

**RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES**

**B.Sc. in Information Technology
First Year - Semester I Examination: May-July 2022**

FDN 1201 – GENERAL ENGLISH

INDEX No: -----

Time: 3 hours

Answer all questions on this paper itself.

SECTION 01 - STRUCTURE AND COMPREHENSION

Part A: [20 Marks]

Directions: A-1: Form QUESTIONS to get the underlined words as answers (05 Marks).

- 1) AI stands for Artificial Intelligence.

.....? _____

- 2) A group of Sri Lankan scientists is conducting a research on this problem.

.....? _____

- 3) Scientists will seek a permanent solution to this problem in the near future.

.....? _____

- 4) A total solar eclipse occurred in 2019.

.....? _____

- 5) I have read three books on this theory.

.....? _____

Directions:

A-2: FILL IN the blanks of the following passage using the CORRECT WORD from those given within brackets (05 Marks):

"If Artificial Intelligence (AI) tools can be used to address the main health problems in Sri Lanka, achieving the third sustainable development goal which is "Health & Wellbeing for All" will not be a difficult achieve," said Medical Entrepreneur and founder, mydoctor.lk, Dr. Harsha Jayakody.

"Therefore it is utmost important to 1).....(courage, encourage, courageous) "Medical Entrepreneurship" and out of the box thinking to use technology in correct way to solve health issues at individual and population level of the country," he said making a presentation on 'Opportunities in Sri Lanka' at a forum organized by WHO & ITU in New Delhi recently.

Sri Lanka being a country 2).....(who, which, where) has universal health-care via public sector, higher waiting times and 3).....(congest, congested, congestion) are seen in main state-owned hospitals and clinics.

"Due to inequality of distributed physical and human resource as well as the availability of some services in the health domain, high congestion and lengthy waiting times are recorded in centers which are more resourceful in the main cities and tertiary care hospitals. As 4).....(age, aging, aged) population in Sri Lanka grow, geriatric and NCD disease burdens are bound to increase."

He explained that discovering Electricity made a huge difference in the day-today lifestyle of the human. "With the 5).....(growth, grow, grown) of the world's new technology, the Artificial Intelligence (AI) will do the same in the future by transforming the Human lifestyle to a whole new level. In simple English, Artificial Intelligence (AI) means a "man- made thinking power".

Directions:

A-3: Study the following passage and fill in the blanks with **the correct tense of the verb** given within brackets (10 Marks).

A rare total solar eclipse plunged a vast swath of Latin America's southern cone into darkness Tuesday, briefly turning day into night and entralling huge crowds in much of Chile and Argentina.

Hundreds of thousands of people - including large crowd1)(congregate) in La Higuera in Chile, a country that hosts some of the world's most powerful astronomical telescopes- looked to the skies captivated by the breath-taking spectacle.

Thousands of people on beaches near the Chilean city of La Serena cheered and clapped at the moment when the disc of the Moon 2)..... (close) over the Sun and blocked it out completely for more than two and a half minutes. "Oh my God, it's incredible," shouted some, while others chanted "more, more, more." Many remained silent, enchanted and moved by one of nature's spectacles.

"The truth is that even if one knows what 3).....(go) on, it is shocking the minute that the shadow of darkness 4)..... (begin) to come and that silence begins," said astronomer Sonia Duffau.

Total solar eclipses 5)..... (be) rare, but what is even rarer about Tuesday's event is that it occurred directly over an area of the Earth most prepared to witness and study the heavenly bodies. Chile's Coquimbo region near the Atacama Desert - festooned with some of the planet's most powerful telescopes - was situated directly on the eclipse's 100-mile-wide "path of totality."

"Very seldom has it happened that the whole of an eclipse is seen over an observatory, the last time this happened was in '91," said Matias Jones, an astronomer at the landmark La Silla Observatory operated by the European Southern Observatory.

"I 6)..... (not believe) there's a better place in the world to see an eclipse than La Silla, because it is very dry, so it is almost certain that the sun 7)..... (be) visible," said Australian tourist Betsy Clark.

"It was an experience to last several lifetimes," said Chilean tourist Rene Serey.

