

Sri Lanka Institute of Information Technology

B.Sc. Honours Degree in Information Technology

Final Examination
Year 1, Semester 2 (2022)

IT1080 – English for Academic Purposes

Duration: 3 hours

May 2022

Instructions to Candidates:

- This paper has 5 questions.
- The total marks for the paper is 100.
- This paper contains 11 pages including the cover page.
- Answer **all** the questions on the paper itself.
- Electronic devices capable of storing and retrieving text, including calculators and mobile phones are not allowed.

Student ID	

Q1	Q2	Q3	Q4	Q5	Total

Question 1**(14 marks)****Part 1: Read the article and answer the given questions. (1 x 8 = 8 marks)****Predicting Volcanic Eruptions**

Predicting a volcanic eruption is hard even in developed countries such as Italy, Iceland and the USA, where there is intensive monitoring to detect movements beneath the surface. But in the developing world the majority of active volcanoes, including some that pose a high risk to large populations, have no local monitoring or warning system.

Help is on the way, however, from the sky. Earth-observing satellites, such as the European Space Agency's Envisat, can detect unrest in unmonitored volcanoes using a technique called Interferometric Synthetic Aperture Radar (InSAR). InSAR is the most revealing way to show slight deformations in the ground due to movements of molten rock below. It works by combining satellite radar images of the same place taken at different times. This is displayed in the form of rainbow-coloured interference patterns, or interferograms as they are known, in which the arrangement of coloured bands shows the direction and extent of ground deformation. InSAR is particularly useful for tropical volcanoes, where cloud cover can obscure visual observations, because the radar beam can see through it.

As a result, many volcanoes previously thought to be dormant are now known to be showing signs of unrest. The resources for acquiring more detailed, ground-based monitoring can now be targeted at such volcanoes. A recent review of InSAR technology in the journal *Science* gave Mount Longonot, Kenya, as an example. Radar data from Envisat showed a nine-centimetre uplift over two years in the volcano, which was previously thought dormant.

While InSAR has enormous potential, it is still a new technique that relies on frequent observations and long duration space missions. A series of Earth-observing satellites called Sentinel is expected to provide the data continuity required for serious InSAR volcano modelling. Sentinel is expected to observe all land masses regularly, with a six-day cycle in operation for the next two decades.

"InSAR is a growing field", says Juliet Biggs of Bristol University, co-author of the *Science* paper, "In the past ten years of my involvement . . . the community has gone from a small handful of specialists to a wide range of practitioners".

Of course, early warning of eruptions still faces challenges, as scientists try to work out how to tell whether a period of volcanic unrest will lead to eruption. Unrest usually subsides without an eruption, and false alarms can undermine public trust. But consistent InSAR monitoring will give vulcanologists a clearer picture of potentially threatening behaviour.

Complete the sentences below.

Choose NO MORE THAN THREE WORDS from the passage for each answer.

1. There is relatively little monitoring of most active volcanoes located in
.....
2. InSAR techniques can indicate pieces of land wheremay
be moving beneath the surface.
3. The termis used to describe the coloured
patterns produced by InSAR techniques.
4. InSAR can be used in places wheremakes
other methods problematic.
5. The type of movement measured at Mount Longonot is described as.....
6. InSAR techniques depend on space flights ofin
order to function.
7. Regular data for InSAR modelling will be provided on a
by Sentinel.
8. The writer is concerned about the effects of on
people's attitude towards predicting volcanic activity.

Part 2: Read the article and answer the given questions. (1 x 6 = 6 marks)

Biophilia in the city

Biophilia, as defined by evolutionary biologist E.O. Wilson, is 'the human bond with other species', and the idea was elaborated in his work *Biophilia*, published in 1984, in which he argues that our very existence depends on this close relationship with the natural world. The concept of biophilia with reference to whole cities is, however, a 21st-century phenomenon, as evidenced by the communique released at the end of the Copenhagen Climate Summit in 2009 which stated: 'the future of our globe will be won or lost in the cities of the world.'

Climate change has probably been the single greatest influence on this debate. This idea has been further fuelled by the United Nations identifying cities as the source of 75% of greenhouse gas emissions, which have an environmental impact around the world. Cities are also the consumers of 75% of the world's natural resources, the extraction of which affects many habitats across the globe.

Since 2009, work has been going on around Europe and beyond to encourage city leaders to adapt their policies to the reality of climate change in a concerted manner. One group of cities has gone a step further and formed the Biophilic Cities Network, which recognises people's need to access and respond to nature as part of their daily lives.

