



UNIVERSITI KUALA LUMPUR
KAMPUS CAWANGAN MALAYSIAN SPANISH INSTITUTE

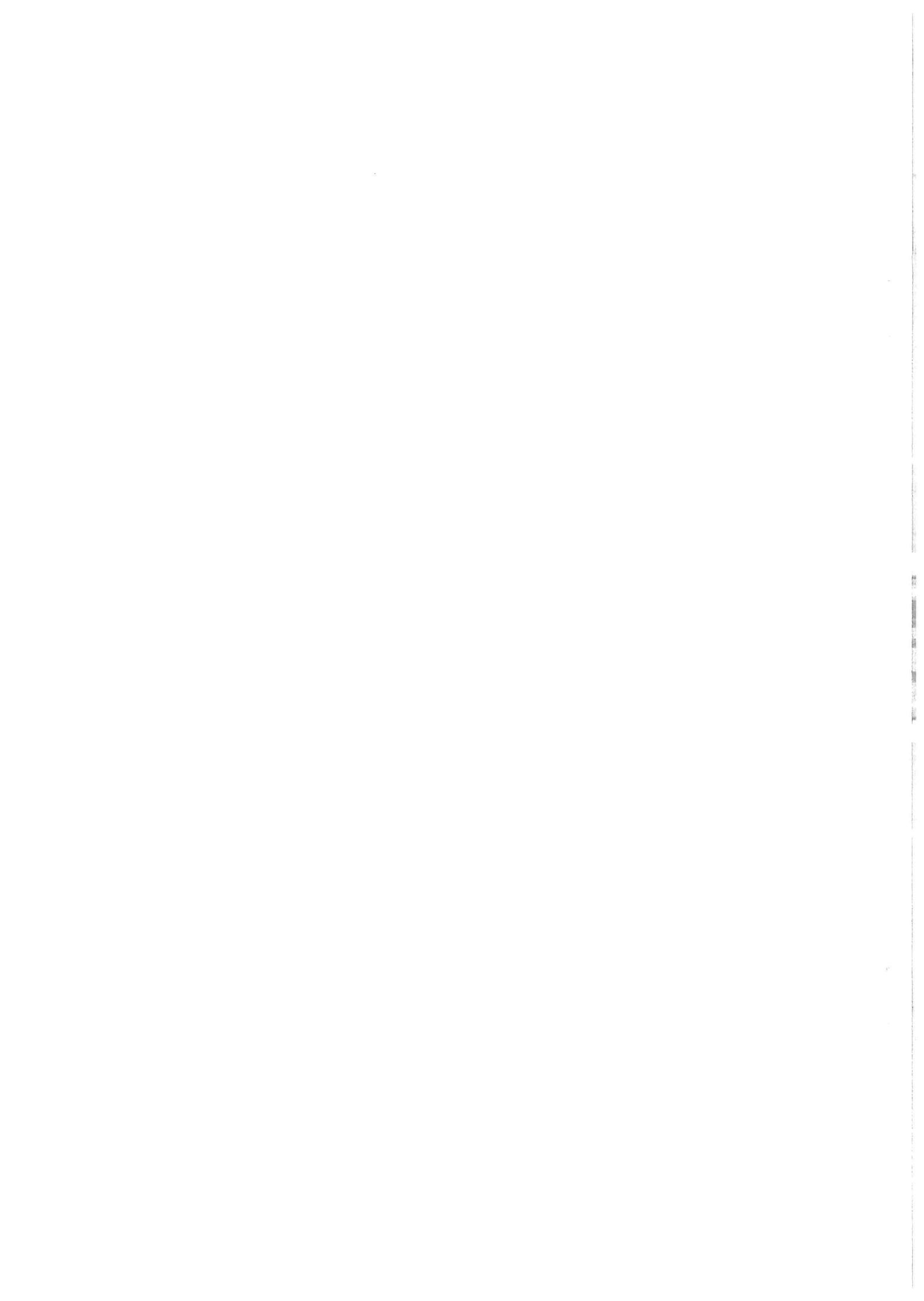
FINAL EXAMINATION
JULY 2023 SEMESTER

COURSE CODE : SFB36203
COURSE NAME : INDUSTRIAL SAFETY & HEALTH
PROGRAMME LEVEL : BACHELOR
DATE : 27th SEPTEMBER 2023
TIME : 9:00 AM – 11:00 AM
DURATION : 2 HOURS

INSTRUCTIONS TO CANDIDATES

1. Please CAREFULLY read the instructions given in the question paper.
2. This question paper consists of ONE (1) Section ONLY.
3. There are FIVE (5) questions in this booklet. Answer FOUR (4) questions.
4. Please write your answers in the answer booklet provided.
5. Answer all questions in English language ONLY.

