



NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF INDUSTRIAL TECHNOLOGY

DEPARTMENT OF INDUSTRIAL AND MANUFACTURING ENGINEERING

**BACHELOR OF ENGINEERING (HONS) DEGREE INDUSTRIAL AND MANUFACTURING
ENGINEERING**

ENGINEERING COMMUNICATION SKILLS

TIE 1102

First Semester Main Examination Paper

December 2014

This examination paper consists of 3 pages

Time Allowed: 3 hours

Total Marks: 100

Special Requirements: Nil

Examiner's Name: Eng. Vennan Sibanda

INSTRUCTIONS

1. Answer any five (5) questions
2. Each question carries 20 marks

MARK ALLOCATION

QUESTION	MARKS
1.	20
2.	20
3.	20
4.	20
5.	20
6	20
7	20
TOTAL	100

Page 1 of 3

Copyright: National University of Science and Technology, 2014

Question 1

- a) Give an account of effective communication skills highlighting their importance. [8]
- b) With the aid of a diagram explain the elements of communication. [12]

Question 2

- a) In an industrial set up of your choice, identify and explain the channels of communication used. [10]
- b) Outline what you understand by verbal and non-verbal communication giving examples of nonverbal communication. [6]
- c) What is the importance of communication in engineering? [4]

Question 3

- a) As an engineer in industry you need to set up a strategic meeting. What are the necessary steps required to make that meeting a success? [10]
- b) You are the engineer in an organisation and have been tasked with informing the workers about new safety regulations, discuss the best methods of communication to be used and why. [10]

Question 4

- a) The gear blanks shown below in Fig Q4 are produced using a hot forging process. Write an abstract of not more than one hundred (100) words on the Hot Forging Process used to produce them. [10]



Fig. Q4 Gear blanks

- b) An engineer converts the voice of the customer into a product; discuss the various stages and types of communication involved from the beginning up to the final product. [10]

Question 5

- a) Discuss the importance of information technology in engineering communication. [6]
- b) Given below are references for various articles, arrange the references in the Harvard Style of referencing for the first three (3) and APA referencing style for the last three (3). [6]
- i. *The 2013 National Budget Statement*. Harare : Ministry of Finance, 2012. Biti, Hon. T. 2012
 - ii. *Fundamentals of Modern Manufacturing: Materials, Processes and Systems 4th Edition*. Groover, Mickell P. 2010. New York : John Wiley & Sons Inc, 2010. ISBN 978-0470-467002.
 - iii. *Product Design and Development, 4th Edition*. s.l. : Irwin McGraw-Hill, 2008. Karl T. Ulrich, Steven D. Eppinger. 2008.
 - iv. National University of Science and Technology Concurrent Engineering Module. Bulawayo : Mhlanga. S. 2009. Unpublished, 2009.
 - v. *Facilitating The Effective Production And Marketing Of Processed Food Products* By. Harare : S.N., 2000. Proctor, S., Henson, S., Loader, R., Masakure, O., Brouder, A.,. 2000.
 - vi. *Shigley's Mechanical Engineering Design, Ninth Edition*. New York : McGraw-Hill, 2011. ISBN 978-0-07-352928-8. Richard G. Budynas, J. Keith Nisbett. 2011.
- c) Select any three (3) references from (b) above and demonstrate using a practical example, how you would use them as references inside a passage. [8]

Question 6

- a) Discuss what you understand by barriers to communication, giving examples and examine ways of reducing their effects. [10]
- b) You are required to present a paper in a conference, outline the preparation for the presentation. [10]

Question 7

- a) There are advantages of face to face communication over telephone communication. Clearly identify and explain these advantages. [10]
- b) Engineering drawing is a communication tool in engineering, explain giving examples. [10]

End of Examination

Page 3 of 3
