

Tutorial letter 101/3/2015

Application of management accounting techniques

MAC3701

Semesters 1 and 2

Department of Management Accounting

IMPORTANT INFORMATION:

Please activate your *myUnisa* and *myLife* e-mail address and ensure you have regular access to the *myUnisa* module site for MAC3701-15-S1 (if registered for semester 1) and MAC3701-15-S2 (if registered for semester 2) respectively.

Note: This is an online module, and therefore your module is available on *myUnisa*. However, in order to support you in your learning process, you will also receive some of the study materials in printed format.

BAR CODE

CONTENTS

1.	INTRODUCTION	3
1.1	To get started on <i>myUnisa</i>	3
2.	OVERVIEW OF THIS MODULE: MAC3701	3
2.1	Purpose	3
2.2	Outcomes	4
3.	LECTURERS AND CONTACT DETAILS	4
3.1	Lecturer information	4
3.2	Department of Management Accounting	5
3.3	University	5
4.	MODULE-RELATED RESOURCES	6
4.1	Prescribed books	6
4.2	Recommended books	6
4.3	Joining <i>myUnisa</i>	6
4.4	Printed support materials	7
4.5	Discussion classes	7
4.6	Tutors and E-Tutors	7
5.	HOW TO STUDY THIS MODULE ONLINE	8
5.1	What it means to study fully online?	8
5.2	Assignments	8
6.	ASSESSMENT	8
6.1	Assignments and learning	8
6.2	Compulsory assignment	8
6.3	Assignment questions	9
6.4	General remarks	9
6.5	Due dates of assignments	10
6.6	Submission of assignments	10
6.7	Plagiarism declaration	11
7.	SEMESTER MARK AND FINAL EXAMINATION	11
7.1	Compulsory assignments	11
7.2	How to calculate your semester mark	12
7.3	How to calculate your final mark	12
8.	MODULE-SPECIFIC STUDY PLAN	13
9.	EXAMINATION	15
9.1	Examination period and examination paper	15
9.2	Previous examination papers	15
9.3	Calculator policy	15
10.	CONCLUSION	15

IMPORTANT NOTE:

Assignment 1/2015, which is compulsory, gives you admission to the examination. If we do not receive this assignment by the due date, you will not be allowed to write the examination. Also keep in mind that assignment 1 contributes 25% to your semester mark and assignment 2 contributes 75% to your semester mark.

Your assignments are included at the back of this tutorial letter (refer Annexure A to E).

1. INTRODUCTION

Dear Student

Greetings to you and welcome to the **FULLY ONLINE** module, MAC3701. We will do our best to make studying this course interesting and rewarding. You will be well on your way to success if you start studying early in the semester and resolve to put in a lot of effort when doing your assignments.

We cannot emphasise enough how important it is for you to register for a *myLife* e-mail address and be able to log on to *myUnisa* for the purposes of studying this module.

Because this is a fully online module, you need to use *myUnisa* to study this course. You need to visit the websites on *myUnisa* for MAC3701 frequently. The website for your module is MAC3701-15-S1 (semester 1) or MAC3701-15-S2 (semester 2).

We hope that you will have a very enjoyable and successful semester of study.

1.1 To get started on myUnisa

Because this is a **fully online** module, you need to go online to see your study materials and read what to do for the module. Go to the website here: <https://my.unisa.ac.za> and login with your student number and password. You will see MAC3701-15-S1 (semester 1) or MAC3701-15-2 (semester 2) in the row of modules across the top of the webpage. If you cannot find the appropriate module site in the blocks you can also check in the "**More sites**" block. Click on the module you want to open.

In addition, you will receive this tutorial letter and a printed copy of some of the online study materials from your module. While these printed materials may appear to be different from the online study materials, they are exactly the same and have been copied from the online *myUnisa* website.

You need access to *myUnisa* in order to download your assignments.

2. OVERVIEW OF THIS MODULE: MAC3701**2.1 Purpose**

The purpose of this module is to equip students with the ability to apply various management accounting techniques in order to make decisions. Students learn how information is evaluated and used to control and improve business performance. This module is primarily intended for people who are interested in qualifying as registered Chartered Accountants (SAICA) or Management Accountants (CIMA). This module will enable students to develop some of the necessary competencies prescribed by these professional bodies.

The module is delivered via *myUnisa* by using the Internet. Peer group interaction takes place in the discussion forum and is used as a tool to communicate with fellow students. Lecturers will interact with students mainly on *myUnisa* and via e-mail.

2.2 Outcomes

In MAC2601 you were introduced to the principles of management accounting. Here you acquired a basic knowledge of cost classification, cost behavior, cost analysis, cost estimation, cost objects and cost management accounting systems. You should also understand and be able to apply planning, budgeting and control techniques. Furthermore, MAC2601 enabled you to analyse financial and other data to provide information for decision-making.

In MAC3701 you will be equipped to:

- Apply advanced cost concepts in managing costs and costing systems.
- Apply advanced techniques for planning, budgeting, controlling and evaluating performance, including divisionalisation and report thereon.
- Apply advanced concepts in long- and short-term decision making regarding resource allocation and pricing, including transfer pricing as well as interpreting measures of uncertainty surrounding any decision-making.
- Apply information technology (spreadsheet programmes) where suitable.

3. LECTURERS AND CONTACT DETAILS

3.1 Lecturer information

The lecturers responsible for this module are as follows:

Lecturer's name: Mr M E Lentsoane
Building and office number: AJH vd Walt Building
Telephone number: 012 429 8468 (mostly available between 8:00 and 13:00 weekdays)

Lecturer's name: Mr N P Mudau
Building and office number: AJH vd Walt Building
Telephone number: 012 429 6937 (mostly available between 8:00 and 13:00 weekdays)

Lecturer's name: Mrs Y Reyneke
Building and office number: AJH vd Walt Building
Telephone number: 012 429 4046 (mostly available between 8:00 and 13:00 weekdays)

Details of office numbers will be communicated via *myUnisa*.

E-mail addresses for lecturers:

MAC3701-15-S1@unisa.ac.za (for use only during the **first semester**)

MAC3701-15-S2@unisa.ac.za (for use only during the **second semester**)

Please do not hesitate to consult lecturers by e-mail or personally (by prior arranged appointment only), should you experience specific problems regarding the **content of this course**. Please have your study material open online when you contact us. Please note that enquiries with regards to matters not relating to the **content of the course** (e.g. registrations, non-receipt of study material, enquiries in respect of exam dates, venues, etc) must **not be directed to your lecturer** but can be e-mailed to the appropriate department's e-mail address. See 3.3 below.

3.2 Department of Management Accounting

The Department of Management Accounting is situated in Pretoria, at the main campus in the AJH van der Walt Building.

The departmental contact numbers are as follows:

Telephone number: 012 429 4753

Fax number: 012 429 4894

3.3 University

To contact the University, you should follow the instructions in the **myStudies@Unisa** brochure. Remember to have your student number available when you contact the University.

Website: <http://www.unisa.ac.za> or Mobi: <http://mobi.unisa.ac.za>

E- mail addresses and SMS numbers:

E-mail addresses	SMS numbers	Use to enquire about:
study-info@unisa.ac.za	43578	Applications and registrations
assign@unisa.ac.za	43584	General assignment enquiries
exams@unisa.ac.za	43584	General examination enquiries
despatch@unisa.ac.za	43579	Study material
finan@unisa.ac.za	31954	Student accounts
gaudeamus@unisa.ac.za	n/a	Graduation ceremonies
myUnisaHelp@unisa.ac.za	43582	myUnisa
myLifeHelp@unisa.ac.za	43582	myLife e-mail accounts

Please refer below for general contact information for the College of Accounting Sciences:

CAS Student Information Hub

The e-mail addresses are:

CASenquiries-Postgraduate@unisa.ac.za

CASenquiries-Undergraduate@unisa.ac.za

CASenquiries-CTA@unisa.ac.za

CAS Student Information Hub telephone number: **012 429 4211**

You can also contact the following personnel at the CAS Student Information Hub:

Thabea Radise Telephone number: 012 429 2233

Jabulani Chauke Telephone number: 012 429 2982

Enquiries regarding registrations can be directed to the CAS Student Information Hub

4. MODULE-RELATED RESOURCES

4.1 Prescribed books

Your prescribed textbooks for this module for this semester (**2015**) are:

Author	Year	Title	Edition	Publisher	ISBN
Drury, C	2015	Management and Cost Accounting with Student Manual and CourseMate	9 th	Cengage Learning	9781473719101

Please make sure that you obtain the bundle that includes the textbook (accompanied with access to online CourseMate resources) and the student manual.

Please note: The 2014 prescribed textbooks for this module will still be acceptable for 2015. We do, however, recommend that you rather obtain the 9th edition as the 9th edition will be prescribed from 2015 on CTA-level:

The publisher of the text books offers access to online CourseMate resources. It should, however, be noted that MAC3701 mainly refers to the CourseMate resources for *enrichment* activities.

The previous versions' details (**as prescribed previously**) were as follows:

Author	Year	Title	Edition	Publisher	ISBN
Drury, C	2012	Management and Cost Accounting	8th	Cengage Learning	9781408041802
Drury, C	2012	Management and Cost Accounting: Student Manual	8th	Cengage Learning	9781408048566

Please consult the list of official booksellers and their addresses in *myStudies@Unisa*.

Please note:

It is **essential** that you either acquire or have the prescribed textbooks at your disposal.

We recommend that you purchase the prescribed textbook, as you will have to study it thoroughly and refer to it frequently. **We suggest that you obtain the books as soon as possible.**

4.2 Recommended books

It is important for you to enrich your studies by reading as extensively as possible and to use other sources to supplement the prescribed textbooks.

4.3 Joining *myUnisa*

If you have access to a computer that is linked to the internet, you can quickly access resources and information at the University. The *myUnisa* learning management system is Unisa's online campus that will help you to communicate with your lecturers, with other students and with the administrative departments of Unisa all through the computer and the internet.

You can start at the main Unisa website, <http://www.unisa.ac.za>, and then click on the *myUnisa* orange block. This will take you to the *myUnisa* website. To go to the *myUnisa* website directly, go to <https://my.unisa.ac.za>. When you are on the *myUnisa* website, click on the “*Claim UNISA Login*” at the right-hand side of the screen. You will then be prompted to give your student number to claim your initial *myUnisa* as well as *myLife* login details.

Please consult the publication *myStudies@Unisa* which you received with your study material for more information on *myUnisa*.

4.4 Printed support materials

Because we want you to be successful in this online module, we will also provide you with, some of the study material, in printed format. This will allow you to read the study material, even when you are not online.

- The printed study material will be sent to you at the beginning of the semester, but you do not have to wait to receive them to start studying – you can go online as soon as you register and all your currently available study material will be there.
- Therefore, the printed material is not something that you need to wait for before you start with the module. It is only an **offline** copy of the formal content for the online module.
- This will give you the chance to do a lot of the studying of this module **without** having to go to the internet or an internet cafe. This will save you money, of course, and you will be able to take as much time as you need to read - and to examine - the materials.

