



UNIVERSITI KUALA LUMPUR
INSTITUTE OF MEDICAL SCIENCE TECHNOLOGY

FINAL EXAMINATION
MARCH 2025 SEMESTER

COURSE CODE : HRB 20103
COURSENAME : OSH MANAGEMENT SYSTEM
PROGRAMME NAME : BACHELOR OF OCCUPATIONAL SAFETY & HEALTH
(HONOURS)
DATE : 4th JULY 2025
TIME : 9.00 AM – 12.00 PM
DURATION : 3 HOURS



INSTRUCTIONS TO CANDIDATES

1. Please CAREFULLY read the instructions given in the question paper.
2. This question paper has information printed on both sides of the paper.
3. This question paper consists of TWO (2) sections; Section A and Section B.
4. Answer ALL questions in Section A. For Section B, answer THREE (3) questions ONLY.
5. Please write your answers on the objective answer sheet and answer booklet provided.
6. Answer all questions in English language ONLY.

THERE ARE 15 PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

SECTION A (Total: 40 marks)

Answer ALL questions.

Please use the answer booklet provided.

1. When an organization conducts environmental monitoring, the company must ensure that calibrated or verified monitoring and measurement equipment is maintained as stated in clause _____ of ISO 14001:2015.
 - A. 9
 - B. 7
 - C. 5
 - D. 6

2. Which of the following is **NOT** a contributing factor to the success of OSH management system implementation in an organization?
 - A. Ignore regulatory requirements.
 - B. Employee participation in hazard identification.
 - C. Improve internal communication in organization.
 - D. Great leadership commitment of top management.

3. The mandatory statement of environmental policy includes _____.
 - I. framework for setting environmental objectives
 - II. commitment to protect the environment in the business process
 - III. commitment to fulfill its compliance obligation
 - IV. pledge towards continual improvement
 - A. I, III and IV
 - B. I, II, and III
 - C. II, III and IV
 - D. I, II, III and IV

4. When determining its environmental aspects, the organization shall include,
- I. language barrier between workers
 - II. dispersion of H₂S per hour
 - III. energy consumption/unit of product
 - IV. raw materials used to develop the product
- A. II, III and IV
 - B. I, III and IV
 - C. I, II and III
 - D. II, III and IV
5. Clause ____ of ISO 9001:2015 mentioned statement of "The organization shall monitor customers perceptions of the degree to which needs, and expectation have been fulfilled".
- A. 7
 - B. 10
 - C. 9
 - D. 3
6. Life Cycle Assessment (LCA) is _____.
- A. used as an instrument to estimate the cost of product development
 - B. used to identify improvement opportunities of product in context of environmental aspect
 - C. applied to improve company image towards environmentally initiatives
 - D. focused only on the environmental impacts during the manufacturing stage

7. Below is possible Operational Performance Indicators (OPI) of factory Kentang goreng Sdn Bhd **EXCEPT** _____.
- A. quantity of raw materials used per unit output
 - B. number of safety non - compliance reported per year
 - C. wastewater discharged per unit of product
 - D. quantity of hazardous materials used per unit output
8. The principle of Environmental Management System (EMS) is to _____.
- A. establish good employers and workers relationship
 - B. minimize hazards exposure at work
 - C. increase sustainability of natural resources
 - D. enhance customer's satisfaction when using the product
9. In ISO 14001: 2015, Plan elements of PDCA includes following sub clauses **EXCEPT** _____.
- A. communication
 - B. supports
 - C. environmental objectives
 - D. performance evaluation
10. The following are internal issues related to ISO 14001 in an organization **EXCEPT** _____.
- A. appointment of new product development manager
 - B. price increase of raw material
 - C. expansion of warehouse facilities
 - D. changes in the type of product manufactured by the organization

11. In OSH management system, the procurement process in organization should ensure that _____ .
- I. materials are delivered adhere to safety specification
 - II. cost is prioritized over health and safety requirements
 - III. training is provided to the workers upon receiving of machine
 - IV. installation of machinery are inspected and commission upon delivery
- A. I, III and IV
 - B. I, II, and III
 - C. II, III and IV
 - D. I, II, III and IV
12. Which component of a management system is responsible for identifying trends from previous non-conformance report?
- A. Management review
 - B. Emergency preparedness plan
 - C. Commitment from chairman
 - D. Standard Operational Procedures document
13. Below are examples of documented information for Integrated Management System (IMS) **EXCEPT** _____ .
- A. IMS objectives
 - B. IMS policy
 - C. risk register template
 - D. attendance of noise awareness training for January 2025

