



CONCURSO DE ADMISSÃO AO CURSO DE GRADUAÇÃO



INGLÊS

FOLHA DE QUESTÕES

2007

LEIA O TEXTO A SEGUIR E RESPONDA ÀS QUESTÕES 1 E 2.

Missing US soldier 'found dead' (Adapted from the BBC news, May 2007)

Iraqi police say they have found the body of one of three US soldiers missing in Iraq since 12 May. The men disappeared after an ambush on a patrol south of Baghdad, and have been the subject of a massive search. The body was found in the Euphrates river in Musayyib, south of Baghdad. The US has not confirmed its identity.

The body found in the Euphrates has now been taken by US forces to check if it is indeed one of the missing men. Iraqi police say the body discovered on Wednesday was dressed in what appeared to be US army trousers and boots, and had a tattoo on the left arm. There were bullet wounds to the head and chest, Babil police Capt Muthana Khalid said.

The three men disappeared after an ambush on a patrol near Mahmudiya, south of Baghdad, in which four other US soldiers and their translator died.

About 4,000 US soldiers and 2,000 Iraqi soldiers have been involved in a massive search for the men since it was discovered that they were missing from the ambush site where the two humvees they had been traveling in were attacked.

The US military has offered rewards of up to \$200,000 (£100,000) for information leading to the return of the three.

The Islamic State of Iraq, an umbrella group of militants led by al-Qaeda, has claimed to be holding the soldiers. In an unverified statement posted on an Islamist website, the militant group claiming to hold the soldiers told the US: "If you want them safe, do not search for them."

1ª QUESTÃO

Valor: 2,0 (0,2 cada item)

Complete o resumo do texto "Missing US soldier 'found dead'" com palavras-chaves ou expressões RETIRADAS DO TEXTO. Cada lacuna numerada comporta apenas uma palavra ou expressão.

A US patrol was attacked in a (an) 1.1 near Baghdad after which 1.2 militaries were found missing and five other people involved in the mission died, including the 1.3 of the patrol. A rescue operation counting on 6,000 1.4 altogether have been set. A body was found in the Euphrates and the US forces took it to certify whether it actually was one of their 1.5 men. He was found wearing what seemed to be military 1.6 and 1.7, which may count as a cue to confirm his 1.8. Another mark on his body, a (an) 1.9 may also help the identification of the body. The body of the man found on Wednesday had 1.10 injuries, one more evidence of murder.

Considere as informações contidas no texto "Missing US soldier 'found dead'" e marque a alternativa correta em cada item seguinte.

2.1. As an effort to have indications that bring their kidnapped men back, the US force...

- (A) planned an ambush against militants of the al-Qaeda.
- (B) did not go after them, as warned by the militant group.
- (C) promised to pay for evidence.
- (D) set a patrol near Mahmudiya, south of Baghdad.
- (E) attacked the two humvees they had been traveling in.

2.2. About the Islamic State of Iraq, it is correct to affirm that...

- (A) it has no access to the internet.
- (B) it declared to have the soldiers as prisoners.
- (C) all its members wear tattoos on their left arms.
- (D) it is a militant group that controls al-Qaeda activities.
- (E) it is a militant group known for carrying umbrella-shaped guns.

2.3. About the ambush mentioned in the text, it is correct to say that...

- (A) a militant group warned the US force about it on a website.
- (B) at least five members of the US patrol were killed in it.
- (C) Capt Muthana Khalid took part in it and got wounded to the head and chest
- (D) it took place near the Euphrates river.
- (E) about 4,000 US soldiers and 2,000 Iraqi soldiers were involved in it.

LEIA O TEXTO A SEGUIR E RESPONDA ÀS QUESTÕES 3, 4 E 5.

Bright idea creates '25-hour day' (Adapted from BBC News, May 2007)

Our natural daily 24-hour cycle could be stretched by an extra hour safely and simply by exposure to pulses of bright light, research suggests.

Many species, including humans, have natural "circadian rhythms" set to match the standard length day on Earth.

The contrast between exposure to daylight and night-time darkness is thought to adjust and maintain this clock, which helps make sure the body is working as effectively as possible at times of day when maximum alertness is required.

Scientists already know that it is possible to interfere with the human circadian "pacemaker" by controlling exposure to light.

The latest research project, shared between Lyon University in France, and Harvard University and Medical School in the US, looked at whether it was possible to "fine-tune" these alterations to achieve a precise result.

Humans do not have precise 24-hour cycles to begin with, and all of the 12 volunteers had cycles ranging from 23.5 to 24.5 hours.

After allowing them to sleep and wake normally for a few days, a new regime was imposed, with artificial "days" produced by a combination of low light and very bright pulses of light near the end of the intended "wakeful" hours.

After 30 days, scientists found that a combination of light brightness and pulses was able to manipulate the circadian rhythm, over time adding approximately one hour to each subject's day.

The researchers said that there were numerous situations in which the ability to do this might be useful.

"Jet-lag, shift work and circadian disorders such as advanced and delayed sleep phase syndromes are all associated, to different extents, with a condition where the circadian system is out of synchrony with the light/dark cycle," they wrote.

Another possible application might be during long space missions - and to allow astronauts to adapt to longer days on Mars.

