



## UNIVERSITI TUN HUSSEIN ONN MALAYSIA

### FINAL EXAMINATION SEMESTER II SESSION 2022/2023

- COURSE NAME : OCCUPATIONAL SAFETY AND HEALTH
- COURSE CODE : DAC 22202
- PROGRAMME CODE : DAA
- EXAMINATION DATE : JULY / AUGUST 2023
- DURATION : 2 HOURS
- INSTRUCTIONS :
1. ANSWER **ALL** QUESTIONS.
  2. THIS FINAL EXAMINATION IS CONDUCTED VIA **CLOSED BOOK**.
  3. STUDENTS ARE **PROHIBITED** TO CONSULT THEIR OWN MATERIAL OR ANY EXTERNAL RESOURCES DURING THE EXAMINATION CONDUCTED VIA **CLOSED BOOK**.

THIS QUESTION PAPER CONSISTS OF **SIXTEEN (16)** PAGES

- Q1.** Occupational Safety and Health (OSH) is basically a human right for safety at the workplace. The importance of OSH is as listed below, **EXCEPT**.
- A. To make the job safe
  - B. To make the environment safe
  - C. To make the workers safely store their valuables
  - D. To make the workers aware of their safety
- Q2.** Occupational Safety and Health Act (OSHA) is a piece of Malaysian legislation which was gazetted on 25<sup>th</sup> February 1994 by the Malaysian Parliament. Which of the following is **NOT** under OSHA scopes?
- A. Forestry
  - B. Construction
  - C. Crew of merchant ship
  - D. Wholesale and retail industry
- Q3.** The global pandemic COVID-19 has caused direct impact on income due to the reduction in productivity, workplace absenteeism and disruption of supply which has resulted in the closure of factories. This argument is related to?
- A. Legal argument
  - B. Political argument
  - C. Economic argument
  - D. Humanitarian argument
- Q4.** What is the requirement of a safety and health officers based on the Act 514 OSHA 1994?
- A. Section 28, OSHA 1994
  - B. Section 29, OSHA 1994
  - C. Section 30, OSHA 1994
  - D. Section 31, OSHA 1994
- Q5.** Factory & Machine (Building Operations and Works of Engineering Construction) Regulation 1986 is part of the regulations under FMA 1967 (Act 139). As described in Part X: Scaffolds, the safety measure to construct scaffold is as stated below, **EXCEPT**.
- A. Working platforms must be inadequate size for specific work
  - B. Cross braces of scaffold can be used to climb on the working platform
  - C. The working platform must be provided with guard-rails and toe-boards
  - D. Scaffolds and their components must construct from suitable and sound material with adequate strength

- Q6.** OSH legislation is essential as a first step for the implementation of safety and health measures in the workplace. Based on the category of OSH legislation below, which is **NOT** related to control specific chemical and industrial activities?
- A. Pesticide Act 1974
  - B. Petroleum Safety Act 1984
  - C. Atomic Energy Licensing Act 1984
  - D. Occupational Safety and Health Act 1994
- Q7.** The General Duties of Employees is explained in Part VI: OSHA Act 514. Which of the following is **NOT** a duty for employees?
- A. To cooperate with employer to formulate safety and health policy
  - B. To comply with any instructions or measures on occupational safety and health
  - C. To provide Personal Protective Equipment (PPE) and ensure to be used at all time during working
  - D. To take reasonable care for safety and health of himself and of other persons who may be affected at work
- Q8.** Factory Machinery Act (FMA) 1967 was the sole OSH legislative reference related to industrial activities. FMA only covers the following, **EXCEPT**.
- A. Utilities
  - B. Construction
  - C. Manufacturing
  - D. Mining and quarrying
- Q9.** Environmental Quality Act 1974 is a legislation that was enacted due to the environmental problems caused by rapid industrial advancement. The elements covered by EQA 1974 is as shown below, **EXCEPT**.
- A. Air
  - B. Fire
  - C. Water
  - D. Noise
- Q10.** Occupational Safety and Health Management System (OSHMS) is a planned, documented and verifiable method of managing hazards and associated risks. OSHMS is developed based on?
- A. Plan Do Check Act (PDCA) model
  - B. Ask Do Prepare Close (ADPC) model
  - C. Plan Act Improve Check (PAIC) model
  - D. Plan Do Continuous Action (PDCA) model



