



ΥΠΟΥΡΓΕΙΟ ΠΑΙΔΕΙΑΣ & ΘΡΗΣΚΕΥΜΑΤΩΝ, ΠΟΛΙΤΙΣΜΟΥ & ΑΘΛΗΤΙΣΜΟΥ
ΚΡΑΤΙΚΟ ΠΙΣΤΟΠΟΙΗΤΙΚΟ ΓΛΩΣΣΟΜΑΘΕΙΑΣ

Ministry of Education & Religious Affairs, Culture & Sports
English Language Certification

LEVEL

C1&C2

on the scale set by the Council of Europe

MODULE

1

Reading comprehension and language awareness

Period

Sample test paper

ATTENTION

- Do not open this booklet until the exam begins.
- Mark your answers on Answer Sheet 1 [ΑΠΑΝΤΗΤΙΚΟ ΕΝΤΥΠΟ 1].
- Provide a single answer for each item.
- You have **120 minutes** to complete this part of the exam.

ACTIVITY 1

Read the text below and do the tasks that follow.

WORLD NEWS | 27

Doris Lessing

The 2007 Nobel prize winner in literature

I was brought up in what was virtually a mud hut, thatched. It had four rooms, one beside another, and it was full of books. Not only did my parents take books from England to Africa, but my mother ordered books by post from England for her children. Books arrived in great brown paper parcels, and they were the joy of my young life. A mud hut, but full of books.

Even today I get letters from people living in a village that might not have electricity or running water, just like our family in our elongated mud hut. 'I shall be a writer too,' they say, 'because I've the same kind of house you lived in.' But here is the difficulty, no? Writing, writers do not come out of houses without books. There is the gap. There is the difficulty.

I have been looking at the speeches by some of your recent prize-winners. Take the magnificent



Pamuk. He said his father had 500 books. His talent did not come out of thin air. He was connected with the great tradition. Take V.S. Naipaul. He mentions that the Indian Vedas were close behind the memory of his family. His father encouraged him to write, and when he got to England he would visit the British Library. So he was

close to the great tradition. Let us take John Coetzee. He was not only close to the great tradition, he was the tradition: he taught literature in Cape Town. And how sorry I am that I was never in one of his classes, taught by that wonderfully brave, bold mind. In order to write, in order to make literature, there must be a close connection with libraries, books, with the Tradition.

I have a friend from Zimbabwe, a Black writer. He taught himself to read from the labels on jam jars and fruit cans. He was brought up in an area for rural blacks. The earth is grit and gravel, there are low sparse bushes. The huts are poor, nothing like the well cared-for huts of the better off. He found a discarded children's encyclopaedia on a rubbish heap and taught himself from that.

On Independence, in 1980, there was a group of good writers in Zimbabwe, truly a nest of singing birds. They were bred in old Southern Rhodesia [now called Zimbabwe], under the whites. Writers are not made in Zimbabwe. Not easily, not under Mugabe.

All the writers travelled a difficult road to literacy, let alone to becoming writers. I would say learning to read from the printed labels was not uncommon. And we are talking about people hungering for standards of education beyond them, living in huts with many children – an overworked mother, a fight for food and clothing.

Yet despite these difficulties, writers came into being. And we should also remember that this was Zimbabwe, conquered less than a hundred years before. The grandparents of these people might have been storytellers working in the oral tradition. In one or two generations there was the transition from stories remembered and passed on, to printed books. What an achievement.

Books, literally wrested from rubbish heaps and the detritus of the white man's world. But a sheaf of paper is one thing, a published book quite another. I have had several accounts sent to me of the publishing scene in Africa. Even in more privileged places like North Africa, with its different tradition, to talk of a publishing scene is a dream of possibilities.

Here I am talking about books never written, writers that could not make it because the publishers are not there. Voices unheard. It is not possible to estimate this great waste of talent, of potential. But even before that stage of a book's creation which demands a publisher, an advance, encouragement, there is something else lacking.

