

ZIMBABWE EZEKIEL GUTI UNIVERSITY

FACULTY OF BUSINESS, ECONOMICS AND ACCOUNTING

DEPARTMENT OF BUSINESS ADMINISTRATION AND MANAGEMENT

EXAMINATION PAPER

COURSE CODE : CPS 408

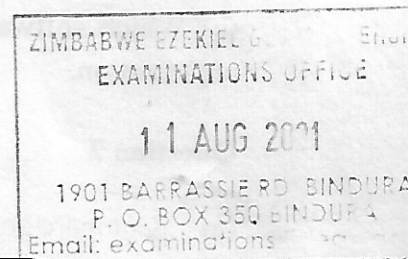
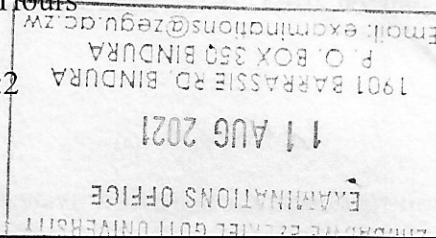
COURSE TITLE : MATERIAL PLANNING AND PRODUCTION CONTROL II

SPECIAL REQUIREMENTS : NO SPECIAL REQUIREMENTS

DURATION : 3 Hours

LEVEL : 4:2

DATE :



INSTRUCTIONS TO CANDIDATES:

1. No cell phones are allowed in the examination venue.
2. **QUESTION ONE IS COMPULSORY**
3. Answer **QUESTION ONE AND ANY THREE (3)** questions.
4. Begin each question on a new page.
5. The number of marks for each question or part question is shown in brackets []

Question 1

Our client is an international car manufacturer that has to adapt to a very competitive market and uncertain environment. He needed to boost the production of specific engines to meet an increasing demand with the same capacity.

The company's main challenge was to ensure that the production of assembled engines met customer demand, every week, over a fifty-two week period. They needed a software solution that could anticipate the effect of bottlenecks on the whole organization and take into account the following factors:

- capacity variability over time
- shared resources between products with different cycle times
- multiple resources capable of manufacturing the same product
- demand volatility
- lead times
- storage capacity

(a) Advise the client what to do on the uncertain environment. **(5 Marks)**

(b) What strategies that he may employ to meet an increase demand with the same capacity. **(10 Marks)**

(b) Which software can be used to the solution effect of anticipate bottlenecks on the whole organisation. **(15 Marks)**

Question 2

(a) Compare and contrast continuous review system and periodic review system. **(5 Marks)**

(b) For any organisation of your choice explain why it is located where it is located **(10 Marks)**

(c) Explain how a break even analysis could be used to improve firm location. **(10 Marks)**

Question 3

Explain the following Forecasting Methods:

(a) (i) Judgemental or Qualitative Method **(5 Marks)**

(ii) Quantitative Method **(5 Marks)**

(b) Compare and Contrast the above methods and give you opinion as to which method is best to use in an organisation. Justify your answer. **(15 Marks)**

Question 4

(a) Explain why location design and transport network design are important in the material planning and production Control. **(10 Marks)**

(b) Briefly explain the following:

(i) Centre of gravity **(8 Marks)**

(ii) Break even analysis **(7 Marks)**

Question 5

Chopra and Meindl, 2010 state that “Distribution network design decisions include the assignment of facility role, location of manufacturing, storage, transportation related facilities and the allocation of capacity and markets to each facility”. These decisions should be made to support the desired level of supply chain responsiveness and level of demand uncertainty inherent in the competitive strategy.

As the procurement Manager, comment on the statement and give your view. **(25 Marks)**

END