#### Texto I

A text familiar to many, George Orwell's classic satire has cropped up on school reading lists ever since the year of its creation. Few readers can fail to be touched by the tragedy within, by its wonderful synthesis of unthreatening symbolism and incisive criticism. This familiarity is convenient since, as an adaptation, "Animal Farm" spends too little time on the details of time and place. Instead, directors Joy Batchelor and John Halas thrust us directly into the depression that is Manor Farm, briefly explaining the situation with pictures and narration by Gordon Heath. (...)

Sadly, Batchelor and Halas make it vital to have read Orwell's biting satire on Soviet history before viewing "Animal Farm", just to know what's been left out. As it is, the film grasps the superficial aspects of Orwell's allegoric fable without his deeper message. In missing so badly, we're left with an impressive attempt that never matches up to its birthright.

#### Texto II

Power corrupts, but absolute power corrupts absolutely - and this is vividly and eloquently proved in Orwell's short novel. "Animal Farm" is a simple fable of great symbolic value, and as Orwell himself explained: "It is the history of a revolution that went wrong". The novel can be seen as the historical analysis of the causes of the failure of communism, or as a mere fairy-tale; in any case it tells a good story that aims to prove that human nature and diversity **prevent** people **from** being equal and happy, or at least equally happy. (...)

In "Animal Farm", Orwell describes how power turned the pigs from simple "comrades" to ruthless dictators who managed to walk on two legs, and carry whips. The story may be seen as an analysis of the Soviet regime, or as a warning against political power games of an absolute nature and totalitarianism in general. For this reason, the story ends with a hairraising warning to all humankind: "The creatures outside looked from pig to man, and from man to pig, and from pig to man again: but already it was impossible to say which was which".

#### Texto III

When the farm's prize-winning pig, Old Major, calls a meeting of all the animals of Manor Farm, he tells them that he has had a dream in which mankind is gone, and animals are free to live in peace and harmony. (...) . When Old Major dies, (...) Snowball and Napoleon assume command, and turn his dream into a full-fledged philosophy. One night, the starved animals suddenly revolt and drive the farmer Mr. Jones, his wife, and his pet raven off the farm and take control. The farm is renamed "Animal Farm" as the animals work towards a future utopia. The Seven Commandments of the new philosophy of Animalism are written on the wall of a barn for all to read, the seventh and most important of **which** is that "all animals are equal" (...). Many years pass, and the pigs learn to walk upright, carry whips, and wear clothes. The Seven Commandments are reduced to a single phrase: "All animals are equal, but some animals are more equal than others." Napoleon holds a dinner party for the pigs, and the humans of the area (in the adjacent Foxwood Farm run by Mr. Pilkington), who congratulate Napoleon on having the most hard working animals in the country on the least feed. Napoleon announces his alliance with the humans against the labouring classes of both "worlds". The animals discover this when they overhear Napoleon's conversations and finally **realize** that a change has come over the ruling pigs. During a poker match, an argument **breaks out** between Napoleon and Mr. Pilkington when they both play an Ace of Spades, and the animals **realize** how they cannot tell the difference between the pigs and the humans.

(Fontes omitidas propositadamente)

Questão 1. Assinale a opção que indica, respectivamente, o gênero dos Textos I, II e III.

I II Ш Sinopse de livro/filme, **A**() crítica literária. crítica cinematográfica. **B**() Crítica literária. sinopse de livro/filme, crítica cinematográfica. **C**() Crítica literária, crítica cinematográfica, sinopse de livro/filme. **D**() Crítica cinematográfica, sinopse de livro/filme. crítica literária, **E** ( ) Crítica cinematográfica, sinopse de livro/filme, crítica literária.

## Questão 2. Da leitura dos Textos I, II e III, é possível depreender que:

- I. o trabalho de Orwell pode ser entendido como um conto de fadas ou como uma crítica a regimes políticos totalitários.
- II. o filme *Animal Farm* retrata todos os aspectos apresentados no livro de mesmo nome e, por isso, recebeu elogios da crítica.
- III. o enredo de *Animal Farm* aborda, entre outros temas, a influência do poder no comportamento humano.

Então,	está(ão)	correta(s)
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<b>A</b> ()	apenas a I.	<b>B</b> ()	apenas a II.	<b>C</b> ()	apenas a III.
<b>D</b> ()	apenas I e II.	$\mathbf{E}\left( \ \right)$	apenas I e III.		