It is therefore very important that you log into *myUnisa* regularly. We recommend that you should do this at least every week or every 10 days to check for the following:

- **Check the Home page for any relevant information or updates.** Refer to the Home page for reminders regarding assignment deadlines and other relevant information.
- **Check for new Announcements.** You can also set up your *myLife* email so that you receive the Announcement emails on your cell phone.
- **Check the Discussion forum.** You can share your thoughts on the different topics with the other students in your group. (Please note however that you are not allowed to post your answers to any of the assignments!)

We hope that this system will help you to succeed in this online module by giving you extra ways to study the materials and practice with all of the activities and assignments. At the same time, you **must** go online in order to complete the activities and assignments on time - and to get the most from the online course.

Remember: the printed support materials are simply a back-up of some of the materials that are found online on *myUnisa*. There is no additional information in the printed tutorial letters. **In other words, you should not wait for the Printed support materials to arrive to start studying.**

4.5 Discussion classes

Information on discussion classes for MAC3701 will be communicated to students during the semester.

4.6 Tutors and E-Tutors

There is a possibility that Tutors and E-Tutors will be available for MAC3701. More information regarding this matter will be communicated to students during the semester.

5. HOW TO STUDY THIS MODULE ONLINE

5.1 What it means to study fully online?

This module is taught fully online, therefore the following is relevant:

- **All your study materials are designed to be online, on myUnisa.** Even though we give you a printed copy of the study guide to support your studies, the module is designed for online use. Your assignments will also be available online on *myUnisa*.
- Students may submit written assignments that should be typed and submitted online in a PDF document in the same manner that all other assignments are submitted online. Posted written assignments are also acceptable but online submission is recommended. The MCQ (multiple choice questions) assignment has to be completed on a mark-reading sheet **either** by post **or** Mobile MCQ submission **or** electronically via *myUnisa*. No assignments may be submitted by fax or e-mail.
- Remember to retain proof of your submission!
- Note that it will be wise to submit assignments electronically via *myUnisa* a few days before the due date as the system is often overloaded on the due date. ***If the system gives an error message, please wait a while and try again until your assignment is accepted.***
- **All of the communication between yourself and the University also happens online** – by e-mail and in the discussion forum. You can use these ways to ask questions and contact your lecturers. This also means that your lecturers will communicate with you in the same way – through e-mails, with announcements and in the discussion forum on *myUnisa*. The lecturers also send important sms'es to students from time-to-time and it is therefore important to make sure Unisa has your most updated contact details.

5.2 Assignments

Your assignments are included at the back of this tutorial letter (refer Annexure A to E) and is also available online on *myUnisa*.

6. ASSESSMENT

6.1 Assignments and learning

Assignments and tutorial letters form an integral part of your tutorial matter and you must study them for examination purposes.

6.2 Compulsory assignment

When you submit the compulsory assignment (Assignment 1) on time, it will prove that you are an active student and will therefore earn you admission to the examination. The mark you obtain for the compulsory assignment will have no influence on your admission to the examination. However, it will contribute towards your semester mark.

You will undoubtedly realise the importance of commencing your study programme in good time so that you can obtain admission to the examination and earn a good semester mark.

6.3 Assignment questions

Your assignments are included at the back of this tutorial letter (refer Annexure A to E) and is also available online on *myUnisa*. From the menu on your left, select "Home". Then click on the link provided for each assignment. You can find the links in the "Welcome" message on your home page.

6.4 General remarks

- (a) You must submit the **compulsory assignment** (Assignment 1) to be received by the University before or on the due date to obtain admission to the examination. Make sure you mark it as "1".
- (b) It is in your own interest to **retain a copy of the proof you received when submitting Assignment 1**, so that you can produce this in the event of any dispute concerning whether or not the assignment was received.
- (c) **Important notes** with regard to **assignments**:

- 1) Although students are encouraged to work together in groups, remember to always submit your own work. If we see that you've copied someone else's work, you will get a mark of zero.
- 2) Please make sure you submit the correct documents for your respective assignments. The lecturers will not phone you to inform you if they discover that you've submitted the incorrect or an incomplete assignment. It is your own responsibility to submit the correct assignment, in PDF-format, else you will get a mark of zero.
- 3) Assignments received after the due date will not be marked and students will get a mark of zero for the assignment.

- (d) Your **semester mark** will contribute 20% towards your final mark (**if you obtain at least 40% in the examination**). The assignments will contribute to the semester mark as follows:

Assignment 1	25%
Assignment 2	75%
Assignment 3	0%

Assignment 3 is not compulsory and you needn't submit this assignment. It is however in your own best interest to work through this assignment thoroughly as it will be good for your examination preparation.

- (e) **Plagiarism (Refer plagiarism declaration section 6.7)**

Plagiarism is the act of taking the words, ideas and thoughts of others and passing them off as your own. It is a form of theft which involves a number of dishonest academic activities. All students receive the *Disciplinary code for students* (latest version) at registration. Please study the code. Kindly read Unisa's *Policy on copyright infringement and plagiarism* as well.

If you worked together in a study group, remember that you still have to submit your **own work**, written in your own words. If the lecturers find any similar-looking/worded assignments, all parties involved will get zero for their assignment mark.

By submitting any MAC3701 assignment, you automatically declare that you have submitted your own work and that you are aware of the consequences of being guilty of plagiarism.

6.5 Due dates of assignments

The due dates for the submission of the assignments are as follows:

Assignment	Semester 1		Semester 2	
	Unique number	Due date	Unique number	Due date
01	595954	09/03/2015	596215	17/08/2015
02	596013	30/03/2015	596223	07/09/2015
03	596068	21/04/2015	596263	28/09/2015

6.6 Submission of assignments

Although you may still submit assignments by post, we would like to encourage you to submit them online on *myUnisa* in PDF-format, since this is a **fully online module**. The MCQ (multiple choice questions) assignment has to be completed on a physical mark-reading sheet if it is not completed online via the *myUnisa* equivalent of a mark-reading sheet. Physical mark-reading sheets may be submitted by post or answers may be selected and submitted electronically via *myUnisa*. Please refer to the brochure *myStudies@Unisa* on how to submit the assignment on a mark-reading sheet or electronically via *myUnisa*.

The written assignment needs to be written or typed, and then posted or submitted in a **PDF document** online on *myUnisa*.

Please make sure that you submit the correct and complete document. The lecturers will not phone you to inform you if you've submitted the wrong assignment/document. It is your own responsibility to submit the correct assignment.

Submitting assignments on *myUnisa*

- Go to <http://my.unisa.ac.za>.
- Enter your student number and password.
- Select the module.
- Click on "Assignments" in the left-hand menu.
- Click on the number of the assignment you want to submit.
- Follow the instructions on the screen.

Receipt of assignments after the due date disrupts the marking programme and the uncontrolled submission of assignments furthermore creates administrative problems. You are requested to carefully note the undermentioned requirements and suggestions and to adhere strictly to them.

1. **NO EXTENSION OF TIME WILL BE GIVEN FOR THE SUBMISSION OF ANY OF THESE ASSIGNMENTS, AS SOLUTIONS WILL BE FORWARDED AUTOMATICALLY TO ALL STUDENTS SHORTLY AFTER THE DUE DATES.**
2. **NO CORRESPONDENCE OR TELEPHONIC CONVERSATION WILL BE CONDUCTED REGARDING THE LATE SUBMISSION OF ASSIGNMENTS.**
3. **ASSIGNMENTS RECEIVED AFTER THE DUE DATE WILL NOT BE MARKED AND STUDENTS WILL GET A MARK OF ZERO FOR THE ASSIGNMENT.**
4. **RETAIN PROOF OF SUBMISSION OF YOUR ASSIGNMENT.**

6.7 Plagiarism declaration

PLAGIARISM DECLARATION
I declare that this assignment, submitted by myself, is my own work and that I have referenced all the sources that I have used.
By submitting any MAC3701 assignment, I declare that: <ul style="list-style-type: none"> • I have read the Unisa Students' Disciplinary Code; • I know what plagiarism is, that plagiarism is wrong and that disciplinary steps can be taken against me if I am found guilty of plagiarism; • My assignments for MAC3701 are my own work; • I have not allowed any other student to copy my work; • I know that if I am found to be in violation of this declaration I will receive 0% for the assignments involved.
Please note: You do not have to submit the declaration. By submitting any MAC3701 assignment, you automatically declare that you adhere to all the above with regard to the specific assignment.
NB: Although students may work together when preparing assignments, each student must write/type and submit his or her own individual assignment. It is unacceptable for students to submit identical assignments on the basis that they worked together. That is copying (a form of plagiarism) and none of these assignments will be marked. Furthermore, you may be penalised or subjected to disciplinary proceedings by the University.

7. SEMESTER MARK AND FINAL EXAMINATION

7.1 Compulsory assignments

For students to benefit from our formative tuition and assessments, the management of the University decided to introduce compulsory assignments for all modules.

Submission of **compulsory assignment 1** will earn you admission to the examination. This assignment consists of multiple choice type questions. The mark you earn for compulsory assignment 1 will contribute 25% towards your semester mark, which weighs 20% in the calculation of your final mark.

Admission to the examination will therefore only be **obtained by submitting compulsory assignment 1** in time to be officially **received by the University before or on the due date** and the marks obtained for it will contribute towards your semester mark.

Assignment 2 is a written assignment which contributes 75% towards your semester mark, which weighs 20% in the calculation of your final mark. Although non-submission of this assignment will not influence your exam admission, we sometimes still refer to this assignment as compulsory as it is impossible to earn a decent semester mark without submitting this assignment.

Please note that it is practice in our Department to only mark selected sections of a written assignment. You can therefore not afford to leave out any questions as they might form part of the selected questions for marking.

The lecturers will not inform you upfront on which question(s), or parts thereof, will be selected for marking. Do not phone the lecturers to ask which questions will be marked. They will not inform you.

Assignment 3 is not compulsory. It is a written assignment that does not contribute towards your semester/final mark. You needn't submit this assignment as it will not be marked. You are encouraged to work through this assignment and its suggested solution thoroughly as we believe it will be good for your examination preparation.

PLEASE NOTE: Enquiries about assignments (e.g. whether or not the University has received your assignment or the date on which an assignment was returned to you) must be e-mailed to assign@unisa.ac.za

7.2 How to calculate your semester mark

The **mark obtained** for compulsory assignment 1 counts 25%, the **mark obtained** for assignment 2 counts 75% and the **mark obtained** for assignment 3 counts 0%, giving a semester mark out of 20% towards the final mark.

Students require a combined final mark of at least 50% to pass a module. This final mark is calculated as follows:

Semester mark
= A mark out of **25%** for assignment 1 + a mark out of **75%** for assignment 2 + a mark out of **0%** for assignment 3

Final mark
= 20% x semester mark + **80% x mark obtained in the examination.**

If a student fails the examination with less than 40%, the semester mark will not be used to calculate the final mark. How it will work in practice?

The marks you obtain for the compulsory assignments 1 and 2 will count towards your semester mark, contributing towards a possible maximum of 20% accounted for in your final mark. Your semester mark will, however, only be taken into account to calculate your final mark if you obtained 40% or more in the examination.