1.1 Read the left column of the text on p. 2, and choose the best answers (A, B, or C) for items 1-4.

1. This text
 - A. is written in an academic register.
 - B. has an impersonal tone.
 - C. is written as a narrative.
2. One aim of this text is to
 - A. argue for better housing for poor people.
 - B. describe the writer's family life.
 - C. explain what is needed to become a writer.
3. Which of the following does Lessing say enabled her to be a writer?
 - A. Her family.
 - B. Her teachers.
 - C. Literary prizes.
4. Lessing's basic argument here is that in order to write literature
 - A. one has to have read literature.
 - B. one has to have gone to university.
 - C. one must possess lots of books.

1.2 Read the right column of the text on p. 2, and choose the best answers (A, B, or C) for items 5-10 below.

5. Lessing suggests her friend from Zimbabwe
 - A. was given old books.
 - B. overcame obstacles.
 - C. was a refuse collector.
6. What does Lessing suggest about writers in Zimbabwe?
 - A. It is easier to become a writer today than in the past.
 - B. Writers in the past were influenced by traditional music.
 - C. Today's writers have almost no educational opportunities.
7. What is the great 'achievement' of writers in Zimbabwe?
 - A. They helped free their country from colonial rule.
 - B. They built on local traditions in their writing.
 - C. They write about how their ancestors overcame poverty.
8. What does the writer say about North Africa?
 - A. Publishing there is of a high standard.
 - B. Writers have achieved more freedom there.
 - C. Publishing still has a long way to go there.
9. Why do some African writers remain unknown?
 - A. Books are not published.
 - B. They waste their chances.
 - C. Publishers reject their work.
10. According to Lessing, to become a well known author, you need
 - A. to have leisure in your life.
 - B. to work very systematically and very hard.
 - C. more than just the support of those around you.

1.3 Read the text below, and choose the best answers (A, B, or C) for items 11-15.

11. Lessing says that often writers
- are asked unimportant questions.
 - use word processors or electric type writers.
 - must come face to face with their emptiness.
12. According to Lessing, writers must find their 'imaginative space',
- otherwise, their poems and stories will be flawed.
 - and talk about it with each other.
 - so that they can be productive.
13. When talented writers first appear on the public scene,
- people want to know all about how they started writing.
 - they become the centre of attention.
 - they don't get as much publicity as they'd like.
14. The publicity newly acclaimed writers get
- is a great nuisance to them.
 - makes them get carried away.
 - is particularly gratifying to them.
15. What Lessing actually says here is that fame
- can drive one crazy.
 - can kill creativity.
 - can make one lose their innocence.

28 | SPECIAL FEATURES

Writers are often asked 'How do you write'? With a word processor, an electric typewriter, a quill, longhand? But the essential question is, 'Have you found a space, that empty space, which should surround you when you write?' Into that



space, which is like a form of listening, words will come; the words your characters will speak, ideas, inspiration. If a writer cannot find this space, then poems and stories may be stillborn. When writers talk to each other, what they discuss is always to do with this imaginative space, this other time. 'Have you found it? Are you holding it fast?'



Let us now jump to an apparently very different scene. We are in London, one of the big cities. There is a new writer. We cynically enquire 'Is she good-looking?' If it's a man 'Is he charismatic, handsome?' We joke but it is not a joke. This new find is acclaimed, possibly given a lot of money. The buzzing of paparazzi begins in their poor ears. They are feted, lauded, whisked about the world. Us old ones, who have seen it all, are sorry for this neophyte, who has no idea of what is really happening. He, she, is flattered, pleased.

But ask in a year's time what he or she is thinking -I've heard them: 'This is the worst thing that could have happened to me,' they say. Some much publicised new writers haven't written again, or haven't written what they wanted to, meant to. And we, the old ones, want to whisper into those innocent ears. 'Have you still got your space? Your soul, your own and necessary place where your own voices may speak to you, you alone, where you may dream. Oh, hold onto it, don't let it go.'

ACTIVITY 2

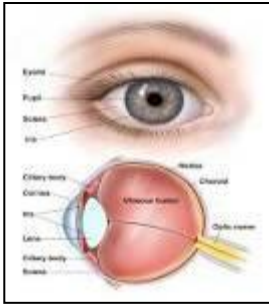
Read the text and match the underlined words (16-20) with options A-F. There is one option you do not need.

