



אנגלית

מכונה טכנולוגית להנדסאים וטכנאים

הנחיות לנבחן

- א. משך הבחינה: שלוש שעות.
- ב. מבנה השאלון ומפתח הערכה: בשאלון זה 4 חלקים:
- | | |
|---------------------|------------|
| חלק א' - הבנת הנקרא | 40 נקודות |
| חלק ב' - הבנת הנקרא | 30 נקודות |
| חלק ג' - הוראות | 20 נקודות |
| חלק ד' - לשון | 10 נקודות |
| סה"כ | 100 נקודות |
- ג. חומר עזר מותר בשימוש: מילון דו-לשוני, מילון אלקטרוני פרט ל"קוויקשנרי" (נבחנים שקבלו אישור ממה"ט למילון ממוחשב יכולים להשתמש ב"קוויקשנרי").
- ד. הוראות מיוחדות:
- קראו בעיון את ההוראות וענו לפי הסדר הרצוי לכם.
 - כתבו רק בגוף שאלון הבחינה שנמסרה לכם.
 - יש לכתוב בעט בלבד.
 - כתבו בכתב ברור נקי מסודר ומאורגן. גם בכך תלויה הערכת עבודתכם.
 - טיוטא תעשה במידת הצורך, אך ורק על גבי שאלון המבחן בדף הריק. לפני מסירת המכתבת למשגיחה יש להעביר קו על הטיוטא.

בהצלחה !

Part I - READING COMPREHENSION (A)

Read the following passage carefully and answer the questions in Hebrew or Arabic. English will not be accepted in this part of the test.

Israel Looks to Electric Cars

I

Although electric cars have existed for more than 100 years they are only now becoming popular. Fifteen countries, including Israel, want to reduce their dependency on the world's **oil-producing nations**. In addition, they want to lessen the dangers to the environment and to prevent damage to people's health which is caused by burning gasoline.

II

- 5 The Israeli government plans to encourage Israeli drivers to use electric cars with a new project, created by Israeli Shai Agassi. Since Israel will be the first country to use electric cars, other countries will be able to learn **from Israel's experience**. Renault-Nissan will manufacture the cars. To make it easy to recharge the cars, the Better Place Company will build an infrastructure of 500,000 charging spots at Israel's three to four million parking
- 10 places. It will also build 200 battery-exchange stations.

III

- Using an electrically powered family car limits how far a person can drive and therefore the car needs to be recharged more often than when you use oil. Unlike oil-fuelled cars, an electrically powered car can't go much farther than 100 miles on one charge and **once a battery is emptied**, it takes hours to charge it up. Most people don't drive more than 100
- 15 miles at a time so putting recharge spots at workplaces and public places will keep most cars going. For longer drives, customers will be able to get a fresh battery at battery exchange stations.

IV

- The project has begun. A few dozen electric cars will be tried out later this year in Tel Aviv. Afterwards, a few hundred cars **will be put on the road** by 2011. Finally, mass production
- 20 will begin in 2013. This year Israel cut taxes on cars powered by electricity by 10% to encourage consumers to buy the vehicles. Even though this plan will take years to **become a reality** many people are looking forward to driving an electric car.

Adapted from Time Magazine

QUESTIONS (Part I)

1. Answer the following questions in Hebrew or Arabic. (40 points)

- a. List **TWO** reasons why electric cars are becoming popular: (par I)

א. _____

ב. _____

- b. Why will other countries be interested in Israel's use of electric cars? (par II)

- c. What will make it easy to use electric cars? (par II)

א. _____

ב. _____

- d. What is the problem with using the electrically powered family car? (par III)

- e. List the three stages of the project: (par IV)

א. _____

ב. _____

ג. _____

f. What is Israel doing to encourage people to buy electric cars? (par IV)

g. How do people feel about using electric cars? (par IV)

h. Translate the following words and expressions into Hebrew or Arabic according to their meaning in the context. These words and expressions appear in bold type in the text.

(i) oil-producing nations (line 3)

(ii) from Israel's experience (line 7)

(iii) once a battery is emptied (line 13-14)

(iv) will be put on the road (line 19)

(v) become a reality (line 22)

Part II - READING COMPREHENSION (B)

*Read the following passage carefully and answer question 2 in English.
Hebrew or Arabic will not be accepted in this part of the test.*

E-Books Start to Take Hold

I

Until now people have mostly ignored electronic book devices but this year, the e-book has become popular. When in 2007 Amazon began to market its \$359 Kindle (slim, white and about the size of a paperback book) public interest in e-books increased. Sony has also produced an e-book called the Reader and I-Phone has a book reading program in it. All of these examples show that the idea of reading long texts on a portable digital device has become popular.

II

Sony has sold more than 300,000 e- books since 2006. Now it wants to increase its share of the market by advertising the Sony Reader in airports, train stations and bookstores. Its goal is to show 2 million people how the Sony Reader works by the end of 2010. The Sony Reader 700, the latest model, has a reading light and a touch screen that lets users write comments on the page they are reading. Surprisingly, many e-book buyers are not the usual gadget lovers: as many women as men are buying it and, unlike a lot of other gadgets popular with young people, this e-book is most popular among 55- 64 year old people .