Your semester mark will be taken into account as follows:

- mark (%) for compulsory assignment 1: 25% weight in semester mark (5% weight in final mark)
- mark (%) for compulsory assignment 2: 75% weight in semester mark (15% weight in final mark)

7.3 How to calculate your final mark

The semester mark will contribute 20% towards your **final mark**. The mark you obtain in the examination will be restated to be out of 80% and your semester mark will be restated to a mark out of 20%. If you earn 75% for compulsory assignment 1, 65% for compulsory assignment 2 and 48% for the examination, your final mark will be 51,9%

Example:

Semester mark:	$18,75^{\textcircled{1}} + 48,75^{\textcircled{2}} = 67,50$	$\times 20\% = 13,50$
Exam mark:	48,00	$\times 80\% = \underline{38,40}$
Final mark:		51,90%

$\textcircled{1}$ Assignment 1: $75 \times 25\% = 18,75$

$\textcircled{2}$ Assignment 2: $65 \times 75\% = 48,75$

A subminimum of 40% in the examination is, however, required before the semester mark will be taken into account in calculating your final mark.

8. MODULE-SPECIFIC STUDY PLAN

Read the information on general time management and planning skills contained in the *myStudies@Unisa* brochure.

Plan your studies properly so as to achieve specific study goals at predetermined dates. This avoids a haphazard approach to your studies and the use of ineffective study techniques.

Suggested study programme for 2015

First priority - Compulsory assignment 1 (to gain admission to the examination and contributing 25% towards your semester mark)

Study Topics 1 (Advanced behavioural aspects of costs) and 2 (Advanced concepts in costing systems). This assignment could also possibly include some of your MAC2601 work. Please make sure that you are familiar with all your MAC2601 work as it is a pre-requisite to and assumed knowledge for module MAC3701.

Complete and submit compulsory assignment number 1 before the due date. This is a multiple choice questions (MCQ) assignment.

Second Priority – Assignment 2 (contributing 75% towards your semester mark)

All the topics can be tested in this assignment and you will therefore have to also study the following topics in order to submit a proper attempt for assignment 2:

Topic 3 (Integrated planning and budgeting), topic 4 (Standard costing), topic 5 (Performance management in decentralised entities), topic 6 (Relevant decision making in various scenarios), topic 7 (Pricing for internal and external purposes) and topic 8 (Advanced aspects of sensitivity analysis). Revise topics 1 and 2 if required.

Complete and submit compulsory assignment number 2 before the due date. This is a written assignment.

Third Priority – Assignment 3 (does not contribute towards your semester mark)

All the Topics (including this assignment) are important for your examination preparation.

It is in your own interest to complete assignment number 3 before the due date. This is a written assignment. You need not submit this assignment as it will not be marked. You should mark the assignment yourself based on the suggested solution.

Suggested study programme for 2015

Semester 1

Date	Topics from the study material	Assignment	Due date
30/01/2015 to 06/03/2015	Topic 1 – Advanced behavioural aspects of costs Topic 2 – Advanced concepts in costing systems Continue with topics 3 – 5 although they will not be tested in the first assignment: Topic 3 – Integrated planning and budgeting Topic 4 – Standard costing: further analysis of variances and investigations Topic 5 – Performance management in decentralised entities	1/2015 Semester 1 (topics 1 – 2) (COMPULSORY FOR ADMISSION TO THE EXAMINATION PLUS A 25% CONTRIBUTION TO SEMESTER MARK)	09/03/2015
09/03/2015 to 27/03/2015	Revise topics 1 – 5 (if required) and also study: Topic 6 – Relevant decision making in various scenarios Topic 7 – Pricing for internal and external purposes Topic 8 – Advanced aspects of sensitivity analysis	2/2015 Semester 1 (topics 1 – 8) (FOR 75% CONTRIBUTION TOWARD SEMESTER MARK)	30/03/2015
30/03/2015 to 17/04/2015	Revise Topics 1 – 8. This includes not only revision of the contents of the study guide and its references to the prescribed text books, but also all the tutorial letters, announcements, etc. that are available on myUnisa.	3/2015 Semester 1 (topics 1 – 8) (FOR 0% CONTRIBUTION TOWARD SEMESTER MARK – self assessment does not have to be handed in)	21/04/2015

Semester 2

Date	Topics from the study material	Assignment	Due date
13/07/2015 to 14/08/2015	Topic 1 – Advanced behavioural aspects of costs Topic 2 – Advanced concepts in costing systems Continue with topics 3 – 5 although they will not be tested in the first assignment: Topic 3 – Integrated planning and budgeting Topic 4 – Standard costing: further analysis of variances and investigations Topic 5 – Performance management in decentralised entities	1/2015 Semester 2 (topics 1 – 2) (COMPULSORY FOR ADMISSION TO THE EXAMINATION PLUS A 25% CONTRIBUTION TO SEMESTER MARK)	18/08/2015
17/08/2015 to 04/09/2015	Revise topics 1 – 5 (if required) and also study: Topic 6 – Relevant decision making in various scenarios Topic 7 – Pricing for internal and external purposes Topic 8 – Advanced aspects of sensitivity analysis	2/2015 Semester 2 (topics 1 – 8) (FOR 75% CONTRIBUTION TOWARD SEMESTER MARK)	08/09/2015
07/09/2015 to 25/09/2015	Revise Topics 1 – 8. This includes not only revision of the contents of the study guide and its references to the prescribed text books, but also all the tutorial letters, announcements, etc. that are available on myUnisa.	3/2015 Semester 2 (topics 1 – 8) (FOR 0% CONTRIBUTION TOWARD SEMESTER MARK - self assessment does not have to be handed in)	29/09/2015

9. EXAMINATION

9.1 Examination period and examination paper

Date: May/June (First semester) and October/November (Second semester)

Marks: 100

Covers the whole syllabus (Topics 1 to 8)

The exam will consist entirely of written questions. There will be no multiple-choice questions. During the year, the Examination Section will provide you with information regarding the examination in general, examination venues, examination dates and examination times.

9.2 Previous examination papers

A mock exam will be made available as your Assignment 3. Students are also encouraged to attempt the 2014 papers and send their attempts to the lecturers for marking. You may assume that you will not have seen the examination questions before but it will be a *similar difficulty level* to the questions asked in the activities in your study guide, your text books, the assignments and/or other official study material of the module.

9.3 Calculator policy

Candidates may only use silent, electronic, battery-driven pocket calculators (non-programmable financial calculators will be allowed) subject to the following conditions:

- Calculators must be cordless, and may not have print-out facilities or alpha keys;
- The calculator function on mobile telephones or any electronic device (i.e. laptops and/or any Smart Phone) may not be used; and
- Candidates may not share a calculator with another candidate in the examination room.

10. CONCLUSION

In spite of care taken to ensure that study guides, assignments and suggested solutions are comprehensive and free from errors, omissions and discrepancies may occur. Should you come across such matters, or matters which are not clearly expressed, kindly let us know to enable us to effect the necessary corrections.

Do not hesitate to contact your lecturer by e-mail if you are experiencing problems with the content of this tutorial letter or any aspect of the module.

We wish you a fascinating and satisfying journey through the learning material and trust that you will complete the module successfully.

Enjoy the journey!

MAC3701 lecturers

ANNEXURE A

COMPULSORY ASSIGNMENT 01/2015 FIRST SEMESTER

IF YOU ARE REGISTERED FOR THE FIRST SEMESTER, YOU MUST COMPLETE THIS ASSIGNMENT.

THE MARK YOU EARN FOR COMPULSORY ASSIGNMENT 01 WILL CONTRIBUTE 25% TOWARDS YOUR SEMESTER MARK, WHICH WEIGHS 20% IN THE CALCULATION OF YOUR FINAL MARK.

This assignment must be completed on the mark-reading sheet supplied. Mark-reading sheets may be submitted either by post or electronically via myUnisa. Please refer to the *myStudies@Unisa* brochure on how to use and complete a mark-reading sheet. For information on how to submit an assignment through myUnisa refer to paragraph 6.6 of Tutorial Letter 101/2015.

Please remember to enter the **correct** unique number of the assignment on the mark-reading sheet.

DUE DATE: SEMESTER 1: 9 March 2015

UNIQUE NUMBER: 595954

Assignment 01/2015 FIRST SEMESTER

This assignment consists of 20 multiple-choice questions. Each question must be considered independently, unless specific reference is made to information in another question. Each question has only one correct answer.

The following information must be used for purposes of answering questions 1 to 4.

Zoom (Pty) Ltd is a retailer of flat computer screens for offices. The annual demand is 2 600 screens. Sales take place evenly throughout the year. The company trades for 52 weeks per annum.

The purchase price per screen is R3 900. The company executes its orders within two weeks and maintains a safety inventory of 50 screens. The cost to place an order is R120.

The direct inventory holding cost is R20 per screen per annum. Insurance costs amount to 5% of direct inventory holding costs per screen per annum. The after tax cost of capital of Zoom (Pty) Ltd is 10%.

QUESTION 1

The economic order quantity (EOQ) for the flat computer screens is ...

- (1) 32 screens.
- (2) 41 screens.
- (3) 39 screens.
- (4) 177 screens.
- (5) None of the above options.

QUESTION 2

The total inventory holding costs for the flat computer screens are ...

- (1) R28 564,50.
- (2) R27 126,00.
- (3) R 8 014,50.
- (4) R56 923,50.
- (5) None of the above options.

QUESTION 3

The re-order point if the safety stock is maintained is ...

- (1) 100 screens.
- (2) 150 screens.
- (3) 50 screens.
- (4) 1 350 screens.
- (5) None of the above options.

QUESTION 4

The total annual ordering costs for the economic order quantity are ...

- (1) R7 680.
- (2) R9 840.
- (3) R1 800.
- (4) R8 040.
- (5) None of the above options.

The following information must be used for purposes of answering questions 5 to 8.

Tso (Pty) Ltd is a hospitality group with interests in casinos, hotels and theme parks. The operating results for the three divisions, Casino, Hotel and Theme park, for the year ended 28 February 2015, are as follows:

	Divisions			Total
	Casino R	Hotel R	Theme park R	R
Sales	2 000 000	3 000 000	5 000 000	10 000 000
Less: cost of sales	1 200 000	2 300 000	2 000 000	5 500 000
Less: overheads				1 000 000
Profit				3 500 000

Analysis of the overheads shows that they consist of:

	R
Administrative staff salaries	510 000
Warehouse staff salaries	100 000
Marketing staff salaries	320 000
General overheads	70 000
	1 000 000

Salaries, wages and general overheads are considered to be of a fixed nature, except for 30% of general overheads which vary in line with the cost of sales per division.

The following information is also available:

	Casino	Hotel	Theme park	Total
Number of orders executed	1 000	1 200	1 500	3 700
Number of tokens sold	12 000	8 000	10 000	30 000
Floor space (square metres)	20 000	15 000	25 000	60 000

Activities related to cost drivers are as follows:

Activity	Driver
Administrative staff salaries	No of orders executed plus no of tokens sold
Warehouse staff salaries	No of orders executed
Marketing staff salaries	No of tokens sold
Fixed general overheads incurred	Floor space

Tso (Pty) Ltd makes use of an activity-based costing (ABC) system to allocate overhead costs to their three divisions.

Hint: Usually with activity-based costing, an activity rate is calculated. The activity rate can be calculated by dividing the activity cost by the cost driver volume (for example no of orders executed). Multiplying the activity rate by the cost driver volume calculates the allocated amount. For purposes of this question – do not round your activity rate to two decimals – this will result in you getting the incorrect answer. **Only round the final allocated amounts to two decimals.**

QUESTION 5

The total variable overhead costs for the Casino division are ...

