

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF COMMERCE

DEPARTMENT OF BUSINESS MANAGEMENT

OPERATIONS MANAGEMENT – MDP 2001

FINAL EXAMINATION –MAY 2011

TIME ALLOWED: 3 HOURS

INSTRUCTIONS TO CANDIDATES

Answer any **four** questions

INFORMATION TO CANDIDATES

- (i) All questions carry **(25)** marks each.
- (ii) Questions may be answered in any order.
- (iii) Credit will be given **for the use of appropriate examples.**
- (iv) This paper contains **seven** questions.

QUESTION 1

Using local examples, discuss *speed* and *flexibility* as competitive strategies that organisations could use to attain competitive advantage. Indicate how these strategies ought to be supported by an operating system.

[25 Marks]

QUESTION 2

Using local examples, discuss the benefits and costs of producing quality products or/ and services.

[25 marks]

QUESTION 3

Identify and discuss capacity plans or strategies that operations managers could use for coping with demand fluctuations in both the manufacturing and service sectors.

[25 marks]

QUESTION 4

- (a) The Department of Business Management at NUST uses 30 reams of bond paper every three months. The annual cost of placing an order for the paper has been calculated at R40.00 and the cost of stocking the paper is R5.00 per metre per year.

Required:

- (i) In what quantities should the company order the bond paper if it adopts an Economic Order Quantity approach to ordering?

[5 marks]

- (ii) What would be its annual inventory costs?

[2 marks]

- (b) Table 1 below shows inventory of parts sold at AMTEC Bulawayo.

Table 1: Stock Items

PART	UNIT COST	QUANTITY
1	\$60	90
2	\$350	40
3	\$30	130
4	\$80	60
5	\$30	100
6	\$20	180
7	\$10	170
8	\$320	50
9	\$510	60
10	\$20	120

Required:

- (i) Use the ABC Analysis to classify the above inventory

[10 marks]

- (ii) What are the implications of this analysis to a Purchasing Manager as well as to a Loss and Control Manager?

[8 marks]

QUESTION 5

Discuss the advantages and disadvantages of keeping large inventory in a manufacturing organisation. **[25 marks]**

QUESTION 6

Using examples of local commercial banks, discuss the factors that make a good facility layout? **[25 marks]**

QUESTION 7

a) What is your understanding of Just- In- Time (JIT)? **[5 Marks]**

b) Discuss its fundamental elements. **[20 Marks]**

END OF EXAMINATION