A.	provided with particular features	B.	separate and different in a way that is clear
C.	reacting strongly to something	D.	relating to the way we use our muscles
E.	caused by unknown factors	F.	carry out a series of functions

SCIENCE SUPPLEMENT

5 May 2010

YOU WON'T BELIEVE YOUR EYES



HOW MANY COLOURS ARE THERE IN A RAINBOW?

Humans perceive colour through three types of cells called 'cones'; these cells are (16) sensitive to colour: they 'receive' the colours from the external world. Some people have four types of receptors. (17) Equipped with four receptors instead of three, M –an English social worker, and the first known 'tetrachromat'– sees rare subtleties of colour. Looking at a rainbow she can see ten (18) distinct colours. Most of us see only five. She was the first to be discovered as having this ability, in 1993, and a study in 2004 found that two out of 80 subjects were tetrachromats.

WHY YOUR EYES ARE NEVER STILL

If our eyes did not move –if they simply 'drank in' the view before them– we would go blind. Our retinas can only (19) process contrast, and soon become exhausted looking at the same thing for too long. They must tremble constantly in order to bring objects into view.

A VISION OF THE FUTURE

Our eyes are several steps ahead of us, whatever we happen to be doing. When negotiating a turn in the road for example, a driver's eye will provide (20) motor information to his or her arms almost a second before he or she makes any movement. By then the eyes will already be looking elsewhere.

ACTIVITY 3

Read the following extracts (21-25) and decide in which publication they might appear. Use each of the options below (A-F) only once. There is one option you do not need.

A.	Rules for playing a game	B.	Written safety instructions
C.	Instructions for paying tax	D.	Reverse side of a book's title page
E.	University brochure	F.	Travel guide

21.	Exception for children under age 18. If you are planning to claim a return for your child, who was under 18 at the end of 2009, and certain other conditions apply, you can include your child's income on your form.	
22.	All rights reserved. No part of this publication may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or any other information storage or retrieval system, without permission in writing from the publishers.	
23.	The inn is a little oasis amidst the narrow and bustling cobbled streets at the heart of the historic city.	
24.	The triangles alternate in color and are grouped into four quadrants of six triangles each. The quadrants are referred to as the home board and outer board. Two dice are required.	
25.	If you know the subject area of the course that you are interested in, you should turn first to the Index on page 79. The information is arranged first by faculty, then by department and then, where appropriate, by subject area.	

ACTIVITY 4

Read the following text and respond to tasks 4.1 and 4.2.

Green Gold

by Stefan Theil



With the price of oil skyrocketing and new technologies cropping up, biofuels are posing the first real threat to petroleum.

Brazil's Embraer, the world's first manufacturer of ethanol-fueled planes, now has so many customers that there's a two-year wait list to convert gasoline engines to alcohol. Flying on ethanol distilled from sugar cane can cut fuel bills up to 40%, at no cost to performance. "At this rate," says Embraer executive Acir Padilha, "the gasoline motor is headed for extinction."

To realize its demise, the country's sugarcane fields now feed a network of 320 ethanol plants.



To keep up with demand, local sugar barons and giant multinationals will invest some \$6 billion in new plantations and distilleries over the next

five years. Meanwhile Brazilian ethanol tankers are plying the seven seas, supplying fuel-hungry countries like South Korea and Japan, as they are beginning to replace oil with alternative fuels.

Other countries are trying to imitate Brazil. In the United States, the use of ethanol made from corn has surged, thanks to new clean-air



mandates and government farming subsidies. In Europe, Germany has become the world's biggest producer of

"biodiesel," a high-performing fuel—the German variety is made from rapeseed—that is cutting into sales of regular diesel at the nation's pumps. In more than 30 countries from Thailand to India, Australia to Malawi, crops as diverse as oil palms, soybeans and coconuts are being grown for fuel.