- (1) R4 581,82.
- (2) R7 000,00.
- (3) R5 250,00.
- (4) R8 400,00.
- (5) None of the above options.

QUESTION 6

The total contribution for the Theme park division is ...

- (1) R2 991 250,52.
- (2) R2 992 363,64.
- (3) R3 000 000,00.
- (4) R2 999 650,55.
- (5) None of the above options.

QUESTION 7

The total fixed costs for the Hotel division are ...

- (1) R274 449,25.
- (2) R269 244,25.
- (3) R267 853,50.
- (4) R263 755,23.
- (5) None of the above options.

QUESTION 8

The total profit for the Theme park division is ...

- (1) R2 992 363,64.
- (2) R2 500 000,00.
- (3) R2 650 704,15.
- (4) R 421 973,93.
- (5) None of the above options.

The following information must be used for purposes of answering questions 9 and 10.

Soft Leather CC has recently started with the manufacturing of soft leather shoes. To date the company has completed and sold four pairs shoes. The total time to complete the first two shoes was 15,76 hours and the total time to complete the first four shoes was 30,1088 hours. This trend is similar to that experienced in the manufacturing of similar products. Experience has shown that this trend will last for the manufacturing of the first sixteen soft leather shoes.

Hint: You need to calculate the cumulative average time per shoe and not per pair of shoes. The learning curve applies to every doubling of shoes manufactured and does not apply to every pair of shoes manufactured. In all your calculations, round your figures to four decimals and if your final answer differs from the options below with only a few decimal places, select the option closest to your answer.

QUESTION 9

The learning curve to manufacture the shoes is ...

- (1) 51,5464%.
- (2) 97,00%.
- (3) 103,0928%.
- (4) 96,00%.
- (5) None of the above options.

QUESTION 10

The total time taken for the manufacturing of the “next” **four pairs** of shoes is ...

Hint: You need to calculate the total time that it will take to manufacture shoe 9 up to shoe 16.

- (1) 54,9072 hours.
- (2) 56,6232 hours.
- (3) 58,4112 hours.
- (4) 52,0936 hours.
- (5) None of the above options.

Use the following information to answer question 11.

The following is an extract from the operation manager's report provided to the operations committee at the end of the financial year:

	No of units manufactured	Fixed cost	Semi-variable cost	Variable cost	Total cost
Period 1	3 000	R5 000	R7 250	R3 000	R15 250
Period 2	3 500	R5 000	R8 000	R3 500	R16 500
Period 3	2 500	R5 000	R6 500	R2 500	R14 000
Period 4	4 000	R5 000	R8 750	R4 000	R17 750

QUESTION 11

The fixed cost included in the semi-variable cost of a period is ...

- (1) R1 500.
- (2) R2 250.
- (3) R2 500.
- (4) R2 750.
- (5) None of the above options.

QUESTION 12

State which of the following statements are true:

- (a) The correlation coefficient (r) indicates the extent of a relationship between dependent and independent variables.
- (b) High-low is a method of analysing cost behavior that consists of selecting the periods of highest and lowest activity levels and comparing the changes in cost that result from the two levels in order to separate the fixed and variable costs from each other.
- (c) The regression equation identifies an estimated relationship between a dependent variable and one independent variable based on future expected cost.
- (d) An independent variable is a variable, such as cost, that changes when a dependent variable, such as volume, is varied.

The following statements are **true**:

- (1) a and c
- (2) b and d
- (3) a, b and c
- (4) a and b
- (5) None of the above options.

The following information must be used for purposes of answering questions 13 to 16.

Amakhemikhali Ltd manufactures a single product by means of a single manufacturing process and uses a process costing system. Material is added at the beginning of the process. Conversion costs are incurred evenly throughout the process.

The following information is available for April 2015:

Work-in-process	- 1 April 2015	25 000 units
• material	- 100% complete	R93 500
• conversion cost	- 30% complete	R41 850

100 000 units put into production in April:	
• material	R374 000
• conversion costs	R167 400

Units completed and transferred:	78 000 units
----------------------------------	--------------

Work-in-process	- 30 April 2015	20 000 units
• material	- 100% complete	
• conversion cost	- 75% complete	

Additional information:

1. Normal losses are estimated at **15%** of the input that reaches the wastage point.
2. Losses occur at the **end** of the process.
3. Amakhemikhali Ltd values their stock according to the **weighted average method**.

QUESTION 13

The equivalent material cost per unit for Amakhemikhali Ltd for the month of April 2015 is as follows:

Round your answer to the nearest cent.

- (1) R3,74 per unit
- (2) R4,25 per unit
- (3) R1,74 per unit
- (4) R5,48 per unit
- (5) None of the above options.

QUESTION 14

The total rand value assigned to the abnormal loss units of Amakhemikhali Ltd for the month of April 2015 in the cost allocation statement would be as follows:

Round all amounts to the nearest cent.

- (1) R 61 650,00
- (2) R 51 000,00
- (3) R 70 537,76
- (4) R116 700,45
- (5) None of the above.

QUESTION 15

If losses no longer occur at the end of the process, but when the process is 40% completed, and Amakhemikhali Ltd now values their stock according to the first-in-first-out (FIFO) method, what would the equivalent units in terms of material be?

(Note: You have to use the short-cut method if all the requirements for its usage are met.)

- (1) 97 425 units
- (2) 103 750 units
- (3) 89 925 units
- (4) 85 000 units
- (5) None of the above.

QUESTION 16

If losses no longer occur at the end of the process, but when the process is 40% completed and Amakhemikhali Ltd values their stock according to the first-in-first-out (FIFO) method, what would the equivalent units in terms of conversion cost be?

(Note: Do **not** use the short-cut method, even if the requirements for its usage are met.)

- (1) 89 925 units
- (2) 103 750 units
- (3) 97 425 units
- (4) 85 000 units
- (5) None of the above.

QUESTION 17

State which of the following statements are true:

- (a) When a group of individual products is produced simultaneously and each product has a significant relative sales value, the outputs are usually called joint products.
- (b) By-products are those products that results incidentally from the main joint product.
- (c) By-products usually influence the decision as to whether or not to produce the main product.
- (d) Joint and by-products are identifiable as different individual products at the split-off point.

The following statements are **true**:

- (1) a and d
- (2) a and b
- (3) a, c and d
- (4) a, b and d
- (5) None of the above options.

The following information must be used for purposes of answering questions 18 to 20.

Company B simultaneously produces three products (A, B and C) from a single process. Products A and B are processed further before they can be sold. Product C is a by-product that is sold at split-off point for R70 per unit after incurring further processing costs of R10 per unit. A regular market exists for Company B's by-product. The sales prices of products A and B after further processing are R494 per unit and R604,50 per unit respectively.

Data for March 2015 are as follows:

Description	Amount (R)
Joint product costs that produced 3 000 units of A, 4 000 units of B and 3 000 units C	1 400 000
Further processing costs for 3 000 units of A	240 000
Further processing costs for 4 000 units of B	460 000

QUESTION 18

Joint costs are apportioned using the sales value at split-off point method. The **total cost** of product A for March 2015 is ...

- (1) R778 461,54.
- (2) R650 547,08.
- (3) R703 600,00.
- (4) R750 650,55.
- (5) None of the above options.

QUESTION 19

Joint costs are apportioned using the physical standards method. The **total cost** of product B for March 2015 is ...

(Round the percentage of [units per product]/[total units produced] to 2 decimals, example xx,xx% before you allocate the joint cost based on this percentage.)

- (1) R1 157 108.
- (2) R1 216 400.
- (3) R 762 892.
- (4) R1 115 400.
- (5) None of the above options.

QUESTION 20

Assuming that **all three products** are joint products and joint costs are apportioned using net realisable value (NRV) method. The total cost of product B for March is ...

For the purpose of this question, Product C has a sales value of R450 per unit and further processing cost for Product C amounts to R180 000.

(Round the percentage of estimated [product NRV @ split off point]/[total NRV @ split off point] to 2 decimals, example xx,xx%, before you allocate the joint costs based on this percentage.)

- (1) R 627 340.
- (2) R1 087 340.
- (3) R 637 880.
- (4) R1 958 000.
- (5) None of the above options.

ANNEXURE B**ASSIGNMENT 02/2015, FIRST SEMESTER**

YOU MUST COMPLETE THIS ASSIGNMENT IF YOU ARE REGISTERED FOR THE FIRST SEMESTER.

You must write and post this assignment or type and submit it as a PDF document online on *myUnisa*. **The lecturers prefer that you submit the assignment on *myUnisa*** as postal strikes cause unnecessary delays in the marking and sending back of assignments.

DUE DATE: SEMESTER 1: 30 March 2015

UNIQUE NUMBER: 596013

ASSIGNMENT 02/2015, FIRST SEMESTER

Question	Topic	Marks	Minutes
1	Budgeting	13	15
2	Standard costing	18	22
3	Divisional financial performance measures	15	18
4	Relevant costing	23	28
5	Transfer pricing and long-term external price setting	15	18
6	Cost-volume profit analysis	16	19
		100	120

Please note that it is practice in our Department to mark selected sections of a written assignment only. You can therefore not afford to leave out any questions as they might form part of the selected questions for marking.

We will not inform you upfront which question(s), or parts thereof, we will select for marking. Do not phone us to ask which questions will be marked. We will not tell you!

QUESTION 1

Sizwe (Pty) Ltd is a manufacturer of solar-power geysers. The company manufactures three types of solar geysers, Alpha, Omega and Yale. The following information is available for the year ended 30 April 2015:

Product	Alpha	Omega	Yale	Total
Number of geysers sold	35 000	10 900	15 000	60 900
Budgeted machine hours	18 000	15 000	7 000	40 000
Budgeted direct labour hours	7 000	9 000	6 000	22 000
Previously budgeted selling price*	R32/unit	R160/unit	R112/unit	

*New information on water and electricity rates became available shortly after the initial budget has been set, which had a positive effect on the expected demand for solar geysers. The information indicated that the selling price would increase by 25% from the previously set prices, as solar geysers have become extremely popular overnight.

Budgeted statement of profit or loss and other comprehensive income of Sizwe (Pty) Ltd for the year ended 30 April 2015:

	Alpha R	Omega R	Yale R	Total R
Sales	?	?	?	?
<u>Less: Direct materials</u>	440 000	900 000	930 000	2 270 000
<u>Less: Direct labour</u>	390 000	1 000 000	650 000	2 040 000
<u>Less: Overhead costs (note 1)</u>	?	?	?	900 000
Operating profit				?
<u>Less: Finance cost (note 2)</u>				?
Net profit before tax				?

