

## **Inglês – Text Comprehension – Difícil [10 Questões]**

### **TEXTO: 1 - Comum à questão: 1**

*(Id. ibid.)*

Jazz is a restless music, and its best practitioners have adhered to Ezra Pound's philosophy to "make it new" with particular intensity, sometimes to ill effect. As one might expect in such an explosive environment, there have been plenty of fads, false theories, and dead ends. The tension between the urge to make it new and the awareness of possible dead ends creates an atmosphere of controversy over what jazz is or should be.

#### **01 - (UFLA MG)**

With what topic is the paragraph mainly concerned?

- a) Ezra Pound's philosophy.
- b) Fads and false theories of jazz.
- c) Controversial jazz recordings.
- d) The struggle over innovation in jazz.
- e) The restlessness of jazz.

### **TEXTO: 2 - Comum à questão: 2**

During World War I, a new means of eletronic communication appeared, barely ten years after its invention – radio. Radio permitted much more rapid installation of communications, at far longer ranges, than was possible with field telephones. Also, its invisible signals could not be stopped by artillery fire or wire cutters, as telephone lines could. Few improvements have been made in field telephones since World War I, but improvements in radio transmission have been continuous.

#### **02 - (UFLA MG)**

What is the main idea of the paragraph?

- a) Radio was the newest technology during World War I.
- b) The radios and field telephones used during World War I were primitive.
- c) Radio has improved greatly since World War I.
- d) Like field telephones radios used during World War I were primitive.
- e) Radio was more advantageous than field telephones during World War I.

### **TEXTO: 3 - Comum à questão: 3**

No actual black hole has yet been located or studied, but the concept has provided endless imaginative fodder for science fiction writers and endless theoretical fodder for physicists and astrophysicists.

Black holes are one of the more exotic theoretical manifestations of general relativity. The standard model for the formation of a black hole involves the collapse of a large star. For extremely massive stars that are four to five times the mass of the sun, the exclusion principle - the resistance between the molecular particles within the star as they are compressed - will not be strong enough to offset the gravity generated by the star's own mass. The star's increasing density will overwhelm the exclusion principle. What follows is runaway gravitational collapse. With no internal force to stop it, the star will simply continue to collapse in on itself, until it reaches a point of infinite density and zero volume, a phenomenon known as a singularity.

The star now disappears from the perceivable universe, like a cartoon character who jumps into a hole and pulls the hole in after him. What this process leaves behind is a different kind of hole - a profound disturbance in spacetime, a region where gravity is so intense that nothing, not even light, can escape from it. Any object falling within the boundary of a black hole will be sucked in and will disappear from our universe forever.

What would happen to an object, such as an astronaut, as it vanished into the black hole?

Physicists have been amusing themselves with this question for years. Most believe that the astronaut would be destroyed by the intense gravitational forces within the black hole, or would explode in a flash of gamma rays, as he or she approached the singularity at the hole's core. Theoretically, an astronaut who managed to survive the passage would experience some very strange things, including acute time distortion, which would enable him or her to know, in a few brief seconds, the entire future of the universe in all its detail.

(Gallagher, Nancy - Delta's key to the TOEFL test)

### **03 - (UFLA MG)**

With what topic is paragraph 2 mainly concerned?

- a) The cause of a black hole.
- b) The theory of relativity.
- c) Rapid gravitational collapse.
- d) How to build a model of a black hole.
- e) The size of the stars.

**TEXTO: 4 - Comum à questão: 4**

## **PASSAGE 2**

The idea of determinism, that no event occurs in nature without natural causes, has been postulated as a natural law yet is under attack on both scientific and philosophical grounds. Scientific laws assume that a specific set of conditions will unerringly<sup>1</sup> lead to a predetermined outcome. However, studies in the field of physics have demonstrated that the location and speed of minuscule particles such as electrons are the result of random behaviors rather than predictable results determined by pre-existing conditions. As a result of these studies, the principle of indeterminacy was formulated in 1925 by Werner Heisenberg. According to this principle, only the probable behavior of an electron can be predicted. The inability to absolutely predict the behavior of electrons casts doubt on the universal applicability of a natural law of determinism. Philosophically, the principal opposition to determinism emanates from those who see humans as creatures in possession of free will. Human decisions may be influenced by previous events, but the ultimate freedom of humanity may possibly lead to unforeseen choices, those not preordained by preceding events.

(PHILLIPS, Deborah. Longman. Preparation for the Toefl Test)

### **04 - (UFLA MG)**

According to the passage, which of the following is **NOT** true about the principle of indeterminacy?