An estimated 300,000 tourists 8)..... (flock) to the region where dryness, crystal-clear air and little light pollution had created a star-gazers' paradise.

Solar eclipses 9)..... (happen) when the Sun, the Moon and Earth line up, allowing the Moon to cast its shadow on Earth. Both Chile and Argentina were situated under the narrow, 6,000-mile long band of Earth that experienced the eclipse.

The eclipse began at 13:01 (17:01 GMT) in the Pacific Ocean, and a 95 mile (150 kilometer)-wide band of total darkness reached Chile's coast at 4:38 pm (20:38 GMT), before crossing into southeastern Argentina and into the wastes of the South Atlantic.

Chile's President Sebastian Pinera joined the crowds at La Higuera to witness the eclipse.

"Today is a very important day and one we 10)..... (wait) for so long," said Pinera.

Part B: [30 Marks]

B-1. Fill in the blanks of the following news item, using words/phrases from the list (05 Marks):

a lot
worse

positive
never

farmer
responsible

already
greatly

yet
two

Farmers face difficulties in getting water due to shortage of irrigation workers

Farmers who have cultivated paddy fields under the Bathalagoda Reservoir are faced with great difficulties in obtaining water for their cultivation purposes on time due to the shortage of irrigation workers for the proper distribution of water from the main canal that runs up to Thambagalla, Ganewatta, which is nearly 40 kilometres in length. According to the organizations, there should be at least sixteen workers for this task. However, at present there are only workers. There are nearly 8,000 acres of paddy lands on either side of this canal, which runs through Ibbagamuwa and Ganewatta D.S divisions.

Under this situation, one worker has to maintain nearly 4,000 acres. As a result, not only the workers, but also the officers too are inconvenienced. When the Daily News inquired from the Hiriyala Irrigation Engineer, Dashan Rathnayake, he said that he has brought this matter to the notice of the responsible authorities, but no action has been taken to address the issue. Also, he has requested the Ibbagamuwa and Ganewatta Divisional Secretaries for more workers, who had been recruited under the Multi-duty Development programme, but there was no response. Bathalagoda Reservoir contributes for the production of rice to the country on a large scale. “But the authorities have realized the importance and value of the reservoir leading to a situation than it was.” he added.

Directions:

B-2: Rewrite the following sentences using the HYPOTHETICAL CONDITIONAL pattern as in the example sentence (05 Marks):

E.g.: As the boy didn't do his homework, the teacher punished him.

If the boy had done his homework, the teacher wouldn't have punished him.

- 1) As Nayana didn't perform well at the interview, she did not get the job.

.....
.....

- 2) My friend didn't give me his contact number, so I couldn't contact him.

.....
.....

- 3) Kalinga didn't remember what the director had told him because he didn't pay attention.

.....
.....

- 4) The shop didn't pack the goods properly, so they got damaged.

.....
.....

- 5) As you didn't explain your problem to me, I wasn't able to help you.

.....
.....

Directions:

B-3: COMBINE each of the following pairs of sentences using appropriate RELATIVE PRONOUNS to make them complex sentences. ALWAYS make the second sentence the relative clause. Put the relative clause in COMMAS when it is non-defining (05 Marks).

E.g.: *Bile is excreted by the liver. Bile is stored in the gall-bladder.*

Bile, which is stored in the gall-bladder, is excreted by the liver.

- i. Computers can be defined as devices. These devices accept information in the form of programs and data.

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.....

- ii. Michael Faraday has made a number of discoveries in chemistry as well. Michael Faraday made the world's first generator.

.....
.....

- iii. Radium was discovered in 1898. Radium is a radioactive element.

.....
.....

- iv. Leaves are green in colour. Leaves contain chlorophyl.

.....
.....

- v. Uranus has four moons. Uranus is 1783 million miles from the sun.

.....
.....

Directions:

B-4: Rewrite the following sentences CONTRACTING the relative clauses within them without harming their meaning (05 Marks)

- i. Newton described the laws that govern the motion of falling bodies.

.....
.....

- ii. The heart is surrounded by a tough sack which is called the pericardium.

.....
.....

- iii. Galileo, who was an Italian scientist, invented the telescope.

.....
.....

- iv. In plane geometry, an angle is a figure which is formed by two straight lines which meet at a point.

