

Tutorial Letter 101/3/2018

Engineering Management II (Module A) EMA2601

Semesters 1 and 2

**Department of Electrical and Mining
Engineering**

This tutorial letter contains important information
about your module.



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1 INTRODUCTION

Dear Student

Welcome to Unisa and this module, Engineering Management II (Module A). I hope that you will find this module useful and informative.

The objective of this letter is to introduce you to Engineering Management II (A) and to inform you about a few administrative arrangements. You will find the **three** assignments that must be completed and sent to the university in the addendum. **All three assignments are compulsory. You will not be permitted to write the examination if you do not submit all three assignments.**

Please note that this is a **semester module** that is offered in both the **first and second semesters** of 2018. Two sets of due dates are therefore provided – for the first and second semesters. Please select the assignments and due dates that apply to you.

2 PURPOSE AND OUTCOMES

2.1 Purpose

The purpose of this module is to provide you with an overview of a section of Engineering and Technology Management as well as related topics. This subject is quite broad and you will continue with this in another module such as Engineering Management II, Module B.

2.2 Outcomes

Once you have completed this module you should have a thorough understanding of

- the environment in which engineers, technologists, technicians and scientists work
- the principles of general management
- human resource management
- how to manage people and teams
- the marketing function

- the basics of project management
- the basics of engineering economics and operational budgeting
- the basics of cost estimating and cost engineering
- the basics of business and technology strategy

You will find detailed learning outcomes/study objectives for each study unit at the beginning of each prescribed chapter of the prescribed book.

3 LECTURER(S) AND CONTACT DETAILS

3.1 Lecturer(s)

Your lecturer for this module is Pule Dikgwatlhe. If you experience any problems with the subject matter, you can either go to the relevant **discussion forum** on **myUnisa** and inform me of your problem, or **contact** me as follows:

- by telephone on (011) 471-2087 (or 27 11 471-2087 if you are phoning from outside South Africa) between 8:00 and 16:00 on weekdays
- by **fax** on (011) 471-3703/3054 (027 11 471-3703/3054 internationally)
- by email (dikgwim@unisa.ac.za)
- personally - please make an appointment in advance

You may find answers to some of your questions on the *myUnisa* discussion forums. Your lecturer will assist you with queries of an academic nature, however, administrative queries must be directed to the numbers that you will find in the *my Studies @ Unisa* brochure. An e-tutor may be appointed for this module. You will find more information regarding that on myUnisa.

3.2 Department

This module is offered by the Department of Electrical and Mining Engineering. Please contact one of the department's secretaries at 011 471 3953 when your lecturer is not available.

3.3 University

You will find general Unisa contact details in the *my Studies @ Unisa* brochure. Remember to use your student number when contacting the university.

4 RESOURCES

The course material for this module consists of the following:

- this letter, TL101
- a study guide
- a prescribed book (which you must purchase yourself)
- a workbook; you will find a CD at the back of the prescribed book. On this CD you will find a workbook. An updated version of this will be uploaded to 'Additional resources' on myUnisa during the semester
- TL201 – this you will receive later, during the semester

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

4.1 Prescribed books

The following book is prescribed for this module:

Nel, WP. (ed.) 2012. *Management for engineers, technologists and scientists*. (3rd edition). Cape Town: Juta. (ISBN: 9780702186882)

Information on prescribed books can also be found on myUnisa. Please refer to the list of official booksellers and their addresses in the *my Studies @ Unisa* brochure. Prescribed books can be obtained from the university's official booksellers. If you have difficulty in locating the book at these booksellers, please contact the Prescribed Book Section at tel 012 429-4152 or email vospresc@unisa.ac.za.

The following chapters from the prescribed book must be studied:

3rd edition
Chapter 1 - The environment in which technical people work
Chapter 2 – Principles of general management
Chapter 3 – Human resource management

Chapter 5 – Managing people and teams
Chapter 11 – Marketing and Diffusion of Innovation
Chapter 13 – Principles of project management
Chapter 14 – Introduction to accounting, economics, financial management and budgeting
Chapter 15 – Cost estimating, cost engineering and cost management
Chapter 17 – Business and technology strategy

Note that the prescribed book is abbreviated as follows in this tutorial letter:

*Management for engineers, technologists and scientists, 3rd ed. – **METS-3***

“METS-3: 66” means page 66 of METS-3

You will find questions for self-evaluation purposes in the workbook as well as in the prescribed book at the end of each chapter.

4.2 Recommended books

There are no recommended books for this module.

4.3 Electronic reserves (e-reserves)

There are no e-reserves for this module.

4.4 Library services and resources information

For brief information, go to www.unisa.ac.za/brochures/studies

For detailed information, go to <http://www.unisa.ac.za/library>. For research support and services of personal librarians, click on "Research support".

The library has compiled a number of library guides:

- finding recommended reading in the print collection and e-reserves – <http://libguides.unisa.ac.za/request/undergrad>
- requesting material – <http://libguides.unisa.ac.za/request/request>
- postgraduate information services – <http://libguides.unisa.ac.za/request/postgrad>
- finding, obtaining and using library resources and tools to assist in doing research – http://libguides.unisa.ac.za/Research_Skills
- how to contact the library/finding us on social media/frequently asked questions – <http://libguides.unisa.ac.za/ask>

5 STUDENT SUPPORT SERVICES

Important information on student support services appears in your *my Studies @ Unisa* brochure.