- Q11.** There are five (5) main elements in OSHMS. Which of the following is the **CORRECT** sequence of the element?
- A. Organizing–Planning and Implementation–Policy-Improvement-Evaluation
  - B. Planning and Implementation–Policy–Organization–Evaluation-Improvement
  - C. Policy-Organizing-Planning and Implementation-Evaluation-Improvement
  - D. Policy-Planning and Implementation-Organizing-Improvement-Evaluation
- Q12.** Which of the following is **NOT** mentioned in Section 24 of OSHA 1994?
- A. To wear or use all times the PPE provided by the employer
  - B. To ensure safety, health and welfare at work for all employees
  - C. To comply with any instructions or measures on occupational safety and health
  - D. To take reasonable care for safety and health of himself and of other persons who may be affected at work
- Q13.** Section 35 of Environmental Quality Act (EQA) 1974 describes the regulation related to appeal. Which of the following are **NOT** in the power of the appeal board?
- A. To prepare and review the safety and health policy
  - B. To consider any additional evidence or documents
  - C. To award cost or make order in respect to the appeal
  - D. To hear appellant in person or his representatives
- Q14.** The Department of Occupational Safety and Health (DOSH) is one of the safety and health organizations. What is the main objective of DOSH?
- A. To provide training and education of safety and health.
  - B. Registration of employer and employee to SOCSO Scheme.
  - C. To study, review and enforce the policies and legislations of occupational safety and health.
  - D. Collecting contribution, processing benefit claims and making payment to injured workers and their dependents.
- Q15.** Safety is a measure and practice undertaken to prevent and minimize the risk of injury, loss of life and damage to property and also to the environment. Followings are the positive impact of safety culture, **EXCEPT**.
- A. Lower the turnover rates
  - B. Contribute profit by minimizing loss
  - C. Competitiveness which lead to development
  - D. Improve the quality of the work by reducing absenteeism.

- Q16.** Factory Machinery Act (FMA) 1967 is divided into six (6) parts. Which of the following is stated in Part V FMA 1967?
- A. Safety, health and welfare
  - B. Persons-in-charge and certificates of competency
  - C. Notification of accidents, dangerous occurrence and dangerous diseases
  - D. Notice of occupation of factory and registration and use of machinery
- Q17.** Environmental Impact Assessment (EIA) is a study to identify, predict and evaluate the impacts of a proposed project to the environment prior to project approval and implementation. Which of the following is **NOT** the importance of conducting EIA?
- A. To avoid costly mistakes during the project.
  - B. A planning mechanism to prevent environmental problems
  - C. Ensures the potential problems are foreseen and addressed at an early stage in the project planning and design.
  - D. Provide vocational and physical rehabilitation benefits and enhance occupational safety and health awareness of workers.
- Q18.** Personal Protective Equipment (PPE) is equipment worn to minimize exposure to hazards in the workplace. Does an employee have to pay for his own PPE?
- A. Yes, it's his/her responsibility to protect yourself
  - B. No, it's the employer's duty to provide necessary PPE
  - C. Yes, if the one provided by the employer is misplaced
  - D. Yes, if the one given is not comfortable.
- Q19.** Which of the following independent variables are **NOT** considered in the level of safety culture?
- A. Life commitment
  - B. Policy commitment
  - C. Manager commitment
  - D. Individual commitment
- Q20.** OSHA 1994 and FMA 1967 are both legislation acts that were approved by the?
- A. Department of Safety and Health (DOSH)
  - B. Department of Environment
  - C. Prime Minister of Malaysia
  - D. Parliament

- Q21.** The risk of accidents resulting from electrical hazards depends on how and where the electrical material or wire is used. The acts involved in electrical hazards are as follows **EXCEPT**.
- A. Employment Act 1955
  - B. Electricity Supply Act 1990
  - C. Factories and Machinery Act 1967
  - D. Occupational Safety and Health Act, 1994
- Q22.** Prevention is very important in controlling injuries and accidents, below are the prevention methods for chemical hazards **EXCEPT**.
- A. Good ventilation
  - B. Continuous exposure to chemical constituents
  - C. Wash hands properly after handling chemicals
  - D. Use appropriate personal protective equipment
- Q23.** Working in confined or narrow spaces is stated as the main contribution to hazardous activities, below is a risk that can occur when working in confined spaces, **EXCEPT**.
- A. Ergonomic hazard
  - B. Poisoning hazard
  - C. Blood pressure hazard
  - D. Fire and explosion hazard
- Q24.** At the workplace, the occurrence of accidents can be minimized if the company has proper risk management. What is risk management at the workplace?
- A. The process of evaluating the risks to safety, and health arising from hazards at work
  - B. The total procedure of evaluating risks to safety, and health arising from hazards at work
  - C. The total procedure associated with identifying a hazard, assessing the risk, putting in place control measures, and reviewing the outcomes
  - D. The process of identifying a hazard, assessing the risk, reviewing the procedure, and reporting the outcomes



