ITA Inglês 2009

As questões de 1 a 4 referem-se à seguinte reprodução de uma página da *web*:

SEARCH

CONTACT

MIT School of Engineering
Room 1-206
77 Massachusetts Ave.
Cambridge, MA 02139-4307
tel. 617-253-3291
fax 617-253-8549

For larger text, click on your browser's View menu and choose a larger text size.

Improving people's lives, one device at a time
(MIT News) Using a bicycle wheel to thresh millet and making LEGO-like bricks from dirt were among the projects designed during a month-long summer workshop at MIT to help improve the lives of millions of people living in the world's developing countries.

MIT awarded $3M for training program in quantum information science
(MIT News) MIT has been awarded a $3 million grant from the National Science Foundation to establish a pioneering doctoral-study program in the growing field of quantum information science, which poses great potential in supercomputing.

MIT researchers offer glimpse of rare mutant cells
(MIT News) MIT biological engineers have developed a new imaging system that allows them to see cells that have undergone a specific mutation. The work could help scientists understand how precancerous mutations arise.

MIT recommends steps to slash fuel use by 2035
(MIT News) Detailed analyses in a new MIT report published this month conclude that over the next 25 years, the fuel consumption of new vehicles could be reduced by 30-50 percent and total U.S. fuel use for vehicles could be cut to year 2000 levels.

Protection built to scale-fish scale, that is
(MIT News) Scientists seeking to protect the soldier of the future can learn a lot from a relic of the past, according to an MIT study of a primitive fish that could point to more effective ways of designing human body armor.

MIT Portugal students win entrepreneurship competition
(MIT News) Researchers and students from the MIT Portugal Program hope a new biotechnology they developed will help treat patients with medical complications from abnormal protein breakdown.

Internet   100%

http://web.mit.edu/engineering, em 19/09/2008 (adapted).

Questão 1. Dentre as notícias da página, somente

I.   duas são de interesse para a área médica.
II.   duas estão relacionadas à área de transporte.
III.   uma trata de projetos sociais.

Está(ão) correta(s)

A ( ) apenas a I.
B ( ) apenas a II.
C ( ) apenas a III.
D ( ) apenas I e III.
E ( ) todas.

Questão 2. Indique o *link* que o leitor deverá escolher para obter informações sobre um determinado equipamento de segurança.

A ( ) *Improving people's lives, one device at a time*
B ( ) *MIT awarded $3M for training program in quantum information science*
C ( ) *MIT researchers offer glimpse of rare mutant cells*
D ( ) *MIT recommends steps to slash fuel use by 2035*
E ( ) *Protection built to scale-fish scale, that is*

Questão 3. De acordo com a página da *web*:

I.   o MIT recebeu recursos para implementar um curso de pós-graduação na área de Ciência da Informação Quântica.
II. o MIT sediou evento de um mês para atrair pessoas que vivem em países em desenvolvimento.
III. o brinquedo LEGO foi utilizado como protótipo em um dos projetos do *Workshop* de verão realizado no MIT.
IV. dentro de aproximadamente 25 anos, o consumo de combustíveis dos veículos americanos poderá ser semelhante ao consumo dos veículos no início desta década.

Está(ão) correta(s)

A ( ) apenas I e II.   B ( ) apenas I e IV.   C ( ) apenas II e III.
D ( ) apenas II e IV.   E ( ) apenas III e IV.

Questão 4. Indique o *link* de onde o parágrafo ao lado foi extraído.

A ( ) *Improving people's lives, one device at a time*
B ( ) *MIT awarded $3M for training program in quantum information science*
C ( ) *MIT researchers offer glimpse of rare mutant cells*
D ( ) *MIT recommends steps to slash fuel use by 2035*
E ( ) *Protection built to scale-fish scale, that is*

> "There is widespread belief that fundamental ideas from (...) will lead to useful new information technology and provide computing, communication, and control systems beyond the limits of traditional paradigms," said Shapiro. "These carry with them profound social implications. This is why this training program will incorporate educations in ethics and social context."

As questões de 5 a 11 referem-se ao seguinte texto:

TEXTILES

Smarter Clothes. Europe wants to own the market for fabrics that can monitor you and your environment

SALLY MCGRANE/PAVIA

1º AT THE EUCENTRE, A RESEARCH SITE cofounded by the Italian Civil Protection Department in Pavia, Italy, a young engineer dons a firefighter's uniform that has been in testing for six months. The first prototype of the Proetex project, the ordinary looking navy blue jacket and pants contain high-tech fabrics that can keep track of a firefighter's vital signs, warn him if the fire is too hot up ahead, provide GPS readings of his position and alert the command center if he has passed out. (...)

