



**The Open University of Sri Lanka**  
**Department of physics**  
**Bachelor of Science Degree Programme-2017/2018**  
**Communication Skills – FNU 3201 /PCU 1163/PCU 2163 Level 3**  
**Final Examination**

**Date: 23-September-2018**

**Time: 9.30 a.m.-11.30 a.m.**

Index No	
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## Instructions to Candidates

- (1) This paper consists of five (5) questions and you are asked to write answers to all the questions.

(2) Your hand writing must be legible.

(3) You must write your index number in the box provided.

(4) Write answers in the paper itself.

Question No	Marks
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2	
3	
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Total	

Q (1) Read the paragraph and answer to the questions given below

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(1) Write a S  
(Heading

-----  
Whitson was born in southwestern Iowa in the small rural town of Mount Ayr on 9<sup>th</sup> of February in 1960 and grew up on a farm in the nearby tiny town of Beaconsfield, Iowa with her parents Keith and Beth Whitson and older sister, Kathy. At the age of 9 she was inspired to become an astronaut while watching Buzz Aldrin and Neil Armstrong walk on the moon. Her goals were further harnessed when Sally Ride became the first woman American astronaut just as Whitson graduated from Mount Ayr Community High School in 1978.



Whitson went to nearby Native Wesleyan College, where she received a Bachelor of Science in Biology/Chemistry in 1981, graduating with honor. Afterwards, she obtained her Ph.D. in Biochemistry from The Rice University in 1985 and continued as a very bright student. She became Welch Post-doctoral Fellow at Rice University until October 1986. Whitson met her husband, Clarence Sams, while they were both pursuing their doctorates at Rice University. They married on 6 of May in 1989. Sams is a biochemist and currently he is the manager of the Cell and Molecular Research Laboratory at the NASA Johnson Space Center in Houston.

In 1986, Whitson became a National Research Council Resident Research Associate at the NASA Johnson Space Center and worked in various biochemistry and medical science research positions for the next decade. In April 1996, Whitson was selected as an Astronaut Candidate. After completing years of rigorous space-flight training, Whitson joined the Expedition 5 crew and traveled into space for the first time on 5 of June, 2002 aboard the shuttle endeavor as a flight engineer and spent 184 days in space conducting over 20 experiments in microgravity and human life sciences. In June 2003, Whitson lived and worked underwater for two weeks as the commander of the NEEMO (NASA Extreme Environment Mission Operations) 5 mission aboard the Aquarius underwater laboratory.

Whitson has received numerous awards from NASA including the NASA Sustained Superior Performance Award (1990), the NASA Space Act Award for Patent Application (1994), the NASA Certificate of Commendation (1994), the NASA Tech Brief Award (1995), two NASA Space Act Board Awards (1995, 1998), the NASA Silver Snoopy Award (1995), three NASA Exceptional Service Medals (1995, 2003, 2006), the NASA Outstanding Leadership Medal (2006) and two NASA Space Flight Medals (2002, 2008). She was a member of the Astronaut Selection Board in 2004 and served as the chair in 2009.

Outside of NASA, she has received the American Astronautical Society Randolph Lovelace II Award (1995), the Group Achievement Award for Shuttle-Mir Program (1996), the Distinguished Alumni Award from Iowa Wesleyan College (2002), the Texas Women on the Move Award (2010), the Distinguished Alumni Award from Rice University (2010), the First Lady of Iowa Award presented by the Iowa High School Girls' Athletic Union (2010), and she was inducted into the Iowa Transportation Museum as a Hero of Valor (2009). In 2011, Whitson received the Bio Houston Women in Science Award, the Russian Medal of Merit for Space, was inducted into Iowa Aviation Hall of Fame and named one of Houston's 50 Most Influential Women. She also holds two patents involving innovative methods of collection, storage, and analysis of blood as well as other bodily fluids (1997, 1998).

