




Direcção Pedagógica

Departamento de Admissão à Universidade (DAU)

Disciplina:	INGLÊS	Nº Questões:	60
Duração:	120 minutos	Alternativas por questão:	5
Ano:	2017		

### INSTRUÇÕES

1. Preencha as suas respostas na FOLHA DE RESPOSTAS que lhe foi fornecida no início desta prova. Não será aceite qualquer outra folha adicional, incluindo este enunciado.
2. Na FOLHA DE RESPOSTAS, assinale a letra que corresponde à alternativa escolhida pintando completamente o interior do rectângulo por cima da letra. Por exemplo, pinte assim , se a resposta escolhida for A
3. A máquina de leitura óptica anula todas as questões com mais de uma resposta e/ou com borrões. Para evitar isto, preencha primeiro à lápis HB, e só depois, quando tiver certeza das respostas, à esferográfica.

### Water and Plants

With a few exceptions, plants make their own food from water and air. In order to survive, they act like pipelines, taking water out of the soil, delivering it to cells for use, and allowing whatever is left over to disperse into the air. The water, which is absorbed through fine root hairs underground, travels upwards through labyrinths of long microscopic tubes penetrating the stem and branches, and passes back to the atmosphere through tiny leaf pores called stomata. This latter process is called transpiration. A leaf with an area of 2.5 square centimetres may contain as many as 30,000 stomata, most of which are on the underside, and they release an astonishing amount of water. Although transpiration varies with conditions of temperature, humidity, light, wind and the moisture of the soil, it usually totals several hundred times the dry weight of the plant itself during a single growing season. During its lifetime, a crop of maize, for example, may release water sufficient to cover the entire field in which it has grown, to a depth of 28 cm. in one warm day, a single birch tree can dispose of 225 – 315 litres of water.

The mechanics of this remarkable capacious water-handling system are still not completely understood and the movement of water in certain plants – very tall trees, for example – poses one of the most intriguing puzzles of plant biology. What is known, however, testifies again to the distinctive characteristics of water. One of these characteristics is called osmosis.

Ground water enters the root hairs of a plant by a special kind of diffusion (osmosis) which is a fundamental process that goes on in nearly all living tissues. Through this process, water molecules are able to cross living membranes even though these membranes do not seem to admit water in the form of drops of liquid. This apparent paradox can be demonstrated with a piece of cellophane which is a synthetic membrane quite similar to natural ones. Cellophane is watertight in the sense that a drop of water placed on its surface will not drip though; a microscope reveals no pores. Yet, somehow, water crosses to enter the plant. This puzzling circumstance is resolved by a closer examination of the membrane. Pores do exist, but they are too small to be seen with an ordinary microscope. Like all substances. A membrane is composed of molecules, and the molecules, no matter how tightly they are packed together, have spaces between them. The spaces are large enough to accommodate water molecules but far too small to allow the penetration of water drops. Thus a drop may pass through the barrier, but only a few molecules at a time

Diffusion takes place because of the random movement of molecules. They bounce against one another and fly apart, tending always to spread from a region where they are closely packed together to regions of lesser concentration. This action is the same one that diffuses dissolved molecules through a liquid – and is the reason why a lump of sugar eventually sweetens a cup of tea or coffee whether the liquid is stirred or not.

The rate at which molecules slip through a plant's intermolecular structure depends on the size of both the molecules and the pores. Small molecules like those of water travel through the pores of living membranes at a fairly rapid rate. The larger molecules of soluble substances, like minerals, travel through much more slowly. This difference in the rate of progress across the membrane makes the membrane a kind of sieve, and this sieving action can build up a substantial pressure. The reason is that there are relatively more water molecules outside the plant than inside, where minerals are present in the liquid. As indicated above water molecules move to regions where their concentration is less and hence 'osmotic' pressure builds up.