2º Though the technology was pioneered in the U.S., the Europeans have taken the reins in a bid to revitalize their traditional-textile industry, which has been hammered by Asian competition. "We want to develop state-of-the-art know-how that can't be found in Asia," says Andreas Lymberis, a scientific officer with the European Commission who has championed smart textiles. "Our purpose is to create a new market."

3º Bringing industry partners like Philips and traditional clothing and textile companies together with university researchers from across the E.U. and Switzerland, Commission-funded teams have already produced prototypes with limited commercial availability, such as a tank top that wirelessly monitors cardiac patients and sports clothes that keep track of breathing. Other projects include fabrics that look and feel normal but are embedded with microcomputers, solar panels and energy-harvesting systems, as well as fabrics that measure blood oxygen levels and track biochemicals in sweat and bedsheets that monitor depression.

4º The world market for smart textiles is still small – about $ 550 million in revenue in 2008 – but that could double by 2010, according to Massachusetts-based venture Development Corp. The challenge is to fit applications to the market, says Lutz Walter, R&D manager at Euratex, a group representing the $ 326 billion European clothing-and-textile industry. "In the medical field, there's high value added. But to be approved as devices takes 10 years," says Walter. "In other areas, it's price: How much are consumers going to be willing to pay for a smart jogging shirt or for a baby suit that detects sudden death syndrome?" (...)

5º The development of these technologies is currently taking place largely in the biomedical and safety fields, but Annalisa Bonfiglio, a professor of electrical and electronic engineering at the University of Cagliari who coordinates the Proetex project, thinks sports could be the sector where the most potential lies. "Sportswear is an extremely powerful means for promoting the acceptance of these new technologies by common people," says Bonfiglio, noting that the technology Proetex develops for rescue workers could easily be used later for sports applications.

6º At the Spaulding Rehabilitation Hospital in Boston, researchers are testing a glove made by Smartex, an Italian smart-materials company, that tracks motor functions in poststroke patients.

7º Smartex founder and University of Pisa biomedical-engineering professor Danilo De Rossi says there is no way of knowing if Europe will maintain its edge. "Right now we are leading in this field," he says, since Europe tends to be concerned with medicine, social welfare and the elderly, whereas the U.S. tends to focus on military technology. That could change. But in a business driven by technology rather than price, the Europeans would still have a fighting chance.

Time, July 14, 2008 (adapted).

Questão 5. Assinale a opção que melhor indica o tema central do texto.

A ( )   Levantamento de necessidades do mercado mundial para o desenvolvimento de tecidos inteligentes.
B ( )   Descrição de peças de vestuário desenvolvidas por engenheiros europeus e americanos.
C ( )   Disputa do mercado mundial para detenção da tecnologia para desenvolvimento e produção de tecidos inteligentes.
D ( )   Concorrência entre diversas indústrias do setor têxtil.
E ( )   Disputa entre universidades e indústrias européias para o desenvolvimento de pesquisa tecnológica na área têxtil.

Questão 6. De acordo com o texto, a indumentária desenvolvida no Projeto Proetex permite, dentre outras funções, que:

I.   os sinais vitais e a localização do usuário sejam monitorados.
II.   o usuário seja alertado sobre aumento da temperatura externa.
III.   um possível desmaio do usuário seja evitado.

Está(ão) correta(s)

A ( ) apenas a I.   **B** ( ) apenas a II.   **C** ( ) apenas a III.
D ( ) apenas I e II.   **E** ( ) apenas II e III.

Questão 7. De acordo com o texto:

I.   a tecnologia hoje utilizada para o desenvolvimento de tecidos inteligentes para uniformes de bombeiros poderá ser facilmente adaptada para roupas de esportistas.
II.   há consumidores dispostos a pagar qualquer preço por uma peça de roupa infantil que sinalize a doença morte-súbita.
III.   em breve, os asiáticos passarão a dominar o mercado de tecidos inteligentes, hoje nas mãos dos europeus.

Está(ão) correta(s)

A ( ) apenas a I.   **B** ( ) apenas a II.   **C** ( ) apenas a III.
D ( ) apenas I e II.   **E** ( ) todas.

Questão 8. Assinale a opção em que o termo da coluna II **NÃO** pode substituir o termo da coluna I no texto.