THERE ARE 5 PAGES OF QUESTIONS, EXCLUDING THIS PAGE.



INSTRUCTION: There are FIVE (5) questions in this question booklet.

Answer FOUR (4) questions ONLY.

QUESTION 1

- (a) In 1999, the industries in Japan had successfully reduced their injury and illness rate. Explain briefly the action taken by them to improve the situation. (4 marks)
- (b) There has been little reduction in accident rate in Malaysia, despite the initiatives implemented to improve workplace safety and health. Besides law enforcement, recommend two (2) initiatives can be accomplished to reduce the accident rate in Malaysia. (4 marks)
- (c) Occupational Safety and Health Act (OSHA) was gazette in 1994 which provides the legislative framework to secure the safety, health, and welfare among all Malaysian workforces.
- i. Explain two (2) reasons OSHA 1994 was established based on self-regulation approach rather than prescriptive approach. (4 marks)
- ii. State three (3) concepts of OSHA 1994. (3 marks)
- (d) OSHA 1994 has established a more holistic approach compared to FMA 1967 and it can be portrayed in the scope of the acts. Distinguish the scope of OSHA 1994 and FMA 1967. (6 marks)
- (e) OSHA 1994 is enforced by the Department of Occupational Safety and Health (DOSH), a government department under the Ministry of Human Resources Malaysia. Explain two (2) functions of DOSH. (4 marks)

QUESTION 2

- (a) The Safety and Health Management System (OSHMS) Model is based on the Quality Management model approach to ensure that OSH program in the workplace could be improved further.
- i. Describe the importance of continual improvement as the central element of OSHMS.
(2 marks)
 - ii. State the five (5) elements involved in OSHMS Model.
(5 marks)
- (b) Explain the three (3) important parts of OSH Policy.
(9 marks)
- (c) Section 30 of the Occupational Safety and Health Act makes it compulsory for the employers who have 40 or more workers to establish a safety and health committee at their workplaces.
- i. Describe two (2) main functions of the committee as specified in Section 31 of the Act.
(4 marks)
 - ii. List down the three (3) main components for the committee.
(3 marks)
 - iii. State the penalties for the employers who contravene this provision of the Act.
(2 marks)

QUESTION 3

- (a) To survive and prosper in today's marketplace, industrial companies must be competitive. The global marketplace is intensely competitive.
- i. List down six (6) key areas of competitiveness.
(6 marks)
 - ii. Discuss two (2) reasons on why it is common for OSH to be given a lower priority when the pressure of competing becomes intense.
(4 marks)
 - iii. Explain the effects of a stressed atmosphere towards the safety and health of employees.
(4 marks)
- (b) Nowadays, the number of highly skilled jobs in modern industry is increasing, however, the number of people able to fill them is on the decline. State five (5) impacts of this situation to the industry.
(5 marks)
- (c) In your own opinion how safety and health can improve competitiveness? Give three (3) points to support your answer.
(6 marks)

QUESTION 4

- (a) Any analysis of machinery safety involves an examination of the first principles of design. State four (4) requirements for work equipment.
(4 marks)
- (b) The objective of machine safety strategy is the prevention of injury to operators and other persons. With simple illustrations, explain three (3) principles form of trap.
(15 marks)
- (c) Fire is a spectacular example of a fast-chemical reaction between combustible substance and oxygen accompanied by the evolution of heat. There are five (5) main classifications of fire, describe Class A, Class B, and Class C of fires.
(6 marks)

QUESTION 5

- (a) The statutory definition of lifting machinery is 'a crane, crab, winch, pulley block, gin wheel, transporter or runway'.
- i. State two (2) hazards associated with any crane operation.
(2 marks)
 - ii. List down two (2) causes of the hazards associated with crane operation.
(2 marks)
 - iii. Explain the situation when 'maximum permitted moment' is exceeded.
(6 marks)
- (b) A boiler is a closed vessel in which water is heated to form steam, hot water, or high-temperature water under pressure. There are five (5) measurement methods to check the pressure hazards in boilers. Explain the five (5) methods.
(15 marks)

END OF EXAMINATION PAPER