.....
.....

- v. This forms an external skeleton, or exoskeleton which protects and supports the body.

.....
.....

Directions:

B-5: Read the following description of the external characteristics of the rabbit, and fill in the blanks of the table on the next page, which summarizes THE LOCATION AND OTHER DETAILS of the body parts of the rabbit (10 Marks):

The Rabbit (*Lepus* sp.)

External characteristics

The body of the rabbit is divisible into the head, the trunk and the tail. The head is connected with the trunk by a distinct neck, and two pairs of limbs are attached to the trunk. The whole body is covered with hair, which serves to keep it warm.

Head. The head is slightly elongate. At its extreme anterior end are two oblique slits, the *external nostrils*. The mouth is a transverse aperture below them, bounded by the soft upper and lower *lips*. The upper lip is cloven in two in the middle line, so that the front teeth are exposed; and the cleft is continuous above with the external nostrils. The two eyes are situated laterally on either side and are protected by upper and lower eyelids; eye lashes are present on them; at the inner angle of each eye, there is a hairless transparent membrane, the *nictitating membrane*, which can be partly drawn across the eye. On either side of the external nostrils are long stiff hairs, the *whiskers or vibrissae*, which are sensory in function. Behind the eyes, in the posterior part of the head, are a pair of large external ears or *pinnae*; each pinna is folded to form a funnel-like entrance to a tube called the *external auditory meatus*, which leads to the tympanum. The tympanum lies deep down and is hidden from view. *The presence of external ears is a characteristic of mammals.*

Trunk. The trunk is divisible into an anterior part, the thorax, enclosed by ribs and the sternum, and a posterior part, the *abdomen*, having only a muscular body-wall. In adult female specimens, five pairs of small prominences, the *teats*, may be seen on the ventral side of the abdomen; on them are the external openings of milk or *mammary glands*. The teats are small and undeveloped in males. Ventral to the base of the tail is *anus*. The *urinogenital* aperture lies ventrally in front of the anus. In the male, it is on the apex of a muscular organ, the *penis*; and in the female, it is a slit like opening, flush with the surface and known as the *vulva*. The space between the anus and the *urinogenital* aperture is known as the *perineum*. The male has at the base of the penis, and on either side of it, two pouches called the scrotal sacs, enclosing the testes. *The presence of scrotal sacs is peculiar to mammals.* At the sides of the anus are a pair of hairless depressions of the skin called *perineal pouches*; into them open the ducts of the *perineal glands*, the secretion of which has a characteristic odour.

Part	Location	Other details
External nostrils	At the extreme anterior end of the head	Two oblique slits
Mouth		Transverse aperture
Two eyes		Protected by upper and lower eyelids
		Hairless transparent membrane
		long stiff hairs sensory in function
Pinnae		
		Hidden from view
The teats		
		Two pouches enclosing the testes
	At the sides of the anus	
Mammary glands		External openings of milk
The anus		
Urinogenital aperture in the male		
Urinogenital aperture in the female		

SECTION 02 – SKILLS FOCUS**Part A: [15 Marks]****Directions:**

Read the passage and answer the questions that follow:

Ethanol

Ethanol ($\text{CH}_3\text{CH}_2\text{OH}$; which is also called ethyl alcohol, grain alcohol, and EtOH) is a clear, colorless liquid. It is a renewable biofuel made from starch and sugar-based crops like corn grain and sugar cane or from cellulosic feedstocks like grass, wood, or recycled newspapers. Ethanol is a high-octane biofuel which performs so splendidly in internal combustion engines that early automakers presumed it would be the world's chief fuel. American proponents of ethanol fuel highlight two principal advantages: its environmental impact and its energy security benefits.

The adoption of ethanol reduces noxious emissions such as carbon monoxide (CO) and pollutants from internal combustion engines; hence, it is appreciably less deleterious to the environment than gasoline. Ethanol made from corn has been shown to reduce harmful emissions by up to 13%, whereas ethanol made from cellulosic materials reduces dangerous emissions by as much as 88%.