	I	II
A ( )	dons (parágrafo 1)	wears
B ( )	the reins (parágrafo 2)	control
C ( )	a bid (parágrafo 2)	an attempt
D ( )	hammered (parágrafo 2)	stopped
E ( )	championed (parágrafo 2)	supported

Questão 9. Assinale a opção que indica o projeto, ou protótipo, de uso de tecido inteligente que **NÃO** é mencionado no texto.

A ( ) Roupa de cama capaz de monitorar depressão.
B ( ) Coletes sem fio para monitorar pacientes cardíacos.
C ( ) Roupas esportivas para monitorar respiração.
D ( ) Tecidos com painel solar embutido.
E ( ) Meias para monitorar movimentos de pacientes pós-derrame.

Questão 10. De acordo com o texto:

I.   estima-se que a renda do mercado mundial de tecidos inteligentes poderá atingir 1.1 bilhão de dólares em aproximadamente dois anos.
II.   Smartex é uma empresa italiana que foi fundada por um professor universitário.
III.   a Comissão Européia subsidiou uma equipe composta pela Philips, por empresas tradicionais das áreas têxtil e de vestuário e por pesquisadores universitários americanos e suíços.

Está(ão) correta(s)

A ( )   apenas a I.
B ( )   apenas a II.
C ( )   apenas a III.
D ( )   apenas I e II.
E ( )   apenas II e III.

Questão 11. Considere as seguintes frases extraídas do texto e as respectivas reescritas.

I.   *... a young engineer dons a firefighter's uniform that has been in testing for six months.*
       (parágrafo 1)
       ... a firefighter's uniform that has been in testing for six months is donned by a young engineer.

II.   *... Commission-funded teams have already produced prototypes with limited commercial availability...*
       (parágrafo 3)
       ... prototypes with limited commercial availability have already produced by Commission-funded teams.

III.   *... researchers are testing a glove made by Smartex, an Italian smart-materials company, ...*
       (parágrafo 6)
       ... a glove made by Smartex, an Italian smart-materials company, has been tested by researchers.

Está(ão) correta(s)

A ( )   apenas a I.
B ( )   apenas a II.
C ( )   apenas a III.
D ( )   apenas I e II.
E ( )   apenas II e III.

A questão 12 refere-se à tira abaixo:

Frankie.org by StiK

Hi, is that the IT department?

My computer has been compromised by an aggressive virus. I think my security software needs upgrading!

How aggressive would you say this virus is?

Erm... very!

38   OECD Observer   No 268   July 2008

Questão 12. Assinale a opção que melhor preenche a fala do balão em branco no primeiro quadrinho.

A ( )   *Yes, hold on a second.*
B ( )   *The line is busy at the moment.*
C ( )   *Indeed, how can I help you?*
D ( )   *Yes, what would you like to have?*
E ( )   *Yes, can I hook you up?*

As questões de 13 a 16 referem-se ao texto abaixo:

Persuading Leonardo

Although both Ben Shneiderman's *Leonardo's Laptop: Human Needs and the New Computing Technologies* and B.J. Fogg's *Persuasive Technology: Using Computers to Change What We Think and Do* are written by academics, the books transcend academia to provide a different view of the Internet's potential. Shneiderman prepares the groundwork for what he calls the "new computing," while Fogg describes how to make that computing persuasive.

The idea behind *Leonardo's Laptop* is a consideration of what Leonardo da Vinci would demand from a laptop computer and what he would do with it. To Shneiderman, who is founding director of the Human-Computer Interaction Lab at the University of Maryland, the new computing puts users first. Shneiderman begins with a brief history of computing and computer applications, declaring that, "These founders of the old computing overcame technological limitations to build impressive projects and then turned to producing tools for themselves, giving little thought to the needs of other users." Although not a founder, I admit to being of the old computing generation. I programmed in dead languages such as IBM's 1401 Autocoder and 360 Assembler before progressing to Cobol and RPG. I have now learned Visual Basic and C++, and I can report that there is nothing intrinsic to any of these languages that center a programmer's focus on those who use their applications. The new computing is not about languages but, as Shneiderman suggests, about understanding human activities and human relationships.