- Q25.** HIRARC is one of the systematic processes commonly used in risk management at the workplace. Choose the **CORRECT** process flow of the steps involved in HIRARC.
- I. Conduct risk assessment
  - II. Classify work activities
  - III. Identify hazards
  - IV. Decide if risk is tolerable and apply control measures (if necessary)
- A. II, III, I, IV
  - B. III, II, I, IV
  - C. III, IV, I, II
  - D. IV, I, II, III
- Q26.** What is the name of the process to determine whether long-term exposure to radiation increases the potential for adverse health effects?
- A. Exposure assessment
  - B. Hazard identification
  - C. Risk identification
  - D. Radiation assessment
- Q27.** An occupational health hazard is any agent that can cause illness to individuals. Which of the following is **NOT** classified as a health hazard?
- A. Poor posture
  - B. Work at height
  - C. Bacteria and viruses
  - D. Long exposure to noise
- Q28.** Hazard analysis is used to quantify the risks associated with hazards at the workplace. Which of the following hazard analysis techniques is **INCORRECT**?
- A. Job Safety Analysis (JSA) – A procedure to identify the hazards and potential hazards associated with job operation
  - B. Fault Tree Analysis (FTA) – A method use to analyse accident through graphic technique and calculating probability of an event
  - C. Hazard Identification, Risk Assessment and Risk Control (HIRARC) – A systematic examination of operation to identify and evaluate problem that may represent risks to personnel or equipment
  - D. Failure Mode and Effect Analysis (FMEA) – A procedure to examine and analyse potential failure and determine the effect of failure to a system

- Q29.** When is the best time to review risk assessment?
- I. Development of new knowledge
  - II. Amendment of national law
  - III. Modifications of plant
  - IV. Changes in organization
- A. I and II only
  - B. II and III only
  - C. III and IV only
  - D. All of above
- Q30.** There are two workers operating a cross-cut saw machine. Their work includes loading wood panels onto the machine, cutting the wood and unloading the cut wood. They also need to repair and maintain the machine regularly as well as to change the blades of the machine. Which of the following has a lower likelihood level?
- A. Cutting the wood
  - B. Loading wood panel
  - C. Unloading the cut wood
  - D. Repair and maintaining machine
- Q31.** There are two workers operating a cross-cut saw machine. Their work includes loading wood panels onto the machine, cutting the wood and unloading the cut wood. They also need to repair and maintain the machine regularly as well as to change the blades of the machine. Which of the following hazards is rated with high severity?
- A. Cutting blade
  - B. Heavy load of cut wood
  - C. Flying fragment during cutting
  - D. Unsafe work practice during repair and maintenance
- Q32.** A team of researchers is working in a chemical laboratory. Their work includes sample collection, sample preparation, performing tests, chemical spillage, preparing test results and reporting. Which of the following is **NOT** hazard identification during sample collection?
- I. Inaccurate measurement
  - II. Inaccurate process parameters
  - III. Misidentification sample
  - IV. Sample is not placed in control environment
- A. I and II only
  - B. II and III only
  - C. III and IV only
  - D. I and IV only



- Q33.** Risk control is crucial in prevention and minimizing the accident or injury at the workplace. It is a control measure taken to reduce risk and prevent harm. As a student working in an Environmental laboratory, what are the appropriate control measures taken during sample collection?
- I. Lab instruments are calibrated
  - II. Verify name and identification upon receiving sample
  - III. Sample is stored in the designated location or area
  - IV. Use calibrate flask to measure sample's volume
- A. I and II only
  - B. II and III only
  - C. I, II and III only
  - D. II, III and IV only
- Q34.** Which of the following works created hazards like shearing, cutting, impact and puncture?
- A. Electrical work
  - B. Chemical work
  - C. Construction work
  - D. Mechanical work
- Q35.** Physical injury is defined as impairment of physical condition or substantial pain. Which of the following are categorized as physical injury?
- I. Stress
  - II. Blindness
  - III. Burn
  - IV. Poisoning
- A. I and II only
  - B. I, II and III only
  - C. II, III and IV only
  - D. All of the above
- Q36.** At construction sites, almost any walking or working surface has the potential of falling hazard. Which of the following is falling on the same level hazard?
- A. Defective ladder
  - B. Spillage not clean
  - C. Poor housekeeping
  - D. Fall protection not provided

Q37. The following are typical hazards at construction sites, **EXCEPT**.

- A. Shearing
- B. Suffocation
- C. Drowning
- D. Crush by falling objects

Q38. Study the following statement. Which hazard described by the following label?

