

Remadhnia Secondary School

Level: 2nd year Foreign languages

year: 2017/2018

SECOND TERM EXAM

Read the text then do the following activities:

PART ONE: A/COMPREHENSION:(7pts)

The aim of the project is to develop intelligent pillow to monitor the heart rate by using fibre optical sensor. The research is focused upon allowing more automation of patient care, an especially important matter for the elder population or bedridden patients, which is a rapidly growing fraction of much of the world population.

The fibre-optical sensor is built into pillow. Patients can determine their heart rate by just lying on the pillow and the device will not cause any disturbance to patients and at the same time still monitoring the heart rate. ECG electrodes and finger clip (ear lobe clip probes using IR LED and photodiode technology) are commonly used for monitoring heart rate.

Unfortunately, they are inconvenient and inadequate for long-term, everyday measurements. Fibre-optical sensing overcomes many of these challenges by using light rather than electricity and standard optical fibre in place of copper wire. Optical fibres are non-conductive electrically passive, immune to electromagnetic interference (EMI) –induced noise, and able to transmit data over long distances with little or no loss in signal integrity.

Copyrights@ 2013 Institute of Advanced Engineering and Science.

1-Write the letter which corresponds to the right answer:(0.25pt)

The text is about a new research in the field of:

- a-Medicine. b- economy. c- commerce.

2-Are the following statements True or False. Write T or F next to the statement: (2pts)

- a-The intelligent pillow's purpose is to check heart's speed.
b-The intelligent pillow is given to the young people.
c-The intelligent pillow is a safe device for patients.
d- The intelligent pillow works with electricity.

3-In which paragraph is it mentioned that the pillow contains a fibre-optical sensor?(1pt)

4-Answer the following questions according to the text?(3pts)

- a-To whom is the pillow allowed?
b-Why are ECG and LED inconvenient and inadequate?
c- How are optical fibres?

5-Who or What do the underlined words refer to in the text?(0.75pt)

Which (§1)..... Their (§2)..... These challenges (§3).....

B-TEXT EXPLORATION:(7pts)

1-Match each word with its definition :(1pt)

words	Definitions
1-Monitor	a-The speed at which something happens or changes.
2-Bedridden	b-To watch and check something carefully for a period of time.
3-Immune	c-Stay in bed because of illness.
4-Rate	d-Protect against a particular disease.

2-Give the opposites of the following words keeping the same root:(0.5pt)

Ability ≠.....

Affected ≠.....

3-Ask the questions on the underlined words:(1.5pt)

a-The research worked hard to develop the intelligent pillow for their patients.

b-The intelligent pillow is a developed device.

c-There are many bedridden patients who need intelligent pillow.

4-Give the correct form of the verbs between brackets:(3pts)

a-If the intelligent pillow (be/not) discovered, the bedridden patients(die).

b-If there (to be) no medical research, the field of medicine (be/not) develop.

c-If the heart rates (to stop) ,men (to die).

5-Mark the stress on the following words . Justify :(1pt)

Optical- population- technology- electricity.

PART TWO: WRITTEN EXPRESSION: (6pts)

Choose ONE of the following topics:

Topic one: Suppose doctors make a project to develop intelligent shoes to check blood pressure and lose weight. How would you u react? Answer these questions in a short paragraph by using these notes :

- Obesity reduced. People are not obliged to go on diet.
- No increase in blood pressure.
- People stay healthy.
- Be active and dynamic.
- Don't suffer from chronic disease.

Topic two: Suppose that your friend needs your advice because he/she suffers from stress, sadness and loss of self-confidence. Write a letter in which you express your sympathy and give him/her some recommendation.