- a) It was formulated based on studies in the field of physics.
- b) It has been in existence for more than a decade.
- c) It is concerned with the random behavior of electrons.
- d) It is philosophically unacceptable.
- e) It is concerned with the ultimate freedom of humanity.

### **TEXTO: 5 - Comum à questão: 5**

#### **CAUGHT AT THE SCENE**

“According to legend: A man was going to bed when his wife noticed that the light in their garden shed was on. When he opened the back door to go turn off the light, he saw people stealing things from the shed.

He quickly phoned the police and was asked, 'Is someone in your house?' The man said no, and the dispatcher replied that all patrols were busy. They should simply lock the doors, and an officer would be along when available.

The irate homeowner counted to 30 and dialed the police again. 'I just called because there were people in my shed.

You don't have to worry now because I've shot them all.'

Then he hung up.

Within five minutes, three police cars, an armed response unit and an ambulance screeched to a halt in front of the house. The police caught the burglars at the scene.

'I thought you said that you'd shot them,' one officer said sternly.

'I thought you said there was nobody available,' the man replied."

(From **Reader's Digest**, *Caught at the Scene*, July 2003, page 83).

#### **05 - (UFPE)**

When the homeowner called the police the first time, the police dispatcher said that

- a) the homeowner should worry about the thieves.
- b) the man had dialed the wrong number.
- c) there were no policemen available at that moment.
- d) unfortunately the police had begun a strike on that day.
- e) police officers would get to the man's house immediately.

#### **TEXTO: 6 - Comum às questões: 6, 7**

##### **Airport on the Move**

**By David G. Nicholas, P.E., Perfecto M. Solis, P.E., and Dwain K. Brown, P.E.**

**Photos courtesy of APM Design Team**

The Dallas/Fort Worth International Airport is replacing its interterminal train system with an automated people mover system of unprecedented length that includes an air-side elevated guideway, which must be constructed while aircraft continue to operate underneath.



*The APM system includes 12 center-platform stations, two at each terminal. The columns are spaced at 90 ft (27 m) on center to conserve valuable airfield space. The twin guideway lanes split and run along the sides of each station, supported by the station framing.*

All photos courtesy of APS Design Team Air traffic at Dallas/Fort Worth International Airport (DFW) is increasing, and the interterminal train system, which is running near maximum capacity, will not be able to cope with future demand. So the airport is replacing the existing system with an automated people mover (APM) system to move passengers quickly between terminals. The APM is part of a five-year, \$2.6-billion capital development program that includes three runway extensions and a new international terminal.

The new APM will have the ability to move 5,000 passengers per hour per direction on opening day and ultimately will be able to handle the projected load of 8,500 passengers per hour per direction. Passengers will have to wait no more than two minutes between trains, and they will be able to travel between the farthest points of the airport in less than nine minutes.



The APM project consists of six major elements: the guideway structure, the stations, a maintenance and storage facility, integration with the existing terminals on the concourse level, modifications to the apron and jet bridges, and the train system. The design solutions for these elements had to address schedule constraints, challenges imposed by airline operations, the physical site constraints, and the performance requirements of the new train system. The APM program requires a 60-month completion schedule from the start of design to the initiation of public service. The general contractor must complete the last section of the guideway and the propulsion power substations within 38 months to meet the availability dates set forth in the contract of the train system supplier. The consolidated design and construction schedule was coordinated to meet this contractual obligation and required aggressive design and construction sequences.

<http://www.pubs.asce.org/ceonline/ceonline01/0109feat.html>

The air-side columns consist of segments of precast, posttensioned concrete joined with a precast-concrete bent. Soffit panels between the beams are flush with the bottom of the bent caps, which fit the dapped ends of the beams to impart a clean, monolithic appearance.

#### **06 - (UFU MG)**

De acordo com o texto, dentre os elementos que compõem o projeto de transporte automático de passageiros do Aeroporto Internacional Dallas/Fort Worth, podemos identificar

- a) a estrutura das plataformas e o sistema de trens.
- b) as estações de integração e os terminais de bagagens.
- c) os elevadores e a construção de um novo terminal.
- d) as pontes entre os terminais e o pátio de trens.