**Questão 3**. Assinale a opção que indica possibilidade de substituição de termo ou expressão em negrito no **Texto I** sem que o sentido do texto seja comprometido.

- ${f A}$  ( ) has cropped up em has cropped up on school reading lists pode ser substituído por has been imposed.
- **B**() fail em Few readers can fail to be touched... pode ser substituído por help.
- **C** ( ) since em This familiarity is convenient, since, as ... pode ser substituído por because.
- **D**() Instead na última sentença do primeiro parágrafo pode ser substituído por Furthermore.
- **E** ( ) left out em just to know what's been left out pode ser substituído por included.

Questão 4. Os termos prevent from (Texto II) e realize (Texto III) significam, respectivamente,

<b>A</b> ()	prevenir – compreender.	<b>B</b> ()	impedir – compreender.	<b>C</b> ()	prevenir – imaginar.
<b>D</b> ()	impedir – idealizar.	<b>E</b> ()	preparar – idealizar.		

Questão 5. No Texto III o termo which em the seventh and most important of which is that... refere-se a

- **A**() the new philosophy of Animalism.
- $\mathbf{B}(\ )$  the wall of the barn.
- **C**() commandments.
- **D**() all animals.
- **E**() all people.

**Questão 6**. No final do **Texto III**, o autor afirma que os animais não conseguiam mais diferenciar os homens dos porcos. Qual das opções abaixo, com frases encontradas no **Texto II**, faz observação semelhante?

- **A**() power turned the pigs from simple comrades to ruthless dictators
- **B**() dictators who managed to walk on two legs, and carry whips
- **C**() human nature and diversity prevent people from being equal
- **D**() the creatures outside looked from pig to man
- **E**() but already it was impossible to say which was which

## Questão 7. A expressão break out em destaque no Texto III significa

- **A**() to make a sudden, quick advance.
- **B**() to bring or come to an end.
- **C**() to develop suddenly.
- **D**() to force or make a way through.
- **E**() to cause to separate into pieces suddenly or violently.

As questões de 8 a 10 referem-se ao seguinte cartaz de divulgação de evento, afixado em um dos murais do ITA.

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<sup>₅</sup> ‴ Brazilian

MRS<sup>MEETING</sup> 6

**FLORIANÓPOLIS** 

The annual meeting of the Brazilian Materials Research Society (SBPMat), now being held for the 5<sup>th</sup> time, is the largest and most comprehensive Brazilian national conference in Materials Science and Engineering. The V SBPMat / Brazilian MRS Meeting 2006 will provide a very stimulating environment for the discussion of relevant themes in materials research.

The Meeting will be held together with the X Brazilian Congress for Microscopy of Materials (MICROMAT 2006), promoted by the Brazilian Society for Microscopy and Microanalysis (SBMM).

The joint event will take place in the Costão do Santinho Resort & Spa in Florianópolis, State of Santa Catarina, Brazil.

As in previous meetings, the conference will bring together scientists and engineers, from Brazil and abroad, interested in multidisciplinary topics of materials research.

The scientific program consists of 13 symposia, each featuring internationally recognized speakers as well as oral and poster contributions. In addition, leading-edge topics of materials research will be highlighted by distinguished lecturers in plenary sessions.

## SBPMat BRAZIL-MRS

Sociedade Brasileira em Pesquisas de Materiais



Brazilian MRS Meeting 2006 Florianópolis, SC, Brazil October 8 th - 12 th, 2006 Costão do Santinho Resort & SPA



ABSTRACTS SUBMISSION DEADLINE

JUNE 30, 2006

(formatação adaptada)

Questão 8. De acordo com o texto do cartaz, considere as seguintes afirmações:

- I. o V SBPMat é uma conferência internacional realizada anualmente na área de Ciências dos Materiais e Engenharia.
- II. o evento tem por objetivo promover discussões sobre temas ligados à pesquisa em Materiais.
- III. estarão presentes no evento engenheiros e cientistas de várias partes do mundo, não apenas do Brasil.

Então, está(ão) correta(s)

 $\boldsymbol{A}$  ( ) apenas a I.  $\boldsymbol{B}$  ( ) apenas a II.  $\boldsymbol{C}$  ( ) apenas I e II.

**D**() apenas II e III. **E**() todas.

## Questão 9. Ainda de acordo com o texto do cartaz, considere as seguintes afirmações:

- I. a programação científica do evento é composta de simpósios, palestras, comunicações orais e posters.
- II. o V SBPMat e o X MICROMAT serão realizados concomitantemente.
- III. a informação Abstract Submission Deadline June 30, 2006 refere-se ao prazo final para inscrições no evento.