With Leonardo as both creator and user, his laptop will enable greater creativity and grander goals. This book goads you with ideas for applications in e-learning, e-business, e-healthcare, and e-government. Each area is built around a framework for technology innovation that Shneiderman calls the "four circles of relationships" and the "four stages of activities." (…)

Although the mental picture of Leonardo with a notebook computer excites the imagination, as a literary device, it does not wear well as the book progresses. Nonetheless, Shneiderman achieves the objective of *Leonardo's Laptop* — creating a foundation for the new computing.

With a new computing application in hand, B.J. Fogg's *Persuasive Technology: Using Computers to Change What We Think and Do* gives you advice on its implementation. To Fogg, who launched Stanford's Persuasive Technology Lab and who holds seven patents in the area of UI* design, a web site must first be credible to be persuasive. Fogg has coined the term "captology" to describe this branch of the study of computers. From the book's "Introduction:"

Captology focuses on the design, research, and analysis of interactive computing products created for the purpose of changing people's attitudes or behaviors.

It is the computer's ability to provide interactivity that gives its applications an advantage over other forms of media.

Persuasive Technology describes three basic roles that computers play: the computer as a tool, as media, and as a social actor. Further, there are seven types of persuasive tools described by Fogg. Such tools persuade by simplifying, tunneling (guiding), customizing, being there at the right time, removing tedium, rewarding after observation, and reinforcing proper behavior. As media, computers can modify behavior by simulating new endeavors. As a social actor, computers persuade through praise. However, no matter the role, to persuade, the application must be credible.

Perhaps the most interesting parts of Fogg's book are the two chapters that discuss the ways in which computer applications destroy their own credibility and what an application or web site must do to be considered, by its users, trustworthy. According to Fogg, a computing device or application is perceived to be credible only if it is first perceived as believable—trustworthiness based on expertise. In brief, an application is trustworthy if it is thought to be fair and unbiased. It is trustworthy if its author or origin is thought to be skilled and knowledgeable. The crux of the issue is that credibility matters.

Both books are thoroughly documented and both are excellent points of departure for a more detailed inquiry into the available material. If both books are taken to heart, using computers and their applications will become enjoyable and satisfying.

* U.I. - User Inteface

D. Wohlbruck, *Dr Dobb's Journal*, January, 2004.

Questão 13. Indique o gênero, em inglês, ao qual o texto acima pertence.

A ( ) *summary*   **B** ( ) *review*   **C** ( ) *essay*
D ( ) *abstract*   **E** ( ) *report*

Questão 14. Considere as seguintes afirmações.

I.   As duas obras discutidas no texto têm como assunto principal o uso do computador e suas aplicações atuais e potenciais.
II.   Shneiderman e Fogg, autores do texto, mostram a potencial aplicação da internet nos dias atuais.
III. De acordo com Shneiderman, o computador eficaz deve ser, concomitantemente, uma ferramenta capaz de persuadir e um agente interativo.

Está(ão) correta(s)

A ( ) apenas a I.   **B** ( ) apenas a II.   **C** ( ) apenas a III.
D ( ) apenas I e II.   **E** ( ) apenas I e III.

Questão 15. Com relação a *Leonardo's Laptop: Human Needs and the New Computing Technologies*, **NÃO** se pode dizer que a obra

A ( ) tem como foco o usuário de computadores, seja ele um iniciante ou especialista no assunto.
B ( ) destaca a importância de programas como Autocoder e Assembler, assim como COBOL, RPG, Visual Basic e C++.
C ( ) discute o tipo de uso que Leonardo da Vinci faria, caso tivesse um computador portátil.
D ( ) mostra a importância das relações humanas no uso do computador.
E ( ) apresenta ao usuário possibilidades de diferentes usos do computador, dentre eles, para negócios eletrônicos.

Questão 16. Com relação a *Persuasive Technology*: *Using Computers to Change What We Think and Do*, analise as afirmações a seguir:

I.   O trabalho foi idealizado no Laboratório de Tecnologia Persuasiva da Universidade de Stanford e consiste na sétima criação intelectual do autor.
II. Ao propor um novo conceito na área computacional, o autor destaca mudanças de atitude ou de comportamento dos usuários.
III. A obra argumenta que uma página da *web* deve ser confiável para seduzir o usuário.

Está(ão) correta(s)

A ( ) apenas a I.   **B** ( ) apenas a II.   **C** ( ) apenas a III.
D ( ) apenas I e II.   **E** ( ) apenas II e III.

As questões de 17 a 20 referem-se à entrevista abaixo:

Ten Questions Over a Cell Phone

Milton Hatoum is the award winning author of *Dois Irmãos* (*Two Brothers*) and *Cinzas do Norte* (*Ashes from the North*). His new novel, *Órfãos do Eldorado* (*Eldorado Orphans*), will be released next April.