Please note that no group discussions or video conferences have been scheduled for this module. However, a **tutorials discussion forum** has been created on **myUnisa**. Please make use of the tutorials. Your fellow students may also benefit from your questions and the ensuing discussions. An e-tutor may be appointed by Unisa to assist you with your questions.

myUnisa

Some of the tutorial matter may not be immediately available when you register. Tutorial matter that is not available when you register will be posted to you as soon as possible, but is also available on *myUnisa*.

It is important that you register on *myUnisa* and visit the website from time to time. In this way you will get access much quicker to study material than through the postal system. By means of *myUnisa* you will also be able to submit assignments, access the library functions, “chat” to your lecturer or fellow students and participate in online discussion forums.

A number of (myUnisa) **tutorials** will be uploaded to myUnisa during the semester. Please complete these and upload them to myUnisa. They will assist you with your studies and when preparing for the examination.

If you have not received the study guide, then you can track the parcel by means of *myUnisa* as follows:

The screenshot shows the 'Parcel Tracking' section of the myUnisa website. A sidebar on the left contains links to various services. The main content area includes instructions on how to track parcels, contact details for postal agents, and a table of tracking information for a specific student. Red callout boxes highlight important details: one points to the instruction to quote the tracking number, another points to the list of courier websites, a third points to the 'Date Processed' column, a fourth points to the 'Agent' column, and a fifth points to the 'Number' column.

Parcel Tracking

Please note that items sent by normal mail, including international airmail, such as books, are not tracked. Only parcels sent by registered couriers will be listed here.

The contact details for postal agents are as follows:

- SA Post Office at the following number: 0800-111-502 (toll-free from South Africa only) or +27-11-951-5000, and quote the relevant number.
- Skynet couriers can be contacted at +27-12-429-2981 or <http://www.skynet.co.za> (for South African deliveries) or <http://www.skynetwwe.com> for international destinations.

Student number:

Student 4003233 : MRS ELIZABETH SHILUVANE

Date Processed	Agent	Number
2009-03-17	SA Post Office	9F04003233001
2009-04-03	SA Post Office	PA366390211ZA
2009-04-07	SA Post Office	RD112492013ZA

my.unisa.ac.za - Production - Sakai 2.5.x - Server linuxnode4-sakai2

The purpose of this section is to provide information regarding how to get started with *myUnisa* and to activate your myLife account.

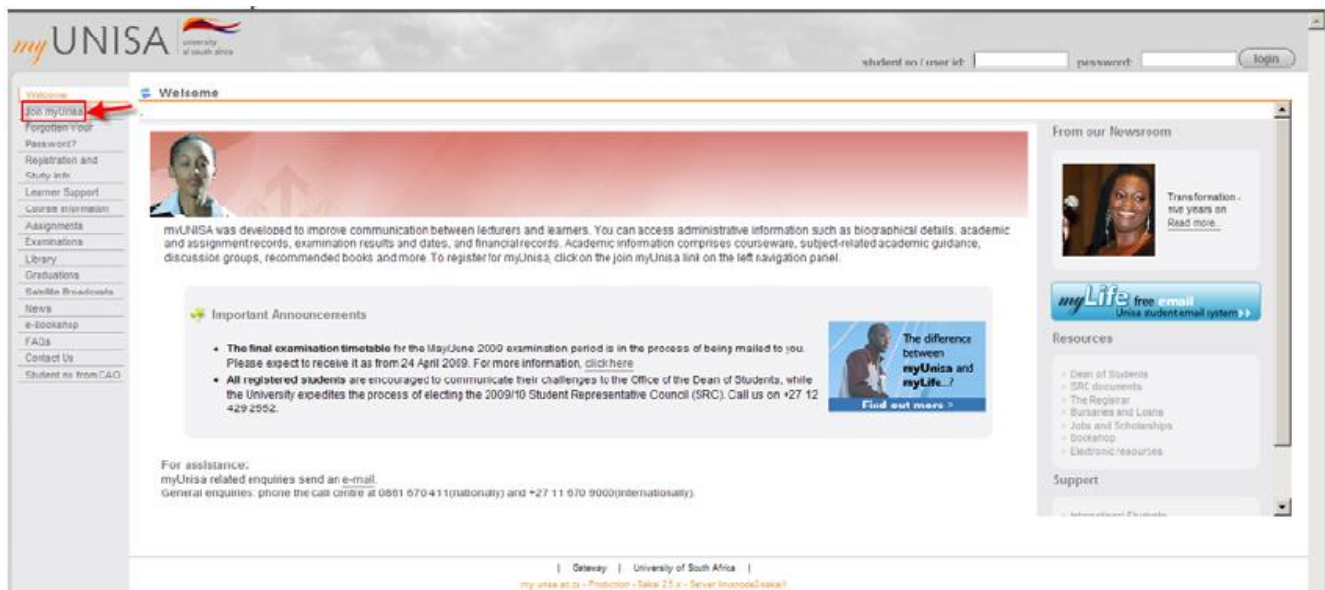
What is *myUnisa*?

myUnisa is a free, online student service offered to all students currently registered with Unisa. *myUnisa* is a website that gives you direct access to important Unisa information and allows you to update your personal details on the Unisa student system. It also gives you access to information about the modules you have registered for. Once you have registered on *myUnisa*, you can study online, consult your lecturers and contact the library and pay your account. What's more, you can join online discussion forums, submit your assignments, and get access to all sorts of learning resources.

How do I join *myUnisa*?

- Switch on your computer, connect to the internet and execute the following procedure:
 - Click the **Start** button.
 - Click Internet Explorer to start the internet web browser program.
 - Type the address of the *myUnisa* home page, i.e. <https://my.unisa.ac.za/portals>, into the uppermost input box on the screen.