Então, está(ão) correta(s)

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

## Questão 10. Finalmente, considere as seguintes afirmações:

- I. *the largest and most comprehensive conference* indica que a conferência é um evento de grande porte e de caráter abrangente.
- II. being held em now being held for the 5<sup>th</sup> time e will be held together em The meeting will be held together with the X Brazilian... poderiam ser substituídos, respectivamente, por taking place e will occur.
- III. leading-edge topics refere-se a temas em destaque na área de pesquisa em Materiais.

Então, está(ão) correta(s)

A() apenas a I.

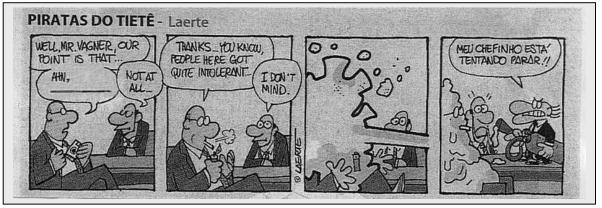
B() apenas I e III.

C() apenas II e III.

E() todas.

D() apenas i e iii. E() todas.

## Questão 11. A opção que melhor preenche a lacuna do primeiro quadrinho da tira abaixo é



Folha de S. Paulo, 29/01/04

**A**() Can I smoke? **B**() Mind if I smoke? **C**() Do you smoke? **D**() Want a cigarette? **E**() Are you OK?



# An ever-improving electrical system

If you total up all of the wires and cables of all diameters and lengths found in a large airplane, they could stretch for hundreds of miles. The plane also has hundreds of places using alternating and low tension continuous current (115 volts). It is common practice for these generating and distribution systems to maintain a solid energy reserve for peak usage times and unusual circumstances.

The kilowatts used on new models cannot be compared to what will be required on board the megajets A380 (now going through flight testing) and the future A350, plus the Boeing 787 Dreamliner. All of these plan on offering new dimensions in inflight entertainment and a level of connectivity that is comparable to what we already have on the ground - for laptops and individual cell phones, broadband internet, e-mail, Wi-Fi (longdistance enlacing), and all the rest.

In today's wide-body planes, the biggest energy consumer is the heating for de-icing and defrosting the windscreens. But, even after adding in the 16 ovens and coffee machines in the galley, plus the electronic navigation, communications and avionics systems, we will still be **well short of** the electrical system on board the advanced jets that will go into service between 2006 and 2010.

Besides the fact that each of those aircraft will have two (not just one) alternators per engine, there will be other brand-new electrical applications. The wiring may come with a variety of tensions and frequencies, which will bring a new level of freedom to designers who are projecting a much larger, more flexible, more efficient, and safer electrical system.

Texto by Ernesto Klotzel, Illustration Clayton Jr

Icaro, April, 2006

Questão 12. Assinale a opção que melhor explicita o objetivo principal do texto.

- **A** ( ) Descrever o sistema elétrico de um avião de grande porte.
- **B** ( ) Descrever as partes de um avião que demandam o uso de sistema elétrico.
- C ( ) Discorrer sobre as inovações que serão realizadas no sistema elétrico em novos aviões de grande porte.
- **D**() Comentar que, no futuro, poderemos usar celulares e internet em mega jatos.
- **E** ( ) Ressaltar que, no futuro, a fiação de novos aviões comportará tensões e freqüências variadas.

Questã	to 13. Atualmente, nos grandes aviões, a maior parte da energia é consumida
A() B() C() D() E()	na utilização de fornos e máquinas de café. em navegação eletrônica, sistemas de comunicação e de aviônica. em sistemas antiembaçamento e degelo dos pára-brisas. na manutenção da temperatura interna da aeronave. na manutenção da energia da aeronave para eventuais emergências.
Questã	to 14. O termo these em All of these plan on offering está substituindo
_	novos megajatos. equipamentos eletrônicos que poderão ser usados a bordo. níveis de conectividade comparáveis ao que temos em solo. quilowatts usados nos novos megajatos. correntes elétricas que serão usadas nos megajatos.  10 15. A expressão to be well short of em we will still be well short of the electrical system pode ser nída por
A ( ) D ( )	to be far from. to be close. $\mathbf{B}(\ )$ to be adequately supplied with. $\mathbf{C}(\ )$ to be below the limit. $\mathbf{E}(\ )$ to be left off.
Questã	to 16. O aspecto que permitirá maior liberdade aos projetistas é que
<b>A</b> () <b>B</b> ()	os novos jatos contarão com aplicações elétricas inovadoras. os megajatos terão dois alternadores por motor e a fiação comportará tensões e freqüências diversificadas.
C() D() E()	os novos jatos contarão com corrente alternada e contínua. os megajatos oferecerão novas possibilidades de entretenimento. as novas aeronaves contarão com um sistema elétrico mais eficiente e seguro.

