UNIVERSITY OF SWAZILAND

FACULTY OF COMMERCE

DEPARTMENT OF BUSINESS ADMINISTRATION

MAIN EXAMINATION

ACADEMIC YEAR 2015/16- MAY 2016

TITLE OF THE PAPER : OPERATIONS MANAGEMENT 11

DEGREE : BACHELOR OF COMMERCE

COURSE : BA 439 AND BA 507 (IDE)

TIME ALLOWED : THREE (3 HOURS)

Instructions:

1. THIS PAPER CONSIST OF SECTION A AND SECTION B)
2. SECTION A IS CASE STUDY AND IT IS COMPULSORY QUESTION
3. ANSWER ANY TWO QUESTIONS FROM SECTION B

Note: You are reminded that in assessing your work, account will be given of accuracy of language and the general quality of expression, together with layout and presentation of your final answer.

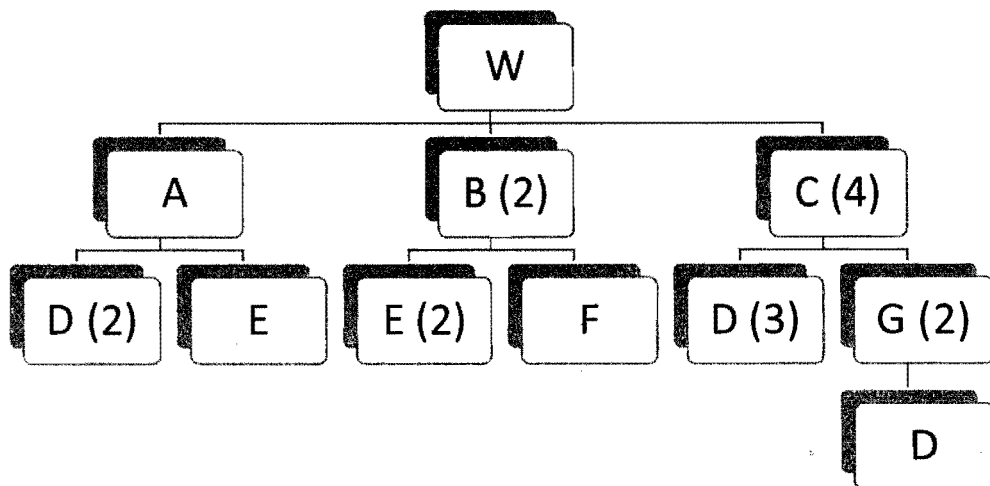THIS PAPER MUST NOT BE OPENED UNTIL THE INVIGILATOR HAS GRANTED THE PERMISSION

SECTION A

Question 1. Answer all questions

Matsapha Production Company (MPC weekly prepares projected on-hand inventory ad Master Plan Schedule (MPS) to the Master scheduling. The forecast for each period is 70 units. The starting inventory is zero. The MPS rule is schedule production if the projected inventory on hand is negative. The production lot is 100 units. Using table shown below on committed orders:-

a. Prepare a schedule showing projected on and inventory and MPS added to the master schedule **(14 Marks).**
b. Identify and define three inputs and three output of master scheduling process **(6 marks)**

Period	Customer orders
1.	80
2.	50
3.	30
4.	10

a. The following product structure tree indicates the components needed to assemble one unit of product W. Determine the quantities of each component needed to assemble 100 units of W. **(10 marks)**

b. Capacity requirements panning. Given the following production schedule in units and the production standards for labours and machine time for product V, determine the labour and machine capacity requirements for each week. Then compute the percent utilization of labour and machines in each week if the labour capacity is 200 hours per week and machine capacity is 250 hours per week. **(20 marks)**

Production schedule				
Week	1	2	3	4
Quantity	200	300	100	150

Total Marks (50)

SECTION: ANSWER ANY TWO QUESTIONS IN THIS SECTION.

Question 2
There are five elements of personnel and organization that are particularly important for lean systems. On the other hand there are seven elements of manufacturing planning and control that are important for lean system.

a. Identify and explain the five elements of personnel and organizational that are important for lean system? **(10 marks)**
b. Identify and explain any five elements of manufacturing and control that are particular important for lean systems? **(15) marks**

   Total 25 Marks

Question 3

a. Briefly explain any four quality management principles of ISO 9000? **(8) marks**
b. Explain any five factors that can be obstacles in implementing the TQM **(10 marks)**
c. Discuss the main advantages and limitations of MRP? **(7 Marks)**

Total 25 marks

Question 4

a. Swazi uses approximately 32,000 cans of pineapple annually. The cans are used at a steady rate during the 240 days a year that the plant operates. Annual holding cost is E3 per can and the ordering cost is E120. Determine
   i.   Optimal order quantity (5 marks)
   ii.   The number of workdays in order cycle (5 marks)

b. Ngwane Mills is both a producer and user of flour. The firm operates 220 days a year and uses flour at a steady rate of 50 per day. Four can be produced at a rate of 200 per day. Annually storage cost is E2 per kg of flour and machine setup cost is E70 per run.
   i.   Determine the economic run quantity (5marks)
   ii.   Approximately how many runs per year will be there (5 marks)
   iii. Compute the maximum level inventory level (5 marks)

Total 25 Marks

End of the paper, be blessed…..