Additional information:

1. A detailed analysis of the overhead costs shows that they are made up of a portion of overheads that are driven by the number of machine hours used, a portion of overheads that are driven by labour hours and a portion of product-specific fixed overheads. The general overheads cannot be allocated to the different products. The details are as follows:

Overhead cost	R
Machine hour related	200 000
Labour hour related	220 000
Product-specific overhead:	
- Alpha	150 000
- Omega	110 000
- Yale	200 000
General fixed overhead	20 000
Total	900 000

2. Sizwe (Pty) Ltd has a loan from ABC Bank of R1 100 000 that bears interest at 10% per annum payable in advance.

Required

Prepare a budgeted statement of profit or loss and other comprehensive income of Sizwe (Pty) Ltd for the year ended 30 April 2015, which is more useful for decision-making purposes and shows the overheads per product type. Your statement should have columns for each product type as well as a total column. (13)

QUESTION 2

DEF Ltd has implemented a process in which the standard mix for producing 9 litres of output is as follows:

	R
4 litres of Delta at R9 per litre	36,00
3,5 litres of Echo at R5 per litre	17,50
2,5 litres of Foxtrot at R2 per litre	5,00
	<u>58,50</u>

A standard loss of 10% of inputs is expected to occur. The **actual inputs** for the latest period were:

	R
4 300 litres of Delta at R9,00 per litre	38 700
3 600 litres of Echo at R5,50 per litre	19 800
2 100 litres of Foxtrot at R2,20 per litre	4 620
	<u>63 120</u>

Actual output for this period was 9 100 litres.

Required

- a) Calculate the following variances:
- i) The materials purchase price variance per material type and in total (3)
 - ii) The materials mix variance per material type and in total (5)
 - iii) The materials yield variance per material type and in total (5)
- b) Explain the difference between the standard clock hour rate and the standard work hour rate that are used in the calculation of certain labour variances. Illustrate the difference between these two concepts using your own example. (3)
- c) Fill in the appropriate missing words in the following paragraph: (2)

The sales margin volume variance is expressed in standard unit **contribution** margin for a _____ costing system and standard unit _____ margins for an **absorption** costing system. In both cases, this is multiplied by the difference between the actual units sold and the budgeted units to be sold.

QUESTION 3

Division B of NML Limited currently has net assets of R280 000 and earns an annual profit after depreciation of R42 750. The divisional manager is considering an investment of R80 000 in an asset which will have a ten-year life with no residual value and will earn a constant annual profit after depreciation of R8 700. The cost of capital for NML Limited is 10%.

Required

- a) Calculate the following and briefly explain whether the divisional manager would want to undertake the new investment or not, based on the results:
- i) The return on divisional investment (ROI) before and after the new investment (3)
 - ii) The divisional residual income (RI) before and after the new investment (4)

- b) Explain (supporting your answer with calculations) whether the divisional manager would be acting in the best interest of NML Limited if he chooses not to undertake the new investment. (2)
- c) Which method of performance evaluation (that is, ROI or RI) would be more useful when comparing divisional performance? Give reasons for your answer. (2)
- d) State the disadvantages of ROI and RI as divisional performance measures. (4)

[BPP-adapted]

QUESTION 4

CTP (Pty) Ltd is a manufacturer of ceramic tiles for both household and office use. The company is currently considering tendering for the manufacturing of 10 000 m² tiles for a local municipality in the Tshwane area. The tender will take six months to complete.

The company policy is to add a mark-up of 15% on costs in order to arrive at a final tender price.

You have been presented with the following information regarding this tender:

Raw materials

Each m² tile requires 1 kg of **cement material**. There is 10 000 kg of cement material on hand in inventory at the moment. This material is used regularly in the production process. This material was bought at an original cost of R6,50 per kg. Currently the market price of the cement material is R7,00 per kg.

Special paint will be required for these tiles. Half of the litres required are in stock and the company wrote it off in the prior year. The paint in stock originally cost the company R20 000 and the cost of the other half will amount to a further R32 000.

A **silver mould** will be required for this tender and it will be purchased from a Durban-based supplier at a cost of R38 000.

Labour

The company currently has spare capacity and no overtime will be worked by current employees to meet the tender.

A **supervisor** will be transferred to this project for its full duration of six months. When the project is complete, he will return to his current position. His monthly salary is R12 000 per month.

The company will appoint six **temporary employees** on a six-month contract to work on this tender at a cost of R3 000 per month.

Overheads

The company currently incurs **variable manufacturing overheads** of R5 per m² tile. This cost will not change for the duration of the tender.

The company's normal **fixed manufacturing overheads** are R100 000 per month and additional overheads of R10 000 per month will be incurred in order to satisfy the requirements of this tender.

Other costs

In order to meet the requirements of the tender, the company has to **rent additional factory space** at a cost of R10 000 per month. An additional R30 000 will be spent on **setting up the factory** for this purpose. The company will incur R15 000 for the six months on **administrative overheads** because of this tender.

Required

- a) Calculate the price at which CTP (Pty) Ltd should tender. Indicate the reasons for including and excluding amounts in your calculations. (20)

Use the following format for your answer:

(We have included the first amount and explanation in order to illustrate what is expected of you.)

Item	Description	Relevant amount
Cement material	Where materials are taken from existing inventories, the original purchase price (R6,50 per kg) represents a past or sunk cost and it is therefore irrelevant for decision making.	R0

- b) List three non-financial factors that should be considered by CTP (Pty) Ltd in deciding whether to tender or not. (3)

QUESTION 5

Shapes Ltd is a decentralised company that evaluates its divisions based on Return on Investment (ROI). The Circle Division has the capacity to produce 10 000 units of a component. The Circle Division's components' variable costs are R160 per unit.

The Square Division can use components of the Circle Division in the manufacturing of one of its own products. The Square Division would incur R120 of variable costs to convert the component into its own product, which sells for R600.

The Hexagon Division is considering investing in a new product. The cost price per unit for this product will be R390 and the annual demand for the new product will be 45 000 units. The new product requires an investment of R9 000 000 and the target divisional rate of return on capital is 12%.

Required

- a) Briefly explain the four purposes for which transfer pricing can be used. (4)
- b) Assume the Circle Division can sell all of the components it produces for R360 each. The Square Division needs 1 200 units. What is the correct transfer price per unit? (1)

- c) Assume the Circle Division can sell 8 500 units at R260 each. Any excess capacity will be unused unless the units are purchased by the Square Division, which could use up to 1 200 units.
- i) Determine the minimum transfer price per unit that the Circle Division would be willing to accept. (1)
 - ii) Determine the maximum transfer price per unit that the Square Division would be willing to pay. (2)
- d) Determine the target mark-up per unit as well as the target price per unit for the Hexagon Division. (4)
- e) Explain the three major limitations of cost-plus pricing. (3)

QUESTION 6

Bikes 'R' US Ltd manufactures mountain bikes and BMX bikes. The manufacturing of each type of bike is managed under separate divisions. The company currently has two divisions, namely the Mountain Bike Division and the BMX Bike Division. The managing board of directors of Bikes 'R' US Ltd are concerned about the performance of the BMX Bike Division. Although the board acknowledge that the division is profitable, their view is that the BMX Bike Division can perform better, especially if the division increases its capacity.

The management accountant of the company made the following financial information available for the BMX Bike Division:

	70% capacity	80% capacity
Number of bicycles	7 650	8 743
Sales	R6 854 400	R7 824 985
<u>Less:</u>		
Expenses	R5 883 400	R6 413 208
Variable cost	R1 958 400	R2 238 208
Semi-variable cost	R2 125 000	R2 375 000
Fixed cost	R1 800 000	R1 800 000
Net income	R971 000	R1 411 777

Additional information

1. The current operating capacity is 80%.
2. The company is a member of the bargaining council for bicycle manufacturers and as the strike season is approaching, the biggest union, Bicycle Manufacturing SA (BMSA), has declared their intention to strike. The strike may affect the sales of bicycles.
3. There is an expected increase of 5% on variable cost on the current operating capacity.

Required

- a) Calculate the margin of safety ratio and explain its significance in relation to the intention by BMSA. (13)
- b) Calculate the degree of operating leverage. (3)

ANNEXURE C

COMPULSORY ASSIGNMENT 01/2015 – SECOND SEMESTER

YOU MUST COMPLETE THIS ASSIGNMENT IF YOU ARE REGISTERED FOR THE SECOND SEMESTER.

THE MARK YOU EARN FOR COMPULSORY ASSIGNMENT 01 WILL CONTRIBUTE 25% TOWARDS YOUR SEMESTER MARK, WHICH WEIGHS 20% IN THE CALCULATION OF YOUR FINAL MARK.

This assignment must be completed on the mark-reading sheet supplied. Mark-reading sheets may be submitted either by post or electronically via myUnisa. Please refer to the *myStudies@Unisa* brochure on how to use and complete a mark-reading sheet. For information on how to submit an assignment through myUnisa refer to paragraph 6.6 of Tutorial Letter 101/2015.

Please remember to enter the **correct** unique number of the assignment on the mark-reading sheet.

DUE DATE: SEMESTER 2: 17 August 2015

UNIQUE NUMBER: 596215

Assignment 01/2015 SECOND SEMESTER

This assignment consists of 20 multiple-choice questions. Each question must be considered independently, unless specific reference is made to information in another question. Each question has only one correct answer.

The following information must be used for purposes of answering questions 1 to 4.

Wooden (Pty) Ltd is a manufacturer of wooden chairs. The company uses pine tree boards in the manufacturing of these chairs. In order to meet the annual demand, the annual production of the chairs requires 40 000 pine tree boards. The following information regarding these boards is available:

Normal purchase price per board	R20
Safety inventory level	20 boards
Ordering cost per order	R100
Direct inventory holding costs	R2 per board per annum
Insurance cost	5% of the normal purchase price per board per annum

Wooden (Pty) Ltd borrows funds at a 12% interest rate to finance inventories.

Lottery (Pty) Ltd, a supplier of wooden chairs and pine tree boards, has offered to sell pine tree boards to Wooden (Pty) Ltd at a cost of R19 per pine tree board should the company place 40 orders per annum. If the special order is accepted, the holding cost per board will be equivalent to the holding cost per board in the case of the economic order quantity (EOQ) inventory model being applied. The only **additional** cost is warehouse costs that will amount to R300 per month.

The safety inventory level will be maintained throughout the year irrespective of which inventory model is applied.

QUESTION 1

The EOQ of Wooden (Pty) Ltd is...

- (1) 2 000 boards.
- (2) 1 218 boards.
- (3) 1 349 boards.
- (4) 1 633 boards.
- (5) None of the above options.

QUESTION 2

The total inventory holding cost of Wooden (Pty) Ltd, if the EOQ model is applied, is...

- (1) R3 288,60.
- (2) R6 685,20.
- (3) R3 396,60.
- (4) R1 887,00.
- (5) None of the above options.

QUESTION 3

Assume that the holding cost is R5,40 per board per annum, if the special order is accepted. This excludes the additional warehouse cost to be incurred because of the special order.

The total cost for the special order is...

- (1) R766 808.
- (2) R762 808.
- (3) R810 408.
- (4) R770 408.
- (5) None of the above options.

QUESTION 4

Assume that the holding cost is R5,40 per board per annum, if the special order is accepted. This excludes the additional warehouse cost to be incurred because of the special order.

The total savings or total loss, if the special order is accepted, is...

- (1) Savings of R36 288,60.
- (2) Savings of R39 888,60.
- (3) Savings of R43 888,60.
- (4) Loss of R3 711,40.
- (5) None of the above options.

The following information must be used for purposes of answering questions 5 to 8.

