KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2017/2018

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION

BMS 849: OPERATIONS MANAGEMENT

DATE: Tuesday 28th November 2017 **TIME: 2.00p.m -5.00p.m**

INSTRUCTIONS:

1. **The paper contains 6 questions**
2. **Question ONE is compulsory**
3. **Answer Any THREE questions**

Question One(40 Marks)

(Read the excerpt below and answer the questions that follow)

In the early 1980s the Swiss watch industry was nearly dead. Competition from cheap but often high-quality products from Far Eastern manufacturers such as Seiko and Casio had almost obliterated the traditional Swiss industry. Trying to protect their investments, the Swiss banks organized a merger of the two largest companies on the advice of Nicolas Hayek, now boss of Swatch's parent company SMH, formed from the merger. He saw the potential of a new plastic-cased watch which was already being developed inside one of the companies. One of its major advantages was that it could be made in high volume at very low cost. The quartz mechanism was built directly into the all-plastic case using very few components, less than half the number in most other watches. Fewer components also meant that the manufacture of the watch could be fully automated. This made Swatches cheap to produce even in Switzerland, which has one of the highest labour costs in the world.

The innovative design, some creative marketing, but above all else the operation's success at producing the watch cheaper than anyone else brought the company significant rewards. In the early 1980s the total market share for all Swiss watches was around 25 per cent; ten years later it had more than doubled. The ability to offer a good watch at a low price had released the potential of the watch to become a fashion accessory. Swatch's operations reaped the benefits of high volume but had to cope with an ever-increasing variety of product designs. Through automation and rigid standardization of the internal mechanism of the watch, the company managed this increase in variety without it crippling its costs. It is the success of the company's operations managers in keeping their costs low (direct labour cost is less than 7 per cent of the total cost of production) that has allowed Swatch to succeed. Not that everything the company has done has been successful. Some designs never caught the public imagination and some distribution and marketing mistakes were made, especially in the United States. However, continuing innovation, high quality and low cost make it much easier to overcome such problems.

Required

i. What do you think has been the contribution of the marketing function, the product design function and the operations function to the success of Swatch? **(9 Marks)**

ii. How do you think Swatch compares with most watch manufacturers? **(7 Marks)**

iii. Discuss the principles of operations management being applied by Swatch. **(8 Marks)**

iv. Discuss the competitive priorities clearly applied in this excerpt **(6 Marks)**

v. "Competition from cheap but often high-quality products from Far Eastern manufacturers such as Seiko and Casio had almost obliterated the traditional Swiss industry" Discuss the characteristics of an industry where competition is intense and the consequences of intense competition. **(10 Marks)**

Question Two

a) Write brief notes on scheduling performance measures. **(7 marks)**

b) Discuss any two external inputs required during the preparation of operation/Production planning system. **(6 Marks)**

c) Some principles of operations management if well applied deliver some of the key competitive priorities in operations management. Identify these principles and match them with three competitive priorities **(7 marks)**

Question Three

(a) Using a product of your choice, examine the content and purpose of the design process. **(10 marks)**

(b) Discuss the benefits and challenges associated with the implementation of an MRP system. **(10 marks)**

Question Four

a) Explain with an appropriate example, how a materials requirement planning (MRP) system works. **(10 marks)**

b) Using examples, distinguish between continuous process flow and Batch flow. What are the advantages and disadvantages of each flow **(10 marks)**

Question Five

a) Explain, with the aid of a diagram, the different components of an operations management system (transformation model) explaining in as much detail as you can the nature of the different components. **(10 Marks)**

b) Using hypothetical data, Explain how an organization like AthiRiver Cement Limited can go about balancing demand against expected available capacity? **(10 Marks)**

Question Six

You have been appointed as an operations manager in a production firm

(a) Describe what activities you will be required to perform **(10 Marks)**

(b) Describe the objectives that would guide your work in this position **(8Marks)**

(c) State two roles you would play in value addition **(2Marks)**