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**KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**UNIVERSITY EXAMINATION, 2023/2024 ACADEMIC YEAR**  
**FIRST YEAR, FIRST SEMESTER EXAMINATION**  
**FOR THE DEGREE OF BACHELOR OF SCIENCE**  
**(BUSINESS ADMINISTRATION)**

Date: 7<sup>th</sup> August 2023

Time: 2.30pm –4.30pm

**KLC 001 - COMMUNICATION SKILLS**

**INSTRUCTIONS TO CANDIDATES**

**ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS**

**QUESTION ONE (30 MARKS)**

Read the following text carefully and answer the questions that follow:

Nowadays, we use so many machines that life is unimaginable without them. Because of machines, we can travel farther and faster. We can **access** and process greater quantities of information at ever-increasing speeds. We can perform dangerous and complicated tasks more safely, efficiently, and precisely. In our homes, schools, hospitals, factories, stores, and offices, there are machines from the simplest gadgets to the most sophisticated electronic systems. In fact, we would have to travel very far indeed to find a place on this earth where we wouldn't encounter a machine of some kind. The invention of machines and their widespread adoption have **transformed** human society. Simple tools fashioned from wood or stone allowed early humans to conquer their environment and improve their chances of survival.

Ten thousand years ago, the first crude hand plow led to the agricultural revolution, followed approximately 15 centuries later by the wheel, which evolved over time into animal-drawn carts and farm implements. Beginning with the steam engine in 1705, the Industrial Revolution brought about massive economic and social changes that continued into the twentieth century. With the train and automobile came increasing urbanization and mobility, and the telegraph—and later the telephone, radio, and television—enabled people to communicate over long distances. Technological progress that had been thousands of years in the making accelerated rapidly with the advent of the electronic computer in 1941. Eight years later, the stored-program computer vastly improved programming procedures. As computer science took off in universities, far-fetched ideas that had once belonged to the realm of science fiction became realities. One such idea was to build mechanical creatures that could think and act independently. After World War II, English mathematician Alan Turing worked on programming intelligent machines, but it was American visionary and computer scientist John McCarthy who coined the term artificial intelligence (AI) in 1956 at an international conference that

paved the way for future research. The idea of mechanical men has fascinated thinkers and inventors for centuries. In the early 1600s, Renaissance genius and painter Leonardo da Vinci designed a mechanical humanoid robot, which was never built due to the technical limitations of the time.

Elaborate mechanical toys and sophisticated creatures, such as a mechanical body that could write and draw, were constructed in France in the eighteenth and nineteenth centuries, but such inventions, as amazing as they were, ended up in various museums as objects of curiosity. The idea of mechanical men, or robots, surfaced in a play written in 1921 by a Czech playwright about a mad scientist who creates artificial men to do manual **labor**. After they are bought by nations at war, the robots end up wiping out humanity and taking over the world. The theme of crazed, uncontrollable killing machines bent on their creators' destruction continued in the science-fiction novels and movies of the 1950s. In the meantime, with cheaper, faster computer technology at their disposal, scientists could take up the quest for autonomous machines that philosophers and mathematicians could only imagine a century earlier. In the 1940s, American-born British neurophysiologist W. Grey Walter constructed some of the first autonomous electronic robots at the Burden Neurological Institute. The size of a shoebox, these tortoise-like robots could move about on three wheels and respond to a light source. Later models contained reflex circuits, which Walter used to condition them to flee or display simple behavior at the sound of whistles. In the late 1960s, microprocessors radically reduced the size of computers, making it possible to build mobile robots with an onboard "brain" linked to a mainframe computer. At Stanford Research Institute in California, a team of researchers programmed a small adult-sized robot named Shakey to sense colored blocks and wedges with an onboard camera and to push them around a carefully constructed set of rooms. As part of NASA's Apollo program to land a man on the moon, scientists at Stanford University built a four-wheeled vehicle to test the moon's surface.

The Stanford Cart never made it to the moon, but at the Stanford Artificial Intelligence Laboratory (SAIL), where the first video game, electric robot arms, and computer-generated music were also produced, graduate students under John McCarthy's supervision tried to make the Cart into an automatically driven automobile. Although the Cart could sense what was in front of it, follow a white line and eventually **compute** the best path to its goal, it functioned poorly in an uncontrolled environment. Real progress with robots was made in the field of manufacturing. The first industrial robot, the Unimate, was a hydraulically powered arm that transported and welded die castings on automobiles. Soon to become standard equipment on car manufacturing assembly lines, the robotic arm eliminated human error, reduced costs, and automated production. Research labs such as SAIL also became involved in working on electrically powered arms with more humanlike joints. As companies, particularly those in Japan, developed the technology, these arms evolved into programmable universal manipulation arm (PUMA) robots, the most pervasive electric arms used in mass production. Ideally suited to replace human workers in dangerous and dirty industrial environments, advanced robotic systems and custom-built robots perform repetitive jobs around the clock that require a high degree of precision and flawlessness.

