

EASTERN UNIVERSITY, SRI LANKA

SECOND YEAR SECOND SEMESTER EXAMINATION IN SCIENCE – 2012/2013
(August & September 2015)

ENGLISH-II



Time: 02 Hours

Index No:

Instructions to the candidates:

1. Duration: Two (02) Hours
2. Answer all the questions on this paper itself.
3. Marks will be deducted for wrong spellings and grammar.
4. Read each question carefully and answer them.
5. This paper consists of 08 pages.
6. Write your Index Number clearly in the space given.

For Examiner's use only

Question Number	Maximum Marks	Marks Obtained
1	20
2	15
3	15
4	15
5	15
6	20
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	100	=====
	=====	=====

Q1. Read the following passage and answer all questions that follow:

Radiation from mobile phones may cause brain tissue damage, a two-year study has found.

Scientists discovered that emissions from handsets affect the delicate make-up of cells in blood vessels, and could be a health hazard to regular users of the UK's 50million mobile phones.

The radiation might disable a safety barrier in the body which protects the brain from harmful substances in the blood, they believe.

It is the first time scientists have used cells from human blood vessels rather than rats, bringing researchers closer to the truth about long-term mobile phone use. Despite the millions spent on research in the last decade, the health implications of sustained use are still unclear.

The biggest British study, led by Sir William Stewart, found two years ago that there was no evidence of a risk to health. A study published last year by the American National Cancer Institute also could not find a link between increased risk of brain cancer and mobile use. But the latest study by the Radiation and Nuclear Safety Authority in Finland - the home of mobile phone giant Nokia - has found that one hour of mobile radiation triggered potentially harmful changes in human cells.

The radiation made the cells in blood vessel walls shrink - allowing potentially harmful substances in the blood to 'leak' into the brain. Repeated exposure, the study found, could make the blood-brain barrier more permeable, leading to increased brain damage.

It concluded: 'Repeated occurrences of these events on a daily basis, over a long period of time, could become a health hazard due to possible accumulation of brain tissue damage.'

Professor Dariusz Leszczynski, who led the study, said: 'There is massive use of mobile phones in society now; our brains are being bombarded with radiation all the time.' 'We really don't know what the impact is going to be on people regularly using a mobile phone for ten or 20 years. That is why more studies are urgently needed.'

Mobile phone radiation may also contribute to the growth of tumours caused by other factors, he said. He is due to present the findings at a conference in Quebec City on Monday. They were published in the German scientific journal Differentiation.

In January, a new £ 7.4million UK research programme was announced, backed by the Government and the mobile phone industry, to be managed by an international committee of experts led by Sir William. The programme includes 15 studies which will seek clear

4. According to the passage, what affects the delicate make-up of cells in blood vessels, and could be a health hazard to regular mobile users in the UK?

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.....
.....

(2 Marks)

5. What does the latest study by the Radiation and Nuclear Safety Authority in Finland suggest?

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(2 Marks)

6. What did Professor Dariusz Leszczynski say about his study?

.....
.....

(3 Marks)

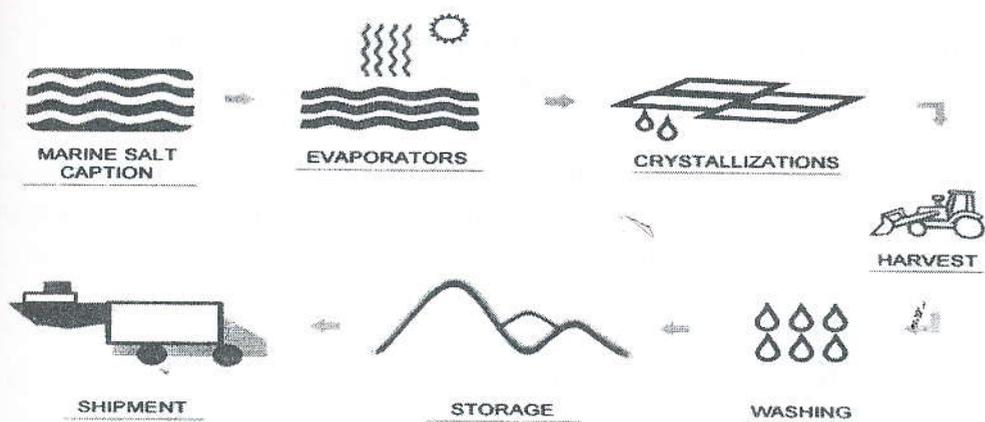
7. According to the article why did Sir William blast at mobile phone companies targeting children as potential mobile users?

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.....

(2 Marks)

Total: 20 Marks

Q2. Read the flow chart below and write about the Salt Manufacturing process in 50 to 65 words.



Marks: 15

Q3. Use appropriate words given in the bracket to fill in the blanks found in the passage given below.

[systems, electricity, however, typically, today, plant, turbines, combination, rotor, mounted, turbulent, harnessing, pumping, generate, turbines]

We have been(1)the wind's energy for hundreds of years. From old Holland to farms in the United States, windmills have been used for(2)water or grinding grain. Today, the windmill's modern equivalent - a wind turbine - can use the wind's energy to(3) electricity.

Wind turbines, like windmills, are mounted on a tower to capture the most energy. At 100 feet (30 meters) or more aboveground, they can take advantage of the faster and less(4) wind. Turbines catch the wind's energy with their propeller-like blades. Usually, two or three blades are(5) on a shaft to form a rotor. A blade acts much like an airplane wing.

When the wind blows, a pocket of low-pressure air forms on the downwind side of the blade. The low-pressure air pocket then pulls the blade toward it, causing the(6) to turn. This is called lift. The force of the lift is actually much stronger than the wind's force against the front side of the blade, which is called drag. The(7) of lift and drag causes the rotor to spin like a propeller, and the turning shaft spins a generator to make electricity.

Wind(8) can be used as stand-alone applications, or they can be connected to a utility power grid or even combined with a photovoltaic (solar cell) system. For utility-scale sources of wind energy, a large number of wind(9) are usually built close together to form a wind(10) . Several electricity providers(11) use wind plants to supply power to their customers.

Stand-alone wind turbines are(12) used for water pumping or communications.(13), homeowners, farmers, and ranchers in windy areas can also use wind turbines as a way to cut their(14) bills. Small wind(15) also have potential as distributed energy resources.

Source (Edited): <http://www.renewableenergyworld.com/wind-power/tech.html>

Marks: 15

Q4. Using the words/phrases given below write a complete and meaningful sentence for each.

Marks will only be awarded for complete and meaningful sentence with correct punctuation marks

1. undergraduates studies
2. developing research skills
3. from the findings
4. the data presented
5. social harmony
6. excellent presentation
7. clear visuals
8. according to
9. In addition to
10. energy efficient

Marks: 15

