



UNIVERSITI KUALA LUMPUR  
INSTITUTE OF MEDICAL SCIENCE TECHNOLOGY

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FINAL EXAMINATION  
OCTOBER 2025 SEMESTER

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COURSE CODE : HRB40203  
COURSE TITLE : EMERGENCY RESPONSE & PREPAREDNESS  
PROGRAMME NAME : BACHELOR OF OCCUPATIONAL SAFETY & HEALTH (HONOURS)  
DATE : 23 JANUARY 2026  
TIME : 3:00PM - 6:00PM  
DURATION : 3 HOURS



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INSTRUCTIONS TO CANDIDATES

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1. Please read the instructions given in the question paper CAREFULLY.
2. This question paper is printed on both sides of the paper.
3. This question paper consist of ONE sections.
4. Section A consist of five questions. Answer FOUR (4) questions only.
5. Please write your answer on the answer booklet provided.
6. Please answer all questions in English only.
7. Refer to the attached Formula/ Appendies.  Tick if applicable

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THERE ARE 6 PAGES OF QUESTIONS INCLUDING THIS PAGE

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## SECTION A (Total: 100 marks)

Answer FOUR (4) questions.

Please use the answer booklet provided.

## Question 1

ABC Coating Sdn. Bhd. operates a paint manufacturing plant. Solvent and resin drums are stored in a warehouse beside the production line. One afternoon, a worker uses an electric grinder near the solvent storage area to repair a rack. Sparks from the grinder ignite solvent vapour that has accumulated near a leaking drum.

A small explosion and fire occur:

- Two workers suffer burns and smoke inhalation.
- Several drums are damaged and spill chemicals on the floor.
- The fire alarm works, but some workers are confused about the nearest exit.
- The in-house emergency team manages to control the fire before BOMBA arrives, but the plant has to stop operations for two days for clean-up and investigation.

After the accident, management decides to strengthen its emergency management system by following the development process (mitigation, preparedness, response and recovery). Using the Development Process of Emergency Management in the figure, recommend how ABC Coating Sdn. Bhd. should manage this accident and future similar emergencies.

*Refer Below - Figure1 : The emergency management cycle .*

(25 marks)