Has the inevitable transition from petroleum to next-generation fuels begun, right under our very

eyes? Thanks to oil prices going through the roof, worries about climate change and growing anxiety over the future security of the world's supply of crude oil, the prospects for ethanol and



other biofuels are looking bright. Moreover, as governments across the globe are trying to find solutions about global warming, biofuels are

seen as a pragmatic step toward reducing carbon dioxide emissions. A growing number of countries now require biofuels to be mixed into the fuel supply. As a result, oil companies around the world have invested heavily in response and are now jostling for a slice of the \$20 billion-plus market.

What makes biofuels so irresistible is that conventional engines can run on them. Combustion engines can run on gas "stretched" with 10% ethanol or less with no modifications. That means biofuels can be mixed into the existing fuel supply (gasoline or diesel) and be distributed using conventional gas stations. Higher concentrations require "flex-fuel" engines, which automatically adjust fuel



injection depending on the fuel mix. Biodiesel—a high-quality, clean-burning fuel remarkably similar to petroleum diesel—is made from

the oil produced from the seeds of plants like soybeans or rapeseed, along with methanol (a type of alcohol) and a catalyst. Conventional diesel engines easily tolerate 20%-100% biodiesel 'stretching.' This compatibility is why many countries have picked up on biofuels as an easy way to reduce their import of oil—making bio-fuels a very convincing alternative indeed.

4.1 Read the text and choose the best answer (A, B, or C) for items 26-27.

- 26. A most suitable *subtitle* for this article would be:
 - A. Oil prices no longer a threat.
 - B. Limited green fuel supplies.
 - C. The harsh fuel feuds.
- 27. Which of the items below does the text concentrate heavily on?
 - A. How farmers can increase their yearly revenue.
 - B. The ecological benefits of using biofuels.
 - C. How to promote alternative fuel technologies.

4.2 Read the text again and choose the best answer (A, B, or C) for items 28-31.

- 28. Embraer is an example of manufacturing company that
 - A. leads the world in the use of new fuel technologies.
 - B. aspires to boost Brazil's economy.
 - C. pioneers in low-cost air travel.
- 29. Why are alcohol-fueled engines in great demand? Because
 - A. they are cheaper.
 - B. they increase the performance.
 - C. they decrease the running cost.
- 30. According to the text "jostling for a slice" in line 17 of paragraph 4 means
 - A. to run or bump against somebody or something.
 - B. to compete or wrestle for your share.
 - C. to hustle or shove about in a crowd.
- 31. The writer is optimistic about the spread of biofuels because
 - A. they will eliminate the import of oil.
 - B. no drastic changes need to be made on already existing engines.
 - C. biodiesel is produced in the same way as ethanol.

ACTIVITY 5

Read the text and fill in gaps 32-37 with one of the options, A-H. There are two options you do not need.

A. the changes preceded the recent demographics	B. in smaller numbers than previous generations
C. younger people are less likely to drive	D. channel growth into manageable areas
E. the number of miles driven	F. rooted in changing demographics
G. the change in driving habits	H. fewer people are working

Young Americans Lead Trend to Less Driving

For six decades, Americans have tended to drive more every year. But in the middle of the last decade, (32) _____ (both over all and per capita) began to drop,



notes a report to be published on Tuesday by U.S. Pirg, a nonprofit advocacy organization. People tend to drive less during recessions, since (33) _____ (and commuting), and most are looking for ways to save money. But Phineas Baxandall, an author of the report and senior analyst for U.S. Pirg, said (34) _____ and appeared to be part of a structural shift that is largely (35) _____, especially the rise of so-called millennials — today's teenagers and twentysomethings. "Millennials aren't driving cars," he said. In fact, (36) _____ (or even to have driver's licenses) than past generations for whom driving was a birthright and the open road a symbol of freedom. Research by Michael Sivak of the Transportation Research Institute at the University of Michigan found that young people are getting driver's licenses (37) _____.

