regarded as a success in the US.

37 Oregon farmers of apples and pears have been promoted as successful examples of Integrated Pest Management.

38 The IPPC uses scientists from different organisations.

39 Straw mulch experiments produced unplanned benefits.

40 The apple industry is now facing a lot of competition from abroad.