PROCESSO SELETIVO PROPEM 03/2022

RESULTADO PROVA DE PROFICIÊNCIA EM LÍNGUA INGLESA

Conforme Edital PROPEM 03/2022, de 2 de dezembro de 2022 e suas retificações, tem-se a seguir o resultatdo da prova de proficiência em língua inglesa.

Candidato	Nota
Bruno da Silva Cezar	8,75
Nilton Costa Pereira de S. Thiago Neto	8,75
Paulo Henrique Cirilo	10,0
Paulo Henrique de Souza Alves	8,75
Renato Silva Pereira Júnior	Não compareceu
Samuel Elienai Izabel	Não compareceu
Yan Vitor Martins Pereira de Sousa	Não compareceu

Ouro Preto, 6 de fevereiro de 2023.

Comissão de Seleção

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GABARITO DA PROVA DE PROFICIÊNCIA EM LÍNGUA INGLESA

1. The researchers in the article are from what school of engineering?

a) Mechanical Engineering.

b) Civil Engineering.

c) Molecular Engineering.

d) Materials Engineering.

2. Why is the engineered building material considered “chameleon-like”?

a) The material changes its chemical composition, according to changes in pressure, humidity and temperature of the external environment.

b) The material changes color and exchanges heat with the external environment, as the external temperature changes.

c) The material changes its infrared wavelength according to changes in pressure, humidity and temperature of the external environment.

d) There is heat exchange with the external environment, according to conventional heat exchange processes in materials.

3. How does heat exchange with the external environment occur?

a) The smart material (electrocomic) continuously emits heat with the external environment.

b) The smart material (electrocomic) emits more heat when it is hot externally and emits lesser amount of heat when it is cold externally.

c) The smart material (electrocomic) exchanges heat with the external environment only to cool the internal environment.

d) The intelligent material (electrocomic) exchanges heat with the external environment only to heat the internal environment.

4. What is the main purpose of the new “chameleon-like” building material?

a) Change color of buildings.

b) Exchange heat with the external environment.

c) Save energy through the construction of buildings with intelligent materials.

d) None of the above.

5. The intelligent material developed consists of:

(a) One layer to retain most of the heat and another layer to dissipate infrared heat.

(b) One layer to heat the building on hot days and another layer to cool it on cold days.

(c) A layer that behaves differently depending on the external temperature, retains heat on cold days and emits heat on hot days.

(d) A layer of solid copper (absorbs heat) and another layer of aqueous solution (emits heat).

6: According to the text, which of the following statements is correct?

A) The way of manufacturing the material is finalized and has reached commercial scale;

B) Smaller size pieces have been developed that can be mounted like larger shingles, however this may impair their ability to absorb infrared;

C) Smaller size pieces have been developed that can be mounted like larger shingles, without impairing their ability to absorb infrared;

D) None of the alternatives above.

7: The new building material developed in the study has its working principle through the phenomenon known as electrochromism. Regarding this statement:

A) The thermal emissivity of the material can be set to vary between any value with excellent long-term durability;

B) The material implementation can be applied to any wavelength regime;

C) The application of the material does not make it possible to solve some of the global problems of climate change;

D) The material can assist in controlling the thermal balance of buildings in response to fluctuating weather conditions.

8: Regarding the energy issue in buildings, the material developed by the project:

A) Saves in energy consumption for heating and cooling the indoor environment almost all year round, but does not contribute to the problem of global climate change;

B) It does not contribute to savings in the building's energy consumption through heating and cooling systems;

C) Allows savings in energy consumption in heating and cooling systems in buildings practically all year round, and also contributes to solving the problem of global climate change;

D) None of the alternatives above.