



AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF REHABILITATIVE MEDICINE
BACHELOR OF SCIENCE IN PHYSIOTHERAPY

END OF TRIMESTER EXAMINATIONS JANUARY TO APRIL 2024

UNIT CODE: PHT 432

UNIT NAME: OCCUPATIONAL HEALTH

DATE: 9TH APRIL 2024

TIME: 6PM-8PM

INSTRUCTIONS

1. All students will have two (2) hours to complete the examination
2. This is an **online exam**, Attempt all questions as per the instruction
3. It is the student's responsibility to report any page and number missing in this paper.
4. Check that the paper is complete
5. Total number of pages is 7 including the cover.
6. Read through the paper quickly before you start.
7. Upon finishing the exam paper, on submission, the message 'Your examination has been submitted' will appear.

TOTAL: _____/70

PERCENT: _____/100%

POINTS EARNED TOWARDS FINAL GRADE _____/70

SECTION A: MULTIPLE CHOICE QUESTIONS (20 MARKS)

1. Occupational lung disorders are classified into hypersensitivity pneumonitis and pneumoconiosis. Which of the below diseases belong to the hypersensitivity pneumonitis classification?

- a) Berylliosis
- b) Silicosis
- c) Bagassosis
- d) Chalicosis

2. Byssinosis is an occupational lung disease also referred to as?

- a) Monday fever
- b) Dry lung disease
- c) Farmer's lung disease
- d) Hay fever

3. Which of the following descriptions BEST explains the key role of physiotherapists in the context of occupational health?

- a) Providing nutrition advice to employees
- b) Conducting musculoskeletal assessments and offering advice on injury prevention
- c) Managing workplace finances
- d) Administering vaccinations to employees

4. Functional capacity evaluation (FCE) is a comprehensive assessment of a person's physical and cognitive ability to safely participate in work and life activities. What is emphasized in the Design and Types of FCEs?

- a) Random selection of tests
- b) Use of job-specific assessments only
- c) Tests meeting safety criteria, including job-specific and general assessments
- d) Exclusively cognitive assessments and legal compliance checks

5. What are the four components of Functional Capacity Evaluation (FCE)?

- a) Physical testing, job-specific assessments, safety criteria, and medical records review
- b) Intake interview, medical records review, physical examination, and functional testing

- c) Legal compliance, cognitive testing, rehabilitation potential, and pain impact analysis
- d) Safety protocols, cognitive assessments, job-specific evaluations, and medical history review

6. Which of the factors listed below is NOT a risk factor for work-related musculoskeletal disorders?

- a) Repetitive movements
- b) Constrained body positions
- c) Decreased workspace
- d) Anthropometric mismatch

7. Which of the following BEST explains the goal of reconditioning programs in the context of workplace rehabilitation?

- a) Enhancing employee morale
- b) Ensuring long vacations for employees
- c) Establishing functional capacity for employees to return to work after recovery
- d) Minimizing the need for physiotherapy interventions

8. What framework can physiotherapists use to guide the assessment of barriers and facilitators for work?

- a) International Standard for Business Communication (ISBC)
- b) International Classification of Functioning, Disability and Health (ICF)
- c) Occupational Safety and Health Administration (OSHA) guidelines
- d) World Health Organization (WHO) guidelines for physical therapy

9. Which is the BEST recommendation made regarding physiotherapists' approach to treatment goals?

- a) Solely focusing on individual patient preferences
- b) Establishing work-focused goals in consultation with patients
- c) Ignoring patients' work-related complaints during consultations
- d) Avoiding discussions about work participation

10. Which of the following is NOT a non-auditory effect of noise?

- a) Fatigue
- b) Permanent hearing loss
- c) Decreased Efficiency
- d) Interference with communication

11. Biological hazards can be increased in agriculture due to disease transmission between humans and animals. Anthroozoonosis is described as:

- a) Disease of humans transmissible to other animals
- b) Disease of vertebrate animals transmissible to humans and other animals
- c) Disease of vertebrate animals to vertebrate animals
- d) Disease of animals transmissible to vertebrate animals

12. All the following factors lead to an increase in biological hazards EXCEPT?

- a) Inadequate sanitation
- b) Decrease of chemical microbes
- c) Increase of high-risk patients
- d) Increase in drug resistant strains of microbes

13. Noise is classified as a physical hazard. Which class of noise fits the below description: “: Exposure to a given broadband sound pressure level several times during a normal working day”?