"For this to work, you have to be able to avoid light sometimes, which is more difficult in real-life situations, where people are exposed to different levels of light as they go about their normal day-to-day business."

3ª QUESTÃO**Valor: 1,0 (0,1 cada item)**

As palavras da coluna 2 foram retiradas do texto "Bright Idea creates 25-hour day". Relacione cada uma com seu respectivo sinônimo na coluna 1, de modo que o sentido da frase no texto permaneça o mesmo.

COLUNA 1

- 3.1. (___) treatment
- 3.2. (___) gloom
- 3.3. (___) demand
- 3.4. (___) duration
- 3.5. (___) exact
- 3.6. (___) divide
- 3.7. (___) usual
- 3.8. (___) convenient
- 3.9. (___) fit
- 3.10. (___) extend

COLUNA 2

- A. stretch (no texto stretched)
- B. match
- C. standard
- D. length
- E. darkness
- F. require (no texto required)
- G. share (no texto shared)
- H. precise
- I. regime
- J. useful

4ª QUESTÃO**Valor: 2,0 (0,4 cada item)**

Numere as frases a seguir de 1 a 5, de acordo com a ordem em que tais eventos acontecem no texto "Bright idea creates 25-hour day".

- 4.1. (___) Lyon University and Harvard University set a research project to look at the possibility of altering human circadian rhythms.
- 4.2. (___) The researchers produced artificial days by means of artificial light.
- 4.3. (___) 12 volunteers were allowed to sleep and wake freely.
- 4.4. (___) By the end, the volunteers' natural cycle could be stretched by an extra hour safely and simply by exposure to pulses of bright light.
- 4.5. (___) By the end of a certain hour, established by the researchers, the volunteers were stimulated by very bright pulses of light.

5ª QUESTÃO**Valor: 1,5 (0,3 cada item)**

De acordo com as idéias do texto "Bright idea creates 25-hour day", coloque entre os parênteses (H) caso a frase se refira a uma hipótese apresentada no texto, ou (F) caso a frase se refira a um fato.

- 5.1. (___) The ability to manipulate the alterations of human natural circadian rhythms will be useful to control jet-lag effects.
- 5.2. (___) The humans' circadian rhythms are naturally set to adjust the body to the standard length day on Earth
- 5.3. (___) Human circadian 'pacemaker' can be altered by controlling exposure to light.
- 5.4. (___) Humans do not have precise 24-hour cycles.
- 5.5. (___) The alteration of their circadian rhythm will allow astronauts to adapt to Mars longer days.

LEIA O TEXTO A SEGUIR E RESPONDA À QUESTÃO 6.

Captive shark had 'virgin birth' (Adapted from BBC News, May 2007)

Female hammerhead sharks can reproduce without having sex, scientists confirm.

The evidence comes from a shark at Henry Doorly Zoo in Nebraska which gave birth to a pup in 2001 despite having had no contact with a male. Genetic tests by a team from Belfast, Nebraska and Florida prove conclusively the young animal possessed no paternal DNA, Biology Letters journal reports.

The type of reproduction exhibited had been seen before in bony fish but never in cartilaginous fish such as sharks. Parthenogenesis, as this type of reproduction is known, occurs when an egg cell is triggered to develop as an embryo without the addition of any genetic material from a male sperm cell.

The puzzle over the hammerhead birth was reported widely in 2001, but it is only with the emergence of new DNA profiling techniques that scientists have now been able to show irrefutably what happened.

The scientists say the discovery raises important issues about shark conservation. In the wild, these animals have come under extreme pressure through overfishing and many species have experienced sharp declines.

If dwindling shark groups resort to parthenogenesis to reproduce because females have difficulty finding mates, this is likely to weaken populations still further, the researchers warn. The reason is that asexual reproduction reduces genetic diversity and this makes it harder for organisms to adapt - to changed environmental conditions or the emergence of a new disease, for example.

The birth of the hammerhead (of the bonnethead species, *Sphyrna tiburo*) at Henry Doorly was as tragic as it was puzzling. The new pup was soon killed by a stingray before keepers could remove it from its tank.

At the time, some theorised that a male tiger shark kept at the zoo could have been the father - but the institution's three bonnethead females had none of the bite marks that are usually inflicted on their gender during shark sex.

Some even suggested that one of the females could have had sex in the wild and stored the sperm in her body - but the three-year period in captivity made this explanation highly unlikely.

The new tests on the dead pup's tissues now show the newborn's DNA only matched up with one of the females - and there was none of any male origin.

Although extremely rare in vertebrates, parthenogenesis (out of the Greek for "virgin birth") occurs in a number of lower animals. Insects such as bees and ants use it to produce their drones, for example.

6ª QUESTÃO

Valor: 2,0 (0,4 cada item)

Responda, EM PORTUGUÊS, às perguntas de acordo com o texto:

- 6.1. What weird event took place in Henry Doorly Zoo in Nebraska?
- 6.2. What is parthenogenesis?
- 6.3. Why was the event reported in the text considered tragic?
- 6.4. What theories were raised to explain the strange fact in Henry Doorly Zoo, and latter dismissed?
- 6.5. What explanation do scientists offer to the strange fact?