

PROVA DE INGLÊS DO VESTIBULAR 1998/1999 DO INSTITUTO MILITAR DE ENGENHARIA

1ª Questão:

Valor : 4,0

Traduza para o Português o seguinte texto:

**AN OUT-OF-TOWN COLLEGE THRIVES IN TOWN.**

At most big city universities the pace, the attitude and the life-style are geared to city life.

But there is a university in Manhattan that has its roots outside the city- Adelphi. When we opened Adelphi University/Manhattan, we brought with us all the values of a traditional non-urban university. Such as classes small enough for you to get to know your professors.



An educational environment designed to separate you from the daily rigors of life. And a staff of counselors and administrators schooled in the importance of the individual. Yet, with all our emphasis on traditional values, it has always been our tradition to offer programs which reflect the needs of today. So, you'll find we've pioneered in education for adults with programs for teachers, social workers, business majors, child care workers and others.

If you're looking for our kind of tradition, you can find it without leaving the city. Adelphi/Manhattan-thriving on 28th Street.

**Vocabulary:** to thrive = florescer, prosperar

to gear = condicionar, conduzir.

2a Questão:

Valor : 4,0

Traduza para o Português o seguinte texto:

**QUANTUM MECHANICS**

Let's face it, quantum mechanics is weird. Niels Bohr, the Danish physicist who helped to invent the field, said, "Anyone who can contemplate quantum mechanics without getting dizzy hasn't properly understood it". To appreciate the weirdness of quantum mechanics, we need accept only a single strange fact called wave-particle duality.

Wave-particle duality means that things we think of as solid particles, such as basketballs and atoms, behave, under some circumstances, like waves and that things we normally describe as waves, such as sound and light, occasionally behave like particles.

The first strange implication of wave-particle duality is that small systems such as atoms can exist only in discrete energy states. So when an atom moves from one energy state to another, it absorbs and emits energy in exact amounts, or packets, called photons, which might be considered the particles that make up light waves.

A second consequence is that quantum-mechanical waves, like water waves, can be superposed, or added together. Taken individually, these waves offer a rough description of a given particle's position. When two or more such waves are combined, though, the particle's position becomes unclear. In some weird quantum sense, then, an electron can sometimes be both here and there at the same time. Such an electron's location will remain unknown until some interaction (such as a photon bouncing off the electron) reveals it to be either here or there but not both.

Vocabulary: weird = sobrenatural, misterioso, esquisito.

Danish = dinamarquês.

dizzy = confuso, perplexo, atordoado.

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3a Questão:

Valor : 2,0

Leia atentamente o texto abaixo:

**BRICKLAYER'S ACCIDENT**

Dear Sir:

I am writing in response to your request for additional information in Block #3 of the accident reporting form. I put "Poor Planning" as the cause of my accident. You asked for a fuller explanation and I trust the following details will be sufficient.

I am a bricklayer by trade. On the day of the accident, I was working alone on the roof of a new six-storey building. When I completed my work, I found that I had some bricks left over which when weighed later were found to weigh 240 lbs. Rather than carry the bricks down by hand, I decided to lower them in a barrel by using a pulley which was attached to the side of the building at the sixth floor. Securing the rope at ground level, I went up to the roof, swung the barrel out and loaded the bricks into it. Then I went down and untied the rope, holding it tightly to insure a slow descent of the 240 lbs of bricks. You will note on the accident reporting form that my weight is 135 lbs.

Due to my surprise at being jerked off the ground so suddenly, I lost my presence of mind and forgot to let go off the rope. Needless to say, I proceeded at a rapid rate up the side of the building. In the vicinity of the third floor, I met the barrel which was now proceeding downward at an equally impressive speed. This explains the fractured skull, minor abrasions and the broken collarbone, as listed in Section 3, accident reporting form.

Slowed only slightly, I continued my rapid ascent, not stopping until the fingers of my right hand were two knuckles deep into the pulley which I mentioned in Paragraph 2 of this correspondence. Fortunately by this time I had regained my presence of mind and was able to hold tightly to the rope, in spite of the excruciating pain I was now beginning to experience. At approximately the same time, however, the barrel of bricks hit the ground and the bottom fell out of the barrel. Now devoid of the weight of the bricks, the barrel weighed approximately 50 lbs.

I refer you again to my weight. As you might imagine, I began a rapid descent down the side of the building. In the vicinity of the third floor, I met the barrel

coming up. This accounts for the two fractured ankles, broken tooth and severe lacerations of my legs and lower body. Here my luck began to change slightly. The encounter with the barrel seemed to slow me enough to lessen my injuries when I fell into the pile of bricks and fortunately only three vertebrae were cracked. I am sorry to report, however, as I lay there on the pile of bricks, in pain, unable to move and watching the empty barrel six stories above me, I again lost my composure and presence of mind and let go off the rope.

Responda aos seguintes itens com a alternativa que melhor complete a sentença dada: (0,4 cada item)

1. According to the author of the report, the accident occurred because

- a) there were some bricks left when he finished his work.
- b) he did not foresee the consequences of his acts.
- c) he was working alone.
- d) he was a professional bricklayer.

2. When his job was over, the bricklayer chose

- a) to carry the remaining bricks down by hand.
- b) to leave the bricks on the roof of the building.
- c) to let the bricks down in a container.
- d) to throw the bricks from the sixth floor.

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3. When the bricklayer untied the rope, he was

- a) on the roof of the building.
- b) in the vicinity of the third floor.
- c) at ground level.
- d) on a pile of bricks.

4. The bricklayer was jerked off the ground because

- a) he was lighter than the barrel plus the bricks.
- b) he forgot to load the barrel.
- c) he was hit in the head by the bricks.
- d) the bottom fell out of the barrel.

5. The statement "my luck started to change slightly," in the last paragraph, means that

- a) the bricklayer's luck changed for the worse because he fell into the pile of bricks.
- b) the bricklayer was lucky because the barrel slowed his fall.
- c) the bricklayer had bad luck because he cracked three vertebrae.
- d) the bricklayer was lucky because he had the presence of mind to let go off the rope.