



**UNIVERSITY OF MINES AND TECHNOLOGY, TARKWA**

SECOND SEMESTER EXAMINATIONS, MAY, 2018

**COURSE NO:** ES 276  
**COURSE NAME:** OCCUPATION HEALTH MANAGEMENT  
**CLASS:** ES 2 **TIME:** 3 HOURS

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Name: \_\_\_\_\_ Index Number: \_\_\_\_\_

**SECTION A:**

**ATTEMPT ALL QUESTIONS**

1. List 4 methods by which potential workplace hazards may be identified **(2 marks)**
2. What is the significant of particle size of air born contaminant, pollutants and biological agent **(2 marks)**
3. Name the three general groups of ergonomics risk factors and give an example each **(3 marks)**
4. CTS is caused by the inflammation of which nerve in the hand? **(1 mark)**
5. What is an administrative control **(1 mark)**
6. Differentiate between the following **(4 marks)**
  - a. Additive effect and synergistic effect
  - b. viability and virulence
7. Identify any four characteristics/traits of a worker that makes him/her susceptible to work related diseases **(2 marks)**
8. What is aspiration as apply to routes of entry. **(1 mark)**
9. Outline the three stages of stress general adaption syndrome **(3 marks)**
10. What are the underlying principles used by engineers in designing noise control devices? **(3marks)**
11. Identify 4 things to consider when assessing the first aid need of an organization **(2 mark)**
12. Identify two **acute** effects and two **chronic effects of noise on** hearing. **(4 marks)**
13. Define the term risk factor **(2 mark)**

## SECTION B

### ANSWER QUESTION ONE AND ANY OTHER QUESTION

1. It is often necessary to monitor employees' exposure to noise at work. **(20 marks)**
- a) Discuss the benefits of noise monitoring.
  - b) How does a dosimeter differ from a noise level meter?
  - c) Briefly discuss occupational hearing loss and its causes.
  - d) Personal hearing protection is of course the last option in the hierarchy of control of noise. Outline the steps that should be taken before deciding on this option.
  - e) Provide an argument for the benefits and limitations of PPE.
2. Krampah and Sons Limited is a company that deals in importation, storage and distribution of mining chemicals as well as preparation of chemical formulations. Some of their employees have been complaining of dermatitis, respiratory disorders, cardiovascular diseases and other health impairments. This has led to high absenteeism and decreased productivity. Management has been advised to employ an HSE supervisor. As the new HSE supervisor describe in details the measures and procedures you will adopt to eliminate/reduce the risk arising from exposure to these chemicals. **(10 marks)**
- 3a) Explain the purpose of Job Safety Analysis. **(2 marks)**
- 3b) Outline the methodology of Job Safety Analysis **(4 marks)**
- 3c) In relation to ill-health from the use of vibrating hand-held tools: Identify 4 symptoms that might be shown by affected individuals; **(2 marks)**
- 3d) Outline 4 control measures that may be used to help reduce the risk of HAV **(2 Marks)**

*Examiner: Francis Krampah*