1.	<b>How is water taken out of the soil by a plant?</b> A. The plant employs a pipeline for this purpose B. The roots of the plant absorb moisture from the soil C. The water is delivered to the plants by the cells D. The plant absorbs the water from the ground E. The plants make their own moisture from the soil
2.	<b>The process called transpiration describes how:</b> A. Water travels upwards through long microscopic tubes in the plant B. Water passes from the atmosphere into the stomata C. Water passes from the stem and branches into the atmosphere D. Air is released into the plant as a form of vapour E. The stomata release water into the atmosphere
3.	<b>Which of the following options illustrates and explains the process known as diffusion?</b> A. It describes how water penetrates nearly all living tissues B. The word explains an apparent contradiction C. It is the process through which water runs the stem of a plant



	<p>D. It is a fundamental process that goes on in nearly all living tissues</p> <p>E. It explains that living membranes do not seem to admit water in the form of liquid</p>
4.	<p><b>What is important to remember about the molecules of a plant membrane?</b></p> <p>A. They cannot be seen with an ordinary microscope</p> <p>B. They have unique characteristics</p> <p>C. They may be tightly packed together</p> <p>D. Between the molecules, there are spaces which a liquid will penetrate</p> <p>E. Drops of water cannot penetrate the spaces between the molecules</p>
5	<p><b>In "allowing whatever is left over ..." in line 2 (paragraph 1), the word "whatever" stands for:</b></p> <p>A. Remaining air</p> <p>B. Anything that is left</p> <p>C. Soil</p> <p>D. Water</p> <p>E. Cell</p>
6	<p><b>According to the text, when water is absorbed underground, it reaches the top of the plant:</b></p> <p>A. After going straight up the stem</p> <p>B. After following very intricate and tiny paths along the stem</p> <p>C. After passing large tubes in the stem</p> <p>D. Using the underside of the leaf</p> <p>E. After an astonishing amount of it is released by the leaves</p>
7	<p><b>In "it usually totals several hundred times ..." in line 8 (paragraph 1), the expression "it" refers to:</b></p> <p>A. Maize crop</p> <p>B. Soil</p> <p>C. moisture</p> <p>D. Humidity</p> <p>E. Transpiration</p>
8	<p><b>According to line 11 (paragraph 2), "a capacious water-handling system" would be a system, which:</b></p> <p>A. Disperses water to all parts of the plant</p> <p>B. Is able to handle average amounts of water</p> <p>C. Can store quite large amounts of water</p> <p>D. Controls the movement of water in certain plants</p> <p>E. Has a minimal capacity to keep water</p>
9	<p><b>In line 20 (paragraph 3) the author describes "this puzzling circumstance" because:</b></p> <p>A. The fact that a plants have smooth and unbroken membranes</p> <p>B. The fact that ordinary microscopes are not able to reveal pores</p> <p>C. The fact that water enters the plant under the circumstances described</p> <p>D. The fact that water has always been a puzzling issue in the world</p> <p>E. The fact that plant biology is puzzling and intriguing</p>
10	<p><b>When sugar eventually sweetens a cup of tea or coffee whether the liquid is stirred or not, it is because:</b></p> <p>A. There is a lump in the sugar</p> <p>B. Sugar is sweet</p> <p>C. Its dissolving molecules are diffused</p> <p>D. Its molecules are concentrated</p> <p>E. It changes from solid into liquid state</p>

### Tomatoes – the perfect fruit

It is difficult to imagine a world without tomatoes. High in the Andes mountains of modern-day Peru, the local inhabitants have been cultivating and eating tomatoes since prehistoric (11)\_\_\_\_, but the food has only become (12)\_\_\_\_ in the rest of the world (13)\_\_\_\_ recently. These days, the bright red fruit (14)\_\_\_\_ an important role in the cooking of many cultures and is a key ingredient in many types of fast food, (15)\_\_\_\_ both taste and colour to dishes that (16)\_\_\_\_ would be rather ordinary. The tomato (17)\_\_\_\_ to the nightshade family of plants, many members of which are poisonous. When they were first (18)\_\_\_\_ into North America, therefore, tomatoes were viewed with (19)\_\_\_\_ and people tended to use them as table decorations (20)\_\_\_\_ than as food. In Europe, the tomato was first grown in Italy in 1555, although it wasn't (21)\_\_\_\_ with pasta until much later. The first recipe for tomato ketchup dates from 1727 and in the 1800s, tomatoes began to be used more (22)\_\_\_\_ in sauces and soups. These days, as well as tasting good, tomatoes are (23)\_\_\_\_ to contain substances which are good for our health. Nutritionists (24)\_\_\_\_ out, however, that many processed tomato products also contain additives such as salt and sugar which can (25)\_\_\_\_ the beneficial effects of the fruit.