- o The webpage below will appear on your monitor screen:
- o Click Join *myUnisa* below 'Welcome'.



- Follow the instructions to register on *myUnisa*.
- Provide your details (5-step process). **Read** the screens and complete the online form. Remember that you need to choose a password for *myUnisa*. **Do not forget this password.**
- Receive your *myLife* account details (address, email address and initial *myLife* password will be displayed at the end of these four screens). (**Do not forget this password.**)
- Accept your *myLife* email service by logging in at the address provided with the initial password given. Do not confuse this password with your *myUnisa* password.
- To finalise the join procedure, receive, read and click on the appropriate link of the confirmation email in your *myLife* box.
- Return to *myUnisa* and complete your registration. Note: Just claiming the *myLife* e-mail does NOT mean you are registered on *myUnisa*.
- If you cannot master this process, go back to the *myUnisa* homepage, select the "Contact Us" option and follow the on-screen instructions on how to get more help.

What is *myLife*?

Unisa in collaboration with Microsoft has created its own student email system (*myLife*) in recognition of the increasing need for, and reliance on, electronic communication. This is a free service and you may keep this email address for life, even after completing your studies with Unisa. You must be a registered Unisa student before you can claim your free email account. In

future, this will be the ONLY means of communication between Unisa and its students and will be considered an official communication standard between students and college faculty and staff. The use of the student email is a privilege, not a right, and the university maintains the right to limit access.

How do I claim my *myLife* e-mail?

Claim your free email by joining *myUnisa*. You will receive your initial password during the join process. In future all official correspondence from Unisa will be sent to this email address ONLY.

If you want to receive your email at another email address, eg your mobile phone, you have to set your email program to automatically redirect the *myLife* email messages to that address. Consult the help file of your email program for the necessary instructions.

6 STUDY PLAN

Consult the *my Studies @ Unisa* brochure for general time management and planning skills. You will find guidelines on *myUnisa* regarding the development of your own study schedule.

7 PRACTICAL WORK AND WORK-INTEGRATED LEARNING

There are no practicals for this module.

8 ASSESSMENT

8.1 Assessment criteria

You must complete and submit THREE assignments by the due dates. All three assignments are **compulsory** and by submitting the assignments you will gain access to the examination. All three assignments will be used to calculate your semester mark. This semester mark will form part of your final mark for the subject in a specific ratio. **Your performance in the assignments thus plays a vital part in your studies.** You need a final mark of 50% in order to pass this subject.

Remember that assignments are part of the learning process. They will deepen your understanding of the subject and allow you to apply what you are learning. The assignments will

also allow you to make mistakes that can be corrected by feedback (TL201) before you write the examination.

All three assignments consist of multiple-choice questions (MCQs) and you will need a mark reading sheet if you want to send it to Unisa via the postal system. The examination will, however, not only consist of MCQs. It is therefore important that you also prepare to answer other types of questions, for example short questions, longer questions and calculations where applicable. The **workbook** and the myUnisa **tutorials** will assist you with this.

You will find a number of **past examination papers** on myUnisa. Look at these as another type of assignment (assignment 04), but **do not submit** your answers. The **workbook** that is available on myUnisa, and the **myUnisa tutorials** based on it, will also provide you with an opportunity to test yourself. The workbook contains different types of questions on all the chapters of the prescribed book. Remember to focus on the prescribed chapters only.

8.2 Assessment plan

The semester mark for this subject is based on all the assignment marks obtained and their contribution towards the final mark are as shown in the table below.

Assignment number	Contribution towards year mark
01 – compulsory	34%
02 – compulsory	33%
03 – compulsory	33%

Your **semester mark** will count 20% towards your final mark (**final mark** = 0,8 x examination mark + 0,2 x semester mark). You need to obtain a minimum final mark of 50% to pass the subject.

Assignments may be submitted either electronically (via myUnisa) or physically (by mail). You can find out about your **assignment marks** from myUnisa.

Please note that your lecturer will not receive your (MCQ) assignments. Assignments will be received by the assignments department who will register it. Once they have registered the assignments you will be able to check this on *myUnisa* (see link on the www.unisa.ac.za website). Multiple-choice questions (assignments 01, 02 and 03) are marked by computer.

Guidelines for answering assignment 01, 02 and 03

Assignments 01, 02 and 03 must be answered on a **mark reading sheet** (unless you submit it electronically via *myUnisa*). Please **check immediately whether you have received such a sheet with your course material from Unisa**. Contact Unisa immediately (info@unisa.ac.za) if you do not have such a sheet. You will find instructions on how to complete a mark reading sheet in the booklet entitled **MyStudies@Unisa**. The assignment is marked by computer and therefore requires a unique number – see 8.2.1 of this tutorial letter. Further guidelines follow:

- Each assignment must be submitted with an assignment cover page unless you submit it electronically via *myUnisa*. Complete the assignment cover fully and **CORRECTLY**. Many assignments are not marked because of incorrect module codes. Attach the mark reading sheet to the assignment cover with a paper clip.
- **KEEP A COPY OF YOUR ASSIGNMENTS.** This is important as assignments can and do get lost.

Although the assignments aim to be fairly comprehensive, they do not cover the entire syllabus. They are set on sample areas of the course material. All course material should therefore be studied for the examinations.

Course material and tutorial letters for this subject are available in English only. Please note that the examination paper for this subject will also be available in English only.

8.3 Assignment numbers

8.3.1 General assignment numbers

Assignments are numbered consecutively per module, starting from 01.

8.3.2 Unique assignment numbers

Please note that all three assignments will be marked by means of a computerised system that requires a mark reading sheet (unless you submit your assignment via myUnisa). In addition to your name, address, student number, module code and assignment number, a unique assignment number must be filled in on the sheet.