U.S. News 25

ACTIVITY 6

6.1 Read Texts 1 & 2 and choose the best answers (A, B, or C) for items 38-42.

38. The mystery surrounding Arcimboldo's name is answered by
 - A. his connection to a legendary Saxon knight.
 - B. his having lived outside of Milan.
 - C. his discovery of an ancestral treasure.
39. Arcimboldo's devised his extraordinary technique to paint
 - A. landscapes featuring a variety of wild creatures.
 - B. still life – with various flowers.
 - C. allegorical portraits of people.
40. Which aspect of Da Vinci's painting style influenced Arcimboldo?
 - A. His monstrous human figures composed of animals and plants.
 - B. His realistic human portraits.
 - C. His grotesque portraits of plants.
41. What do most art experts think of Arcimboldo's paintings? They reflect
 - A. the spirit of his era.
 - B. his unbalanced personality.
 - C. his era's disinterest in riddles.
42. The text would most likely be accompanied by
 - A. colour images of Archimboldo's representative paintings.
 - B. still life paintings of Renaissance.
 - C. photomontage from clippings of vegetables and fruits.

TEXT 1

POLYONYMOUS

One of the questions concerning this unique 16th – century Milanese painter (1527-1593) is his real name. He was the court painter at the Imperial courts of Maximilian II and Rudolf II at Vienna and Prague from 1562 to 1587. His name is being spelled differently until today. Here are some versions *Giuseppe Arcimboldi*, *Arcimboldo*, and *Joseffi Arcimboldi*. The name has probably a Germanic origin which can be traced back to a mythical ancestor, a certain Saxon knight called Siegfried who served the emperor Charlemagne, and who supposedly discovered a silver mine in a forest —whence the etymology of *Arcimboldo* from, *Erzim Wald* (“Ore in the forest”).

TEXT 2

POLYSYNTHESIS

Arcimboldo is an artist with an indisputable claim to the word “marvelous.” He single-mindedly pursued his invention, termed the “composite head,” to which he applied numerous and varied subjects. In the form of painting he originated, apt and witty combinations of animals, fish, fruit, vegetables, and a variety of other objects, all painted with meticulous realism, are fitted together into head-and-shoulder figures that sometimes have the look of portraits. Each component, whether object or creature, is sensitively chosen and beautifully represented, and all are crowded together to produce figures. The viewer’s eye recomposes the separate objects in such a way as to compose the human face by assembling the parts of the human body or beast.

The matter of its sources is intensely debated. Firstly, Arcimboldo was exposed to Da Vinci’s humourous sketches of those admirable monsters, those hybrids of flora and fauna meshing bizarrely into the human face. These drawings fascinated him and remained in his memory all his life. Secondly, there are many Indian miniatures showing animals, usually elephants, horses, and antelopes that overlap with other animals or with human figures, which he may have seen. Roger Caillois also points to decorated initials in 15th century manuscripts; the illuminators made whimsical composites of men, animals, and plants that retain the form of letters, and he suggests that the artist may have borrowed these stratagems, by which he says, “the eye is invited to decompose and to reconstruct the total image.” Arcimboldo’s major works were his numerous series on allegorical themes, especially the Four Seasons and the Four Elements.

Art critics debate whether his paintings were whimsical or the product of a deranged mind.

The majority of scholars holds the view, however, that given the Renaissance fascination with riddles, puzzles, and the bizarre Arcimboldo, far from being mentally unstable, he catered to the taste of his times.

6.2 Read Text 3 and choose the best answer for items 43-46.

43. What is the purpose of this text?
- To describe the still life elements in Arcimboldo's *Four Seasons*.
 - To explain in detail the techniques used in Arcimboldo's *Four Seasons*.
 - To explain what Arcimboldo wanted to express through *Four Seasons*.
44. What is suggested about *Four Seasons*?
- They are not perceived in a uniform way.
 - They are characterised by a lack of expressiveness.
 - They are characterised by homogeneity of their component elements.
45. How does the writer define the fourth dimension in Arcimboldo's paintings?
- As the concept of distance between the observer and their component elements.
 - As the gap between the still life elements and the human face depicted.
 - As the time that lapses until the observer perceives their entirety.
46. What seems to be the author's attitude towards Arcimboldo?
- Rather praising.
 - Quite neutral.
 - Somewhat positive.