III

Everyone is trying to build the perfect e-book reader. By 2011, they will be thinner, lighter and have a better microprocessor to enable the reader to turn the pages faster. In addition, e-books will be wireless. This means that the e-book will not have to be plugged into a computer to download books, newspapers and magazines. Finally, some will even have color-screens.

IV

Although sales of e-book devices were less than 1% of the total number of book sales this year, there are signs of their growing popularity. Publishers say sales of e-books have gone up 300-400%. For example, 20 % of the copies of "The Story of Edgar Sawtelle" sold last year were the cheaper e-book version, downloaded for only \$9.99. "E-books will become the leading way to read as more and more readers discover how much they enjoy reading books on a screen," says Markus Dohle, of Random House, the world's largest publisher of consumer books.

Adapted from the New York Times

Questions (part II)

2. Answer the following questions. (30 points)

a. **Match [A] to [B] according to the text.**

A	B
a the year e-books will be much easier to use	(i) \$ 9.99
b the number of Sony e-books sold in the past three years	(ii) 300,000
c the price of a popular down-loaded e-book	(iii) 20%
d the electronic copies sold of " The Story of Edgar Sawtelle"	(iv) 2011

(a) _____ (b) _____ (c) _____ (d) _____

b. What does the fact that there are several companies that produce e-books show? (*paragraph I*)

c. **Tick (✓) the correct answer according to paragraph II.**

Sony is advertising its e-book in many places because it wants

- ___ (i) people to learn how to read books.
 ___ (ii) e-books to be used everywhere.
 ___ (iii) to make its e-book market bigger.

d. **Tick (✓) the correct answer according to paragraph II.**

E-books are being bought

- ___ (i) the most by young people.
 ___ (ii) by fewer women than men.
 ___ (iii) by older men and women.

e. *Tick (✓) the THREE correct answers according to paragraphs III and IV.*

- ___ (i) Microprocessors will enable people to use the device faster.
- ___ (ii) The sale of e-books is still relatively small.
- ___ (iii) Future e-devices will have to be connected to electricity.
- ___ (iv) Many more people will read e-books in the near future.
- ___ (v) Unlike a book, e-books can't be read in color.

f. *Read the main ideas below.*

Write the paragraph number that each main idea refers to.

Main Idea	Paragraph
Improving e-books	
Interest in e-books	
Enlarging the e-book Market	
Sales Trends	

Part III – INSTRUCTIONS

- 3. Read the problems below and match them to the causes or remedies that follow.**
(20 points)

Swimming Pool Problem Solving**Problems:**

1. The acrylic steps have small holes in them. Is there a way to coat them to stop the loss of water?
2. I'm getting air bubbles in the pool. It started when the solar heater was installed.
3. My pool has become infested with very tiny insects and the chlorine doesn't stop them.
4. The deck has dark spots that are wet and slippery. What am I doing wrong?
5. My concrete pool looks like a pond full of green plants which clog the vacuum. Now what?
6. There is sand in my pool. It comes out of the water jets going into the pool. Why is this happening?
7. The liner moved in the shallow end making a fold on the bottom of the pool. Can I restretch it?
8. How do you get the water jets working in the shallow end?

Solutions:

- a. The spots are caused by standing water that allows mildew to grow. Drill slanted holes to drain it off.
- b. Your pump is undersized for a solar system. You'll have to get a larger one to get rid of the air.
- c. Rent a pump for \$20, drain the pool and sprinkle the inside with chlorine to kill the green algae.
- d. The holes don't cause water loss. Fiberglass and gel-repair kits will fill them in.
- e. You need to "shock" your pool with a very high level of liquid chlorine (10 gallons!) to be insect free.
- f. The sand means that your filter wasn't assembled properly.
- g. You must put smaller eyeballs in the deep-end returns to increase the water flow at the shallow end.
- h. Relining requires draining the pool. Build up the radius, then reattach and stretch the liner.

Write your answers here:

1	2	3	4	5	6	7	8

Part IV - LANGUAGE

4. Complete the following passage by circling the correct answers. (10 points)

Philip's LED Bulbs

The US Department of Energy is looking for ways to reduce the amount of electricity used to light up homes. (1 ~~In- On-Over~~) September, 2009, Philips, (2 ~~the-an- a~~) Dutch electronics company entered the U.S. Department of Energy (3 ~~'s-s-es~~) competition for new types of light bulbs to (4 ~~replace-redo-retake~~) the common 60-watt bulb. Today sixty-watt bulbs make (5 ~~for -up- out~~) 50% of the local light market. If they are replaced by Philip's LED bulbs, the U.S. (6 ~~must-can't- will~~) save enough electricity (7 ~~some-each- all~~) year to light up 17.4 million more households. Philips' LED bulb produces the same amount of light as the bulb commonly used today but (8 ~~instead of-however- despite~~) 60 watts it uses less than 10 watts and (9 ~~lasting- lasts-lastest~~) for 25,000 hours — or 25 times as long. Philips hopes that if it wins the \$10 million prize, it will also get big US government contracts in the (10 ~~present-past-future~~).

Good Luck!