Note the unique assignment numbers below. Please take a pen and **draw a line through the semester column that does not apply to you**. Students often submit assignments using the wrong unique number and this completely “confuses” the Unisa information system.

	Semester 1 of 2018	Semester 2 of 2018
Assignment 01	528307	846548
Assignment 02	841533	695467
Assignment 03	870932	667091

8.4 Assignment due dates

Assignment number	Assignment due dates		Feedback on assignment...	Examination period	
	Semester 1	Semester 2		Semester 1	Semester 2
01 (compulsory)	02 March 2018	15 Aug 2018	01 - TL 201	May/Jun 2018	Oct /Nov 2018
02 (compulsory)	14 March 2018	29 Aug 2018	02 – TL202		
03 (compulsory)	06 April 2018	19 Sept 2018	03 – TL203		

Please adhere to these due dates. No extensions will be granted on these dates because of the effect that this would have on the rest of Unisa’s systems. Late assignments will be returned unmarked by the assignment administration department. The suggested solutions for assignments 01, 02 and 03 will be sent to you in Tutorial letters 201, 202 and 203 after the due dates of each assignment.

8.5 Submission of assignments

You can submit the three MCQ assignments in any one of the following ways:

- 1) on mark-reading sheets by post
- 2) mobile MCQ submission
- 3) electronically via *myUnisa*

Assignments may not be submitted by fax or email.

For detailed information on assignments, please refer to the *my Studies @ Unisa* brochure which you received with your study package.

To submit an assignment via *myUnisa*, follow the steps below:

- Go to *myUnisa*.
- Log in with your student number and password.
- Select the module.
- Click on assignments in the menu on the left-hand side of the screen.
- Click on the assignment number you wish to submit.
- Follow the instructions.

Once you have submitted an assignment via *myUnisa*, a date will appear in the “processed” column.

How to submit assignments by mail (postal system)

Assignments must be placed in the envelopes that you will be provided with and **mailed** to the assignments section or placed in a Unisa assignment box. Below is the postal address of the assignment section:

Assignments Section

Unisa Florida (Science) Campus

Private Bag X11

Florida, 1710

You will find the street address of assignment boxes in the *my Studies @ Unisa* brochure.

Check on *myUnisa* whether the assignment was received by UNISA not later than three weeks after submitting the assignment.

8.6 The assignments

You will find the assignments for both semesters 1 and 2 in the addendum.

How to answer MCQs.

Different types of multi-choice questions can be constructed. Download the workbook from *myUnisa*. You will find instructions on how to answer MCQs at the beginning of the workbook. You will also find some multiple-choice questions and answers in the workbook. Work through these examples.

You will find detailed instructions on how to complete a mark reading sheet in the my Studies@Unisa brochure.

8.7 Other assessment methods

There are no other assessment methods for this module.

8.8 The examination

Type Consult the *my Studies @ Unisa* brochure to find out how to prepare for the examination and for general examination guidelines.

The Examinations Department will send you the necessary particulars concerning the examination venue, actual date and time a few weeks before the examination commences.

You will be able to find out about your examination results on *myUnisa*.

The examination will be a **2-hour closed book** examination. **Calculators** will be allowed. A sub-minimum of 40% must be obtained in the examination.

Examination (entry) requirements

You must submit **all three** assignments in order to qualify to sit for the examination!

9 FREQUENTLY ASKED QUESTIONS

The *my Studies @ Unisa* brochure contains an A-Z guide of the most relevant study information. Please read it and keep on referring to it during the course of your studies.

10 SOURCES CONSULTED

Nel WP, 2012. Workbook based on “Management for Engineers, Technologists and Scientists”.

11 IN CLOSING

I hope that you will enjoy your studies and find the newly acquired knowledge useful.

12 ADDENDUM

Assignments for students registered in the 1st semester of 2018

Note: Ignore this section if you registered in the second semester of 2018 and go to next section ('Assignments for students registered in the 2nd semester of 2018').

Assignment 01 (1st semester 2018)

Questions based on chapter 1 of METS-3 (The Environment in which Technical People work)

1. The Initial stage in the life cycle of an organisation is the ...

- [1] inception stage
- [2] high-growth stage
- [3] maturity stage
- [4] decline stage

2. Read the following 3 statements:

- A) South African exporters usually benefit from a weakening rand while local consumers will struggle to maintain their standard of living.
- b) Fast increasing interest rates are likely to have a bigger negative impact on companies and households with high levels of debt.
- c) The political and regulatory environment in which companies operate can pose a risk to them in the form of higher taxes and tougher legislation.

Which of the above statements is/are **correct**?

- [1] a
- [2] a and b
- [3] a, b and c
- [4] a and c
- [5] None of the options (1, 2, 3, or 4) is correct

Questions based on chapter 2 (General Management)

3. Read the following 3 statements:

- a) The traditional management functions are planning, organising, leadership and control (POLC).
- b) The aim of the organising function is to correct or improve outcomes by revising plans or formulating new ones.
- c) The management process has great influence over both the internal and external environments.

Which of the above statements is/are **correct**?

- [1] a
- [2] a and b

- [3] a, b and c
- [4] a and c
- [5] None of the options (1, 2, 3, or 4) is correct.

4. Read the following 3 statements:

- a) According to Minzberg, the “figurehead” role of a manager involves performing duties of a ceremonial nature.
- b) The “disseminator” role of a manager involves the scanning of the environment.
- c) General management is an essential part of every manager's task.

Which of the above statements is/are **correct**?