*“Please keep your hand and cloth clear. Do not forget to lock out power before removing the guard, cover or inspection door. These are crucial to avoid your body being pulled or trapped in the machine.”*

- A. Falling
- B. Shearing
- C. Crushing
- D. Drawing-in

Q39. Safety guard is used to prevent the body part from contact with the dangerous part of the machine. Below is the description of each type of safety guard. Determine the **CORRECT** answer.

- A. Fixed – Guard can be repaired
- B. Interlock – Opening are determined by movement of stock
- C. Adjustable – Allow flexibility in accommodating various size of stock
- D. Self-adjusting – Tripping mechanism and power automatically shut off when barrier is opened

Q40. *“Line-to-ground faults energizes metal part”*  
*“Extension cord”*  
*“Downed power lines”*

These are the sources of \_\_\_\_\_.

- A. Electrical work
- B. Electrical shock
- C. Electrical hazard
- D. Electrical failure

- Q41.** Short circuit is one of potential electrical hazards that causes electrical shock. Which are other major causes of electrical shock?
- I. Arcs and sparks hazard
  - II. Lighting hazard
  - III. Combustible and explosive material
  - IV. Insulation failure
- A. I and II only
  - B. I, II and III only
  - C. I, II and IV only
  - D. All of the above
- Q42.** Circuit protection, insulator, proper connection, earthing and protection are the action taken to \_\_\_\_\_.
- A. Detect electrical hazard
  - B. Reduce electrical hazard
  - C. Source of electrical hazard
  - D. Install electrical equipment
- Q43.** *“Poor match between current and capacitors”*  
*“Overheating from high current”*  
*“Short circuits”*
- All these hazards could cause \_\_\_\_\_.
- A. Electrical shock
  - B. Arcs and sparks
  - C. Minor electrostatic shock
  - D. Combustible and explosive
- Q44.** What are the hazards that maybe occur if the scaffolding is not well maintained?
- A. Drowning
  - B. Falling from height
  - C. Falling on the same level
  - D. Electrocution or electric shock
- Q45.** Which of the following risks can be caused by a tie?
- A. Stuck
  - B. Trapped
  - C. Abrasion
  - D. Truncated



- Q46. Which of the following causes is the greatest danger to humans who are experiencing electric shock?
- A. Multimeter
  - B. Current flow
  - C. Voltage conduction
  - D. Faulty by electrical appliances
- Q47. What are the primary path for harmful chemicals to enter the human body?
- A. Eyes, ear, nose and skin,
  - B. Absorbtion, touch, percieve, immersion
  - C. Absorption, ingestion, inhalation, injection
  - D. Drinking contaminated water that absorbs directly into the kidneys
- Q48. Noise levels are measured in \_\_\_\_\_.
- A. decimal
  - B. decibel
  - C. decimal per hour
  - D. decible per hour
- Q49. Which of the following have to be considered as potential health hazards?
- A. Stress
  - B. Sound
  - C. Irritation
  - D. Radiation
- Q50. The following statements related to methods on addressing the risk of heat stress and sunburn in hot conditions, **EXCEPT**.
- A. Use a sunscreen
  - B. Use a moisturizing cream
  - C. Drink plenty amount of water
  - D. Wear protective clothing with some form of head covering
- Q51. Lead is a hazardous substance because it is categorized as \_\_\_\_\_.
- A. Toxic
  - B. Heavy
  - C. Corrosive
  - D. Flammable

- Q52.** The following statement is **NOT TRUE** about heat stress.
- A. Heat stress increased sweating rate
  - B. High temperatures can results to heat stress
  - C. Heat Stress is rare and non-life-threatening condition
  - D. Heat stress results in reduced capacity for work, inefficiency and increased risk of hazardous incidents
- Q53.** Which of the following can be classified as a physical hazard?
- I. Ergonomic
  - II. Electrical
  - III. Mechanical
  - IV. Psychosocial
- A. I and II only
  - B. II and III only
  - C. II, III and IV
  - D. All of the above
- Q54.** Which of the following is the type of vibration that needs to be emphasized in the context of occupational health?
- I. Hand vibration
  - II. Engine vibration
  - III. Vibration in the workplace
  - IV. Vibration throughout the body
- A. I and II only
  - B. I and IV only
  - C. II and III only
  - D. III and IV only
- Q55.** Which of the following is a consumer daily product that contains harmful substances?
- A. Paint
  - B. Toothpaste
  - C. Shower Gel
  - D. Dairy Product
- Q56.** Which of the following are factors that contribute to stress at the workplace?
- A. Overtime with additional allowance benefits
  - B. Fine for not being sensitive to personal safety
  - C. Employers are firm in occupational safety and health
  - D. Change in technology that are not relevant to the current practice