14. Interested parties for OSH management system are _____.
- I. competitors in the same business chain
 - II. employee representatives
 - III. local authority
 - IV. Department of Occupational Safety and Health
- A. I, II, and III
 - B. II, III and IV
 - C. I, III and IV
 - D. I, II, III and IV
15. Companies shall recruit competent people in performing work related to safety and health. This statement refers to clause ___ of ISO 45001: 2018.
- A. 7
 - B. 5
 - C. 4
 - D. 10
16. _____ is an example of Environmental Condition Indicators (ECI) for palm oil factory.
- A. Percentage of environmental targets achieved
 - B. Allocated budget for environmental related training per year
 - C. Concentration of Biochemical Oxygen Demand (BOD) in effluent discharge
 - D. Number of audits carried out compared to number of audit planned

17. In ISO, the term product refers to _____.
- I. car service center
 - II. e-hailing service
 - III. isotonic drinks
 - IV. canva software
- A. I,II and III
 - B. I,III and IV
 - C. II, III and IV
 - D. I, II, III and IV
18. _____ is the standard that integrate environmental aspects into product design and development.
- A. ISO 14031
 - B. ISO 14020
 - C. ISO 14040
 - D. ISO 14062
19. Which clause of ISO 9001:2015 elaborate on the external issue of an organization?
- A. 4
 - B. 7
 - C. 9
 - D. 5
20. An organization has high turnover and frequent complaints of workload stress. According to ISO 45003, what should be analyzed first?
- A. Penalties paid by organization.
 - B. Company's financial goals.
 - C. Perceived psychosocial risk factors.
 - D. Employees' social media activity.

21. Which international body is responsible for developing management system standards?
- A. Department of Standard Malaysia
 - B. International Organization for Standardization
 - C. United Nation
 - D. International Standard Organization
22. What is the main benefit of a documented management system?
- A. Avoids penalty due to incompliance.
 - B. Provides accountability for operating procedure.
 - C. Removes managerial responsibilities.
 - D. Increases communication within organization.
23. Which of the following is **TRUE** about ISO 14025 Type III environmental declarations?
- A. An Illustration without no data.
 - B. Quantified life cycle data verified by a third party.
 - C. Applicable for packaging materials only.
 - D. Self-declared claims with no verification.
24. The main purpose of eco-labels under the ISO 14000 series is to _____.
- A. increase product sales
 - B. meet investors demands
 - C. better market value
 - D. indicate environmental performance of products or services

25. According to OSH management system, hazard identification process in an organization should consider the following,
- I. routine operation.
 - II. extension of operation time.
 - III. introduction of new hazards.
 - IV. unexpected disaster situation in the vicinity of the workplace.
- A. II,III and IV
 - B. I,II, and III
 - C. I,II and IV
 - D. I,II,III and IV
26. In OSH management system, subcontractors shall _____.
- A. comply with the organization's OSH requirements
 - B. be fully responsible on matters related to OSH at worksite
 - C. directly involved in planning OSH procedure
 - D. be appointed as the members of safety and health committee
27. An organization shall determine the interested parties that are relevant to the environmental management system. This statement refers to clause ____ of ISO 14001:2015.
- A. 4
 - B. 7
 - C. 5
 - D. 8

28. In an organization, management review shall be planned and carried out by taking into consideration of _____.
- I. changes in external issues relevant to the OSH management system
 - II. adequacy of resources
 - III. audit results
 - IV. company's annual sales performance
- A. I, II and IV
 - B. I, II, and III
 - C. II, III and IV
 - D. I, II, III and IV
29. Quality policy is _____.
- A. an ISO record
 - B. framework to support sustainable development
 - C. accessible only for safety and health committee
 - D. organization's commitment to deliver reliable products or services to customers
30. The following are **CORRECT** about continual corrective initiatives that can be done by an organization to address OSH non-compliance at workplace including _____.
- I. installation of automated machine
 - II. send workers for OSH awareness training
 - III. imposed penalty on workers for not wearing personal protective equipment
 - IV. management review process
- A. I, II, and III
 - B. I, II and IV
 - C. II, III and IV
 - D. I, II, III and IV