- [1] a
- [2] a and b
- [3] a, b and c
- [4] a and c
- [5] None of the options (1, 2, 3, or 4) is correct.

5. Which one of the following is a general management function?

- [1] Controlling
- [2] Strategy
- [3] System
- [4] Physical assets

6. Which **one** of the following statements was **not** made by Bennis regarding the difference between leaders and managers?
 - [1] Leaders innovate, while managers administers.
 - [2] Leaders develop while managers maintain.
 - [3] Leaders focus on systems and structures, while managers focus on people.

7. What is the appropriate leadership style for a subordinate who is unable but willing to perform a task?
 - [1] Telling
 - [2] Selling
 - [3] Participating
 - [4] Delegating

8. According to Mintzberg, managerial work can be classified into 3 broad categories where a manager can play the following roles: interpersonal, informational and decisional. Which one of the following below is the duty of a manager when he/she is playing the informational role?
 - [1] disturbance handler
 - [2] figurehead
 - [3] resource allocator
 - [4] monitor

9. Read the following three statements regarding the principles of general management.
 - a) The phenomenon that tasks are assigned to different units or people in an organisation according to criteria such as competencies and skills is known as differentiation of work.

- b) A matrix organisation structure is basically two functional structures superimposed on one another.
- c) Authority is about the right to demand compliance by subordinates based on formal position and control over rewards and sanctions.

Which of the above statements is/are **correct**?

- [1] a
- [2] a and c
- [3] c
- [4] b and c
- [5] None of the options (1, 2, 3, or 4) is correct.

10. Read the following 3 statements:

- a) The Staff function (as opposed to the line function) is directly responsible for accomplishing the objectives of the organisation.
- b) The span of management refers to the number of people in management positions at an organisation.
- c) Control includes measuring actual results.

Which of the above statements is/are **correct**?

- [1] a
 - [2] a and c
 - [3] a, b and c
 - [4] c
 - [5] None of the options (1, 2, 3, or 4) is correct.
-

Assignment 02 (1st semester 2018)**Questions based on chapter 3 (HRM)**

1. Read the following 3 statements:

- a) The human resource function is a line function.
- b) The HR department usually decides on the qualifications and skills of an engineer that must be recruited for the maintenance department.
- c) Human resource management can be defined as all the processes, methods, systems and procedures employed to attract, acquire, develop and manage human resources.

Which of the above statements is/are **correct**?

- [1] c
- [2] a and b
- [3] a, b and c
- [4] a and c
- [5] None of the options (1, 2, 3, or 4) is correct.

2. Which one of the following items does not form part of the human resource planning process?

- [1] Conduct human resource forecasting
- [2] Develop employment equity plans
- [3] Develop human resource actions plans
- [4] Implement action plan
- [5] Generating a checklist of questions for a job interview

Questions based on chapter 5 (People management)

3. Read the following 3 statements:

- a) The Engineering Council of South Africa (ECSA) requires that technicians should be able to work effectively in a team environment.
- b) A lot of work today is done by teams.
- c) Managers and supervisors must have people skills in the areas of human relations, conflict management, teamwork and diversity management to ensure sound human relations in the workplace.

Which of the above statements is/are **correct**?

- [1] b
- [2] a, b and c
- [3] b and c
- [4] a and c
- [5] None of the options (1, 2, 3, or 4) is correct.

4. The stages (in the correct chronological order) that you would expect a team to go through in order to become fully functional are the following:

- [1] Forming, performing, storming and norming
- [2] Forming, norming, storming and performing
- [3] Forming, storming, norming and performing

5. Read the following 3 statements regarding team member roles:

- a) A “problem solver” trains other team members in job/skill areas and continually shares knowledge with others.
- b) The “customer advocate” demonstrates good interpersonal skills and supports other team members.
- c) The “skilled worker” strives to meet the needs of the customer better.

Which of the above statements is/are **correct**?

- [1] b and c
- [2] a and c
- [3] a and b
- [4] a, b and c
- [5] None of the options (1, 2, 3, or 4) is correct.

Questions based on chapter 11 (Marketing)

6. Read the following four statements:

- a) Products that are based on advanced technology will always be successful in the market.
- b) Marketing is concerned with the exchange of goods, services, technologies, business systems, information, concepts and ideas between buyers and sellers.
- c) Engineers, technicians and technologists never engage with customers.

Which of the above statements is/are **correct**?

- [1] b
- [2] b and c
- [3] a and c
- [4] a and b

[5] None of the options (1, 2, 3, or 4) is correct.

7. There are four stages in the product life cycle known as Introduction, Growth, Maturity and Decline. Which of the following describe the Growth stage?

[1] Sales slow down

[2] Better distribution

[3] Lack of interest

[4] High prices

8. The five stages (in the correct chronological order) that you would expect a customer to go through when buying a motor car is ...

[1] Need recognition; Information search; Post-purchasing behaviour; Purchase decision; Evaluation of alternatives.

[2] Information search; Need recognition; Evaluation of alternatives; Purchase decision; Post-purchasing behaviour.

[3] Information search; Need recognition; Evaluation of alternatives; Purchase decision; Post-purchasing behaviour.

[4] Need recognition; Information search; Evaluation of alternatives; Purchase decision; Post-purchasing behaviour.

Questions based on chapter 13 (Project management)

9. The project brief ...

a) states the customer's requirements.

b) states the solution to the customer's requirements.

c) defines the constraints of the project.

Which of the above statements is/are **correct**?

- [1] b
- [2] b and c
- [3] a and c
- [4] a and b
- [5] None of the options (1, 2, 3, or 4) is correct.

