



**QUALIFICATION** : B COM HONS  
**MODULE** : DEMAND PLANNING  
**CODE** : LMA8X11  
**DATE** : 11 NOVEMBER 2014 (EXAMINATION)  
**DURATION** : 180 MINUTES  
**TIME** : 08:30  
**TOTAL MARKS** : 180

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**EXAMINER(S)** : Dr S CARSTENS

**(EXTERNAL) MODERATOR(S)** : Dr K LAMBERT

**NUMBER OF PAGES** : 3

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**INSTRUCTIONS TO CANDIDATES:**

- Question papers must be handed in.
  - This is a closed book assessment.
  - Read the questions carefully and answer only what is asked.
  - Number your answers clearly.
  - Write neatly and legibly
  - Structure your answers by using appropriate headings and sub-headings.
  - The general University of Johannesburg policies, procedures and rules pertaining to written assessments apply to this assessment.
  - Answer each section on a different answer sheet.
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## ANSWER ALL THE QUESTIONS

### QUESTION 1

**[84 MARKS]**

Chris Cassidy is the demand manager at ABC Company which has XYZ as a major customer. ABC and XYZ have implemented a CPFR arrangement and as part of this approach, XYZ agrees to share promotional, advertising and new store openings information with ABC. In order to establish monthly forecasts for the next 6 months Chris has obtained the sales information for the product over the past 12 months as follows:

Month	Sales (units)
1	276 000
2	276 000
3	288 000
4	300 000
5	288 000
6	300 000
7	324 000
8	312 000
9	318 000
10	312 000
11	336 000
12	348 000

In addition, XYZ has provided the following information:

- A special promotional campaign on the product will be launched in February of the following year and it is expected to increase sales for the month by 4%.
  - Two new stores are to be opened in April of the following year, to increase the number of stores to 80.
- a) Use this information to establish a monthly sales forecast for the first six months of the following year that can be used as input to the S&OP process. (16)
- b) Use the forecasts in (a) and the following information to develop a chase and a level production plan for XYZ for the first 6 months of the following year:

Labour hours/unit	5	Production cost/unit	120
Worker hours/month	160	Hiring cost	300
Beginning & ending workforce	9000	Layoff cost	200
Beginning & ending inventory	50	Carrying cost/unit/month	3

- (52)
- c) Discuss the differences between these two production approaches (chase and level). (16)

**QUESTION 2****[96 MARKS]**

TechD distributes electronic and computer products with approximately \$8 billion in annual sales and 12 000 employees worldwide. The company uses 600 suppliers and lead times may vary from 1 to 43 weeks. In addition, it adds over 13 000 new parts every month since new product are brought to the market on short notice, which cannibalizes the sales of other products.

- a) Explain how TechD can remain profitable through managing demand by referring to the objectives of demand management. In addition, discuss how this may be achieved by discussing the following aspects of demand management:
- Volume
  - Product portfolio
  - New product introduction (48)
- b) Demand forecasting is a significant component of the approach used by TechD to remain profitable. What are the important aspects of demand forecasting and planning that the demand planners at TechD should take into account? (Refer to the fundamentals of demand forecasting and supply planning). (48)

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