EDITAL Nº 01 DE 28 DE OUTUBRO DE 2020

PPGCF/UFRA - Prova de Língua Estrangeira

Instruções:

✓ As questões são de múltipla escolha em que se deve escolher apenas uma alternativa;

✓ Há a versão em inglês e português referente à construção das questões e o candidato deve escolher apenas uma para resolver.

Link do texto referência: https://media.nature.com/original/magazine-assets/d41586-020-02830-3/d41586-020-02830-3.pdf

VERSÃO PORTUGUÊS

Q1. Sobre o que é expresso no título e subtítulo do artigo, é correto afirmar que:

a) O título expressa uma expectativa para o futuro;

b) Em breve as árvores serão identificadas pelo conjunto das suas copas porque há certas limitações da técnica;

c) O estudo mapeou a localização e tamanho de todas as árvores do mundo;

d) O estudo mapeou árvores de copas grandes no Oeste da África;

e) A análise de satélite conseguiu identificar apenas uma árvore isolada numa extensa área do Oeste da África.

Q2. Assinale a alternativa incorreta.

a) Na frase "The data suggest that **it** will soon be possible, with certain limitations, to map the location and size of every tree worldwide.", **It** é o sujeito da frase (não substitui ou refere-se a um substantivo);

b) Na frase "The improvement provided in the latest study can also be seen in the much higher level of detail **it** gives for the wetter regions (those with annual rainfall greater than 600 mm), and shows local spatial variability in trees that is presumably associated with contrasting soil types, water availability, land use and land-use history.", **it** refere-se a "study";

c) Na frase "Although we can expect further improvements in the spatial resolution of satellite images, **it** becomes pertinent to ask what minimum canopy size is needed to characterize woody-plant communities in various regions", **it** refere-se a "spatial revolution";

d) Na frase "Although feasible, on the basis of canopy colour, shape and texture, **it** will be particularly tricky at regional and global scales and across biodiverse ecosystems.", **It** é o sujeito da frase (não substitui ou refere-se a um substantivo);

e) Na frase "**They** identified the size and location of individual tree canopies (green), as shown in d for an area corresponding to the inset box in c", **they** refere-se a "Brand et al.".

Q3. Assinale a alternativa que contém uma interpretação incorreta do texto.

a) Tanto arbustos como árvores são "woody plants";

b) Não há ainda informações em nosso entendimento da ecologia em escala global, biogeografia e ciclos biogeoquímicos de carbono, água e outros nutrientes;

c) Brand et al. fizeram um estudo inovador;

d) Um pixel normalmente capta um conjunto de árvores visto de cima e a área coberta por copas é calculada;

e) O avanço dos satélites comerciais refere-se a deixar de capturar "bulk properties" e passar a captar objetos menores.

Q4. Assinale a única alternativa em que o "ing" compõe um verbo no presente contínuo.

a) This limitation has forced researchers in the field of Earth observation to focus on <u>measuring</u> bulk properties, such as the proportion of a landscape covered by tree canopies when viewed from above;

b) Accurate information on the woody-vegetation structure of ecosystems is, therefore, fundamental to our <u>understanding</u> of global-scale ecology, biogeography and the biogeochemical cycles of carbon, water and other nutrients;

c) Brandt et al. provide a <u>striking</u> demonstration of this transformation in terrestrial remote sensing;

d) The authors completed this giant task <u>using</u> artificial intelligence;

e) "However, during the past two decades, a variety of commercial satellites have begun to collect data at a higher spatial resolution, capable of <u>capturing</u> ground objects measuring one square metre or less".