10. Which one of the following tools is used to redirect or stop a project so that the owner(s) of the project is satisfied that project objectives are being met or that the project is still on track as envisaged?

- [1] Work breakdown structure (WBS)
 - [2] Decision-making milestones
 - [3] Time management tools
 - [4] Project life cycle
-

Assignment 03 (1st semester 2018)

Questions on chapter 13 (Project management)

1. In a project life cycle, which of the following can be best linked to the definition phase?
 - [1] Clarify customer requirements as defined in the project brief.
 - [2] Contract out/contract in to perform each task of the implementation phase work breakdown structure.
 - [3] Develop the work breakdown structure for the implementation phase.
 - [4] Accept all deliverables.

Questions based on chapter 14 (Accounting, etc)

2. Read the following three statements:
 - a) A balance sheet shows the assets and liabilities of the business and owners' equity over a period of one year.
 - b) A belt conveyor used by a mine in the production process will be classified as a non-current asset, while the same type of belt conveyor will be a current asset for a company trading in that kind of equipment.
 - c) Liabilities are the sums of money that a company owes to banks and other creditors.

Which of the above statements is/are **correct**?

- [1] a, b and c
- [2] a and c
- [3] a and b
- [4] b and c
- [5] None of the options (1, 2, 3, or 4) is correct.

3. Which one of the following is not a current asset?

- [1] Inventories
- [2] Trade and other receivables
- [3] Cash and cash equivalents
- [4] Property, plant and equipment

4. Read the following three statements:

- a) A budget report should indicate how actual spending differs from forecasted spending.
- b) Actual sales now may be better than sales forecasted a year ago because of better-than-expected economic conditions.
- c) Actual budget items are more likely to differ from the forecasted items in times when a company is experiencing stable growth.

Which of the above statements is/are **correct**?

- [1] a, b and c
- [2] a and c
- [3] a and b
- [4] b and c
- [5] None of the options (1, 2, 3, or 4) is correct.

5. Read the following three statements:

- a) Engineering economics is concerned with the cost of alternative engineering solutions to a problem.
- b) Value is created when management invests in a project with an NPV that is greater than zero.
- c) Value is created when management invests in a project of which the IRR is greater than the hurdle rate of the company.

Which of the above statements is/are **correct**?

(2)

- [1] a, b and c
- [2] a and c
- [3] a and b
- [4] b and c
- [5] None of the options (1, 2, 3, or 4) is correct.

Questions based on chapter 15 (Cost estimating, etc)

6. Read the following three statements:

- a) The fixed cost component of the total monthly cost of production will increase when you expand the production capacity of a plant, mine or factory through the purchasing of additional machines.
- b) If the total production cost for the month was R50 000 and if 1 000 chairs were produced during the month, the unit production cost of a plastic chair is R50.
- c) The salaries of cleaning staff employed by a furniture factory are an example of direct costs.

Which of the above statements is/are **correct**?

- [1] a, b and c
- [2] a and c
- [3] a and b
- [4] b and c
- [5] None of the options (1, 2, 3, or 4) is correct.

7. Read the following three statements:

- a) Activity-based costing is an accounting technique that allocates overhead costs in actual proportion to the overheads consumed by the production activity.
- b) Detailed engineering data is used to make order-of-magnitude estimates.

- c) Economy of scale is considered in the end-products estimating technique.

Which of the above statements is/are **correct**?

- [1] a, b and c
- [2] a
- [3] a and b
- [4] b and c
- [5] None of the options (1, 2, 3, or 4) is correct.

8. Read the following three statements:

- a) If solutions to engineering problems are not cost-effective then it has little use to society in general.
- b) Increased automation at companies usually result in higher fixed costs in the cost structure of such companies.
- c) Cost-volume-profit analysis is sometimes also called break-even analysis.

Which of the above statements is/are **correct**?

- [1] a
- [2] a and c
- [3] a and b
- [4] a, b and c
- [5] None of the options (1, 2, 3, or 4) is correct.

Questions based on chapter 17 (Business strategy)

9. Strategic management is the process whereby managers:

- a) establish an organisation's long term direction.
- b) establish short term objectives

c) implement chosen action plans.

Which of the above statements is/are **correct**?

[1] a, b and c

[2] b and c

[3] a and c

[4] a and b

[5] None of the options (1, 2, 3, or 4) is correct.

10. Read the following three statements:

a) One of the steps in the strategic management process is for an organisation to “select from possible alternative courses of action”.

b) A SWOT analysis is about analysing the strengths and weaknesses of an organisation and the opportunities and threats in the business environment in which the organisation operates.

c) Some of the components of the external environment of a business follow: political and regulatory, social, economic, technological and ecological.

Which of the above statements is/are **correct**?

[1] a, b and c

[2] b and c

[3] a and c

[4] a and b

[5] None of the options (1, 2, 3, or 4) is correct.

Assignments for students registered in the 2nd semester of 2018

Note: Ignore this annexure if you registered in the first semester of 2018.

Assignment 01 (2nd semester 2018)**Questions based on chapter 1 of METS-3 (The Environment in which Technical People work)**

1. Which **one** of the following is a (non-technical) skill and/or knowledge area that an engineer is not expected to have detailed knowledge of?
 - [1] Professionalism and ethics
 - [2] Engineering economics
 - [3] Managing people
 - [4] Problem solving
 - [5] Archaeology

2. Read the following 3 statements:
 - a) Professionalism and ethics are knowledge areas that an engineer is expected to have knowledge of.
 - b) The political and regulatory environment in which companies operate can pose a risk to them in the form of higher taxes and tougher legislation.
 - c) The 3Ps refer to profit, people and planet.

