



**UNIVERSITI KUALA LUMPUR
Malaysia France Institute**

**FINAL EXAMINATION
JANUARY 2010 SESSION**

SUBJECT CODE : FID 26002
SUBJECT TITLE : INDUSTRIAL SAFETY MANAGEMENT
LEVEL : DIPLOMA
TIME / DURATION : 9.00am – 11.00am
(2 HOURS)
DATE : 05 MAY 2010

INSTRUCTIONS TO CANDIDATES

1. Please read the instructions given in the question paper **CAREFULLY**.
2. This question paper is printed on both sides of the paper.
3. Please write your answers on the answer booklet provided.
4. Answer should be written in blue or black ink except for sketching, graphic and illustration.
5. This questions paper consists of **TWO (2)** sections. Section A and B. Answer **ALL** questions in section A. For sections B, answer **TWO (2)** questions only.
6. Answer all questions in English.

THERE ARE 6 PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

SECTION A (Total: 60 marks)**INSTRUCTION: Answer ALL questions.****Please use the answer booklet provided.****Question 1**

- a. Accident at workplace is an increasing trend. Describe two(2) reason why safety management is important in an organization (4 marks)
- b. Describe three (3) types of risk in safety management (6 marks)

Question 2

- a. Describe the three (3) fire element occurs (4 marks)
- b. Knowing the classification of fire is crucial in order to determine the method of extinguishing it. Name four (4) classifications of fire supported with examples (6 marks)

Question 3

- a. Differentiate between The Factory Machinery Act 1967 and The Occupational Safety Health Act, 1994 (OSHA 1994). When and who gazette OSHA 1994. (5 marks)
- b. List two (2) main objectives of Occupational Safety and Health Act, 1994 (5 marks)

Question 4

Accident investigation is conducted to help prevent recurrence of similar accident

- a. State the benefits of an effective accident investigation

(4 marks)

- b. Explain who should conduct and involve in an accident investigation.

(6 marks)

Question 5

- a. Describe the term "confined space" and give two (2) examples.

(4 marks)

- b. Give six (6) types of hazard may occur during the activity at confined space.

(6 marks)

Question 6

- a. Briefly describe the concept of human factor

(4 marks)

- b. Describe the importance of human factor in safety and health

(6 marks)

SECTION B (Total: 40 marks)

INSTRUCTION: Answer two (2) questions only.

Please use the answer booklet provided.

Question 7

"Case closed after 15 years, HAZMAT units was formed after fire explosion at factory in Sungai Buloh". Sunday Star, 6 August 2006

15 years later, the case was closed for victims of the Bright Sparkler fireworks factory explosion in Sungai Buloh, Selangor. Many had forgotten the tragic event by now that killed 22 people and injured 103 on may 7, 1991 in the fire explosion. Finally the Government has made a payout of RM954,685 by Director of Selangor Land and Mines Department, the Petaling District Council and the Government of Malaysia being the defendants respectively for general and special damages and interest. The 119 people also received a lump sum of RM30,000 from Chin Kong Hin, the Director at Bright Sparklers Sdn. Bhd, who went out of business after the tragedy for the loss of loved ones, injuries and damages to their properties.

Liow Siew Hing, 69 was among the parents who lost a son in the tragedy. His son was one at the early rescues at the site when the first blast took place at 3.00 pm when his son and twelve friend were at a coffee shop near the factory. The entire group went to the place to help in the rescue operation but only four came out alive; K. Vesran, 43 lost his sister in the tragedy and his mother is paralyzed now. Akmal , Singh, another victim suffered epilepsy and lost his right hand movement as he was hit by flying debris on his head. He recalled 'neighboring houses in Kampung Sungai Buloh were on fire, and about 40% of the factory was destroyed and fireworks were exploding all over the place'

The Fire and Rescue Department has then set up 11 HAZMAT (Hazardous Material Team) for search and rescue in fires involving chemicals. 'The special team is unlike the ordinary unit that puts out ordinary fire, they are highly specialized in incident involving chemicals', said the Deputy Directory General, Fire and Rescue Department

- a. Describe how fire explosion occurs

(4 marks)

- b. State five (5) effect of the accident based on this case and provide evidence

(4 marks)

c. Explain how would you extinguish this fire and justify why

(4 marks)

d. Elaborate what type (s) of hazard are present in this factory and justify

(4 marks)

e. You are a storekeeper in charge of a chemical store. Describe how you would charge this chemical store in compliance with the OSH regulations.