Any city joining the network is asked to commit to the following aims:

- Work diligently to protect and restore nature within their boundaries and to forge new links with the natural world wherever possible.
- Share information and insights about tools, techniques, programmes and projects which have been successfully applied in the city.
- Assist other cities outside the group, which are also striving to become more biophilic, offering help in data collection and analysis, sharing technical expertise and knowledge, and other forms of professional support for the expansion of urban nature.
- Meet periodically as a group to share experiences and insights and provide mutual support and guidance in advancing the practice of biophilic urbanism.

Complete the summary using the list of words, A-K below.

Write the correct letter, A-K.

A initiatives	B formation	C commitment	D impact
E protection	F management	G non-members	H expertise
I proportion	J insights	K collection	

Biophilia Cities Network

Biophilia is the idea that human existence relies on maintaining a close relationship with the natural world, and it has recently been acknowledged that cities play a key part in this. The United Nations identified that cities are responsible for creating 75% of greenhouse gas emissions whilst at the same time consuming around the same 1 of the world's natural resources.

This led to the 2 of the Biophilic Cities Network, a group of city governments that has made a 3 to work together in addressing not only the issue of climate change, but also the need for their citizens to have access to nature as part of their everyday lives. Each city in the group will work towards the 4 of its own natural environment, as well as restoring nature wherever possible. Through co-

operation with the other members, cities will share information about 5 which have worked. They will also help non-members to achieve the same goals through the sharing of both skills and 6 Regular meetings of the group will help to further these aims.

Question 2 **(20 marks)**

Part 1 (1 x 10 = 10 marks)

Fill in the blanks with active or passive form of the verb in parentheses ().

In 1904 the French psychologist Alfred Binet (**develop**) intelligence tests to help teachers in Paris schools. His simple tests, which were given the name Intelligence Quotient IQ tests, (**design**) to make it easier to put disruptive schoolchildren into a class that suited their abilities. At the time, Binet (**warn**) users of the tests not to look at the test results in isolation, but to use them along with other assessments of intelligence. However, IQ tests were so easy to carry out that, in spite of Binet's warnings, almost immediately they (**use**) all over the world as the ~~only~~ method of assessing brainpower. In some countries, they (**use**) to support the testers' prejudices about race, social class or educational abilities. For several years in Britain, school pupils who (**fail**) tests of this type (**allow**) to attend normal secondary schools because it was felt that their low IQ scores meant they would never be capable of performing well academically. Now, a century after their invention, IQ tests (**be**) still controversial, but psychologists say they (**can use**) in some specific situations. For example, they are helpful in deciding whether a disruptive pupil (**be**) emotional or academic problems. That, of course, was Binet's intention all along.

Part 2 (1 x 10 = 10 marks)

In the texts below some words are missing. Fill the blanks with an appropriate word given in the box.

Passengers on board commercial ships are provided with an on-board safety 1..... known as a marine-evacuation system. The equipment, 2 invented in the 1970s for high-speed craft, has an inflatable escape slide which allows passengers on ships to 3 safely and quickly if the vessel is

increase. fraction percentage number

decrease

steady. gradual increase gradual decrease comparision

01680

in danger of 4 Passengers slide down the ramp onto life rafts in order to evacuate the boat in a similar 5 to the escape systems found on aeroplanes.