31. Principles of Quality Management System in an organization includes _____.
- I. customer focus
 - II. process approach
 - III. workers participation
 - IV. evidence-based decision making
- A. I, II, and III
 - B. I, II and IV
 - C. II, III and IV
 - D. I, II, III and IV
32. In Malaysia, statements in the OH&S policy shall include the following commitments **EXCEPT** _____.
- A. reward workers on their involvement in the safety campaign at work
 - B. reduce risk at workplace
 - C. continual improvement on OSH matters
 - D. adhere compliance obligation of Occupational Safety and Health (2022) Act
33. During the audit planning stage, the lead auditor is expected to cover responsibilities below **EXCEPT** _____.
- A. requesting for preliminary information from the organization
 - B. assigning roles of audit team members
 - C. gathering evidences and issuing nonconformity reports
 - D. communicating with the auditee regarding logistics and timelines

34. After introducing remote work, Seri Baja Sdn Bhd saw increased anxiety and isolation among staff. Which principle in ISO 45003 best supports the implementation of corrective actions?
- A. Provide meal allowance to workers.
 - B. Evaluate effect of changes in mode of working.
 - C. Conduct ergonomic assessment.
 - D. Get employee's to vote for preferred work mode.
35. Which organization is responsible for ISO certification in Malaysia?
- A. Department of Environment
 - B. Petaling Jaya city council
 - C. Department of Standards
 - D. Ministry of Investment, Trade and Industry
36. Integrating risk management into a management system enhance decision-making can be achieved by _____.
- A. focusing decisions on past experiences only
 - B. depending on documentation only
 - C. mitigation of potential risk issues
 - D. reducing the need for leadership involvement
37. Keris Hebat Sdn Bhd, a construction company adopted ISO 45001:2018, however it still recorded high injury rates. Which of the following are **NOT** leading to the intended outcomes of ISO 45001: 2018?
- A. Detailed design of the developed product.
 - B. Absence of safety competence person.
 - C. Poor workers participation in safety campaign.
 - D. Poor commitment of top management on safety and health matters.

38. What is one of primary purpose of an ISO Management System Standard (MSS)?
- A. To reduce the number of workforce.
 - B. To ensure organizational compliance with tax laws.
 - C. To increase company profits.
 - D. To help organizations meet stakeholder requirements.
39. Environmental performance indicators of manufacturing companies include _____.
- A. cubic meter water usage per production batch
 - B. number of projects secured per year
 - C. results from internal safety perception surveys
 - D. percentages of workers in high-risk roles enrolled in medical monitoring programs
40. The aims of OSH management system are to _____.
- I. prevent work related injury
 - II. continually improve safety performance
 - III. secure trust from potential investor
 - IV. provide safe and healthy workplace
- A. I, II and IV
 - B. I, II, and III
 - C. II, III and IV
 - D. I, II, III and IV

SECTION B (Total: 60 marks)

Answer **THREE (3)** questions only.

Please use the answer booklet provided.

Question 1

Using appropriate diagram, illustrate and discuss the iterative process used by an organization to achieve continual improvement in OH&S management system.

(20 marks)

Question 2

The number of management systems has risen dramatically in recent years, reflecting the needs and demands of organizations that aim to improve their performance in three (3) key areas namely quality, environmental management and occupational health and safety.

Based on the statement above,

- (a) Determine **TWO (2)** challenges that an organization may encounter during the implementation of an integrated management system of the above-mentioned key area

(4 marks)

- (b) Based on your answer in (a), identify **TWO (2)** actions that can be taken by the top management to address the issue.

(4 marks)

- (c) Compare **TWO (2)** differences between standards adapted to manage the above-mentioned key area.

(12 marks)

Question 3

EcoBuilders Sdn Bhd is a construction company that has secured new township housing project. The company appointed a subcontractor, Maribina Sdn Bhd to execute the project. Maribina Sdn Bhd hired 40 foreign workers from different countries (Eg: Indonesia, Nepal) as workforce at construction site. The workers need to work from 8 am to 6 pm, 6 days per week. The workers did not have experience working at construction site and zero knowledge on safety and health. They are responsible for a number of on-site tasks, such as removing debris, erecting scaffolding, loading and unloading building materials, and assisting with operating heavy equipment. Mr. Lexus, a local people is the site supervisor in charge and has to monitor two (2) other projects' site. Due to time limitation, the toolbox meeting only conducted once/week.

