

UNIVERSITI TUNKU ABDUL RAHMAN

ACADEMIC YEAR 2022/2023

MAY 2022 EXAMINATION

**MPU32143 ENGLISH FOR INFORMATION TECHNOLOGY**

THURSDAY, 12 MAY 2022

TIME: 2:00 PM – 4:00 PM (2 HOURS)

BACHELOR OF INFORMATION SYSTEMS (HONOURS) DIGITAL ECONOMY  
TECHNOLOGY

BACHELOR OF INFORMATION SYSTEMS (HONOURS) INFORMATION  
SYSTEMS ENGINEERING

BACHELOR OF INFORMATION TECHNOLOGY (HONOURS)  
COMMUNICATIONS AND NETWORKING

BACHELOR OF INFORMATION TECHNOLOGY (HONOURS) COMPUTER  
ENGINEERING

**Instructions to Candidates:**

There are **THREE (3)** sections in this paper.

**SECTION A [TOTAL: 40 MARKS]**

**Reading Comprehension**

Answer **ALL** questions.

**SECTION B [TOTAL: 30 MARKS]**

**Report Writing**

Answer only **ONE (1)** question.

**SECTION C [TOTAL: 30 MARKS]**

**Interpretation of Graphical Data**

Answer **THE** question.

**MPU32143 ENGLISH FOR INFORMATION TECHNOLOGY****SECTION A [TOTAL: 40 MARKS]****READING COMPREHENSION**

Read carefully the text below and answer **ALL** the following questions.

**This Company Wants All of Your Windows to Generate Power**

By Meredith Galante

1. Most Americans ideal home would glisten with floor-to-ceiling windows that let in natural sunlight. However, typical windows cause homes to heat up in the summertime. The same windows also let cold air seep through in the wintertime. The leaking of air costs money, wastes energy, and is not environmentally friendly. Ubiquitous Energy, a California-based company, understands the homeowner's desire to have a home filled with windows, and they want to help on a national scale.
2. The idea for Ubiquitous Energy spawned on MIT's campus when co-founder Mile Barr was pursuing his Ph.D. Barr and two MIT professors, Vladimir Bulović and Richard Lunt, were discussing how to make solar cheaper and more lightweight. They dug into the physics and came across the idea if they could manipulate the light spectrum and what type of light the solar devices absorb.
3. "Solar devices absorb light energy from the sun; ideally, it captures the most sun possible and converts as much as possible," Hardev explained. "The idea and concept and thinking of something transparent, if you can actually do this, apply to all types of different surfaces, where people typically did not think about applying solar because it did not look good. So then windows, or even things like cars, greenhouses, windows in cars, there are an endless number of applications." Ubiquitous Energy was officially founded in 2011 and won the MIT Clean Energy Prize Renewables Category.
5. There is still a lot to figure out how a solar window will power a home or commercial building. Currently, Ubiquitous Energy's solar window has wires running through the framing and then locally powers an outlet. Ideally, in new construction, the windows would power into the central electrical system of a home. But for older construction, it can be more challenging to supply more than just local power near the window. The wire may only be able to run locally, or it could run-up to the roof. If a net meter approach is needed or a conduit is still being worked out. "Most homes do not have an energy power management system, but commercial buildings do, so we can reroute or direct power to your liking or optimize to best efficiency to where it needs to be used," Hardev said.
6. For years rooftop solar companies have been faced with limitations on which homes they can install based on the type of roof, tree coverage, and the direction the roof was facing. If there was not enough sun, the system often did not make sense to install because of a high cost, paired with low energy production. Solar windows will have similar obstacles of needing to face a specific direction and needing a certain threshold of sun exposure to produce enough energy to power the home. Most rooftop solar array installers have consultations with homeowners to explain how much energy their specific array could produce and what it would cost. Hardev said the company imagines a similar consultation setup for the window units.

**MPU32143 ENGLISH FOR INFORMATION TECHNOLOGY****SECTION A (CONTINUED)**

However, because the windows absorb the heat from any sun exposure, Hardev says windows make sense to install regardless.