Ethanol is a renewable biofuel; in only six months a new crop can be grown, harvested, and converted to fuel, so it is profitable for rural crop-producing economies. In addition, it keeps engines clean and can be used in gasoline engines with no modifications when combining gas with up to 10% ethanol. It can be used in specially modified vehicles called "flexible-fuel" or "flex-fuel" vehicles in concentrations of up to 85%. Gasoline combined with 85% ethanol is generally referred to as "E85." Higher ratios of ethanol in the fuel mixture result in less reliance on fossil fuels, so there is less dependence on imports.

American opponents of ethanol fuel point to three disadvantages: its price fluctuations, its energy level, and its availability. The price of ethanol fluctuates on a different cycle than gasoline; therefore, at times ethanol is more expensive than gasoline, and at times it is cheaper. Another drawback of ethanol is that it contains less energy per gallon than gasoline; even when it is cheaper per gallon than conventional fuel, it does not take the vehicle as far as a gallon of gas. A car's fuel economy with ethanol can be expected to be 20–30% less than a vehicle which burns gasoline. So, the occasional cheaper price is offset by the lower energy yields. In

addition, ethanol is not as widely distributed as gasoline. It is readily available only in the Midwest; other areas have limited ethanol infrastructure.

The Obama administration is working on expanding the ethanol infrastructure. In a recent interview with 15 newspaper editors, President Obama characterized the U.S. position on biofuels in this way: "Our challenge, I think, is to see our current ethanol technology as a bridge to the biofuel technologies of the future. And that's what we want to invest in, and that's what I'll be directing my Department of Agriculture to focus on."

1. Read the text and choose the correct answer.

1. As can be inferred from the passage, which of these statements about ethanol is/are true?

- I) Burning ethanol made from wood produces less CO than burning ethanol made from corn.
 - II) Burning ethanol made from grain produces less CO than burning gasoline.
 - III) Burning ethanol made from newspapers produces less CO than burning ethanol made from grass.
- A) I only
 - B) II only
 - C) III only
 - D) I and II only
 - E) II and III only

2. The author's primary purpose is to

- A) describe and define ethanol.
- B) compare 2 types of ethanol.
- C) support the adoption of ethanol.
- D) explain advantages and disadvantages of gasoline.
- E) explain advantages and disadvantages of ethanol.

3. In line 9, *deleterious* most closely means

- A) dangerous, because it harms the environment less than gas.
- B) beneficial, because it helps the environment less than gas.
- C) splendid, because it performs less splendidly than gas.
- D) unreliable, because it is less unreliable than gas.
- E) expensive, because it is less expensive than gas.

2. Answer the following questions based on the information stated in the text.

1. What are the principal advantages highlighted by the American proponents of ethanol?

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.....
.....
.....

2. What are the disadvantages pointed out by the American opponents of ethanol?

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.....
.....

3. Explain the difference between ethanol and gasoline according to the facts given in the text.

.....
.....
.....
.....

