

UNIVERSITY OF ESWATINI

Faculty of Health Sciences

Department of Environmental Health Science

RE-SIT EXAMINATION

2021

Title of paper: Principles of Ergonomics

Course code: EHS415

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) 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]

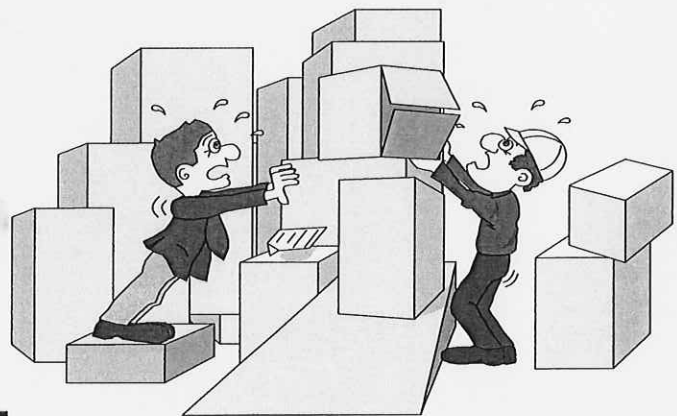
b) How does occupational stress affect the worker and the company?

[15 Marks]

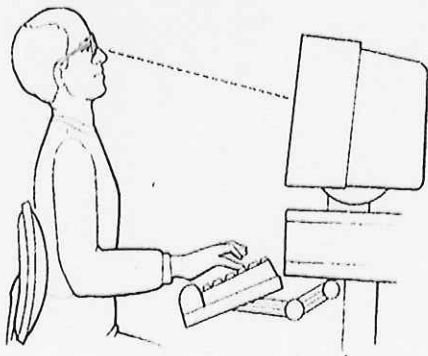
QUESTION 2



(Picture 1)



(Picture 2)



(Picture 3)



(Picture 4)

Analyse each picture above: state the posture you see and state possible adverse health effects on the worker's body.

[25 Marks]

QUESTION 3

- a) How does applying ergonomics principles enhance the effectiveness and efficiency with which work is carried – discuss and give examples. [10 Marks]
- b) Give three (3) possible reasons for having shifts in an industry. Give examples. [9 Marks]
- c) What are the adverse health and safety effects of working shifts to workers? [6 Marks]

QUESTION 4

In relation to the workplace environment:

- a) Discuss how indoor light can affect the health of the worker and state the basic principles of illumination at the workplace (indoors). [8 Marks]
- b) Discuss how noise can affect the health and safety of the worker. Discuss what the employer should do to protect the health of the worker. [9 Marks]
- c) Outline how vibration affects the worker and how the workplace can be improved to protect the worker. [8 Marks]

QUESTION 5

Define the following and give examples in each:

- a) Musculoskeletal disorders. [8 Marks]
- b) Ergonomics. [5 Marks]
- c) Risks inherent in the worker [10 Marks]
- d) Cumulative trauma disorders. [2 Marks]