Eddor (Pty) Ltd (Eddor) is a retail group with interests in the clothing industry. Eddor operates an absorption costing system, and costs other than the cost of goods sold are apportioned on an arbitrary basis. Operating results for its three departments for the financial year ended 31 July 2015 are as follows:

	Departments			Total
	Clothes	Bags	Bedding	
	R	R	R	R
Sales	3 000 000	1 000 000	2 000 000	6 000 000
<u>Less: Cost of sales</u>	2 200 000	600 000	900 000	3 700 000
<u>Less: Variable costs</u>	20 000	30 000	40 000	90 000
<u>Less: Other costs</u>	330 000	150 000	120 000	600 000
Profit	450 000	220 000	940 000	1 610 000

A detailed analysis of "Other costs" shows that they are overhead costs consisting of:

	R
Administrative costs	210 000
Material handling costs	180 000
Marketing costs	150 000
Building insurance costs	60 000
	<u>600 000</u>

The following information is also available:

	Clothes	Bags	Bedding	Total
Number of units sold	15 000	11 000	16 000	42 000
Number of orders received	13 000	6 000	11 000	30 000
Number of new customers	20	27	13	60
Floor space (square metres)	8 500	4 500	12 000	25 000

The following pairing of cost drivers to cost pools has been determined:

Activity	Driver
Administrative costs	Number of units sold
Material handling costs	Number of orders received
Marketing costs	Number of new customers
Building insurance costs	Floor space

QUESTION 5

The total marketing cost allocated to the Bags department according to the activity-based costing (ABC) method is...

- (1) R36 000.
- (2) R50 000.
- (3) R67 500.
- (4) R65 600.
- (5) None of the above options.

QUESTION 6

The profit of the Bedding department according to the ABC method is...

- (1) R881 500.
- (2) R1 060 000.
- (3) R556 600.
- (4) R852 700.
- (5) None of the above options.

QUESTION 7

The total overhead costs of the Bags department according to the ABC method are...

- (1) R151 800.
- (2) R223 400.
- (3) R207 300.
- (4) R169 300.
- (5) None of the above options.

QUESTION 8

The total profit of the Clothes department according to the ABC method is...

- (1) R881 500.
- (2) R556 600.
- (3) R1 060 000.
- (4) R852 700.
- (5) None of the above options.

Use the following information to answer question 9.

A worker is able to make fewer mistakes and to complete a certain task in less time as he/she gains experience in repeating the same task. It took a worker 30 hours to manufacture the first unit and 24 hours to manufacture the second unit. The learning curve applies to the manufacturing of the first 32 units by the worker.

QUESTION 9

Round off all workings to two decimal places.

The total time it takes the worker to manufacture units 17 to 32 is...

- (1) 118 hours.
- (2) 316 hours.
- (3) 567 hours.
- (4) 252 hours.
- (5) None of the above options.

Use the following information to answer question 10.

The following information pertains to the manufacture of specialised drilling equipment:

Time taken to manufacture the **second** unit: 5 700 hours

Learning curve: 80%

QUESTION 10

The cumulative average time per unit for the manufacturing of the first 16 units (rounded off to two decimal places) is...

- (1) 9 500,00 hours.
- (2) 4 864,00 hours.
- (3) 3 891,20 hours.
- (4) 2 918,41 hours.
- (5) None of the above options.

The following information must be used for purposes of answering questions 11 and 12.

Speedy Services Ltd is a local courier company specialising in deliveries in Gauteng. You have been provided with the following information relating to the last six months:

Σ (Number of deliveries)	1 350
Σ (Sales revenue)	R19 200
Σ (Number of deliveries ²)	3 212 500
Σ (Sales revenue ²)	R632 200 000
Σ (Number of deliveries x Sales revenue)	R44 725 000

Relevant formulae:

$$y = a + bx$$

$$\Sigma y = an + b\Sigma x$$

$$\Sigma xy = a\Sigma x + b\Sigma x^2$$

Hint

The cost equation $y = a + bx$ represents a straight line, where:

y = total cost; the dependent variable

a = total fixed costs; the intercept on the y-axis

b = variable cost per unit of activity; the slope of the straight line

x = activity level (for example, volume of unit manufactured, machine hours, inspection hours, etc); the independent variable

QUESTION 11

The value of the slope of the regression line (rounded off to two decimals) is...

- (1) 13,89.
- (2) 14,29.
- (3) 8,71.
- (4) 74,75.
- (5) None of the above options.

QUESTION 12

The intercept on the y-axis of the linear equation graph is...

- (1) Somewhere between R74 and R77.
- (2) Somewhere between R12 and R14.
- (3) R3 200.
- (4) R19 200.
- (5) None of the above options.

The following information must be used for purposes of answering questions 13 to 16.

Ukuhlanza Liquid Ltd manufactures a single product by means of a single manufacturing process and uses a process costing system.

The following information for September 2015 is available:

Work in process	- 1 September 2015	20 000 units
• Material	- 100% complete	R135 500
• Conversion cost	- 50% complete	R 58 240

100 000 units put into production in September:	
• Material	R488 800
• Conversion costs	R243 750

Units completed and transferred:	75 000 units
----------------------------------	--------------

Work in process	- 30 September 2015	20 000 units
• Material	- 100% complete	
• Conversion cost	- 65% complete	

Additional information

1. Normal losses are estimated at **20%** of the input that reaches the wastage point.
2. Losses occur when the process is **55%** completed.
3. Material is added at the beginning of the process.
4. Conversion costs are incurred evenly throughout the process.
5. Ukuhlanza Liquid Ltd values its stock according to the first-in, first-out (FIFO) method.

QUESTION 13

Determine the equivalent units in terms of material for Ukuhlanzi Liquid Ltd for the month of September 2015.

- (1) Long method: 80 000 units; short-cut method: 104 000 units
- (2) Long method: 120 000 units; short-cut method: 96 000 units
- (3) Long method: 104 000 units; short-cut method: 80 000 units
- (4) Long method: 93 750 units; short-cut method: 80 550 units
- (5) None of the above

QUESTION 14

Determine the equivalent cost per unit in terms of conversion for Ukuhlanzi Liquid Ltd for the month of September 2015.

- (1) Long method: R3,0261; short-cut method: R2,6000
- (2) Long method: R2,6000; short-cut method: R3,0261
- (3) Long method: R4,7000; short-cut method: R6,1100
- (4) Long method: R6,1100; short-cut method: R4,7000
- (5) None of the above

QUESTION 15

Determine the total rand value assigned to the abnormal loss units of Ukuhlanzi Liquid Ltd for the month of September 2015.

Hint: You need to prepare the quantity statement, production cost statement (round amounts off to 4 decimals) and cost allocation statement to obtain the correct answer. In your cost allocation statement, only round off the final amounts to two decimals.

- (1) Long method: R7 774,34; short-cut method: R7 776,36
- (2) Long method: R7 776,50; short-cut method: R6 130,34
- (3) Long method: R6 130,00; short-cut method: R7 776,50
- (4) Long method: R7 776,50; short-cut method: R6 130,00
- (5) None of the above

QUESTION 16

If losses occur **at the end** of the process and Ukuhlanza Liquid Ltd values stock according to the **weighted average method**, determine the equivalent units in terms of material for Ukuhlanzi Liquid Ltd for the month of September 2015.

- (1) 113 000 units
- (2) 120 000 units
- (3) 100 000 units
- (4) 80 000 units
- (5) None of the above

The following information must be used for purposes of answering questions 17 to 20.

CD Limited operates a chemical process plant that produces four different products E, F, G and H from the input of one type of raw material and water. Budgeted information for the forthcoming financial year is as follows:

Product	Output in litres	Further processing cost (R)	Sales (R)
E	300 000	120 000	576 000,00
F	85 000	115 000	219 111,11
G	6 000	0	38 400,00
H	12 000	10 000	320 000,00

Joint costs

Raw material	R250 000
Initial processing cost	R394 000

The company policy is to apportion joint costs at the split-off point based on the net realisable value (NRV) method. Currently, the intention is to sell product G without further processing but to process the other three products further after the split-off point. However, it was proposed that an alternative strategy would be to sell all four products at the split-off point without further processing. If this were done, the selling prices per unit obtainable would be as follows:

Product	Selling price per unit
E	R1,05
F	R1,60
G	R6,40
H	R22,00

[Adapted from Drury]

QUESTIONS 17 TO 20

Round off the percentage of estimated (product NRV at split-off point)/(total NRV at split-off point) to two decimals, for example xx,xx%, before allocating the joint cost based on this percentage.

QUESTION 17

If the current intention is proceeded with and joint costs are apportioned using the NRV method, the profit of product F is...

- (1) R30 308,71.
- (2) R132 763,45.
- (3) R90 255,85.
- (4) R111 180,08.
- (5) None of the above.

QUESTION 18

If the current intention is proceeded with and joint costs are apportioned using the NRV method, the total cost of production for product H is...

- (1) R420 955,00.
- (2) R229 732,80.
- (3) R219 744,15.
- (4) R120 000,00.
- (5) None of the above.

QUESTION 19

If the alternative strategy is used, the profit/(loss) for product E is...

- (1) Profit: R8 223,60.
- (2) Profit: R58 000,00.
- (3) Loss: R8 223,60.
- (4) Profit: R66 000,00.
- (5) None of the above.

QUESTION 20

If the alternative strategy is used, the total cost for product G is...

- (1) R26 241,20.
- (2) R20 724,40.
- (3) R32 546,20.
- (4) R27 241,20.
- (5) None of the above.

ANNEXURE D

ASSIGNMENT 02/2015, SECOND SEMESTER

YOU MUST COMPLETE THIS ASSIGNMENT IF YOU ARE REGISTERED FOR THE SECOND SEMESTER.

You must write and post this assignment or type and submit it as a PDF document online on *myUnisa*. **The lecturers prefer that you submit the assignment on *myUnisa*** as postal strikes cause unnecessary delays in the marking and sending back of assignments.

DUE DATE: SEMESTER 2: 7 September 2015

UNIQUE NUMBER: 596223

ASSIGNMENT 02/2015, SECOND SEMESTER

Question	Topic	Marks	Minutes
1	Budgeting	12	14
2	Standard costing	18	22
3	Divisional financial performance measures	14	17
4	Relevant costing	25	30
5	Transfer pricing and long-term external price setting	20	24
6	Cost-volume profit analysis	11	13
		100	120

Please note that it is practice in our Department to mark selected sections of a written assignment only. You can therefore not afford to leave out any questions as they might form part of the selected questions for marking.

We will not inform you upfront which question(s), or parts thereof, we will select for marking. Do not phone us to ask which questions will be marked. We will not tell you!

QUESTION 1

Aida (Pty) Ltd manufactures two products, namely Yippee and Hippie. The following information is available for the year ended 30 June 2015:

Product	Yippee	Hippie	Total
Number of units sold	15 000	26 875	41 875
Budgeted machine hours	7 000	8 000	15 000
Budgeted direct labour hours	10 000	6 000	16 000
Previously budgeted selling price*	R200/unit	R145,45/unit	

*New information obtained from extensive market research became available shortly after the initial budget was set and this had a positive effect on the expected demand for products Yippee and Hippie. The information indicated that the selling price would increase by 10% from the previously set prices, as the products became extremely popular overnight.