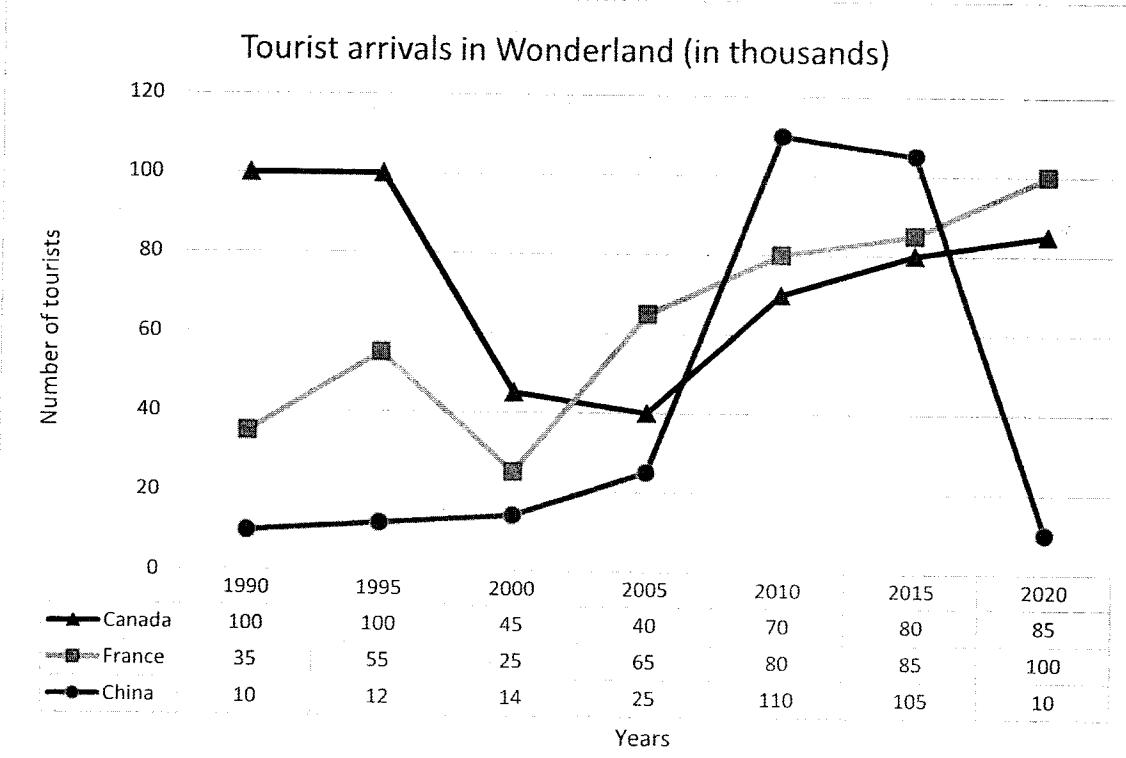
device sinking	originally fashion	trialled strategies	avoidance	exit
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Kore is the name for a 1..... style of ancient sculpture representing female figures that was produced in Greece between the seventh and the fifth centuries BCE. These statues served two principal 2 : firstly, many were installed in temples as 3 to individual goddesses. Others, 4 portraying young maidens, were placed in front of tombs as grave markers. The statues are 5 by a gracious but cool smile expressing little emotion.

voyages seemingly	recent characterized	particular sacrificing	functions	offerings
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Question 3 (20 marks)

The graph below gives information about the tourist arrivals in Wonderland. Summarize the information by selecting and reporting the main features and make comparisons where relevant. (Write at least 150 words)



Step 1 : What does the graph show?

- What is the type of the graph shown?
- What are the units of measurement used in the graph?
- Is there a period of time?

Step 2 : Introduce the Graph

The graph shows ...

The graph illustrates...

The graph compares...

The graph gives information about...

Step 3 : Give an Overview

An overview is a general statement, highlighting the most important information in the table.
This is just a summary of the main features.

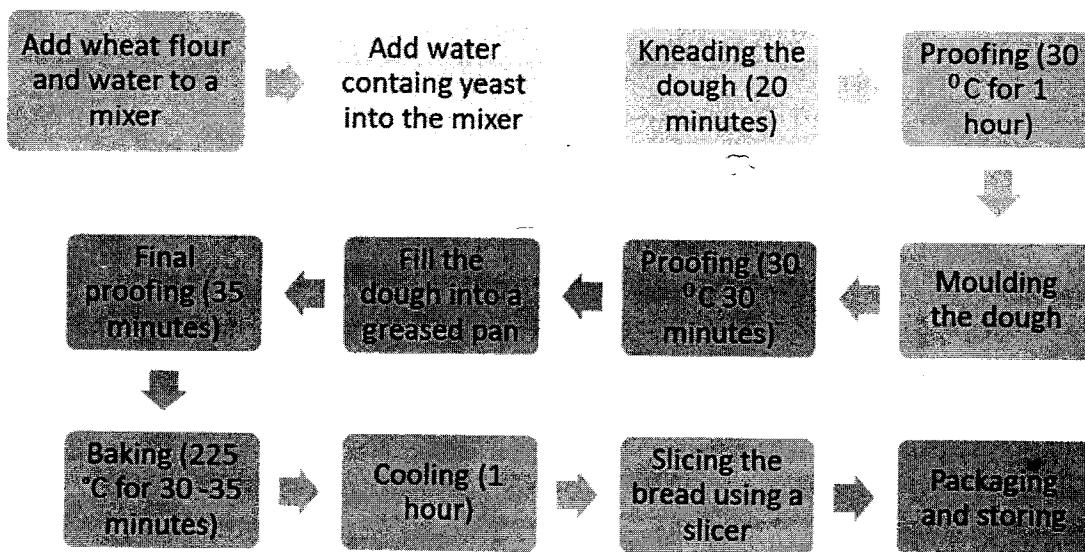
Step 4 : Give the Detail

Things that you should be looking for include: High/low values
Biggest increase/decrease