Remote-controlled robots are also indispensable in space and underwater exploration, military reconnaissance, and search-and-rescue operations. Robotic probes such as the Pioneer and later, the Voyager series have been used since the early days of space exploration to gather information and radio data back to Earth. Mobile robots with insect like appendages can investigate the craters of active volcanoes and survey ocean floors. Autonomous underwater vehicles can patrol extreme ocean depths, relay video and sonar pictures to the surface, and carry out delicate jobs such as adjusting valves on underwater oil pipelines. Police and military forces employ joystick-controlled demolition robots to defuse bombs and clear mine fields. In nuclear power plants, where accidents can produce life-threatening levels of radiation, robots can enter unsafe areas and help scientists assess the damage. When mines or buildings collapse, as happened during the 9/11 terrorist attacks in the United States,

robots are sent in to locate trapped people. From manufacturing and exploration, robots have begun making their way into our personal lives. Finely tuned medical robots can perform delicate operations, such as heart and eye surgery, with greater precision and control than a surgeon's hand.

As these devices become smaller and more sophisticated, their use will make many medical procedures less invasive and risky to patients. Components originally designed for robotic joints and limbs can be incorporated into bionic prosthetics that will eventually restore normal function to disabled people. Already, there are floor-cleaning robots on the market, but so far, their limited ability to navigate around the house and do a **thorough** job has made them more of an amusing luxury. At the rate technology is developing, robots could quite conceivably relieve us of many chores in eldercare facilities and hospitals, as well as in our homes.

*From: Artificial Intelligence: Can Machines Think?*

### **Questions;**

- a) The introductory paragraph of every well-written text plays an important role in communication. State **three** significant concepts of this text highlighted in the introductory paragraph. (3 marks)
- b) Using the topic sentence on the first paragraph, develop a paragraph of between 100 and 150 words that focusses on the relevance of computer technology at the university. (6 marks)
- c) Provide synonyms for the following words written in bold:
  - i) compute.
  - ii) thorough.
  - iii) transformed.
  - iv) access.
  - v) labour. (5 marks)
- d) Provide two references in APA format where this article is likely to have been derived from. (4 marks)
- e) After thoroughly reading this text, make notes on the benefits of robotics in today's technological world. (6 marks)
- f) Assume that you work in the Sales and Marketing department at Tawala Robotics. You are to speak to the Board of Directors of Ketepa Tea Company on the use of robotics for tea harvesting on their farms. Discuss **three** strategies that you will use during your oral presentation so as to be effective in your communication. (6 marks)

### **QUESTION TWO (20 MARKS)**

- a) Imagine that you work in the IT & Creative Innovations department at Zalendo Referral Hospital. At the hospital, there has been need to improve healthcare services and patient care since the hospital is short staffed. Having come across this article in **Question one**, write an email to a Japanese technological company that specializes in the manufacture of robotics. The aim of writing this email is to seek information regarding the use of robotics at a hospital, the required training and procedures of procuring these robots. Copy this email to the Chief Operations Officer and the Head of IT Department at Zalendo Referral Hospital. (8 marks)
- b) Every communication is bound to be affected by certain barriers. Imagine that you landed an internship opportunity at the audit department in ZR Consultants, a leading international

accounting organization. Explain how you would effectively mitigate the following barriers to communication at your work place.

- i) Lack of knowledge (4 marks)
- ii) Stereotyping (4 marks)
- iii) Semantic noise (4 marks)

### **QUESTION THREE (20 MARKS)**

- a) You are part of a committee that has been set up by the University's management to investigate *the effect of Social media on University students' academic performance*. You are required to compile your report in the next one month. Prepare the **Terms of Reference** and **Procedure** sections of your report. (8 marks)
- b) Communication can be categorized by the direction of flow. Using a relevant scenario for each, explain how the following categories of communication are relevant at the university:
  - i) Internal communication (4 marks)
  - ii) Grapevine communication (4 marks)
  - iii) Lateral communication (4 marks)

### **QUESTION FOUR (20 MARKS)**

- a) Imagine that you work as Human Resource Assistant at Pelosu Consultancy. You have been instructed to remind the employees in the department of IT that they will be needed to work an extra hour every day, from 5:00- 6:00 PM; to compensate for the long oncoming long weekend. Further, their lunch hour has been reduced by 30 minutes for the next 3 months. The company's management has also noticed non-compliance in their dressing. Draw out the memo as required. (8 marks)
- b) A few days after Phustine attended a job interview at an advertising firm in Kisumu, she received a regret letter. Though disappointed, Phustine reflected on that interview and realised that she may have made a few mistakes in communication. Explain in what ways Phustine could have violated the following principles of communication during the interview:
  - i) Communication is contextual. (4 marks)
  - ii) Communication is irreversible. (4 marks)
  - iv) Communication has a content and relationship dimension. (4 marks)

### **QUESTION FIVE( 20 MARKS)**

- a) You are a students' leader at Kiongozi University. Write a notice to the students informing them of the postponement of the National Universities Projects Upgrade (NUPU) training that was to take place this week. This event has been postponed to a specified date next month. Further, remind the students on the importance of attending the event. (8 marks)
- b) Below is a list of books and other reference material that a student consulted while doing research. Prepare this reference list using APA citation system.  
**NOTE:** The author's name (s) is in **bold letters**.
  - i) The River and the Source. (1994). Focus books. **Ogola, M.A.** Nairobi: (3 marks)
  - ii) (1990). A student's guide to writing and study skills. Nairobi: **Okoth, O.** Nairobi University Press. (3 marks)

- iii) (1974). Nairobi University Press. A History of the Kikuyu 1500-1900. **Muriuki G. & Berg F.** Nairobi: (3 marks)
- iv) London: Writing and the Writer. Heinemann. (1982). **Smith F.** (3 marks)