7. “The way we think about our tech from a window standpoint is it is purely energy efficient,” Hardev explained. “Our windows coating absorbs infrared light and deep infrared. A lot of what typically passes through a window is solar heat. Our coating is not allowing, or blocking, that heat from coming into the home. So just by itself, if we did not connect the window to electricity, it would serve as a premium window to not let heat radiate inwards. It is an added benefit, even in locations where not that much sun, but aesthetically it helps and will help homeowners save money on heat and air conditioning costs.”
8. In the coming years, do not expect Ubiquitous Energy to become a household name. That does not mean the company would not be successful. Ubiquitous understands that scaling to the point of becoming a national window supplier is not a unique skill their small team has to offer. They are mostly tech and solar people that understand the nuance behind crafting the solar glass. Customers will be able to walk into a home improvement store and see the product as a premium offering from pre-existing window companies. These companies will be verified sellers or installers of Ubiquitous product.
9. Like most products, labor is a big part of the cost of solar windows. These types of partnerships will help reduce labor costs and improve the customer experience. “As we start out, as with any new technology, it is higher-end in terms of cost. But we are confident that when we hit economies of scale, we can quickly bring those prices down. We want it to be something everyone can buy and get access too.”
10. Ubiquitous Energy does not consider rooftop solar as its competition, and it has no intentions to replace large solar farms. The team wants to take on the average window. “We think rooftop is great, it is the most effective,” Hardev said. “But if you have windows, they should be solar windows”.

*Source: <https://solar magazine.com/this-company-wants-all-of-your-windows-to-generate-power/>*

Q1. Identify **ONE (1) word** which carries the similar meaning based on the context.

- |             |               |          |
|-------------|---------------|----------|
| (a) glisten | (paragraph 1) | (1 mark) |
| (b) seep    | (paragraph 1) | (1 mark) |
| (c) idea    | (paragraph 3) | (1 mark) |

**MPU32143 ENGLISH FOR INFORMATION TECHNOLOGY****Q1. (CONTINUED)**

- |                 |                |          |
|-----------------|----------------|----------|
| (d) transparent | (paragraph 3)  | (1 mark) |
| (e) obstacles   | (paragraph 6)  | (1 mark) |
| (f) threshold   | (paragraph 6)  | (1 mark) |
| (g) premium     | (paragraph 8)  | (1 mark) |
| (h) costs       | (paragraph 9)  | (1 mark) |
| (i) large       | (paragraph 10) | (1 mark) |
| (j) effective   | (paragraph 10) | (1 mark) |

[Total: 10 marks]

- Q2. What is the main idea behind Ubiquitous Energy? (4 marks)
- Q3. According to the passage, what are the drawbacks of the rooftop solar system? (6 marks)
- Q4. What makes Ubiquitous Energy window glasses to be “energy efficient”? (10 marks)
- Q5. In your own words, provide **FIVE (5)** ways to practice energy efficiency at home and **ONE (1)** elaboration for each point. (10 marks)

[Total: 40 marks]

**MPU32143 ENGLISH FOR INFORMATION TECHNOLOGY****SECTION B [TOTAL: 30 MARKS]****REPORT WRITING**

Answer **ONLY (1)** question.

- Q1. You are the chairperson of the UTARFICT Society in your university. The society will be organising a 2-day virtual career workshop for UTAR IT undergraduates. The program is organised in light of providing useful information related to career path and meeting with established renowned IT companies in Malaysia. The career workshop will take place from 18 May 2022 to 19 May 2022.

Write a report explaining the progress of the preparations for the workshop to the Dean of Faculty of FICT, Dr. Mika Lee to give some updates on the preparation of the virtual campaign. Include details on the tasks completed and also the remaining tasks as well as any hindrances you have faced so far.

Your report should include the following points:

**Completed Work**

VVIP Guest

**On-going work**

Event program/schedule

**Future Work**

Prizes and awards

Add another **THREE (3) relevant points** about the event preparation and provide sufficient elaboration. The body of the report **should not be more than 250 words.** (30 marks)

- Q2. You are the Sales Executive for PrimaX Sdn. Bhd. Your company is an established manufacturer of electronic bicycles all over Malaysia and are well known for their mass production and brand quality of your product. Recently, you have been receiving several emails complaining about problems of your newly launched product X1-E bicycles and services provided.