3. Find words from the text which correspond to the given definitions.

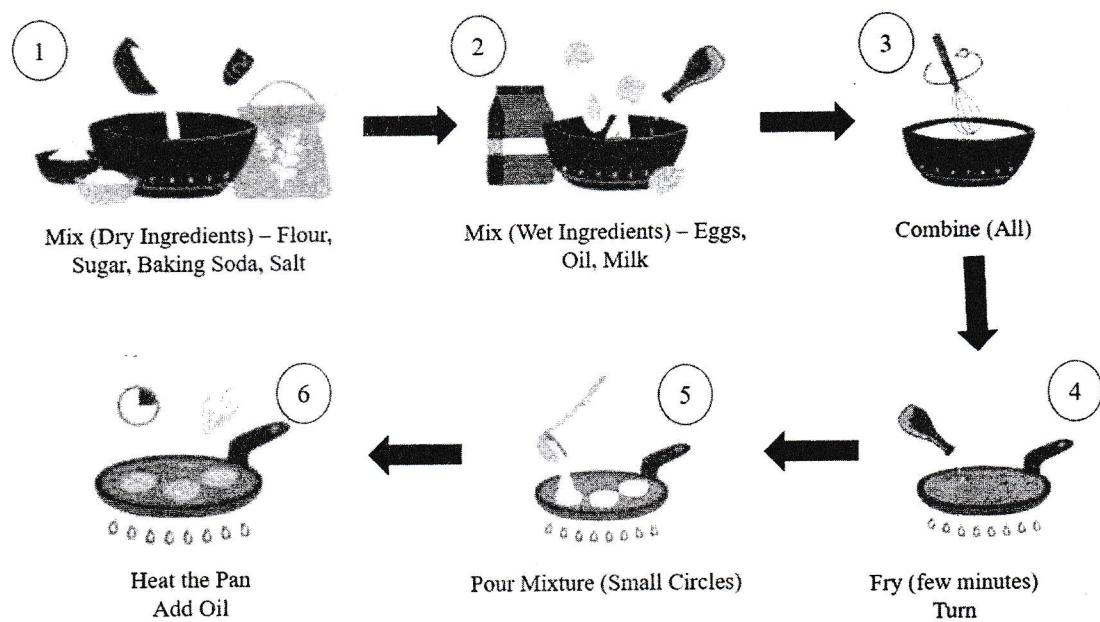
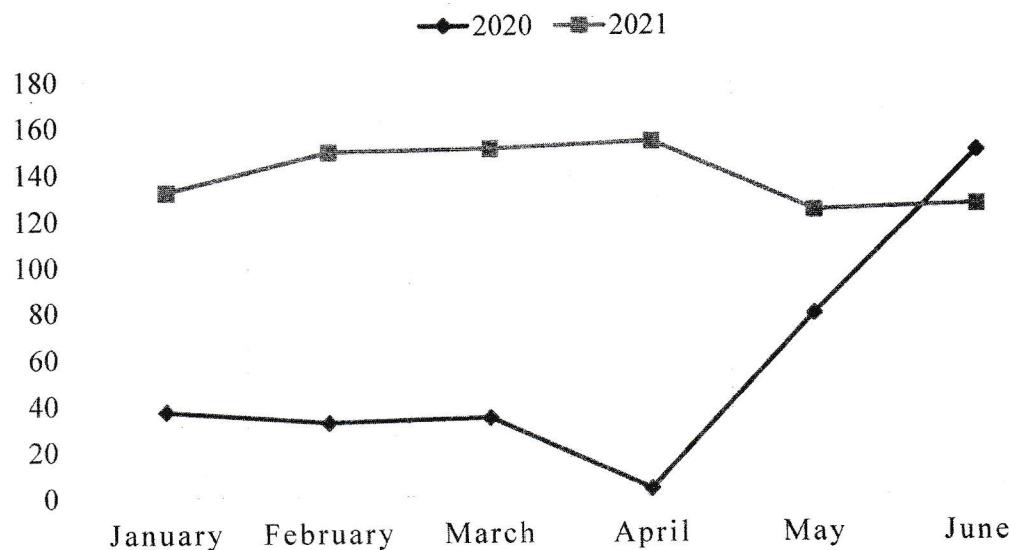
1. In a magnificent or very impressive manner-
2. Capable of being renewed -
3. A disadvantage or the negative part of a situation-
4. Whether someone or something can be accessed or used-
5. Confident or trustful dependence -

Part B: [20 Marks]**Directions:****EITHER**

Write a description based on the data given in the following line graph in about 150 words. Pay attention to **punctuation, paragraphing, cohesion and coherence**.

OR

Describe the process of making pancakes using about 150 words. Use **passive voice and sequence markers** where necessary.

Sale of Laptops of Digitaz Store in 2020 and 2021

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.....
.....
.....
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.....
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.....
.....

Part C: [15 marks]

Directions:

EITHER

Write down a **conversation** that would take place among your family members regarding your future educational goals in about 150 words. You should use more than two characters in your conversation.

OR

Imagine that you are going to deliver a short speech on “Home is where the heart is.” Using the clues given in the box, write two separate paragraphs which summarize the **introduction (opening)** and **conclusion (ending)** of your speech. Make sure that your speech includes a creative attention grabbing open (introduction) and a powerful end (conclusion) with a take-home message. Use about 150 words.

“Home is where the heart is”

- ✓ a place you feel emotionally connected to
 - ✓ a place you are happy to arrive back at
 - ✓ somewhere you have fond memories of
 - ✓ being near your family and loved ones

-END-