#### **07 - (UFU MG)**

De acordo com o texto, dentre os elementos que compõem o projeto de transporte automático de passageiros do Aeroporto Internacional Dallas/Fort Worth, podemos identificar

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#### **TEXTO: 7 - Comum à questão: 8**



**Note:** the NASA Space Telerobotics Program was shut down in 1997, and the research and technology development task supported by the program were transferred to other efforts. This site is kept on line for historical purposes, and as a reference for the robotics community. It reflects the state of robotics technology as it was at the end of the program in 1997, and not the current NASA efforts in robotics technology and space system development. The NASA Space Telerobotics Program is an element of NASA's ongoing research program, under the responsibility of the Office of Space Science. The program is designed to develop telerobotic capabilities for remote mobility and manipulation, by merging robotics and teleoperations and creating new telerobotics technologies. Space robotics technology requirements can be characterized by the need for manual and automated control, non-repetitive tasks, time delay between operator and manipulator, flexible manipulators with complex dynamics, novel locomotion, operations in the space environment, and the ability to recover from unplanned events. To meet these needs, the program is focused on the following goal:

**To develop, integrate and demonstrate the science and technology of remote manipulation such that by the year 2004, 50% of the EVA-required operations on orbit and on planetary surfaces may be conducted telerobotically.**

The Space Telerobotics Program consists of a wide range of tasks from basic scientific research to applications developed to solve specific operations problems. The program is focused on three specific mission or application areas: on-orbit assembly and servicing, science payload tending, and planetary surface robotics. Within each of these areas, the program supports the development of robotic component technologies, development of complete robots, and implementation of complete robotic systems focussed on the specific mission needs. These three segments align with the application of space telerobotics to the class of missions identified by the potential space robotics user community. The objective of each of these program areas, from base technology development through systems applications, is to provide the technology for space telerobotics applications with sufficient validation that the designers of future spacecraft can apply the technology with confidence.

[http://ranier.oact.hq.nasa.gov/telerobotics\\_page/telerobotics.shtm](http://ranier.oact.hq.nasa.gov/telerobotics_page/telerobotics.shtm)

## **08 - (UFU MG)**

No que concerne ao **NASA Space Telerobotics Program**, pode-se afirmar que

- I. o programa foi desativado em 1997, sendo que a tarefa de pesquisa e de desenvolvimento de tecnologias foram transferidos para outros setores.
- II. o programa está em andamento, sob a responsabilidade do Departamento de Ciências Espaciais.

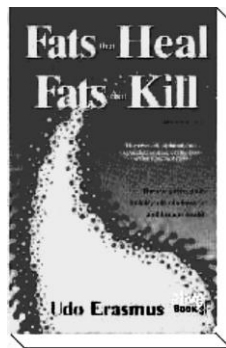
- III. o programa faz parte dos atuais projetos da NASA, no que se refere ao desenvolvimento de tecnologias sobre robótica e sistemas espaciais.
- IV. o “site” do referido programa continua sendo uma referência para especialistas em robótica.
- V. o programa continua criando novas tecnologias em telerobótica.

Assinale a alternativa correta.

- a) Somente III e IV são verdadeiras.
- b) Somente II e V são verdadeiras.
- c) Somente I e IV são verdadeiras.
- d) Somente II, III e V são verdadeiras.

**TEXTO: 8 - Comum à questão: 9**

While fats have lately acquired a bad image, one should not forget how essential they are. Fats provide the body's best means of storing energy and are far more efficient energy sources than either carbohydrates or proteins. They act as insulation against cold, as cushioning for the internal organs, and as lubricants. Without fats, there would be no way to utilize fat-soluble vitamins.



Furthermore, some fats contain fatty acids that contain necessary growth factors and help with the digestion of other good foods.

An important consideration of fat intake is the ratio of saturated fats to unsaturated fats.

Saturated fats, which are derived from dairy products, animal fats, and tropical oils, increase the amount of cholesterol in the blood.

Cholesterol may lead to coronary heart disease by building up in the arteries of the heart.





However, unsaturated fats, which are derived from vegetable oils, tend to lower serum cholesterol if taken in a proportion twice that of saturated fats.

The consumption of a variety of fats is necessary, but the intake of too much fat may lead to a variety of health problems. Excessive intake of fats, like animal excesses, is to be avoided.

#### **09 - (UFU MG)**

Baseado neste texto, que conselho mais razoável você daria a um amigo que não consegue parar de consumir gordura animal?

- a) "Não se preocupe! A ciência já descobriu que a gordura de origem animal, como a presente na manteiga, não é prejudicial."
- b) "Pare de comer gordura animal ou não será possível controlar seu nível de colesterol, o que provocará problemas cardíacos."
- c) "Você deverá eliminar totalmente as gorduras presentes em sua alimentação, para evitar excesso de peso e colesterol."
- d) "Para o equivalente a cada colher de gordura saturada ingerida, consuma duas colheres de gordura oriunda de óleos vegetais."

