Strathmore
UNIVERSITY

STRATHMORE INSTITUTE OF MANGEMENT AND TECHNOLOGY
DIPLOMA IN BUSINESS CREATION AND ENTREPRENEURSHIP
END OF SEMESTER EXAMINATION
UNIT CODE: DE1102
INNOVATION TECHNOLOGY AND ENTREPRENEURSHIP

DATE: 29th April 2022 Time: 2 Hours

Instructions
1. This examination consists of **FIVE** questions.
2. Answer **Question ONE (COMPULSORY)** and any other **TWO** questions.
3. Do not write on the question paper.

QUESTION ONE (30 Marks)

Twiga foods: A case of Agriculture Technology innovation.

Twiga foods limited is an Agriculture technology start up founded in 2014. The business runs a mobile-based B2B food supply platform that supplies fresh fruits and vegetables sourced from farmers in rural Kenya to small- and medium-sized vendors, outlets and kiosks in the country's capital Nairobi.

The mobile-based cashless platform allows the company to offer higher prices and a guaranteed market to farmers, lower prices, and a reliable supply of vendors and fresh products to customers at lower prices.

Twiga Foods deals directly with farmers and operates 25 collection centres and a fleet of 50 delivery vehicles. The business employs over 1000 staff and has become the largest seller of bananas and other fresh products in Kenya. As of January 2020, the startup had sourced more than 245 tons of bananas each week from over 3,000 farmers. The products are processed at the company's pack house and then distributed through 7,000 weekly deliveries to more than 3,500 registered vendors. The business uses M-Pesa, Safaricom's mobile money service, to manage and streamline its payment processes for vendors and farmers.

The business has launched similar operations in Kisumu and Nakuru cities and has plans to expand to other counties within Africa.

a) Describe benefits provided by the business to farmers, small scale businesses and customers. (**6Marks)**.

b) Explain four problem-solving skills applicable in the case of Twiga foods innovation. (**8Marks**)

c) Describe the role of technology in enabling Twig foods innovation. (**4Marks**).

d) Illustrate four metrics informing the decision to expand the business to other cities in Kenya. **(8Marks**)

e) Explain the relationship between entrepreneurship thinking and creative problem-solving about the case study (**4Marks)**

QUESTION TWO (15Marks)

Vision ltd, Public relations agency used traditional marketing for the past 30 years. The Agency had an established customer base and was doing very well. Joanna worked as an executive in the organization and began to study social media analytics and social media platforms that were growing in popularity among their target customers.

Joanna presented a report to the organization's executive informing them that clients are clamouring for social media exposure and prefer shopping online.

When the management ignored her suggestions, she opted to resign and start her marketing agency to serve the clients who wished to use social media. Her competitive advantage was that she was familiar with traditional and digital marketing, which helped her build a reputable marketing agency.

a) Illustrate three reasons of understanding industry trends and customer preferences in creative problem-solving. **(6Marks**)

b) Describe three ways the organization encourage creative problem solving (**6Marks)**

c) List three entrepreneurial problem-solving skills applicable in the above case. (**3 Marks)**

QUESTION THREE (15Marks)

Roy Allela designed wearable intelligent gloves that translate sign language into speech in real-time through a smartphone app. Finger gestures and articulations are interpreted into electrical signals and delivered to a thin, coin-sized circuit board strapped to the back of the wrist, transmitted via wireless to a smartphone, which in turn changes the impulses into spoken words at the rate of approximately one word per second. The innovation won the Hardware Trailblazer award from the prestigious American Society of Mechanical Engineers (ASME) during its 2017 ASME Innovation Showcase (ISHOW) competition. Through the app, users can set the language, gender, and pitch of the audio voice, with accuracy results averaging 93 per cent.

"It fights the stigma associated with being deaf and having a speech impediment. If the gloves look cool, every kid will want to know why they are worn," says Allela

a) Explain the role of technology in the innovation of intelligent Gloves (**10marks**)

b) Describe the benefits of the innovation to the target users. (**5Marks**)

QUESTION FOUR (15 MARKS)

Richard Turere invented a system of lion lights installed around the cowshed to scare predators like lions and hyenas from killing family livestock. Richard is the youngest patented inventor in Kenya, and because of the invention, the community co-exist with lions.

a) Illustrate Four qualities of self-regulating problem solvers from the invention. (**8Marks**)

b) Describe the benefits of securing a patent for the lion lights (**2Marks).**

c) Examine the characteristics of innovative problem-solving approach from the above case (**6Marks**)

QUESTION FIVE (15 MARKS)

Creative problem solving is a logical process used by entrepreneurs to identify entrepreneurial opportunities.

a) Describe the five steps in the creative problem-solving process (**10Marks)**

b) Explain five benefits of using lean start up approach in creating solutions to problems (**5Marks**)