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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER I
SESSION 2018/2019**

COURSE NAME : OCCUPATIONAL SAFETY AND
HEALTH MANAGEMENT

COURSE CODE : BPC 32503

PROGRAMME CODE : BPB

EXAMINATION DATE : DECEMBER 2018 / JANUARY 2019

DURATION : 3 HOURS

INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF **FOUR (4) PAGES**

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Q1 Due to rapid growth in sales, the ABC company had decided to add more workers and engineers, and approving unlimited overtime for workers and engineers. Shortly after the upturn in production, ABC began to experience a disturbing increase in accidents and injuries.

Accident investigations were carried out by the ABC's safety manager. He identified several reasons causing accidents. The project management was in rush to complete the project within the time frame to avoid penalty, and this means that workers were pushed to produce beyond their personal limits and their capabilities. Stress and fatigue all contributed to the overload. In some accidents, the safety manager found that safeguards were removed from rebar cutter and table saw. Based on interviews, workers removed the safeguards because they have to finish the job as soon as possible. In addition, he found that most of the new workers are unskilled; they worked as farmers and never attended any job training before. He also found out that some accidents happen to the new workers.

- (a) Analyze **THREE (3)** causes of accidents for above scenario. (6 marks)
- (b) Classify the accident causation based on your answer in **Q1(a)** according to human factor theory. (9 marks)
- (c) Recommend **FIVE (5)** preventive and controls measures that can be implement to avoid such accidents in the future. (10 marks)

Q2 An employee slipped on a patch of oil on a warehouse floor and was given days off for several days. The oil was found close to a pile of pallets that had been left abandoned on the pedestrian walkway.

- (a) Elaborate the **FIVE (5)** steps of accident investigation based on the above situation. (15 marks)
- (b) Determine **FIVE (5)** approaches in which management could demonstrate their commitment to improve safety and health standards in the workplace following the accident. (10 marks)

Q3 (a) Define the following terms:

- (i) Hazard
- (ii) Risk
- (iii) Acute effect
- (iv) Chronic effect

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- (b) Identify **FOUR (4)** hazards with examples, that might be encountered in a busy hotel kitchen. (8 marks)
- (c) Discuss **THREE (3)** control or preventive measures that could be implemented to reduce noise hazards at a workplace. (9 marks)

- Q4**
- (a) Define risk assessment. (2 marks)
 - (b) List **FIVE (5)** steps in risk assessment. (5 marks)
 - (c) In a tea plantation industry, a work unit of ‘plucking’ claimed to suffer from neck pain and backache, which are considered as minor injuries. The frequency of occurrences are reported in multiple times a week. Another work unit of ‘crushing, tearing and curling’ is exposed to small cuts injuries during working. The injuries are treated as first aid case and happened every once in a week.

Hazards were categorized by the severity of the outcome (severity rating) into the following groups:
1 = first aid case; 2 = minor injury; 3 = major injury; 4 = fatality and 5 = multiple fatalities.

The exposure rating was categorized by the frequency of its occurrence (frequency rating) into the following groups:
1 = less than once a year; 2 = once a month; 3 = once a week; 4 = 2–3 times a week and 5 = daily.

Table Q4: The risk matrix table

		FREQUENCY RATING (FR)				
		1	2	3	4	5
SEVERITY RATING (SR)	1	RR 1	RR 2	RR 2	RR 2	RR 3
	2	RR 2	RR 2	RR 3	RR 3	RR 4
	3	RR 2	RR 3	RR 3	RR 4	RR 4
	4	RR 2	RR 3	RR 3	RR 4	RR 5
	5	RR 3	RR 4	RR 4	RR 5	RR 5

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Note :

- Risk Not Significant : RR 1 – RR 2
- Risk Significant (Category 1) : RR 3 – RR 4
- Risk Significant (Category 2) : RR 5

(i) Prepare the risk matrix with the risk rating for both work units as mentioned in **Q4(c)**, by referring to the information given and **Table Q4**.
(10 marks)

(ii) Propose **FOUR (4)** prevention strategies based on the hierarchy of control for both work units.
(8 marks)

-END OF QUESTIONS-

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