- Q.
- (1) Write a suitable heading to the above paragraph.  
(Heading must be less than five words and it must be written in the space provide on top of the paragraph)

- (2) When did Whitson become a National Research Council Resident Research Associate at the NASA?

- (3) When did she get married?

- (4) What inspired her to become an astronaut?

- (5) For how long was she working for NEEMO?

- (6) What were the awards she got in 1995?

- (7) For what does she hold patents?

- (8) What was her husband's profession?

- Q (2)
- (9) List out all the awards and medals she got from the year 1996 to 2008.

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- (10) Write a biographical note on any famous personality that you like most. (Use less than 50 words)

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Q (2). Read the passage and fill in the blanks using the appropriate words given in the grid.

## Tsunami

Up until December of 2004, the phenomena of (1) ----- was not on the (2) ----- most of the world's population. That changed on the morning of December 24, 2004 when an earthquake of moment (3) ----- 9.1 occurred along the oceanic (4) ----- off the coast of Sumatra in Indonesia. This large earthquake resulted in vertical displacement of the sea floor and generated a tsunami that eventually killed about 230,000 people and (5) ----- lives of several million people. Although people living on the coastline near the epicenter of the earthquake had little time or (6) ----- of the approaching tsunami, those living farther away along the coasts of Thailand, Sri Lanka, India, and East Africa had plenty of time to move higher ground to escape.

But, there was no tsunami warning (7) ----- in place in the Indian Ocean, and although other tsunami warning centers attempted to provide a warning, there was no effective (8) ----- system in place. Unfortunately, it has taken a disaster of great magnitude to point out the failings of the world's scientific community and to (9) ----- almost every person on the planet about tsunami. Even with heightened world awareness of tsunami, disasters still occur.

On September 29, 2009, earthquakes in the Samoa region of the southwest Pacific Ocean killed nearly 200 people, and as a result of the Chilean earthquake of February, 2010, at least 50 (10) ----- resulted from a tsunami triggered by a moment magnitude 8.8 earthquake. On March 11, 2011 a Moment Magnitude 9.0 earthquake (11) ----- off the northern Coast of Japan. The Earthquake generated a tsunami that rose up to 135 feet above sea level and killed over 20,000 people. Because of Japan's familiarity with earthquakes and enforcement of earthquake (12) ----- building codes, there was only minor destruction from the earthquake itself.

But, despite that fact that a tsunami warning system was in place, the earthquake was so close to the coast that little time was (13) ----- for people to react. Besides that high death toll, the tsunami caused one of the worst nuclear disasters in history. The Fukushima nuclear power plant, (14) ----- on the coast was hit by a 49 ft. tsunami wave that overtopped the tsunami protection walls that were only 19 feet high, and flooded the backup generators for the plant that were (15) ----- placed on the first floor in a known tsunami zone, of the (16) ----- or disruption of any body of standing water.