Which of the above statements is/are **correct**?

- [1] a
- [2] a and b
- [3] a, b and c
- [4] a and c
- [5] None of the options (1, 2, 3, or 4) is correct.

Questions based on chapter 2 of METS-3 (General Management)

3. Which **one** of the following activities does not form part of the planning process?
- [1] Searching and identification of opportunities
 - [2] Formulation of objectives
 - [3] Measuring actual performance
 - [4] Identification of alternatives
4. Organising is the management function responsible for:
- [1] creating structures/work units for the organisation
 - [2] determining how an organisation will achieve its objectives
 - [3] measuring the actual performance, and comparing it with pre-set standards or goals
 - [4] influencing, motivating and directing individuals or teams
5. Which **one** of the following statements was **not** made by Bennis regarding the difference between leaders and managers?
- [1] Leaders innovate, while managers administer.
 - [2] Leaders develop while managers maintain.
 - [3] Leaders focus on systems and structures, while managers focus on people.
6. What is the appropriate leadership style for a subordinate who is unable but willing to perform a task?
- [1] Telling
 - [2] Selling
 - [3] Participating
 - [4] Delegating

7. According to Mintzberg, managerial work can be classified into 3 broad categories where a manager can play the following roles: interpersonal, informational and decisional. Which one of the following below is the duty of a manager when he/she is playing the informational role?

- [1] disturbance handler
- [2] figurehead
- [3] resource allocator
- [4] monitor

8. Read the following three statements regarding Likert's systems of leadership.

- a) Likert proposed three systems of leadership, namely autocratic, participative and democratic leadership.
- b) The "participative" manager uses a consultative style according to Likert.
- c) The "democratic" manager has complete confidence and trust in subordinates and always ask them for opinions.

Which of the above statements is/are **correct**?

- [1] b
- [2] a and c
- [3] c
- [4] b and c
- [5] None of the options (1, 2, 3, or 4) is correct.

9. Read the following three statements.

- a) Empowerment is a function of authority, resources, information and accountability.
- b) Self-managing work teams are groups of employees who manage themselves with little direct supervision.
- c) A self-managing work team (SMWT) is a groups of isolated specialists.

Which of the above statements is/are **correct**?

- [1] b
- [2] a and c
- [3] c
- [4] b and c
- [5] None of the options (1, 2, 3, or 4) is correct.

10. Read the following three statements regarding organising.

- a) An organisation that is grouped into different functions such as finance, personnel, engineering, production and marketing is known as a functional organisation.
- b) A team based structure can be described as an organisational structure that is designed around products, projects or product groups. Each product group or project may have its own production, engineering and marketing functions.
- c) A customer organisation structure is designed around customer profiles. Different types of clients may therefore be catered for differently in order to respond better to specific customer needs. (E.g. personal banking versus corporate banking.)

Which of the above statements is/are **correct**?

- [1] a
 - [2] a and c
 - [3] c
 - [4] b and c
 - [5] None of the options (1, 2, 3, or 4) is correct.
-

Assignment 02 (2nd semester 2018)**Question based on chapter 3 of METS-3 (HRM)**

1. Which one of the following items does not form part of the human resource planning process?
 - [1] Review strategic business plan
 - [2] Develop strategic human resource plan
 - [3] Set human resource objectives
 - [4] Compile skills profile
 - [5] Drawing up a job advertisement

2. Read the following 3 statements regarding rating errors that may occur when evaluating employee performance:
 - a) The Halo effect is the name of the rating error when a supervisor or manager concentrates on an employee's good attributes which then influence all other ratings.
 - b) Bias, prejudice and stereotyping may result in all employees being appraised as average performers.
 - c) Leniency is when the same criteria is applied to both management and technicians.

Which of the above statements is/are **correct**?

- [1] a
- [2] a and b
- [3] a and c
- [4] a, b and c
- [5] None of the options (1, 2, 3, or 4) is correct.

Questions based on chapter 5 of METS-3 (People management)

3. Read the following 3 statements:

- a) Employees are likely to discuss their true opinions and feelings with superiors whom they do not trust.
- b) Effective managers have the skill to integrate employees' contributions.
- c) Managers will motivate employees when giving them recognition for their inputs.

Which of the above statements is/are **correct**?

- [1] b
- [2] b and c
- [3] a, b and c
- [4] a and b
- [5] None of the options (1, 2, 3, or 4) is correct.

4. Read the following 3 statements:

- a) Ableism, ageism, classism and racism are just a few types of discrimination.
- b) An example of ableism is when an all-male selection panel rejects a female employee's application for a senior position because the panel members believe that she cannot handle stress because she is female.
- c) An example of classism is when an 18-year-old employee who joined the company recently is excluded from decision-making structures because the more experienced managers believe that she does not have the necessary insight and experience to provide input.

Which of the above statements is/are **correct**?

- [1] b and c
- [2] a and c
- [3] a and b

- [4] a, b and c
- [5] None of the options (1, 2, 3, or 4) is correct.

5. Read the following 3 statements regarding team member roles:

- a) A “problem solver” trains others team members in job/skill areas and continually shares knowledge with others.
- b) The “customer advocate” demonstrates good interpersonal skills and supports other team members.
- c) The “skilled worker” strives to meet the needs of the customer better.

Which of the above statements is/are **correct**?

- [1] b and c
- [2] a and c
- [3] a and b
- [4] a, b and c
- [5] None of the options (1, 2, 3, or 4) is correct.