1 – **Which was your best trip ever?**
The trip I took with my father to Lebanon, in July 1992. He had not seen his Lebanese family for over 30 years. Visiting Lebanon and meeting dozens of relatives was a very emotional experience.

2 – **What is your dream trip?**
To go to Kashmir and some parts of India. I also would like to visit several African countries.

3 – **In what other country would you like to live?**
Well, I have already lived in three countries and eight different cities. I now just want to stay around here. But when I think of Provence or Tuscany, I feel like spending some time in France and Italy.

4 – **What do you admire most about a person?**
His or her character. What elevates or demeans a human being is not religion, gender, color, ethnicity – none of that. It's the character.

5 – **What do you hate most in a person?**
I think an arrogant person looks ridiculous. I hate meanness, deceit, dishonest people.

6 – **Would you be happy without friends?**
I would be unhappier without them.

7 – **What animal would you like to be?**
The very same one I was destined to be. Our fate is to be human.

8 – **What do you do when you have nothing to do?**
I get bored when I don't do anything. Right now, after finishing a novel, I feel a bit like I'm hanging in mid-air, aimless. But there's always a book to read or re-read.

9 – **Who is your favorite film director?**
I love Rossellini, Visconti and the directors of Italian neo-realism.

10 – **What character would you like to be?**
It's hard to say... I would be a terrible actor. But all the characters in my novels have a bit of me in them.

Questão 17. Leia as informações abaixo sobre Milton Hatoum:

I.   Viveu em diferentes países e cidades e pretende conhecer lugares na Índia e na África.
II.   Destaca a viagem ao Líbano, com seu pai, há 30 anos, como uma das mais marcantes de sua vida.
III.   Elegeu Provença ou Toscana para fixar residência.

Está(ão) correta(s)

A ( )   apenas a I.   **B** ( )   apenas a II.   **C** ( )   apenas a III.
D ( )   apenas I e II.   **E** ( )   nenhuma.

Questão 18. De acordo com a entrevista, Milton Hatoum

I.   é um renomado escritor, que recebeu premiação recentemente pela novela *Dois Irmãos*.
II.   costuma reler suas obras quando está com tempo livre.
III.   reconhece características pessoais nos personagens que cria.

Está(ão) correta(s)

A ( )   apenas a I.   **B** ( )   apenas a II.   **C** ( )   apenas a III.
D ( )   apenas I e II.   **E** ( )   todas.

Questão 19. Considere as seguintes traduções das respostas de Milton Hatoum:

I.   *What elevates or demeans a human being is not religion, gender, color, ethnicity - none of that.*
         O que enaltece ou descaracteriza um ser humano não é a religião, o sexo, a cor, a ética - nada disso.

II.   *I hate meanness, deceit, dishonest people.*
         Eu odeio mesquinharia, falsidade, pessoas desonestas.

III.   *Right now, after finishing a novel, I feel a bit like I'm hanging in mid-air, aimless.*"
         Agora, depois de terminar uma novela, eu me sinto totalmente no ar, sem rumo.

Está(ão) correta(s)

A ( )   apenas a I.   **B** ( )   apenas a II.   **C** ( )   apenas a III.
D ( )   apenas I e II.   **E** ( )   apenas II e III.

Questão 20. Marque a opção **incorreta**.

A ( )   *Can you describe the trip you took in 1992?* pode substituir a pergunta n° 1, sem comprometer a
         resposta de Milton Hatoum.
B ( )   *What is the main aspect that attracts your attention in a person?* pode substituir a pergunta n° 4,
         sem comprometer a resposta de Milton Hatoum.
C ( )   *What is an arrogant person like?* pode substituir a pergunta n° 5, sem comprometer a resposta de
         Milton Hatoum.
D ( )   *None except a human being* pode ser outra resposta de Milton Hatoum à pergunta n° 7.
E ( )   *How do you feel when you have nothing to do?* pode substituir a pergunta n° 8, sem comprometer a
         resposta de Milton Hatoum.

INSTITUTO TECNOLÓGICO DE AERONÁUTICA
VESTIBULAR 2009

GABARITO

Inglês	
1	D
2	E
3	B
4	B
5	C
6	D
7	A
8	D
9	E
10	D
11	A
12	C
13	B
14	A
15	B
16	E
17	A
18	C
19	B
20	A