#### **TEXTO: 9 - Comum à questão: 10**

### **Brazil's Shrinking Middle Class**

#### **Mario Osava**

Together with the expansion of industrialization in Brazil in the 20th century there was an accompanying growth of the middle class in other countries of South America. But in 1981 that trend began to reverse in response to prolonged economic stagnation and frequent periods of recession over the last two decades. The middle class — defined in Brazil as that segment of the population with a monthly per capita income of more than 340 dollars — accounted for 42.5 percent of the country's total population in 1981. By 2002, that figure

had dropped to 36 percent according to a study by Waldir Quadros, a professor at the State University of Campinas. And according to Quadros, the reality is “even worse than the picture painted here,” which is based solely on levels of income.

The cost of living has increased tremendously for the middle class in recent years, partly due to inflation, but primarily because of a change in consumer demands which now encompass products and technologies that didn’t exist before. To maintain a middle class lifestyle in Brazil today means having a computer, Internet access, a cell phone, other sophisticated electronic equipment, like DVD players and “even imported wine,” explained Quadros.

The study reveals that while the middle class shrank, the ranks of the poor in Brazil grew larger, from 30.5 percent of the population in 1981 to 35.9 percent in 2002. In absolute terms the number of Brazilians living in poverty rose from 36.3 million to 61.7 million people out of a total population of more than 178 million. For Quadros, the fundamental cause for this was “the lack of economic growth,” which led to severe rates of unemployment in the 1990s. Other factors, like productive restructuring and the replacement of manual labour with modern technology, had little or no effect on the situation, in his view.

Brazil “has no way of financing its growth,” the economist said. Although the heavily indebted State is making an enormous effort to reduce the fiscal deficit, the resources needed to invest in economic development go, instead, toward paying the high interest on the country’s public debt, and no solution is in sight. For “cultural” reasons particular to Brazilian society “there is little value placed on work,” and this is reflected by low wages and a diminishing proportion of the national income represented by wages and salaries, according to Jan Wiegerinck, president of the human resources firm that co-sponsored Quadros’ study.

Judges and lawmakers in Brazil earn more than their counterparts in wealthy countries like the United States, which is why the greatest wage inequality “is found in Brasilia (seat of the Federal Government), not in the private sector,” he said.

The high unemployment rates in Brazil in recent years have particularly affected young people under 25, according to official statistics and numerous studies. And a good university education is no longer any guarantee against this fate. In fact, according to Quadros’ study, the largest increase in unemployment was precisely among university and high school graduates. This fact further demonstrates that larger numbers of middle class youth are now being forced to look for work, thus raising the “open unemployment” rate, which only takes into account those who are actively seeking employment.

In the past, many of them would not have worried about finding a job until they completed their university education because their parents’ incomes were sufficient to support the family, said Quadros. The problem is not limited to Brazil. This diminishing of the middle

class and subsequent increase in inequality has also been experienced in other South American countries with historically sizeable middle classes like Argentina and Uruguay. In Argentina, a country with 37 million inhabitants today, the middle class represented almost one half of the total population in the 1980s. But then, in the early 1990s, a process of gradual impoverishment began, an unprecedented phenomenon in a country traditionally characterized by upward social mobility.

The “nouveau poor” of Argentina are middle class families who continue to own property and assets and have been able to maintain certain levels of education but do not earn enough in terms of income to remain above the poverty line.

Adapted from [www.ipsnews.net/africa/interna.asp?idnews=25559](http://www.ipsnews.net/africa/interna.asp?idnews=25559) em 15/03/2006 às 18h29min.

#### **10 - (UFU MG)**

De acordo com o texto, podemos afirmar que

- I. the “nouveau poor” of Argentina are middle class families trying to maintain their life-style, although they do not have resources to belong to that class anymore.
- II. the “nouveau poor” of Argentina are middle class families that have assets but do not earn compatible salaries to maintain the same life-style as before.
- III. the “nouveau poor” of Argentina are middle class families that sell their property to keep their life-style and assure their levels of education.
- IV. the “nouveau poor” of Argentina are middle class families that are able to sustain their levels of education in spite of being barely above the poverty line.

Assinale a alternativa que contém somente afirmações corretas.

- a) I, II e IV
- b) I, III e IV
- c) II, III e IV
- d) I, II e III

GABARITO:

- 1) Gab: D**
- 2) Gab: E**
- 3) Gab: A**
- 4) Gab: D**
- 5) Gab: C**
- 6) Gab: A**
- 7) Gab: A**
- 8) Gab: C**
- 9) Gab: D**
- 10) Gab: A**