Budgeted statement of profit or loss and other comprehensive income of Aida (Pty) Ltd for the year ended 30 June 2015:

	Yippee R	Hippie R	Total R
Sales	?	?	?
<u>Less: Direct materials</u>	900 000	800 000	1 700 000
<u>Less: Direct labour</u>	1 200 000	2 300 000	3 500 000
<u>Less: Variable overhead costs (note 1)</u>	?	?	200 000
Contribution	?	?	
<u>Less: Fixed overhead costs (note 1)</u>	?	?	1 200 000
Operating profit			?
<u>Less: Finance cost (note 2)</u>			?
Net profit before tax			?

Additional information

1. A detailed analysis of the overhead costs shows that they are made up of a portion of overheads that are driven by the number of machine hours used and a portion of overheads that are driven by labour hours. These overheads are fixed in nature. The remaining overheads classified as "Other overheads" are variable costs that vary in line with labour hours. The details are as follows:

Overhead cost	R
Machine hour related	550 000
Labour hour related	649 950
Other overheads	200 000
Total	1 400 000

2. Aida (Pty) Ltd has a loan from PEP Bank of R3 200 000 that bears interest at 10% per annum payable in advance.

Hint: Round activity rates off to three decimals. The activity rate can be calculated by dividing the activity cost by the cost driver volume (for example, machine hours). Multiplying the activity rate by the cost driver volume calculates the allocated amount.

Required

Prepare a budgeted statement of profit or loss and other comprehensive income of Aida (Pty) Ltd for the year ended 30 June 2015, which is more useful for decision-making purposes and shows the overheads per product type. Your statement should have columns for each product type as well as a total column. Round all amounts off to the nearest cent. (12)

QUESTION 2

This question consists of two independent parts.

PART A

A company manufactures an industrial chemical, Idynamite, using two compounds Rap and Zap. The **standard** materials usage and cost of one unit of Idynamite are as follows:

		R
Rap	5 kg at R2 per kg	10
Zap	10 kg at R3 per kg	30
	<u>15 kg</u>	<u>40</u>

In the period under review, 80 units of Idynamite were produced from 500 kg of Rap and 730 kg of Zap.

Required

- a) Calculate the following variances:
- i) Materials mix variance per material type and in total (3½)
 - ii) Materials yield variance per material type and in total (3½)
 - iii) Explain and interpret the total material mix and total material yield variances. (4)
 - iv) Evaluate whether the following statement is true or false:
If a fixed overhead volume capacity variance is adverse, it could possibly indicate a failure to utilise available capacity caused by machine breakdowns, material shortages or poor production scheduling. (1)

PART B

OK Limited sells two products, namely, product O and product K. The following details apply to the two respective products for the 2015 financial year.

The actual contribution per unit of product O amounted to R4,20 and that of product K to R5,80, while the standard contribution per unit is R4 per unit of product O and R6 per unit of product K.

	Product O	Product K
Budgeted data		
Selling price per unit	R10	R15
Sales volume (units)	10 000	10 000
Actual data		
Total sales	R110 400	R140 800
Units sold	9 200	8 800

Required

Calculate the following variances:

- a) Sales price variance per product type (2)
- b) Sales mix variance per product type (2)
- c) Sales quantity variance per product type (2)

QUESTION 3

Key Division, which forms part of Amper All Group, is considering an investment opportunity to which the following estimated information relates:

1. Initial investment of R60 000 in machinery at the beginning of year 1, will be depreciated on a straight-line basis over a three-year period with nil residual value at the end of the three years.
2. Net cash flows are as follows:

Year 1 = R17 000

Year 2 = R24 000

Year 3 = R38 000

The accountant of the Amper All Group has correctly estimated that the net present value of the investment would be R3 839,22 using a cost of capital of 10%.

3. A bonus scheme that is based on short-term performance evaluation has been implemented in all divisions within the Amper All group.

Hint: Use the asset value at the beginning of each year to calculate the cost of capital of the investment.

Required

- a) Calculate the residual income of the proposed investment for each of the three years and comment briefly on the values obtained in reconciling the short-term and long-term views. (11)
- b) Discuss what steps can be taken to avoid dysfunctional behaviour which may be motivated by this bonus scheme. (3)

[Adapted from Drury]

QUESTION 4

Deer (Pty) Ltd (Deer) is a manufacturer of bamboo window blinds. MaKroo approached Deer to manufacture 12 000 bamboo-type blinds once off to be delivered in three months' time.

The following information is available regarding the proposal:

1. The company will have to work overtime in order to meet the supply of these blinds. The current labour rate per hour is R10 and the overtime rate is 50% more than the normal rate. It is estimated that each blind will require two hours to complete.
2. The company will appoint a specialist designer to assist with the design of the bamboo blinds at a cost of R22 000.
3. The site supervisor will oversee the production of these blinds. In addition to his normal monthly salary of R10 000 per month, the company will pay him a once-off incentive (or

“bonus”) of R3 000. While overseeing this project, the company will appoint a contractor to execute the supervisor’s normal duties at a rate of R7 500 for the next three months.

4. Bamboo material will be required to manufacture these blinds. One bamboo blind requires 1kg of this material. There is 8 000 kg of this material in inventory at present. The company uses this material regularly in the manufacturing process. This material was bought at a cost of R5 per kilogram. Currently, the bamboo material cost R4 per kilogram.
5. Each bamboo blind requires four metres of steel which is screwed to the walls at a cost of R0,50 per metre. There is currently no steel on hand. In addition to the steel requirement, screws at a cost of R2 per screw are also required. Each bamboo blind needs two screws. The company currently has 22 000 of this type of screws on hand. The screws currently on hand have no other use.
6. Fixed manufacturing overheads amount to R110 000 per annum. This proposal will have no impact on the total overheads of the company.
7. Specialised equipment is required for this proposal. The equipment will cost R20 000 and will be sold for R12 000 at the end of the three months.
8. In order to meet the proposal, the company will have to rent container space at a cost of R11 000 per month. The containers will be delivered to and from the site at a total cost of R9 000. They will be insured at an additional cost of R3 000 per month.
9. A management fee of R30 000 is allocated to each production line on an arbitrary basis. These costs will simply be allocated to another production line if the blinds are not manufactured.
10. The company policy is to add a 20% mark-up on total relevant costs to arrive at a selling price.

Required

Determine the price that Deer (Pty) Ltd should charge for the proposal. Give reasons for inclusion and exclusion of amounts in your calculations. (25)

QUESTION 5

The Strings Division of Tennis Mania Ltd sells all of its output, 30 000 rolls of string per annum, to the Racquets Division. The only product of the Strings Division is strings that the Racquets Division uses in its tennis racquets. The retail price of the strings is R100 per roll. Cost data for 2015 of the Strings Division is as follows:

Direct materials	R675 000
Direct labour	R450 000
Factory overheads (25% is variable)	R450 000
Operating expenses (20% is variable)	R750 000

The Grips Division is considering investing in a new product, called "Overgrips". The cost price per unit for this product will be R40 and the annual demand for the new product will be 40 000 units. The new product requires an investment of R2 000 000 and the target divisional rate of return on investment is 15%.

Required

- a) Briefly describe in which context a transfer price based on marginal cost would be appropriate. Describe any issues that may arise from such a transfer pricing policy. (4)
- b) Calculate the transfer price per roll of string that the Strings Division would charge to the Racquets Division using:
 - i) Market price (1)
 - ii) Variable product costs plus a fixed fee of 20% (4)
 - iii) Full cost plus 10% mark-up (4)
 - iv) Variable/Marginal cost (3)
- c) Determine the target mark-up per unit for the Grips Division as well as the target price per unit for this division. Round off all your figures to two decimals. (4)

QUESTION 6

AB Group produces and sells two products at the following cost:

	Product A	Product B	Total
Sales price per unit	R7,00	R9,00	
Variable cost	R0,70	R2,78	
Fixed cost			R 1 200 000

Total sales revenue is currently generated by the two products in the following proportion:

Product A	3 units
Product B	5 units

Required

- a) Calculate the breakeven sales value per period based on the sales mix assumed above. (7)
- b) Calculate the required sales value to achieve net profit of R150 000 per year. (4)

ANNEXURE E

ASSIGNMENT 03/2015, FIRST AND SECOND SEMESTER

YOU MUST COMPLETE THIS ASSIGNMENT IF YOU ARE REGISTERED FOR THE FIRST OR SECOND SEMESTER.

THIS ASSIGNMENT IS FOR SELF-ASSESSMENT AND SHOULD NOT BE SUBMITTED FOR MARKING. THE SUGGESTED SOLUTION WILL BE MADE AVAILABLE EARLY IN THE SEMESTER IN ORDER FOR YOU TO REVIEW YOUR ANSWERS.

THIS ASSIGNMENT DOES NOT CONTRIBUTE TOWARDS YOUR SEMESTER MARK.

**DUE DATE: SEMESTER 1: 21 April 2015
SEMESTER 2: 28 September 2015**

UNIQUE NUMBER: 596068

ASSIGNMENT 03/2015, FIRST & SECOND SEMESTER

QUESTION 1 (46 marks; 55 minutes)

Important note: It is unlikely that you will get such a long question in the exam focusing on only one topic, but the question is on an examinable standard and tests very important principles.

Feet Treat (Pty) Ltd. has an online shop. The online shop sells bath mats of two different sizes: small (standard price R200 per mat) and regular (standard price R250 per mat).

Each mat consists of a non-slip rubber base and an upper part of soft fabric.

The company values inventory based on the standard absorption costing method. No finished goods or raw materials inventory is kept, as the online shop uses a JIT system for purchases and production.

Standard variable costs per mat are as follows:

	Small mat	Regular mat
Rubber (R24 per m ²)	R36,00	R48,00
Soft fabric (R15 per m ²)	R27,00	R37,50
Direct labour (Small mat: 15 productive minutes; regular mat: 24 productive minutes)	R20,00	R32,00
Variable manufacturing overheads (allocated based on output units)	R19,00	R24,50

Fixed manufacturing overheads (budgeted at R896 100 for the month of July) are allocated to products based on productive direct labour hours – the total normal capacity of the 55 factory workers is to work 8 700 productive hours per month.

Assume that there were no non-manufacturing costs involved.

The actual sales for July consisted of 5 000 small mats at R180 each and 20 000 regular mats at R260 each. The small mats used 9 000 m² of rubber and 10 000 m² of soft fabric, whereas the regular mats used 44 000 m² of rubber and 52 000 m² of soft fabric.

The standard is to allow 10% idle time, but actual idle time amounted to only 360 of the total of 9 000 hours actually clocked. The small mats used 1 296 of the productive hours actually worked. Labourers were paid R84 per clock hour.

Actual variable manufacturing overheads amounted to R17,50 per small mat and R25 per regular mat. Actual fixed manufacturing overheads were R915 840.

The management accountant has compiled the following incomplete and insufficient reconciliation of budgeted and actual profit (the numbers, however, are correct where provided):

(F = Favourable; A = Adverse)

	R
Budgeted profit (based on 24 000 total budgeted sales units in the mix of small mats to regular mats 1:3)	1 635 900
Add/less: Unknown variance(s)	<u> ?</u>
Standard profit	1 697 250
Add/less:	<u> ?</u>
Material purchase price variance	80 000 (F)
Rubber	106 000 (A)
Soft fabric	186 000 (F)
Other material variances	?
Labour variances	?
Variable manufacturing overhead efficiency variance	0
Other (unknown) variances	<u> ?</u>
Actual profit	<u><u>1 718 660</u></u>

REQUIRED

- Calculate the actual price per m² of rubber and per m² of soft fabric. (4)
- Redo the reconciliation of budgeted and actual profit showing all the individual variances that are applicable in as much detail as possible to the extent that information is provided in the question, as well as whether each of them is favourable or adverse. You do not have to split the fixed overhead variances between products. (42)

QUESTION 2 (25 marks; 30 minutes)

This question consists of two independent parts.