- Q57.** Which of the following are the effects on the health hazards?
- |                    |                    |
|--------------------|--------------------|
| I. Acute           | III. Fatal         |
| II. Injury         | IV. Irritation     |
| A. I and II only   | C. III and IV only |
| B. II and III only | D. I and IV only   |
- Q58.** Which of the following is a compilation of severe heat stress in the human body?
- |                   |                    |
|-------------------|--------------------|
| I. Fainted        | III. Heat Transfer |
| II. Stroke        | IV. Heat Rash      |
| A. I, II and III  | C. I, II and IV    |
| B. II, III and IV | D. I, III and IV   |
- Q59.** Which of the following situations should be reported to the employer or supervisor without delay?
- A. Late in completing assigned tasks
  - B. Changes in weather forecasts
  - C. Any suggestions that can help in speeding up the work
  - D. Any safety concerns, incidents or near miss accidents at workplace
- Q60.** Which of the following is the most accurate statement related to near miss accidents?
- A. Conditions that have the potential to cause injury or illness or may cause damage to property, personal effects or work in progress
  - B. Conditions that cause injury or illness or may cause damage to property, personal effects or work in progress
  - C. Any unplanned event that causes injury or illness, property damage or dangerous disturbance while carrying out work.
  - D. Any event that has been planned that causes injury to the employer or employee in the workplace
- Q61.** Why does an accident need to be investigated?
- A. To know who the offending
  - B. To find witnesses to an accident
  - C. To find the cause of the accident
  - D. To assist a police officer



- Q62.** Which of the following was involved in the internal investigation team for an accident?
- |                          |                    |
|--------------------------|--------------------|
| I. Safety officer        | III. DOSH officer  |
| II. External consultants | IV. Police officer |
- A. I and II only  
B. I and III only  
C. II and IV only  
D. III and IV only
- Q63.** Which of the following is **TRUE** about the definition of an accident?
- A. Any pressure to cause injury or damage to property  
B. Any adverse conditions when control and work procedures are not followed  
C. A condition that can cause long-term (chronic) problems resulting in the whole or certain parts of the body being affected  
D. A sequence of unexpected and unplanned events, which occur through a combination of several causes and result in physical injury to the individual, property damage, near miss accident and loss
- Q64.** Below are unsafe actions that lead to the cause of the accident **EXCEPT**.
- A. Equipment that does not work properly  
B. Does not follow a safety working protocol  
C. Eating, drinking and smoking while working  
D. Does not maintain machinery and equipment systematically
- Q65.** The employer is responsible for completing the accident report. Which of the following is a report that needs to be prepared by the employer?
- A. Insurance Claim report  
B. Employee Accident report  
C. Employee Satisfaction report  
D. Employer Accident report
- Q66.** Who is responsible for investigating and reporting accidents under the Occupational Safety and Health Act in the event of a serious accident or injury at the workplace?
- A. The victim  
B. An employers  
C. Safety Officers  
D. Engineers

- Q67.** Below are guidelines to be followed when conducting an accident investigation, **EXCEPT**.
- A. Protect the evidence obtained
  - B. Conduct an investigation a week after the incident
  - C. Record all information with complete photo, date and time
  - D. Obtain information from individuals involved during the incident
- Q68.** One of the causes of accidents is due to negligence from the management of an organization. Which of the following statements is **NOT TRUE** about negligence?
- A. Non-standardized work policies / procedures
  - B. Personal Protective Equipment (PPE) is not provided
  - C. Communication between supervisors and employees are not clear
  - D. Lack of awareness about the importance of safety and health at workplace
- Q69.** The following statements are the reasons why the accident is not reported, **EXCEPT**.
- A. The management are not skilled in making reports regulated by OSHA
  - B. The management does not manage and provide training properly
  - C. The management solve problems using methods other than the rules regulated by OSHA
  - D. The management did not report a number of accidents in order to maintain a clean safety record
- Q70.** An employer must inform the nearest DOSH about any accident, dangerous incident, poisoning, illness that occurs or may occur. Based on these statements, the mistakes that are often made during accident investigations are as follows, **EXCEPT**.
- A. The employee interviewed gave a true and accurate statement with the intention of not protecting the offender
  - B. OSHA professionals are unaware of other agendas such as leakage of information while conducting investigations
  - C. Mistakes in hiring unskilled professionals related to OSHA, lack of experience and exposure to occupational safety and health
  - D. Mistakes in providing accurate information during an interview on the intention of wanting to save oneself from receiving punishment or trying to protect people around

- END OF QUESTIONS -