This line graph depicts the information about tourist arrivals in Wonderland from 1990 to 2020 from three different countries: Canada, France, and China. Overall a significant change is visible from all the three countries during different years. In 1990, the highest number of Canadians visited Wonderland compared to France and China, where the number of Chinese visitors was relatively low. However, after 1995, a drastic change is visible as the arrival of Canadians gradually decreased until the year 2000 by 55 tourists. On the other hand, the number of French tourists increased from 1990 to 1995 and then decreased. From thereon, there was a slight increment in the number of French tourists every five years from 2000 to 2020. Starting from 2005, there was a gradual increase in the arrival of Chinese tourists compared to both French and Canadian tourists. This increase was maintained relatively steadily, gradually increased in the year 2005 and gradually decreased by 82% from 2015 to 2020. In 2005, half of the tourists visiting Wonderland were from France. In summary, Canadian tourists have outnumbered those from France and China, while the number of Chinese tourists has been relatively lower.

Question 4 (20 marks)

The diagram below gives information about the process of making bread in a bakery. Describe the process by using at least 150 words.



Proofing refers to the fermentation action of the yeast, causing the dough to rise and create an airy texture.

Understand the process. W5H1

1. Introduce the Diagram

The illustration shows how electricity is created at nuclear power

2. Highlight the Main Points (the number of stages in the process and how it begins and ends)

3. Detail Each Stage of the Process

The diagram explains the process of making bread in a bakery. There are a total of twelve stages in the process. To begin, the first step involves combining the required quantity of wheat flour with an adequate amount of water. Following this, yeast is mixed with water separately, creating a yeast-water solution, which is then added to the flour-water mixture in the mixer. The dough is then kneaded for approximately 20 minutes. Afterward, the dough is left for one hour at a temperature of 30 degrees Celsius. Subsequently, the dough is molded again, and it is given an additional 30 minutes of proofing time at the same temperature. Then, a pan is greased before filling it with the prepared dough. Finally, the dough-filled pan is placed in an oven, and the baking process takes approximately 30 to 35 minutes at a temperature of 225 degrees Celsius. Once baked, the bread is allowed to cool for about an hour before slicing. Then, the bread is sliced using a bread slicer. Finally, the sliced bread is then carefully packed and stored to maintain its freshness and quality.

Question 5

(13 x 2= 26 marks)

Read the following text and summarize it with no more than 50 words. Write only 1 word in each cell.

Text 1

Work From Home (WFH) provides many benefits to employees as well as to employers. From the employee's point of view, reduced commuting time and related expenses, greater flexibility in terms of location and working time, less distractions and better work life balance are the key benefits. Reduced operational expenses related to utility costs and workspace, and staff expenses related to overtime and transport allowances, improved productivity, engagement and employee satisfaction, and reduced turnover are the key benefits of such arrangements, from the employer's point of view. In addition, WFH has been continuously highlighted as a measure to improve female labour force participation in Sri Lanka, which has been stagnating at a low level for a prolonged period. WFH is a mechanism to augment resource availability in the country, thereby promoting the economic growth in the long run. Positive impact on the environment through reduced carbon emissions and reduced traffic congestion and oil imports as a result of less vehicular movements, and reduced urbanisation are additional benefits of such arrangements at the national level.

Read the following text and summarize it with no more than 50 words. Write only 1 word in each cell.

Text 2

Effects of the COVID-19 pandemic transmit to food systems through both demand and supply sides. Although crop cultivation activities were not restricted in Sri Lanka, mobility restrictions resulted in a shortage of manpower for labour-intensive crop cultivation and other food supply chain activities during the lockdown period. Accordingly, intermediary processes of food manufacturing, including processing, packaging, storage, and distribution, were impacted with labour shortages arising from the island wide mobility restrictions imposed during the period from March to end April 2020, in particular. Meanwhile, post-harvest losses in perishable products increased notably during the lockdown due to disruptions to food distribution channels and closure of markets. Such supply side disruptions drove up food prices, adversely impacting vulnerable groups with less purchasing power, which prompted the Government to interfere through various measures to mitigate the situation.

End of Paper