- a) Continuous Noise
- b) Intermittent Noise
- c) Impact Noise
- d) Immediate Noise

14. The effect of chemical poisoning is influenced by a number of factors. Which of the following is NOT a factor influencing the degree of chemical poisoning?

- a) Mode of entry
- b) Amount entering in the body
- c) Health status of a person
- d) None of the above

15. Stress has been considered as one of the eminent psychosocial hazards in the workplace. Which of the following is a factor to be considered to reduce occupational stress?

- a) Improved vocational guidance
- b) Job design and work method
- c) Good management
- d) All of the above

16. How do physiotherapists BEST collaborate with other specialists in the context of occupational health?

- a) By organizing team-building workshops
- b) Working closely with occupational therapists, ergonomic specialists, and occupational physicians
- c) Conducting employee performance appraisals
- d) Administering psychological assessments to employees

17. In order to complete his work, a patient must lift boxes and move them in a warehouse. Consider the patient's axis of rotation to be at L2 when the patient leans forward to pick up a box. When the patient leans forward to lift an object, the patient's head/arms/ and trunk weigh 20 kgs and this superincumbent mass is located 30cm from the axis of rotation. The center of mass of the box is located 40 cm from the L2 axis of rotation and the box weighs 25 kgs. What is the lumbar flexion moment that the back extensor muscles should overcome?

- a) 600 cm*kg
- b) 1000 cm*kg
- c) 1600 cm*kg
- d) 800 cm*kg

18. Ogweno has worked as a dental technician for the past five years. He presents to the hospital with symptoms of rapid onset of shortness of breath, cough, weakness and weight loss. Which of the below conditions could he be most likely suffering from?

- a) Beryliosis
- b) Bysinosis
- c) Silicosis
- d) Occupational Asthma

19. Why do physical therapists often not sufficiently address work-related topics in regular physical therapy sessions?

- a) Lack of patient interest in discussing work
- b) Belief that addressing work is not within their scope of practice
- c) Limited knowledge about household tasks and sports
- d) Overemphasis on financial management issues

20. Which of the following is NOT considered as an entry route for chemical hazards into the body?

- a) Respiratory
- b) Rectal
- c) Dermal
- d) Oral

SHORT ANSWER QUESTION- 40 marks

1. Outline the five concepts of industrial health as described by the Leeds Physician Charles Thackrah (5 marks)
2. Describe the major outputs of Occupational health (4 marks)
3. Describe at least seven ways that can be used to prevent the risk of occupational hazards within Agriculture (7 marks)
4. Describe the four effects of heat hazard to an individual (8marks)
5. Farmers are predisposed to musculoskeletal disorders in their line of duty. Outline the musculoskeletal risk factors for farmers in terms of (6marks)
 - a) Work characteristics
 - b) Personal characteristics
 - c) Psychosocial factors
6. Outline the nine parts of Kenya's Work Injury Benefit Act (2007) and give a brief description of what it talks about (10 marks)

LONG ANSWER QUESTIONS – 30 marks

1. As you are doing your industrial attachment you come across 7-year-old children carrying maize to the posho mill and you wonder isn't the load too heavy for them. Your instructor thus explains that it is important to identify your target group as you go in the field. Identify the vulnerable groups in OHS and explain the reasons for their vulnerability. (15 marks).
2. Describe the role of the different stakeholders involved in the implementation of the 2012 National Occupational Safety and Health Policy (15 marks).

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