

- סוג הבחינה: א. בגרות לבתי ספר על-יסודיים
ב. בגרות לנבחני משנה
ג. בגרות לנבחנים אקסטרניים
מועד הבחינה: תשס"ט, מועד ב'
מספר השאלון: 406, 016107

אנגלית

שאלון ו'

(MODULE F)

גרסה א'

הוראות לנבחן

- א. משך הבחינה: שעה ורבע
- ב. מבנה השאלון ומפתח ההערכה: בשאלון זה שני פרקים.
פרק ראשון – הבנת הנקרא – 60 נקודות
פרק שני – משימת כתיבה – 40 נקודות
סה"כ – 100 נקודות
- ג. חומר עזר מותר בשימוש: מילון אוקספורד אנגלי-אנגלי-עברי.
או מילון הראפס אנגלי-אנגלי-ערבי:
قاموس " هاراب " إنجليزي – إنجليزي – عربي
נבחן "עולה חדש" רשאי להשתמש גם במילון דו-לשוני: אנגלי-שפת-אמו / שפת-אמו-אנגלי.
- השימוש במילון אחר טעון אישור הפיקוח על הוראת האנגלית.
- ד. הוראות מיוחדות:
- (1) עליך לכתוב את כל תשובותיך בגוף השאלון (במקומות המיועדים לכך).
 - (2) כתוב את כל תשובותיך באנגלית ובעט בלבד. אסור להשתמש בטיפקס.
 - (3) בתום הבחינה החזר את השאלון למשגיח.
- הערה: על כתיב שגוי יופחתו נקודות מהציון.

ההנחיות בשאלון זה מנוסחות בלשון זכר ומכוונות לנבחנות ולנבחנים כאחד.

בהצלחה!

/המשך מעבר לדף/

PART I: ACCESS TO INFORMATION FROM WRITTEN TEXTS (60 points)

Read the interview below and then answer questions 1-7.

WHAT EVER HAPPENED TO THE PERSONAL ROBOT?

When it comes to advanced technology, we humans are simply brilliant. But so far we've failed to produce one of the most eagerly awaited inventions of the modern age – a personal robot. As robotics engineer Dan Pinter told our reporter, making robots for domestic use is not as easy as science fiction writers led us to believe.

5 **How far have we come in developing a robot that will help around the house?**

Not far enough, I'm afraid. The wide variety of tasks that humans perform without a second thought is still beyond the capabilities of today's robots. Consider, for example, how easily you and I handle different objects. Extremely intricate engineering is required to design a robotic hand that can sense exactly how much strength is needed to hold a range of items without crushing or dropping them. Some robots today can
10 turn a door handle, others can pick up a book, but don't expect them to do both. Then there's the problem of robotic vision. While certain robots can recognize several shapes and colors, none have the human-like brain needed to interpret visual information and make sense of it. As a result, they can't tell if, say, the square object in front of them
15 is a microwave oven or a cardboard box. So it'll clearly be a while before you can sit back and let your robot cook dinner for you.

What else are robotics engineers currently working on?

Motion – how robots will get around the house. Legs are highly efficient, so a mechanical version would seem to be the obvious solution. However, human walking
20 is very tricky to imitate mechanically. Even the most advanced two-legged robots can only "walk" clumsily on flat surfaces, and they certainly can't climb stairs.

So when can we expect to see a personal robot doing most of our household chores?

To do that, it will need a whole range of different skills but unfortunately, there are very few robots today that can perform more than one particular task with any degree
25 of success. Nor can they function in the unpredictable conditions of a home, where people are constantly coming and going and things are left lying around. But Andrew Ng of Stanford University feels he's going in the right direction. He's developed STAIR, short for Stanford Artificial Intelligence Robot, a robot which can roll around untidy rooms, negotiating unexpected obstacles and handling all sorts of objects. Ng
30 believes that soon it will be able to clean our houses, put our clothes away, and empty the garbage. And that's what it's all about, isn't it? A robot that does the jobs we hate.

(Adapted from "What became of the personal robot?" *BBC News*, 16 December 2008)

QUESTIONS (60 points)

Answer questions **1-7** in English, according to the text. In questions 1 and 3, circle the number of the correct answer. In the other questions, follow the instructions.

1. What do we learn about personal robots from lines 1-4?

- (i) Science fiction writers are especially excited by them.
- (ii) They are the most important invention of the modern age.
- (iii) Many people would like to have one.
- (iv) People don't expect much of them.

(8 points)

2. What does Pinter explain in both his first and second answers? (lines 6-16 and lines 18-21)

COMPLETE THE SENTENCE.

Why personal robots
(9 points)

3. What are we told about robotic vision?

- (i) What kind of technology it uses.
- (ii) What engineers are doing to improve it.
- (iii) When it was developed.
- (iv) How it is different from human vision.

(8 points)

4. How is STAIR different from the other robots described in the interview?

PUT A ✓ BY THE TWO CORRECT ANSWERS.

- i) It can do all the jobs in a house.
- ii) It can work in changing surroundings.
- iii) It can climb up and down stairs.
- iv) It can do several things.
- v) It is already on the market.
- vi) It can learn from its mistakes.

(2×8=16 points)

/המשך בעמוד 4/

5. How did Andrew Ng solve the problem presented in Pinter's second answer?

ANSWER:
(7 points)

6. COMPLETE THE SENTENCE.

Putting clothes away (line 30) is mentioned as an example of

.....
(6 points)

7. (a) Ng believes we will have a personal robot soon. Does Pinter agree?

Circle the correct answer: YES / NO

- (b) Support your answer by quoting a sentence or a phrase from lines 5-21.

.....
(6 points)

PART II: WRITTEN PRESENTATION (40 points)

Write 120-140 words in English on the following topic.

8. Two months ago, the city council decided that students would not be allowed to bring cell phones to school.

Write a formal letter to the council explaining how the decision has affected you and / or the other students in your school, and why you think the ban on cell phones should or should not be continued.

בהצלחה !

Use this page and the next (nos. 5-6) for writing a rough draft.