Q5. Assinale a alternativa incorreta:

a) A frase "This resolution improvement places the field of terrestrial remote sensing on the threshold of a fundamental leap forward" expressa um avanço na área do conhecimento;

b) Na frase: "<u>This deep-learning method</u> is designed to recognize objects (in this case, tree canopies) on the basis of their characteristic shapes and colours within a larger image", "This deep-learning method" refere-se a artificial intelligence;

c) O método utilizado por Brand et al. é tão moderno e preciso que dispensou técnicas manuais para seu desenvolvimento;

d) A estimativa do número total de árvores em escala global contém erros, especialmente para terras secas;

e) O texto compara estudos para exaltar a evolução na área de sensoriamento remoto.

Q6. São desafios e limitações do estudo de Brand et al. apresentado, exceto:

a) Identificação de espécies;

b) Identificação de árvores com diâmetro menor do que 2 m;

c) Separar copas sobrepostas;

d) Utilizar a mesma abordagem de Brand et al. para escala mundial;

e) Medir tamanho das copas das árvores.

Q7. Qual seria o avanço mais desejado por especialistas de sensoriamento remoto?

a) Identificar arvores com diâmetro inferior a 2 m;

b) Identificar espécies pelas copas;

c) Identificar todas as árvores do mundo;

d) Medir área coberta por copas de árvores;

e) Medir o diâmetro e altura de todas as árvores de uma determinada área.

Link do vídeo referência: https://oregonforests.org/content/products

Nome do vídeo: Forest Fact Break: Wood Products

Q8. Assinale a alternativa que contém pelo menos uma informação que não é dada sobre as árvores e a madeira no vídeo:

a) A madeira tem como matéria prima três fatores da natureza capturados pelas árvores;

b) As árvores são independentes e eficazes;

c) Existe mais sobre os potenciais da madeira do que conhecemos;

d) Madeira contém de celulose que é útil para nós;

e) Nenhuma das anteriores.

Q9. Assinale a alternativa verdadeira sobre o vídeo.

a) Exemplifica algumas limitações da madeira como material de construção por ser biodegradável apesar de ser resistente;

b) Sugere que árvores são tão eficazes quanto pessoas comparando a produção de madeira com preparo de receitas;

c) As seguintes características da madeira são citadas no vídeo: incrível, heterogênea, simples, resistente e propriedades acústicas e térmicas atrativas;

d) Elogia as árvores por fazerem o trabalho duro sozinhas;

e) Nenhuma das anteriores.

Q10. Sobre os usos da madeira apresentados no vídeo, assinale a alternativa incorreta.

a) Menciona que são todos de caráter renovável em comparação com outros materiais;

b) Separa os usos mais comuns (fáceis) dos mais inesperados;

c) Não foram listados todos os usos;

d) É possível gerar produtos comestíveis da madeira;

e) Combustíveis de madeira ainda estão em fase de desenvolvimento.

ENGLISH VERSION

Text link: https://media.nature.com/original/magazine-assets/d41586-020-02830-3/d41586-020-02830-3.pdf

Q1. Regarding what is expressed in the title and subtitle of the article, it is correct to state that:

a) The title expresses an expectation for the future;

b) Soon, the trees will be identified by agglomerated overlapping canopies because there are certain limitations of the technique;

c) The study mapped the location and size of all the trees in the world;

d) The study mapped large canopy trees in West Africa;

e) The satellite analysis was able to identify only one isolated tree in a large area of West Africa.

Q2. Check the incorrect alternative.

a) In the sentence "The data suggest that **it** will soon be possible, with certain limitations, to map the location and size of every tree worldwide." **It** is the subject of the sentence (does not replace or refer to a noun);

b) In the phrase "The improvement provided in the latest study can also be seen in the much higher level of detail, **it** gives for the wetter regions (those with annual rainfall greater than 600 mm), and shows local spatial variability in trees that are presumably associated with contrasting soil types, water availability, land use and land-use history.", **it** replaces/refers to "study";

c) In the phrase "Although we can expect further improvements in the spatial resolution of satellite images, **it** becomes pertinent to ask what minimum canopy size is needed to characterize woody-plant communities in various regions.", **it** replaces/refers to "spatial revolution";

d) In the phrase “Although feasible, on the basis of canopy colour, shape and texture, **it** will be particularly tricky at regional and global scales and across biodiverse ecosystems.”, **It** is the subject of the sentence (does not replace or refer to a noun);

e) In the phrase “They identified the size and location of individual tree canopies (green), as shown in d for an area corresponding to the inset box in c”, **they** replaces/refers to “Brand et al.”.