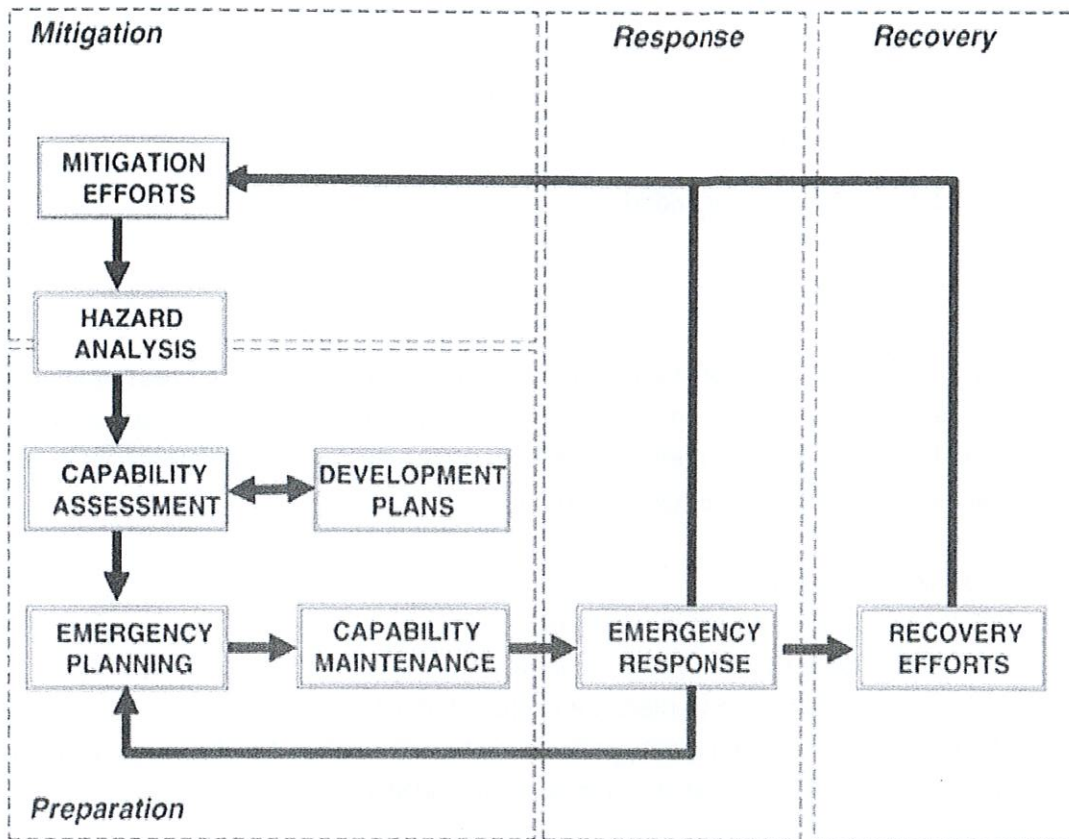


Figure 1: The emergency management cycle

**Question 2**

Emergency is an unforeseen combination of circumstances and the resulting state that calls for immediate action.

- (a) Discuss TWO (2) key objectives of emergency response in the workplace (5 marks)
- (b) Decide on FOUR (4) legislative documents that serve as references for emergency response and preparedness in Malaysia. (8 marks)
- (c) Explain SIX (6) elements of emergency response and preparedness. (12 marks)

**Question 3**

A university hostel houses 400 students and has a small cafeteria on the ground floor that uses LPG cylinders for cooking. One evening, several students report a strong smell of gas near the cafeteria, followed by dizziness and mild breathing difficulty for a few students.

Events during the incident:

- The cafeteria worker switches on the exhaust fan and continues cooking, thinking the smell is "normal".
- Different staff members make separate phone calls to security, clinic and hostel warden; no one takes overall control.
- The security guard starts evacuating only the ground floor, while some wardens tell students to remain inside their rooms to "avoid panic".
- No one is assigned to meet the Fire & Rescue Department upon arrival or to brief them on gas storage locations.
- After the incident, there is no formal debrief to review causes, mitigation or recovery actions. Student complaints on WhatsApp are not channelled into any official report.

The university management now wants to establish a proper Emergency Management Organisation, consisting of an Emergency Coordinator, an Emergency Management Committee and an Incident Command Organization .

- (a) Compare the roles and objectives of these three parts of an Emergency Management Organisation.

(9 marks)

- (b) Based on the incident, explain THREE (3) major weaknesses in how the emergency was managed. For each weakness, state which part of the Emergency Management Organisation should be responsible for correcting it.

(6 marks)

- (c) If another gas leak occurs at the hostel, explain how the Incident Command Organisation should operate on scene.

(10 marks)

**Question 4**

A medium-sized manufacturing company has developed an Emergency Response Plan (ERP), but it has never been fully integrated into day-to-day operations. Most workers are not familiar with the procedures, drills are rarely conducted, and the plan has not been reviewed for several years.

- (a) Explain the importance of integrating the emergency plan into the company's normal operations.

(4 marks)

- (b) Explain THREE (3) types of training or practice activities that the company should carry out to ensure workers know what to do during an emergency.

(9 marks)

- (c) Recommend a systematic step-by-step approach for evaluating and modifying the company's existing emergency plan.

(12 marks)

**Question 5**

During an evening revision class in a university lab, a group of students suddenly smells smoke and sees light smoke entering the room from the corridor. Panic starts to spread.

- Student A rushes to the door, grabs the knob and quickly opens it without checking the temperature. Thick black smoke pours into the room.

- Student B runs upright through the smoke toward the staircase, shouting for help.

- Student C remembers something from a safety briefing, tells everyone to stay low and starts crawling toward the nearest exit, taking short breaths through the nose.

- Student D feels another door on the opposite side of the room; the knob is very hot, so she tells her friends not to open it and to stay away from that side.

- On the way out, Student E's clothes catch fire after brushing against a small flame from a fallen candle. E panics and tries to run.

- (a) Critique the FIVE (5) specific behavioral failures of the students that were dangerous during a fire emergency.

(10 marks)

- (b) Based on proper fire safety procedures, justify the correct actions the students should take in this situation, referring specifically to,
- i) moving through smoke
  - ii) checking doors before opening
  - iii) what to do when clothes catch fire.

(9 marks)

- (c) As a member of the university safety committee, recommend THREE (3) long-term measures that should be implemented to prevent similar fire incidents in the future.

(6 marks)

END OF EXAMINATION PAPER