11	A. hours	B. ages	C. periods	D. times	E. dates
12	A. popular	B. total	C. favourite	D. preferred	E. general
13	A. effectively	B. relatively	C. entirely	D. apparently	E. eventually
14	A. forms	B. meets	C. does	D. enjoys	E. plays
15	A. mixing	B. putting	C. giving	D. providing	E. accumulating
16	A. nonetheless	B. otherwise	C. instead	D. meanwhile	E. therefore
17	A. admits	B. possesses	C. fits	D. serves	E. belongs
18	A. imported	B. arrived	C. grown	D. appeared	E. presented
19	A. doubt	B. respect	C. threat	D. suspicion	E. danger



20	A. importantly	B. except	C. better	D. apart	E. rather
21	A. derivative	B. joined	C. combined	D. added	E. accompanied
22	A. greatly	B. broadly	C. nationally	D. wholly	E. widely
23	A. guessed	B. aware	C. realised	D. known	E. accepted
24	A. call	B. point	C. prove	D. mark	E. show
25	A. refuse	B. deny	C. shorten	D. reduce	E. lower

### Promoting hygiene in our communities

Hygiene plays a very important role in the promotion of health, well-being and comfort. When it comes to health, staying hygienic is vital especially because most new diseases in our world nowadays are associated with lack of hygiene. Some of those diseases include bird flu and the swine flu. In Mozambique, a killer disease that is associated with hygiene is cholera. Therefore, it is important to inculcate in our population, especially in the children the habit of hygiene. Hygiene is not only about our bodies. It is also about the surroundings in our communities.

Here are some tips on hygiene:

#### 1. Bodily hygiene

It is recommended that you always brush the teeth twice a day. While brushing your teeth will avoid that they get damaged, it is said that dental problems can cause serious conditions such as high blood pressure or heart attack. We must always take a bath once or more every day. Taking bath often is very important, especially in the city, where humidity and pollution will attract bacteria to our body. Another hygienic move has to do with always covering the mouth when coughing. You don't want to pass germs on to others. Changing clothes as often as possible may prevent very serious skin disorders. A final hygienic tip relating to our body concerns our genital areas. We have to keep these areas extremely clean. If we don't do that, we are prone to infections and bacterial attacks. And then, there are our hands. Let's wash our hands as often as possible. Many places that we touch are not clean.

#### 2. Hygiene in the environment

The environment where we live in can be a source of diseases caused by bacteria and viruses. So, here are some tips to keep our environment safe. One of the first things that we must all do is dispose of waste properly. If waste material is inappropriately disposed of, it can cause an outbreak of deadly diseases. Cholera is one of those diseases, which can be caused by improper disposal of garbage. Do not keep swamps near residence areas. They may be mosquito breeding locations. One type of mosquitoes, the anopheles, causes malaria. So, this is what we should always do: keep the home clean; do not throw garbage around residential areas; use garbage cans (in cities) or bury garbage (rural areas. Do not incinerate it in the open. You will pollute the environment); never spit or urinate in public places. Such actions cause the entire surrounding area to stink and breed bacteria and viruses that are dangerous to our health.