(4 marks)

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Question 8

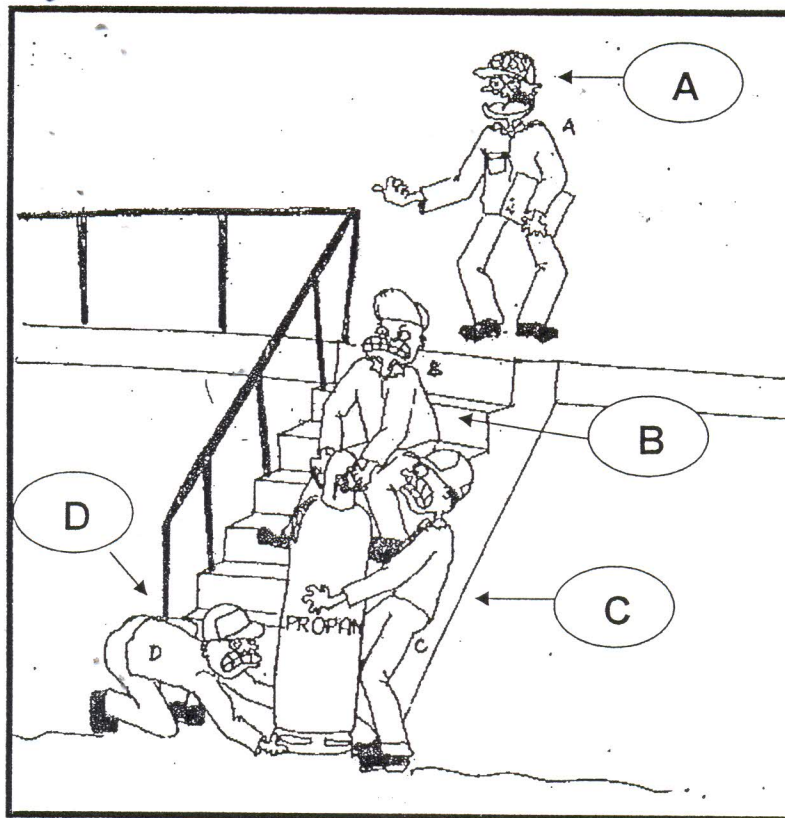


Figure 1: Propane Cylinder

Kukus Piping Engineering Sdn.Bhd is a company producing piping for Oil & Gas Industry. Currently they are expanding the operation space and need to move few equipment to new place. Figure 1 shows the Mr.A (supervisor) is giving instruction to their worker to move the Propane Cylinder to a new place.

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- a. As the Safety Officer in this company list two (2) hazard in this situation
(4 marks)
- b. List the correct procedure for doing this task
(6 marks)
- c. As a worker, what is your action if the employee do not provide Personal Protective Equipment (PPE)
(4 marks)
- d. In your opinion, what occurrence will happen to the worker in the health aspect of the worker?
(6 marks)

Question 9

Figure-2 show a situation at the palm oil mill. The maintenance guy, Mr. A is checking the conveyor chain after taking off the safety cover at 9.00 am. Mr. B is setting the conveyor to switch on for operation in the afternoon without knowing Mr. A has not yet finish the maintenance job. Answer the following question.

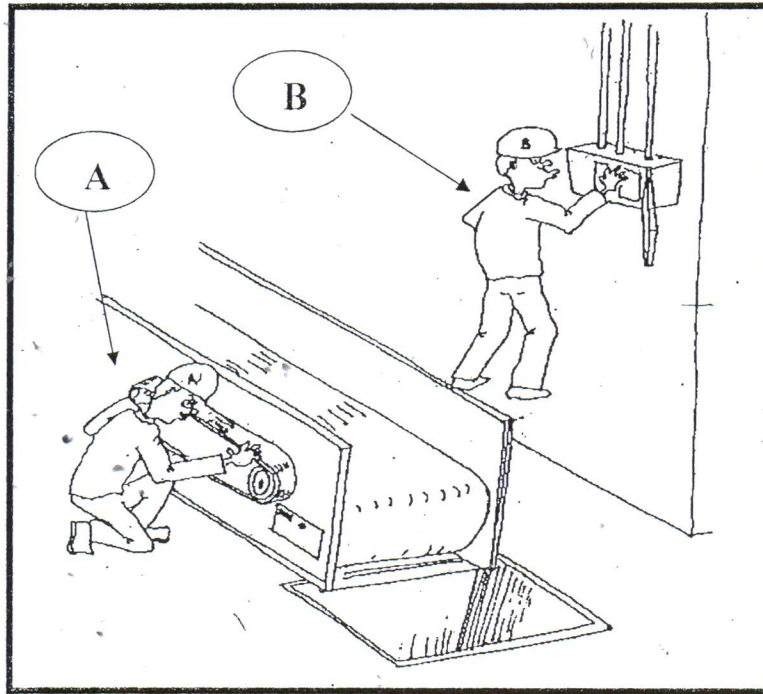


Figure 2: Conveyor Maintenance

- a. List the unsafe act and unsafe condition in t this situation? (3 marks)
- b. Define the most common types of mechanical injury hazards that may occur (5 marks)
- c. State reasons why Mr. A did not use Personal Protective Equipment (PPE) (2 marks)
- d. Develop a Hazard Identification Risk Assessment Risk Control (HIRARC) (10 marks)

END OF QUESTIONS