In February 2023, the Safety, Health, and Environment (SHE) department recorded two (2) cases of OSH at the construction site.

Case 1: Bambino, 35 years old, male, Nepalese, was assigned for mixing, pouring, and leveling concrete every day, being struck by falling objects on his head, undergone surgery, hospitalized for 1 month, given 4 months medical leave, need to follow up with doctor. Investigation revealed that the scaffold was erected without following standard safety procedures. The worker sustained serious injuries, resulting in project delays and increased costs due to medical expenses and investigation procedures.

Case 2: Meah, 50 years old, male, assigned for regulating traffic and erecting traffic signs every day, suffered of heat stress symptoms such as dehydration, hospitalized, just join in 2 weeks

Annual report 2024 on matters related to environmental issues at the construction site, reported the following issues:

- management of construction waste
- Area exploration
- Noise from construction activities
- Storage and handling of construction materials (cement, diesel, paint)

Based on the information above, answer the following:

- (a) Identify TWO (2) advantages of IMS implementation to organization

(4 marks)

- (b) Based on the Integrated Management System (IMS), assess the following:
- i. Management risk
 - ii. Safety and health risk
 - iii. Environmental aspects

For each, provide **ONE (1)** example

(12 marks)

- (c) Point out **TWO (2)** actions that can be taken by an organization to achieve the intended outcomes of IMS.

(4 marks)

Question 4

Internal audit results are valuable tools in ISO management systems.

- (a) Point out **TWO (2)** benefits of Internal Audits of ISO to an organization.

(4 marks)

- (b) Outline the steps in planning and Conducting ISO Internal Audit

(10 marks)

- (c) Determine the following terminologies:

- i. audit
- ii. auditor
- iii. auditee

(6 marks)

END OF EXAMINATION PAPER

APPENDIX

Table 1 Likelihood Table

LIKELIHOOD (L)	EXAMPLE	RATING
Most likely	The most likely result of the hazard / event being realized	5
Possible	Has a good chance of occurring and is not unusual	4
Conceivable	Might be occur at sometime in future	3
Remote	Has not been known to occur after many years	2
Inconceivable	Is practically impossible and has never occurred	1

Table 2 Severity Table

SEVERITY (S)	EXAMPLE	RATING
Catastrophic	Numerous fatalities, irrecoverable property damage and productivity	5
Fatal	Approximately one single fatality major property damage if hazard is realized	4
Serious	Non-fatal injury, permanent disability	3
Minor	Disabling but not permanent injury	2
Negligible	Minor abrasions, bruises, cuts, first aid type injury	1

Table 3 Likelihood Table

Rating	Description @ Frequency on incident
Almost Certain (5)	It is almost certain that the consequence will occur. Common or frequent occurrence. Occur on daily basis
Likely (4)	The consequence is likely to occur. It is known too occur or 'it has happened'. Occur on weekly basis
Possible (3)	The consequence could occur or 'I've heard of it happening'. Occur on monthly basis
Unlikely (2)	The consequence is not likely to occur. There is confidence that it will not occur. Occur on yearly basis
Rare (1)	The consequence may only occur in exceptional circumstances. Once in 2 years

Table 4 Severity Table

Rating	Description
Catastrophic (5)	The impact of Environmental Pollution to goes to International scale, trans boundary impacts
Major (4)	The impact of Environmental Pollution to goes to National scale
Moderate (3)	The impact of Environmental Pollution to local scale
Minor (2)	The impact of Environmental Pollution to goes to organizational scale
Insignificant (1)	Positive impact to environment @ no negative impacts to the environment

Table 5 Risk Rating Table

		Consequence Severity				
		Insignificant Significant	Minor Extreme	Moderate Extreme	Major Extreme	Catastrophic Extreme
Likelihood	Almost Certain					
	Likely	Significant	Significant	Extreme	Extreme	Extreme
	Possible	Moderate	Moderate	Significant	Significant	Extreme
	Unlikely	Low	Low	Moderate	Significant	Significant
	Rare	Low	Low	Low	Moderate	Significant