TEXT 3**PERITROPOUS DESIGNS**

The subject of the four painting series entitled *The Four Seasons* (1563) are allegorical human heads usually composed of dissimilar natural objects. There is true genius in the arrangement of the components, such facility in the drawing, such brilliance and sensitivity in the colours, and such expressive power in the eyes that animates these immobile but highly bizarre faces. However, this most celebrated accomplishment, which is free of any sociological commentary, could also be interpreted as four "demons" as well as four "masks" depending on whether the observer chooses to emphasise their metaphysical or merely playful disposition.

But there is more: when we observe Arcimboldo's fantastic paintings, we notice the use of a third, if not even a fourth dimension. By third dimension I mean the distance that must intervene between the observer and the painting before he ceases to see still life elements (fruit, flowers, land and sea creatures, tools, and various materials) and perceives the entirety of a human face, whether graceful, stately, haughty, or absurd. In the fourth dimension I take account of the minutes or seconds the observer needs to bridge the gap that separates him from the moment when this transformation takes place in his vision. Thus, the concept of volume, or at least spatial relief, and some sense of time have been introduced onto the painted surface, which is truly uncommon and exotic. Although this painter is somewhat inexplicable, he also seems to me to be one of the least limited painters who ever lived.

ACTIVITY 7

Choose the appropriate word (A-H) to fill in the following quotes 47-50. There are four options you do not need.

Famous quotes

47. "Without _____, there is no art. Art lives only on the restraints it imposes on itself, and dies of all others."

– Albert Camus

48. "The most beautiful experience we can have is the mysterious, the fundamental emotion which stands at the _____ of true art and true science."

– Albert Einstein

49. "People speak sometimes about the 'bestial' cruelty of man, but that is terribly unjust and _____ to beasts, no animal could ever be so cruel as a man, so artfully, so artistically cruel."

– Fyodor Dostoyevsky

50. "A man should hear a little music, read a little poetry, and see a fine picture every day of his life, in order that worldly cares may not _____ the sense of the beautiful which God has implanted in the human soul."

– Johann Wolfgang von Goethe

A.	offensive
B.	obliterate
C.	devastate
D.	freedom
E.	moderation
F.	odious
G.	instigation
H.	cradle

ACTIVITY 8

Solve the puzzle below. Put the jumbled words in column B in the correct order to complete the sentences (51-55) in column A.

UTTERANCES		WORDS IN JUMBLED ORDER
0.	Hotel reservation confirmation If you <u>would like additional information about</u> your destination hotel, visit us online.	additional - about - would - information - like
51.	Hospital car park notice Short stay car parking for patients and visitors available, _____ _____ made.	be - charge - which - a - for - will
52.	Restaurant guide This cultural centre includes _____ for a predominantly student crowd.	inexpensive - café - tiny - serving - a - meals
53.	Charity gifts catalogue Supported _____ yourself, our first two catalogues have positively altered tens of thousands of lives.	generosity - of - people - by - the - like
54.	Ethical living article In the last decade, energy _____ by 9%.	risen - homes - use - our - has - in
55.	TV film guide Based _____ 1960s, this handsome movie is set on a four-rigged sailing ship.	from - a - true - the - on - incident

ACTIVITY 9

Fill in the gaps (56-60) with the appropriate words to complete the statements. Use each of your choices only once.

56.	Lessing's writing was informed by her experiences, as _____ by her views on social justice.
57.	Pamuk's talent did not come out of the air; on _____, he was connected with the great tradition.
58.	_____ was Coetzee close to the great tradition, but he was the tradition as well.
59.	_____ they had enormous difficulties to overcome, writers came into being.
60.	Some writers never find a publisher; as _____, their voice is unheard.

ACTIVITY 10

Read the following extracts (61-65) and decide what type of text they belong to. Write your answer in the space provided on the right, as in the example.