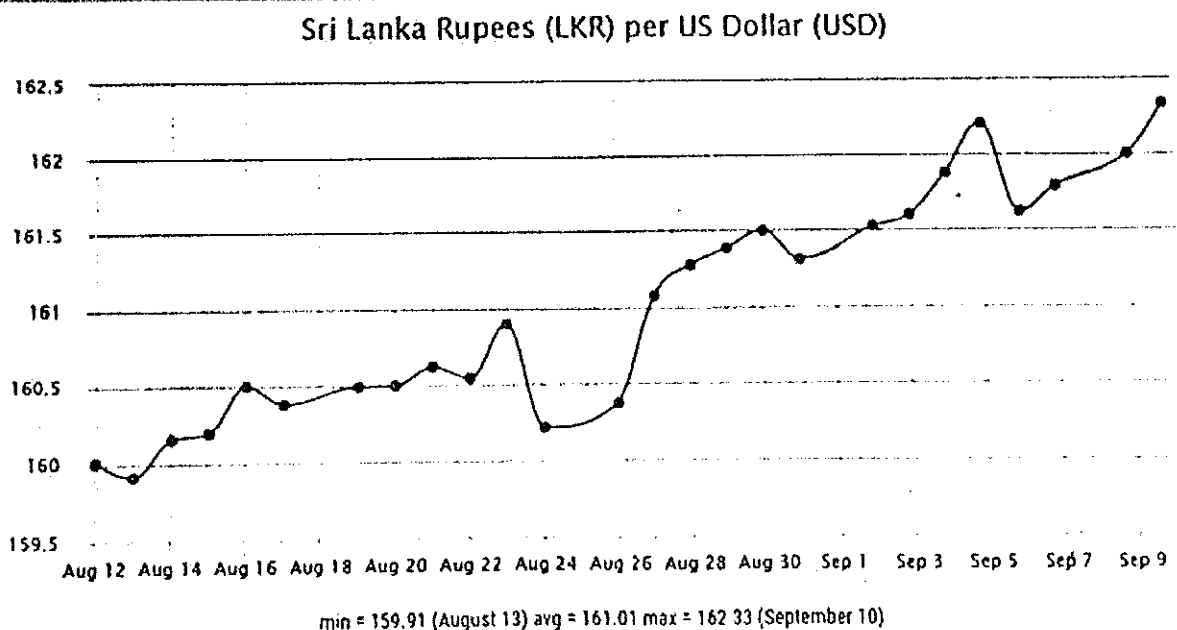
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Tsunami are sometimes called "seismic sea waves", although they can be (17) ----- suddenly, by (18) ----- other than earthquakes. Tsunami have also been called "tidal waves", but this term should not be used because they are not in any way related to the tides of the Earth. Because tsunami occur (19) ----- often without warning, they are (20) ----- extremely dangerous to coastal communities.

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shallow-water	characterized	resistant	magnitude	range
mechanisms	suddenly,	casualties	somehow	twenty
located	warning	educate	earth floor	struck
tsunami	seafloor	communication	system	blowing
greater				

Q (3) Describe the graph identifying its trend in the space given below. Use about 75 words

The graph below shows the historical exchange rates between Sri Lankan Rupees and the US Dollar between the period from 12/08/2018 to 10/09/2018



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Q (4). Read the advertisement carefully and submit your CV Resume with a covering letter to the Email address given below.



CARIBBEAN EXAMINATIONS COUNCIL

# OPPORTUNITIES

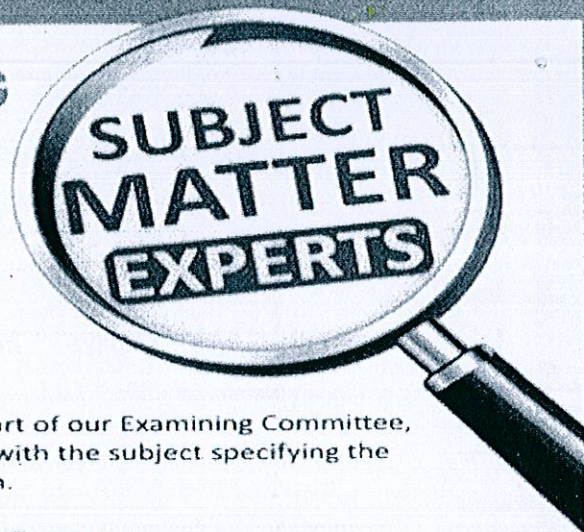
## WE ARE RECRUITING

We are looking for professionals with passion, dedication and commitment to excellence and innovation who are interested in contributing to regional development whilst supplementing their income in the following roles:

**CHIEF EXAMINERS, ASSISTANT CHIEF EXAMINERS AND ADVISORS FOR CAPE®, CSEC®, CCSLC AND CPEA EXAMINATIONS**

Even if you have already applied, or have previously been a part of our Examining Committee, send your updated resume to the email address listed below with the subject specifying the examination of interest so that we can review your information.

