

UNIVERSITY OF SWAZILAND
Faculty of Health Sciences

Department of Environmental Health Science

Supplementary Examination
July 2018

Title of paper: Principles of Ergonomics

Course code: EHM 420

Time allowed: 2 hours

Marks allocation: 100 Marks

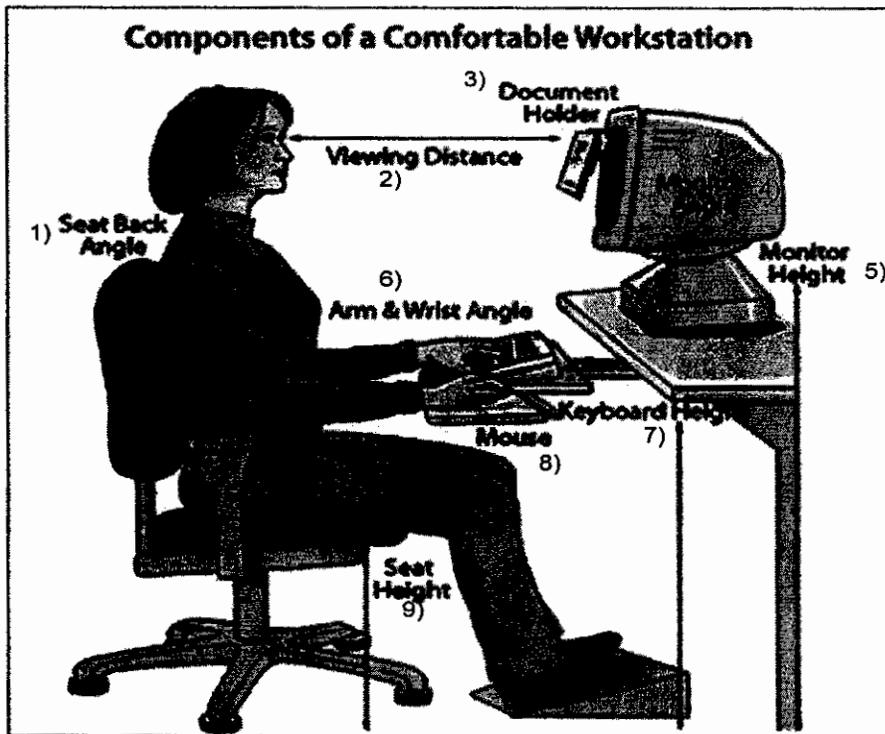
Instructions:

- 1) Read the questions and instructions carefully
- 2) Answer any 4 questions
- 3) Each question is weighted 25 marks
- 4) Write neatly and clearly

This paper is not to be opened until the invigilator has granted permission

Question 1

- a) What is ergonomics? Give examples. [7 Marks]
- b) With reference to the picture below, state the requirements of each of the nine (9) areas highlighted for the station to be comfortable. [18 Marks]

**Question 2**

Manual material handling tasks are noted as major ergonomic risk factors. Discuss how you as a safety officer would ensure that the risk of injuries when handling loads is reduced.

[25 Marks]

Question 3

There are ergonomic risks factors inherent in the worker, discuss in detail five (5) of these risk factors, give examples.

[25 Marks]

Question 4

Define the following and give examples in each:

- a) Stress [5 Marks]
- b) Cumulative Trauma Disorder [5 Marks]
- c) Carpal tunnel syndrome [5 Marks]
- d) Anthropometry [5 Marks]
- e) Awkward posture [5 Marks]

Question 5

- a) Alcohol consumption affects different parts of the body. Discuss five (5) areas that are adversely affected by high consumption of alcohol. [10 Marks]
- b) Tobacco smoking affects the health of the worker in different ways. Discuss five (5) areas of the body that are adversely affected by smoking. [10 Marks]
- c) How is the high consumption of alcohol and high dependence on smoking affect the work performance of the worker? [5 Marks]