PART A (16 marks; 19 minutes)

Travelfrenzy Ltd manufactures suitcases. The company values inventory based on the standard **absorption** costing method. Materials are recorded at actual costs. There were no raw materials, work-in-process or finished goods inventory at the beginning or end of 2014.

The following actual results are available for the 2014 year:

Number of suitcases manufactured (demand is unlimited)		80 000
		R
Material purchased	83 000kg	19 090 000
Direct labour	119 500 hours	12 350 000
Variable overheads (recovered based on units produced)		6 000 000
Fixed overheads		1 500 250

Additional information:

1. Material issued to production = 81 050 kg.
2. The actual sales for 2014 amounted to R88 000 000 (80 000 suitcases).

Management of Travelfrenzy Ltd is considering investing in a new machine that could perhaps boost their manufacturing capacity. The estimated annual number of suitcases produced and sold and probabilities based on different output levels are as follows:

No. of suitcases	Probability
61 000	0,10
73 000	0,15
74 500	0,18
80 000	0,24
87 000	0,22
95 000	0,11

REQUIRED

- (a) Calculate the actual breakeven sales volume in units for 2014. (5)
- (b) Calculate the actual breakeven sales value for 2014. (1)
- (c) Calculate the units to be sold to obtain a R2 000 000 profit for 2014. The effect of taxation can be ignored. (2)
- (d) Calculate the expected number of suitcases the new machine will manufacture and advise management whether the new machine should be bought. (4)
- (e) Explain the meaning of the terms standard deviation and coefficient of variation as measures of risk (4)

Round all your answers to two decimals.

PART B (9 marks; 11 minutes)

Multique (Pty) Ltd. sells two types of eye moisturisers: I-gel and I-creme. The following is an extract from budget documents for the financial year ended 31 March 2015:

	I-gel	I-creme
Selling price per unit	R120	R160
Total contribution	R720 000	R1 000 000
Sales units	16 000	10 000
Direct fixed costs (avoidable)	R240 000	R300 000

Common fixed costs amount to R225 400 and can be avoided if no I-gels and no I-cremes are sold.

REQUIRED

- (a) Calculate the breakeven units for 2014 based on the standard product mix. (5)
 (b) Calculate the breakeven sales value for 2014. (4)

[Drury adapted]

QUESTION 3 (13 marks; 16 minutes)

Summary financial statements are given below for one division of a large divisionalised company.

Summary divisional financial statements for the year ended 31 December 2014

	<i>Balance sheet</i>		<i>Income statement</i>	
	<i>R '000</i>		<i>R '000</i>	
Non-current assets	1 500		Revenue	4 000
Current assets	<u>600</u>		Operating costs	<u>3 600</u>
Total assets	<u>2 100</u>		Operating profit	400
			Interest paid	<u>70</u>
Divisional equity	1 000		Profit before tax	<u>330</u>
Long-term borrowings	700			
Current liabilities*	<u>400</u>			
Total equity and liabilities	<u>2 100</u>			

*Current liabilities are made up of normal trade payables and creditors.

Additional information:

- It is not the normal nature of this company to borrow/supply loans. The cost of capital for the division is estimated at 12% per year.
- Annual rate of simple interest on the long term loans is 10%.
- The respective divisions may not use their own discretion on how they borrow money. Head office is responsible for financing decisions.

REQUIRED

- a. Calculate the divisional Return on Investment (ROI) for the year ended 31 December 2014. (2)
- b. Calculate the divisional Residual Income (RI) for the year ended 31 December 2014. (2)
- c. State which method of performance evaluation (i.e. ROI or RI) would be more useful when comparing divisional performance and why. (2)
- d. Evaluate whether each of the following statements is true/false:
 - i. If head office expenses are allocated to the divisions based on gross income, they should be excluded from the controllable profit calculation. (1)
 - ii. Employment equity statistics of the respective divisions should be ignored when assessing the performance of the divisions. (1)
 - iii. Divisional profit contribution is the controllable profit, less any non-controllable expenses that are attributable to a division, and which would be avoidable if the division was closed. (1)
- e. Explain the difference between managerial and economic performance and state whether it includes controllable and/or non-controllable items, or not. (4)

[CIMA Adapted]



Additional explanatory note on Return on investment (ROI):

Return on investment: Only controllable operating profit and controllable operating assets/liabilities should be taken into account in the calculation of ROI. Net operating profit is profit before interest and taxes and is sometimes referred to as EBIT (earnings before interest and taxes).

Thus: depending on whether it is the normal nature of the company to borrow/supply loans, the interest on these loans should be taken into account (if part of operational activities) or excluded from the operating profit of the company.

QUESTION 4 (12 marks; 14 minutes)

Professional Processors (Pty) Ltd. uses a process costing system. The following information is available regarding quantities for January 2014:

	Units
Opening WIP – 1 Jan. 2014 (20% complete with regard to conversion)	25 000
Put into production during January 2014	75 000
Completed and transferred	80 000
Closing WIP – 31 Jan. 2014 (70% complete with regard to conversion)	5 000

The company uses the weighted average method of inventory valuation. Raw materials are added at the beginning of the process. Conversion occurs evenly throughout the process.

REQUIRED

- (a) Prepare a quantity statement for January 2014 assuming that wastage occurs when the process is 60% complete (use the short-cut method if the requirements for its use are met). Normal losses amount to 4% of units that reach the wastage point. (6)
- (b) Prepare a quantity statement for January 2014 assuming that wastage occurs evenly throughout the process (use the short-cut method) and are detected at the end of the process. Normal losses amount to 4% of units started in January 2014. (6)

QUESTION 5 (11 marks; 13 minutes)

ABC (Pty) Ltd is a medium sized manufacturer of plastic squeeze bottles in the Midrand area. The management accountant of the company provided you with the following information for the financial year ended 30 April 2014:

	Note	R
Sales	1	5 000 000
Dividends received	2	50 000
Cost of sales	3	2 000 000
Office equipment at cost	4	1 000 000
Machinery at cost	4	1 000 000

Additional information:

- The company expects sales to increase by 8% for the coming financial year. Sales are spread evenly throughout the year.
- The company invested R100 000 in the shares of Assus Ltd on 1 May 2013. Assus declared dividends on 31 March to all shareholders registered on 31 March 2014 and these dividends were payable on 30 June 2014.
- The cost of sales is expected to increase by 5% per annum for the coming year. This takes into account all changes in cost of sales, including the increase in sales. The purchases of raw materials are made evenly throughout the year. No inventories of any kind is held.
- Depreciation on office equipment is 20% per annum on the diminishing balance method and depreciation on machinery is 20% per annum on straight line method. Both the equipment and machinery were purchased on 1 May 2013.
- To finance the acquisition of office equipment and machinery and the operating expenses for the first six months the company borrowed R3 million from Abza Bank on 1 May 2013 at 8% simple interest per annum. The interest is payable annually on 30 April. The capital is repayable in full on 30 April 2018.
- For the financial year ended 30 April 2014, the company paid R16 000 per month on factory rental and R12 000 per month on vehicles rental. These are expected to increase by 5% and 6% respectively from 1 May 2014.
- For the financial year ended 30 April 2014, the company's monthly salaries bill was R120 000. A salary negotiation with the workers' union was settled at 6% for the forthcoming financial year.
- Administrative expenses were R15 000 per month and will increase by 7% per annum from 1 May 2014.
- A provision for income tax of R3 000 per month will be made for the forthcoming financial year.

REQUIRED:

Prepare the budgeted statement of profit or loss of ABC (Pty) Ltd for the six months ended 31 October 2014. State reasons for the omission of any items. (11)

QUESTION 6 (6 marks; 7 minutes)

Smart (Pty) Ltd is a distributor of scientific calculators amongst the other products it sells. The company operates for 250 days per annum. The annual demand for the calculators is 10 000 units evenly spread throughout the year. The company maintains a safety stock of 80 calculators.

Additional information:

Purchase price per unit	R30
Order costs per order	R200
Lead time	10 days
Cost of capital (after tax)	15%
Direct inventory holding costs	R5 per unit per year

REQUIRED:

- (a) Calculate the economic order quantity for calculators. (3)
- (b) Calculate the re-order point for the calculators. (3)

QUESTION 7 (13,5 marks; 16 minutes)

Split (Pty) Ltd is a manufacturer of three products: Wing, Zing and Xeng. The same type of activities is needed in the production process for production of the respective products. The budgeted production is 2 000 of Wing, 2 500 of Zing and 3 000 of Xeng. The selling price per unit is R55 for Wing, R70 for Zing and R58 for Xeng. The variable cost per unit is R1,85 for Wing, R2,62 for Zing and R3,58 for Xeng. The company uses activity based costing.

The total budgeted fixed manufacturing overheads are as follows for the budget period:

Material acquisition	R100 000
Material handling	R50 000
Machine setups	R80 000
Machine maintenance	R110 000
Indirect labour	<u>R60 000</u>
	<u>R400 000</u>

The above overhead items each represent an activity. Machine maintenance is required after a number of operating hours.

The analysis of the cost driver volumes for the budget period is as follows:

Cost driver	Cost driver volumes per product type			Total
	Wing	Zing	Xeng	
Machine setups	1	3	2	6
Machine hours	2	3	4	9
Indirect labour hours	3	4	6	13
Material movements	2	1	3	6
Number of orders	3	5	2	10

REQUIRED:

- (a) Indicate the most appropriate cost driver for each of the activities. (2,5)
 (b) Calculate the profit per unit of each product using the activity based costing approach. (11)

QUESTION 8 (12 marks; 14 minutes)

Tazz (Pty) Ltd is a civil engineering and construction company based in Centurion. The company is considering tendering for a short term local municipality project to construct five small pedestrian bridges. The chief engineer has approached you as the management accountant of the company regarding this project with the following information:

- Each bridge requires material A and material B. Material A is in stock and costs R10 000 per bridge. Material B will have to be sourced at a cost of R12 000 per bridge. Both material A and material B are regularly used by the company.
- Each bridge requires 10 hours of type A and 6 hours of type B labour. Direct labour cost is R3 000 per hour for labour type A and R1 000 for labour type B. Casual labourers will be employed for this for the duration of the project. Due to staff shortages the company will also have to hire an architect at a cost of R10 000 to do the drawings of bridges for this project.
- Administrative expenses specifically for the project will be R10 000. General overheads of R8 000 will be allocated to the project.
- The company will have to hire additional machinery and equipment for the project at a cost of R30 000. The company's own machinery and equipment was bought last year at a cost of R3 million.
- A competitor has tendered for this project at R115 000 per bridge.
- The company use a cost plus pricing policy. Prices are set at total cost plus 10%.

REQUIRED:

- (a) Calculate the selling price per bridge for the project and give reasons for any amounts excluded. (10)
 (b) List two other factors that the chief engineer should consider before tendering for the project. (2)

© UNISA 2015. All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means without prior written permission of Unisa.