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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER I
SESSION 2019/2020**

COURSE NAME : OCCUPATIONAL SAFETY AND HEALTH
COURSE CODE : BNP 20402
PROGRAMME CODE : BNA, BNB, BNC
EXAMINATION DATE : DECEMBER 2019/JANUARY 2020
DURATION : 2 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS

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THIS QUESTION PAPER CONSISTS OF NINE (9) PAGES

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OBJECTIVE QUESTIONS (20 MARKS)

1. A hazard is...
 - A. The likelihood of a substance person, activity or process to cause harm
 - B. The probability of a substance person, activity or process to cause harm.
 - C. The potential of a substance person, activity or process to cause harm.
 - D. The prospect of a substance person, activity or process to cause harm

2. Who are the customers of the occupational safety function?
 - A. All employees in an organization
 - B. All employees in an organization and the community as a whole
 - C. The safety manager, supervisor, peers, and subordinates
 - D. From the CEO-level of management to the line worker

3. Some ways the safety management professional can determine training needs is to:
 - A. All of the following
 - B. Conduct workplace surveys
 - C. Review regularly scheduled inspections for needs
 - D. Conduct an employee opinion survey

4. The terms incidents and injuries are often used interchangeably. Actually the meanings are:
 - A. Synonymous
 - B. Different
 - C. Diametrically opposed
 - D. Identical

5. Section 16, OSHA 1994 requires the employers to
 - A. report accidents
 - B. provide PPE
 - C. have a written policy
 - D. be competent

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6. The requirement for the establishment of a safety and health committee is mentioned in...
- A. Section 32, FMA 1967
B. Section 29, OSHA 1994
C. Section 30, OSHA 1994
D. Section 29, FMA 1967
7. The duties of employer are stated in ...
- A. Section 15, FMA 1967
B. Section 15, OSHA 1994
C. Section 16, FMA 1967
D. Section 16, OSHA 1994
8. FMA (Person In Charge) Regulation 1970 specify that certain machinery requires certificate of competencies **EXCEPT**
- A. steam boiler
B. dredge
C. internal combustion engine
D. electric motor
9. A risk is...
- A. The ability of a substance person, activity or process to cause harm
B. The likelihood of a substance person, activity or process to cause harm.
C. The potential of a substance person, activity or process to cause harm
D. The prospect of a substance person, activity or process to cause harm.
10. A duty that 'the employer ensures, as far as is practicable, that any control measure is maintained in an efficient state' means.....
- A. If it is convenient, the duty may be done
B. Unless the risk is high, the duty may not be done.
C. If the frequency of the activity is small, the duty need not be done
D. If the duty is technically possible, it must be done irrespective of any difficulty, inconvenience or cost

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11. Occupational Safety and Health is a function
- A. administrative
 - B. management
 - C. quality control
 - D. Financial
12. The main cause of an accident is known as
- A. Risk factor
 - B. Contributory factors
 - C. Primary cause
 - D. Primary risk
13. Control by engineering design would NOT include
- A. Installing light beam safety divide
 - B. Supervision
 - C. Interlocking
 - D. Limitation
14. During accident investigation, the following should be done, except
- A. Gathering information
 - B. Formulating theories on why and how the accident might have occurred
 - C. Witness should be interviewed in a relaxed atmosphere
 - D. Carry out investigation immediately
15. Which of the following is NOT a component of Emergency Preparedness?
- A. Conducting drills
 - B. Accident investigation
 - C. Public education program
 - D. Reviewing hazard

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- 16 A Permit To Work
- A. Allows illegal workers to work in Malaysia
 - B. Is a permanent record of precautions taken for maintenance
 - C. Is a statement that maintenance work has been done
 - D. Is a safe system of work
- 17 Which of the following is NOT a human factor for the cause of accident?
- A. Lack of training
 - B. Poor maintenance
 - C. Shift work
 - D. Physical condition of worker
- 18 An accident investigation would
- I Determine causes of accident
 - II Provide means to uncover new hazards
 - III Identify weakness in operating procedure
 - IV Record fact for future reference
- A. I, II and III only
 - B. II, III and IV only
 - C. I, II and IV only
 - D. I, II, III and IV
- 19 Which of the following cannot be used in hazard identification?
- A. Job Safety Analysis
 - B. Consultation
 - C. Fault Tree Analysis
 - D. Performance Measuring
- 20 Which of the following need NOT be considered during developing a safe system of work?
- A. Assessment of the task
 - B. Monitoring the system
 - C. Identification of safe methods
 - D. Emergencies

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Q1 Name and explain **THREE (3)** health hazards on a chemical label in the laboratory.

(6 marks)

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Q2 Identify **THREE (3)** factors that contribute to minor/major injuries in the laboratory.

(6 marks)

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.....
.....

Q3 There were numerous major industrial accidents that have contributed significantly to the evolution of occupational, safety and health. Lessons learnt from those incidents have initiated more stringent precautions and preventive measures. Determine the implication and contributing factors of each tragedy as listed in **Table Q3**.

(8 marks)



Table Q3: Major Industrial Accidents

No	Tragedy	Implications	Contributing Factors
1	Bhopal Tragedy		
2	Bright Sparkles		
3	Highland Towers		
4	Chernobyl Disasters		

Q4 Figure Q4 shows the scenario taken at a construction site of company MNO Sdn. Bhd. Perform HIRARC analysis and identify **FOUR (4)** hazards. Complete the HIRARC form in Table Q4.

(10 marks)



Figure Q4

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Table 4 : HIRARC

HIRARC FORM											
Company:				Conducted by:							
Process / Location:				(Name, designation)							
Approved by:(Name, designation)				Date:(from... to...)							
Date:				Review Date:							
				Next Review Date:							
1. Hazard Identification				2. Risk Analysis				3. Risk Control			
No.	Work activity	Hazard	Which can cause / effect	Existing Risk Control (if any)	Likelihood	Severity	Risk	Recommended Control Measures	PIC	Due Date	Status
1											
2											
3											
4											
5											

6

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