Interested persons should submit resumes to [examcommittee@cxc.org](mailto:examcommittee@cxc.org)  
Include the examination of interest in the subject line, for example, Vacancy Examining Committee, CAPE.



**ONLY ELECTRONIC APPLICATIONS WILL BE ACCEPTED.**

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Handwriting practice lines consisting of 25 horizontal dotted lines.

**Q (5) Write the topic and the topic sentence**

**(a)**

Ecological diversity is a type of biodiversity. It is the variation in the ecosystems found in a region or the variation in ecosystems over the whole planet. Ecological diversity includes the variation in both terrestrial and aquatic ecosystems. Ecological diversity can also take into account the variation in the complexity of a biological community, including the number of different niches, the number of trophic levels and other ecological processes. An example of ecological diversity on a global scale would be the variation in ecosystems, such as deserts, forests, grasslands, wetlands and oceans. Ecological diversity is the largest scale of biodiversity, and within each ecosystem, there is a great deal of both species and genetic diversity.

**TOPIC**

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**Topic sentence**

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**(b)** Bats are a fascinating group of animals. They are one of the few mammals that can use sound to navigate--a trick called echolocation. Of the some 900 species of bats, more than half rely on echolocation to detect obstacles in flight, find their way into roosts and forage for food. Echolocation--the active use of sonar (Sound Navigation And Ranging) along with special morphological (physical features) and physiological adaptations--allows bats to "see" with sound. Most bats produce echolocation sounds by contracting their larynx (voice box). A few species, though, click their tongues. These sounds are generally emitted through the mouth, but Horseshoe bats (*Rhinolophidae*) and Old World leaf-nosed bats (*Hipposideridae*) emit their echolocation calls through their nostrils: there they have basal fleshy horseshoe or leaf-like structures that are well-adapted to function as megaphones.

**Topic**

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Topic sentence

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(c) The Vandals, an ancient Germanic people, are associated with senseless destruction as a result of their sack of Rome under King Genseric in 455. During the Enlightenment, Rome was idealized, while the Goths and Vandals were blamed for its destruction. The Vandals may not have been any more destructive than other invaders of ancient times, but they did inspire British poet John Dryden to write, *Till Goths, and Vandals, a rude Northern race, Did all the matchless Monuments deface* (1694). However, the Vandals did intentionally damage statues, which may be why their name is associated with the vandalism of art. The term *Vandalisme* was coined in 1794 by Henri Grégoire, bishop of Blois, to describe the destruction of artwork following the French Revolution. The term was quickly adopted across Europe. This new use of the term was important in colouring the perception of the Vandals from later Late Antiquity, popularising the pre-existing idea that they were a barbaric group with a taste for destruction.

Topic

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Topic sentence

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(d) Scientists have identified more than 3,500 planets around other stars (called exoplanets) and many more will be discovered in the coming decades. Some of these are rocky, Earth-sized planets that are in the habitable zones of their stars, meaning it's neither too hot nor too cold for liquid water -- and possibly life -- to exist. The five papers will serve as a reference for scientists searching for signs of life, called bio signatures, in the data they collect from future telescope observations.

Topic

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(e)

Glass art refers to individual works of art that are substantially or wholly made of glass. It ranges in size from monumental works and installation pieces, to wall hangings and windows, to works of art made in studios and factories, including glass jewelry and tableware. As a decorative and functional medium, glass was extensively developed in Egypt and Assyria. Invented by the Phoenicians, was brought to the fore by the Romans. In the Middle Ages, the builders of the great Norman and Gothic cathedrals of Europe took the art of glass to new heights with the use of stained glass windows as a major architectural and decorative element. Glass from Murano, in the Venetian Lagoon, (also known as Venetian glass) is the result of hundreds of years of refinement and invention. Murano is still held as the birthplace of modern glass art.

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Topic sentence

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