As questões de 17 a 20 referem-se a um trecho do prefácio abaixo:

...)

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For about 25 years, I have had the opportunity to observe the efforts of many individuals applying digital image-processing techniques to problems offered by the real world. A few of these individuals have established an enduring track record of solid success on almost every attempt. They have consistently contributed innovative and effective solutions that creatively employ the tools of the discipline.

These highly productive individuals demonstrably hold several characteristics in common. One can venture to assume that these characteristics constitute a formula for success, to whatever extent such a thing can exist in this field.

Uniformly, these successful persons have (1) a genuine interest in – even a fascination with – the technology involved, (2) a thorough understanding of the fundamentals of this highly multidisciplinary technology, (3) a conceptual type of understanding (as opposed to rote memorization of totally abstract theory), and (4) a knack for seeing problems visually, graphically, and from more than one viewpoint. In line with this last point, they often find themselves hard pressed to explain their ideas without the aid of a graph or drawing.

This book is designed to help the reader develop the last three of these traits and perhaps enhance the first as well. The selection of materials for inclusion (and, equally important, for omission), the examples used, the references cited, and the exercises and suggestions for projects are all directed toward this goal.

In the field of digital image processing, mathematical analysis forms the stable basis upon which one can make definite predictions regarding the performance of a digital imaging system. In this treatment, however, mathematics is employed more as a faithful servant than as a ruthless master. The emphasis is on developing a conceptual understanding, and the analysis is used to support this goal.

Castleman, K. R. Digital Image Processing. Prentice Hall, 1996

# Questão 17. Assinale a asserção que NÃO indica possíveis objetivos do livro.

- **A** ( ) Auxiliar no desenvolvimento da compreensão conceitual da teoria de processamento de imagens digitais em contraposição à memorização mecânica da teoria.
- **B**() Aprofundar a compreensão dos fundamentos da tecnologia de processamento de imagens digitais.
- C ( ) Desenvolver a capacidade de enxergar problemas relacionados a processamento de imagens sob pontos de vista variados.
- **D** ( ) Apresentar exemplos, referências, exercícios e sugestões para o desenvolvimento de projetos usando tecnologia de processamento de imagens digitais.
- ${\bf E}\,(\,\,)\,\,$  Aumentar o interesse genuíno pela tecnologia de processamento de imagens digitais.

# **Questão 18**. Considere as seguintes asserções:

- I. para elaborar o livro, o autor estudou, por um período de vinte e cinco anos, o trabalho de pessoas que utilizam técnicas de processamento de imagens.
- II. no processamento de imagens digitais, a análise matemática é utilizada como apoio ao desenvolvimento da compreensão conceitual.
- III. a análise matemática oferece os fundamentos sobre os quais se pode fazer previsões precisas em relação ao desempenho de um sistema de imageamento digital.

Das afirmações acima, está(ão) condizente(s) com o texto

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

**Questão 19**. Assinale a opção que melhor traduz, respectivamente, os termos *venture* (linha 6), *knack* (linha 11) e *hard-pressed* (linha 12).

- A ( ) especular; inclinação; não obrigados
- **B**() atrever-se; inaptidão; inflexíveis
- **C**() evitar; propensão; sobrecarregados
- **D**() ser prudente; idoneidade; obsessivos
- **E** ( ) arriscar-se; talento; sob pressão

**Questão 20**. As expressões *as opposed to* (linha 10), *In line with* (linhas 11/12) e *however* (linha 19) podem ser substituídas, respectivamente, por

<b>A</b> ()	in contrast with,	In agreement with,	although.
<b>B</b> ()	in contrast with,	In agreement with,	though.
<b>C</b> ()	in contrast with,	In dissension with,	though.
<b>D</b> ()	in conflict with,	In dissension with,	although.
<b>E</b> ( )	in conflict with,	In agreement with,	although.