Write a recommendation report to your Chief Executive Officer to address the problems faced and suggest ways to overcome them.

**The details of the complaints are as follows:**

- (a) There were delays in terms of shipping the electronic bicycles to customers due to lack of manpower faced by the logistic company.
- (b) The customer service hotline provided is always engaged and customers complained that they could not get a quick response.
- (c) 70% of the newly purchased electronic bicycles were recalled back due to bicycle's handlebar becoming loose, including three reports of riders falling off the bicycle.

**MPU32143 ENGLISH FOR INFORMATION TECHNOLOGY****Q2. (CONTINUED)**

Add **THREE (3) relevant points (solutions)** on improving the customers' experiences. You must elaborate on each point. The body of the report **should not be more than 250 words.**

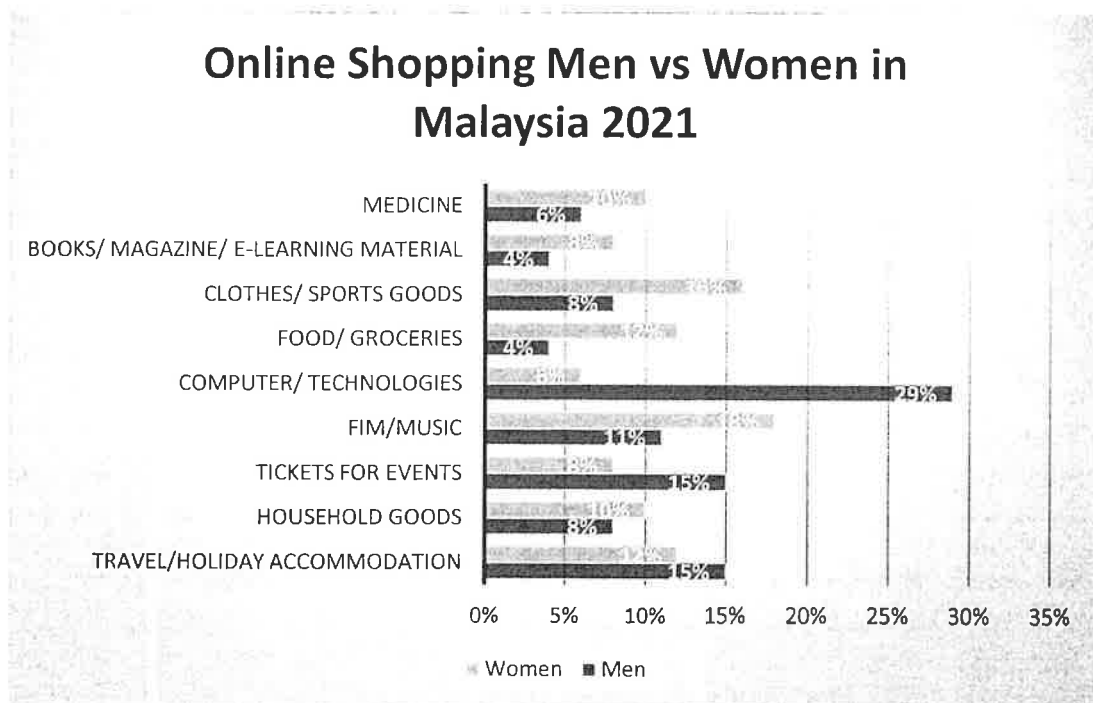
(30 marks)

[Total: 30 marks]

**SECTION C [TOTAL: 30 MARKS]****INTERPRETATION OF GRAPHICAL INFORMATION**

Answer **THE** question.

- Q1. The following bar chart shows the trend for online shopping between men and women in Malaysia 2021. Interpret the bar chart accordingly in **not more than 250 words**. Explain the information by describing and making comparisons between the statistics in the graph. You are required to provide logical and sound analysis.



[Total: 30 marks]