Q3. Check the alternative that contains an incorrect interpretation of the text.

a) Both shrubs and trees are "woody plants";

b) There is still no information for our understanding of ecology on a global scale, biogeography and biogeochemical cycles of carbon, water, and other nutrients;

c) Brand et al. did an innovative study;

d) A pixel normally captures a set of trees seen from above, and the area covered by canopies is calculated;

e) The advance of commercial satellites is about to stop capturing "bulk properties" and start to capture smaller objects.

Q4. Check the only alternative where "ing" composes a verb in the continuous present.

a) This limitation has forced researchers in the field of Earth observation to focus on measuring bulk properties, such as the proportion of a landscape covered by tree canopies when viewed from above;

b) Accurate information on the woody-vegetation structure of ecosystems is, therefore, fundamental to our understanding of global-scale ecology, biogeography, and the biogeochemical cycles of carbon, water, and other nutrients;

c) Brandt et al. provide a striking demonstration of this transformation in terrestrial remote sensing;

d) The authors completed this giant task using artificial intelligence;

e) "However, during the past two decades, a variety of commercial satellites have begun to collect data at a higher spatial resolution, capable of capturing ground objects measuring one square meter or less."

Q5. Check the incorrect alternative:

a) The phrase "This resolution improvement places the field of terrestrial remote sensing on the threshold of a fundamental leap forward" expresses an advance in the area of knowledge;
b) In the sentence: "This deep-learning method is designed to recognize objects (in this case, tree canopies) on the basis of their characteristic shapes and colors within a larger image," "This deep-learning method" refers to artificial intelligence;
c) The method used by Brand et al. is so modern and precise that it did not require manual techniques for its development;
d) Estimating the total number of trees on a global scale contains errors, especially for dry land;
e) The text compares studies to highlight the evolution in the area of remote sensing.

Q6. All alternatives consist of challenges and limitations of Brand et al.'s study, except:
a) Identification of species;
b) Identification of trees with diameters below 2 m;
c) Separate overlapping canopies;
d) Use the same approach as Brand et al. at a worldwide application;
e) Measure the size of the tree canopies.

Q7. What would the advance in remote sensing most desired by specialists?
a) Identify trees with a diameter of less than 2 m;
b) Identify species by canopies;
c) Identify all the trees of the world;
d) Measure the area covered by tree canopies;
e) Measure the diameter and height of all trees in a given area.

Video link: https://oregonforests.org/content/products
Name of the video: Forest Fact Break: Wood Products

Q8. Check the alternative that contains at least one information that is not given about the trees and wood in the video:
a) Trees capture three sources from nature as raw materials to produce wood;
b) Trees are independent and effective;
c) There is more about the potentials of wood than we know;
d) Wood contains cellulose that is useful for us;
e) None of the above.

Q9. Check the true alternative about the video.

a) It exemplifies some limitations of wood as a building material, e.g., being biodegradable despite being resistant;

b) Suggests that trees are as effective as people are by comparing the production of wood with preparing recipes;

c) The following characteristics of the wood are mentioned in the video: amazing, heterogeneous, simple, resistant, and attractive acoustic and thermal properties;

d) Compliments the trees for doing the hard work alone;

e) None of the above.

Q10. Regarding the uses of wood presented in the video, check the incorrect alternative.

a) It mentions that they are all renewable in comparison to other materials;

b) Separate the most common (easy) uses from the most unexpected ones;

c) Not all uses have been listed;

d) It is possible to generate edible products from wood;

e) Wood fuels are still under development.