EXTRACT		TYPE OF TEXTS
0.	<i>Mr and Mrs Gordon Hall request the pleasure of your company at the marriage of their daughter, Rosalind, to Mr James Horton, at St. Michael's church...</i>	Invitation
61.	<i>Amor Mundi.</i> Ironic, witty, all about the lightness of being, as tragicomic as a Kundera could make it. This beautifully voiced work gives us the stories of a human being in a place called Bellgrade...	
62.	Do you think differently from North Americans just because you speak different languages? Absolutely, and that's the great gift of language. For example, my favourite example is that 'land' in the English language means 'real estate', that which produces profit, whereas in Hawaiian it is 'aina', that which feeds.	
63.	Accept thanks for the article about Robert Kocharyan. I'm glad and inspired that your magazine gives an opportunity to international society to know about...	
64.	That night during study period, as I sat in my cold room at my desk, my pen flew over page after page as I drew a portrait of myself as an adolescent desperate for attention. Once again, I was petitioning needing the love that I missed throughout my childhood...	
65.	Working toward social justice: promoting and supporting creative cooperatives and community enterprises since 1979. Shop with us online: onevillage.com .	

ACTIVITY 11

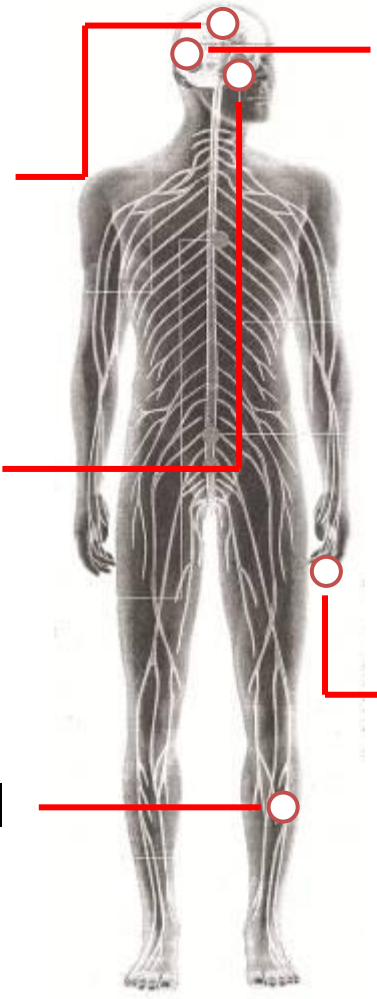
There are five words (66-70) missing from the poster below. The number of the dashes corresponds to the number of the letters missing.

New Frontiers in Neurotech

Armed with new devices and new discoveries, scientists are using neurostimulation to treat a number of illnesses. A look at what's available today and what to expect in the near future.

Brain

Stimulators deliver electrical pulses to precisely targeted areas, giving Parkinson's or essential—tremor patients more (66) _____ over their movements. The Vagus-nerve-stimulator implant can help treat epilepsy, Alzheimer's, and chronic migraines.



Ears

Hearing aids cannot compare with the cochlear implant for serious hearing loss. Besides amplification of sound, the cochlear uses a speech processor to convert sound into digital signals and an internal electrode array to stimulate the actual hearing (69) _____.

Eyes


Researchers worldwide are developing visual prostheses to combat (67) _____, using external cameras to send visual signals to devices implanted near the retina or straight to the brain's sight neurons.

Hands

Hand-grasp stimulators allow quadriplegics to contract their hand muscles by twitching a shoulder. An implant will help restore a lost (70) _____ of touch.

Legs

A robotic step-training device for teaching individuals with neurological impairments to walk again is being (68) _____. It blends lightweight leg robots and a body-weight support system with neurostimulators that enhance sensory input to the spinal cord at key moments.



ΣΑΣ ΥΠΕΝΘΥΜΙΖΟΥΜΕ ΟΤΙ ΠΡΕΠΕΙ ΝΑ ΜΕΤΑΦΕΡΕΤΕ ΟΛΕΣ ΤΙΣ ΑΠΑΝΤΗΣΕΙΣ ΣΤΟ ΕΝΤΥΠΟ 1 ΤΕΛΟΣ ΜΗΝΥΜΑΤΟΣ