26	<b>The state of being in a satisfactory condition of existence (paragraph 1):</b>				
	A. hygiene	B. health	C. well-being	D. comfort	E. promotion
27	<b>Something which is absolutely necessary or essential (paragraph 1):</b>				
	A. hygiene	B. health	C. disease	D. comfort	E. vital
28	<b>In the current times of our lives (paragraph 1):</b>				
	A. our world	B. our communities	C. nowadays	D. comfort	E. vital
29	<b>To teach persistently someone an attitude or idea (paragraph 1):</b>				
	A. role	B. include	C. habit	D. inculcate	E. promotion
30	<b>Of the kind that or like (paragraph 2):</b>				
	A. while	B. such as	C. another	D. as often as	E. often
31	<b>Heat usually causes it (paragraph 2):</b>				
	A. serious conditions	B. humidity	C. dental problems	D. cholera	E. bacteria
32	<b>Bring closer (paragraph 2):</b>				
	A. brush	B. pass	C. attract	D. attack	E. touch
33	<b>Practice (paragraph 2):</b>				
	A. move	B. bath	C. pass	D. disorders	E. wash hands
34	<b>Diseases (paragraph 2):</b>				
	A. coughing	B. damaged	C. disorders	D. serious skin	E. infections
35	<b>See next question</b>				
36	<b>A recommendation or suggestion (paragraph 2):</b>				
	A. very important	B. changing	C. hygienic	D. brushing	E. tip
37	<b>Likely or liable to suffer from (paragraph 2):</b>				
	A. get damaged	B. has to do	C. prone to	D. heart attack	E. prevent
38	<b>The cause or beginning of something (paragraph 3):</b>				
	A. environment	B. outbreak	C. source	D. swamps	E. diseases
39	<b>To get rid something (paragraph 3):</b>				
	A. garbage	B. breed	C. outbreak	D. keep	E. dispose of
40	<b>Sudden increase in the rate of a harmful activity (paragraph 3):</b>				
	A. outbreak	B. garbage	C. breeding	D. swamps	E. cholera
41	<b>An area flooded with water (paragraph 3):</b>				
	A. mosquitoes	B. swamps	C. cholera	D. malaria	E. surrounding
42	<b>The act of reproducing (paragraph 3):</b>				
	A. source	B. outbreak	C. breeding	D. disposed of	E. incinerate
43	<b>To have a very strong and unpleasant smell or odour (paragraph 3):</b>				
	A. outbreak	B. incinerate	C. garbage cans	D. stink	E. urinate



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44	<b>Destroy by or consume by fire (paragraph 3):</b> A. dispose of      B. tips      C. outbreak      D. throw      E. incinerate
45	<b>whole (paragraph 3):</b> A. deadly      B. properly      C. safe      D. entire      E. viruses
46	<b>Let's stay at home today. It's .....hot to go out:</b> A. very      B. so      C. too      D. too much      E. such
47	<b>If I .....you I would have stopped to give you a lift, but unfortunately I didn't:</b> A. saw      B. had been see      C. had to see      D. had seen      E. see
48	<b>I have never .....abroad since I was born:</b> A. been      B. gone      C. went      D. come      E. being
49	<b>If I had known you were ill, I ..... visited you:</b> A. would      B. had      C. would have      D. should have      E. can have
50	<b>The doctor asked me what..... in the mornings:</b> A. I ate      B. do I eat      C. I ate      D. I have eaten      E. I will eat
51	<b>You .....to study more, or you won't pass your exams:</b> A. must      B. can      C. will      D. ought      E. would
52	<b>The exam was ..... that I finished it thirty minutes earlier:</b> A. such easy      B. so much easy      C. too easy      D. much easy      E. so easy
53	<b>When I got home yesterday, I found that someone ..... all my records:</b> A. took      B. has taken      C. had taken      D. have taken      E. would take
54	<b>On Saturday night I like ..... a good time with my friends:</b> A. having      B. had      C. have      D. has had      E. bee having
55	<b>When you arrive in this country, you have to show your luggage to the .....officer:</b> A. police      B. immigration      C. passport      D. customs      E. airport
56	<b>Many people are .....of dogs as they can be dangerous:</b> A. upset      B. afraid      C. worried      D. fear      E. scared
57	<b>The.....picture in the newspaper today is about the President's visit to Belgium:</b> A. front page      B. article      C. headline      D. small page      E. story
58	<b>I have been doing some .....in Bantu Linguistics:</b> A. investigation      B. search      C. findings      D. research      E. study
59	<b>My brother's daughter is my:</b> A. nephew      B. cousin      C. niece      D. daughter -in-low      E. step-daughter
60	<b>When you get very hot, you regulate your body temperature by:</b> A. sweating      B. bleeding      C. burning      D. breathing      E. sneezing

THE END!

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