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**JOMO KENYATTA UNIVERSITY**

**OF**

**AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2014/2015**

**FIRST YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF MASTER OF SCIENCE IN ENTREPRENEURSHIP**

**HEE 3111: TECHNOLOGY AND INNOVATION**

**DATE: AUGUST, 2015 TIME: 3 HOURS**

**INSTRUCTIONS: ANSWER QUESTION ONE AND ANY OTHER THREE QUESTIONS**

**QUESTION ONE**

LEGO was founded in 1932. The word LEGO is from the Danish

words LEg Godt (play well). Later it was realized that in latin the

word means “I put together”. The firm initially made wooden toys

as well as other wooden products - stepladders, ironing boards,

stools etc. In 1947 - the LEGO group bought a plastic infection-

molding machine for toy production and in 1947 the first LEGO

automatic binding block.

LEGO flourished for many years with its innovative toys. However

in 2004, innovation almost bankrupted the Danish toy maker. LEGO

had become concerned about low-cost copies of its plastic building

products so it sought to diversify into different activities including;

theme parks, action figures and a television show among other efforts.

All of these were unprofitable and eventually discontinued. Today

LEGO is growing in an overall declining toy market with decidedly

 old technology toy. How did LEGO manage such a turn around?

LEGO used an innovative structure to map its turn around. This new

structure strategically co-ordinates innovation activities and actions

through a cross functional team. The team takes a broad view and

splits the firms innovation efforts into various distinct innovations.

Required:

1. Carefully describe the various innovative structures that

LEGO used to map its turn around to profitability. [10 marks]

1. In view of the above case, analyse the difference between

offensive and defensive technology. [5 marks]

1. How do you think the changes that LEGO made will reshape

the firm for the long term? [5 marks]

**QUESTION TWO**

1. To manage Technology and Innovation successfully, a firm must

be proactive rather than reactive. Explain the various proactive

approaches a firm must promote. [6 marks]

1. Describe the various channels that an organization can use or

apply for use in technology transfer to other enterprises. [8 marks]

1. The S-curve is a tool used to examine where technological

change is going. Explain the technology life cycle using

S-curve phases. [6 marks]

**QUESTION THREE**

1. Explain how information communication and technology may

enhance the growth of small and medium enterprises in Kenya. [10 marks]

1. Mr. Malenge owner of chakula foods Ltd uses information

from various categories of adopters of his foods when developing

a new brand. Examine the characteristics of this type of customers

which make the ideal in new brand development. [10 marks]

**QUESTION FOUR**

1. Mr. Mboga and information technology expert, has found a new

way of business accounting, however, he is very apprehensive

that the innovation may be copied by other entrepreneurs for

commercial gain. Explain to Mr. Mboga on the cause of action

he should take to protect his innovation. [5 marks]

1. Explain the various ways of promoting technology diffusion

in organizations and society. [8 marks]

1. Discuss the various factors you would consider to make an

innovation easily adopted, using appropriate examples. [7 marks]