

BINDURA UNIVERSITY OF SCIENCE EDUCATION**FACULTY OF COMMERCE****DEPARTMENT OF ECONOMICS****BACHELOR OF SCIENCE HONOURS DEGREE IN PURCHASING & SUPPLY****SCM 107: MATERIALS PLANNING AND PRODUCTION CONTROL****PAS 203: LOGISTICS IN PURCHASING AND SUPPLY 2****DURATION :3 HOURS****TOTAL MARKS: 100**

JUN 2025

INSTRUCTIONS TO CANDIDATES

- i. Section A [Compulsory]
- ii. Answer any 3 questions from [section B]
- iii. Begin a new answer on a new page
- iv. All questions carry 25 marks

QUESTION 1 [Compulsory]

Explore on the benefits of Incorporating sustainability considerations in logistics network design.? [25marks]

QUESTION 2

- 2a) Describe the role of production schedule in production control.? [10 marks]
- 2b) What are the potential challenges or risks associated with production scheduling and how can they be mitigated. [25 marks]

QUESTION 3

- 3a) Explain the concept of Supply Chain Optimization.? [10 marks]
- 3b) Explain the concept of Capacity planning and how does it add value in controlling production.? [15 marks]

QUESTION 4

4a). Discuss the importance of material planning in any organization of your choice in Zimbabwe?
[10 marks]

4b) Identify and explain any four major judgmental methods used when forecasting demand?
[15 marks]

QUESTION 5

What are the key performance indicators used to measure the effectiveness of material planning and production control.? [25 marks]

QUESTION 6

6a) Explain the strength and the weaknesses of Break-even analysis as a decision tool for location analysis? [15 marks]

6b) NATPAK PVT LTD operates 52 weeks /year. In 2017, their cost of goods sold was \$78000. VHW trading carries 7 Stock Keeping Units, thus 3RM ,2WIP and 2FG in its storeroom. The table below shows the nature and quantities of the SKUs that are kept:

Category	Part number	Average inventory units	Value
Raw materials	Rm -1	1600	\$1
	Rm-2	500	\$2
	Rm-3	300	\$3
Work in progress	Wp-1	700	\$4
	Wp-2	400	\$5
Finished goods	Fg-1	200	\$8
	Fg-2	100	\$10

Calculate the following for VHW;

- i. Average Aggregate Inventory Value? [4 marks]
- ii. Weeks of Supply? [3 marks]
- iii. Inventory Turnover? [3 marks]

END OF PAPER