Questions based on chapter 11 of METS-3 (Marketing)

6. Read the following three statements:

- a) Customer focus, satisfaction and retention is only the responsibility of the marketing department.
- b) Marketing aims to influence the demand for certain products and services.
- c) According to Drucker, marketing is the whole business seen from the customers’ point of view.

Which of the above statements is/are **correct**?

- [1] b and c
- [2] a and b

[3] a and c

[4] c

[5] None of the options (1, 2, 3, or 4) is correct.

7. Marketers use tools to influence the customers they want to target. These tools are known as the marketing mix. Which one of the following is not such a tool?

[1] Product

[2] Place

[3] Promotion

[4] Price

[5] Product life cycle

8. Read the following three statements:

a) Losing a customer involves much more than losing a single sales transaction.

b) According to Drucker, the customer decides what the business is, what it produces and whether it will prosper.

c) A customer who cannot understand the operating instructions for a product may mentally downgrade the company that produced it.

Which of the above statements is/are **correct**?

[1] b and c

[2] a and b

[3] a and c

[4] c

[5] None of the options (1, 2, 3, or 4) is correct.

Questions based on chapter 13 of METS-3 (Project management)

9. Read the following three statements:

- a) A project is constrained by its objective, schedule and budget.
- b) The project brief states the solution to the customer's problem.
- c) Each project is unique.

Which of the above statements is/are **correct**?

- [1] a, b and c
- [2] a and c
- [3] a and b
- [4] b and c
- [5] None of the options (1, 2, 3, or 4) is correct.

10. Read the following three statements:

- a) Project managers should attempt to balance the interests of all stakeholders.
- b) Public participation is part of the stakeholder management process.
- c) Stakeholders are usually identified during the concept phase of a project.

Which of the above statements is/are **correct**?

- [1] a, b and c
- [2] b and c
- [3] a and c
- [4] a and b
- [5] None of the options (1, 2, 3, or 4) is correct.

Assignment 03 (2nd semester 2018)

Questions on chapter 13 of METS-2 (Project management)

1. In project time management, which of the following describe Activity Sequencing?
 - [1] Define specific activities to be accomplished
 - [2] Identify dependencies among activities
 - [3] Estimate the time needed to complete each activity
 - [4] Maintain the project schedule

Questions based on chapter 14 of METS-3 (Accounting, etc)

2. Which one of the following is a current asset?
 - [1] Taxation
 - [2] Inventories
 - [3] Financial liabilities
 - [4] Property, plant and equipment

3. Read the following three statements:
 - a) A budget can be regarded as the company's objectives in financial terms.
 - b) The sales budget usually forms the basis of most other budgets because it is concerned with income.
 - c) A production budget usually indicates the number of units that must be manufactured.

Which of the above statements is/are **correct**?

- [1] a, b and c
- [2] a and c
- [3] a and b

- [4] b and c
- [5] None of the options (1, 2, 3, or 4) is correct.

4. Read the following three statements:

- a) Engineering economics is a special branch of microeconomics.
- b) Value is destroyed when investing in a project with a negative NPV.
- c) Labour and Capital are both factors of production.

Which of the above statements is/are **correct**?

- [1] a, b and c
- [2] a and c
- [3] a and b
- [4] b and c
- [5] None of the options (1, 2, 3, or 4) is correct.

5. Which parameter determine the quantity of demand (for a product)?

- [1] Taste of consumers
- [2] Trade and other receivables
- [3] Cash and cash equivalents
- [4] Property, plant and equipment

Questions based on chapter 15 of METS-3 (Cost estimating, etc)

6. Read the following three statements:

- a) Producers of unspecialised products are often price takers.
- b) When the number of autocatalysts produced at a factory increases by 10% a month compared with a previous month, then the fixed costs will definitely also increase proportionally.
- c) Different cost structures are one of the results of higher levels of automation. That is because the ratio of variable costs to total costs usually increases.

Which of the above statements is/are **correct**?

- [1] a
- [2] a and c
- [3] a and b
- [4] b and c
- [5] None of the options (1, 2, 3, or 4) is correct.

7. Read the following three statements:

- a) Some cost estimating methods rely on historic cost data derived from previous projects.
- b) Order-of-magnitude estimates are made without detailed engineering data.
- c) The time required to do a repetitive task usually decreases as more such tasks are done by a person or team.

Which of the above statements is/are **correct**?

- [1] a
- [2] a, b and c
- [3] a and b
- [4] b and c

[5] None of the options (1, 2, 3, or 4) is correct.

8. Read the following three statements:

- a) Pareto's principle can be used in cost estimation.
- b) It is possible for production rates to increase over time due to the learning curve effect.
- c) Perceived value pricing is practised when a fixed percentage is added to the cost of a product.

Which of the above statements is/are **correct**?

[1] a, b and c

[2] a and c

[3] a and b

[4] b and c

[5] None of the options (1, 2, 3, or 4) is correct.

[5] None of the options (1, 2, 3, or 4) is correct.

Questions based on chapter 17 of METS-3 (Business strategy)

9. Read the following three statements:

- a) An organisation's vision usually states where an organisation wants to be in the future.
- b) Unisa's vision is: "Towards the African university in the service of humanity"
- c) The reason for an organisation's existence is usually described in its mission statement.

Which of the above statements is/are correct?

[1] a, b and c

[2] b and c

[3] a and b

[4] b

[5] None of the options (1, 2, 3, or 4) is correct.

10. Which one of the following is not one of the five competitive forces in Porter's model for analysing an industry environment.

[1] Competition between industries.

[2] Threat of new entrants

[3] Bargaining power of buyers

[4] Threat of substitute products or services

[5] Bargaining power of suppliers

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