

EASTERN UNIVERSITY, SRI LANKA

FACULTY OF COMMERCE AND MANAGEMENT

Final Year First Semester Examination in Bachelor of Business Administration –

Specialization in Human Resource Management 2016/2017 (January, 2019)

(Proper / Repeat)

HRM 4033 Employee Health & Safety

Time: 03 Hours

Answer all questions

Q1. Read the following case study and answer the questions given below:

Canadian Manufacturing Plant

In the Canadian manufacturing plant of a global automotive company with headquarters in Canada, a large number of engineering activities are carried out in a wide range of areas. These activities include design, production of parts, assembly, testing, and quality assurance. Many of the manufacturing processes in the plant are performed using automated technologies and equipment. People also perform some of the manufacturing tasks and the plant employs over 400 workers. The decision on whether people or machines will be used for a particular task is dependent on many factors, including costs, time, quality and worker health and safety. The plant considered here produces a many parts for vehicles and assembles them. Among the parts produced are engine materials and parts, pumps, fans, some exterior parts, and electronics components. The plant normally operates three shifts per day and has production lines including machining equipment, conveyers and overhead cranes, punch presses, and paint-spray booths. The plant utilizes electricity and natural gas extensively. A number of workers at the plant have over the last six months been subject to several different health problems. The following information has been received by the head engineer at the plant.

- a) In an assembly area that was installed recently, workers have to bend to the ground throughout the day to attach several small parts onto a large and heavy vehicle component. Some workers have begun to develop lower back pain, likely due to the repetitive bending. The problem has become so severe for one of the workers that he has been told by his doctor to stay off work for two weeks so his back can recover. The manufacturing engineers who designed the assembly operation had wanted to

use an automated system, but that option was deemed not to be economical. The head engineer used a manual operation, but did not take into account industrial ergonomics. The head engineer had no expertise in that discipline.

- b) An increased incidence of respiratory illnesses has been reported over the last few years by workers operating near the paint-spray booths. Many of the substances used in the booths (paints, solvents, etc.) are known to be causes of the observed respiratory illnesses. But the workers are not supposed to come into contact with these substances because the paint-spray booths are designed to ensure that all air exits the plant through a high-capacity ventilation system and that no air can leak back into the plant. No tests had been carried out on the ventilation system or on the air quality around the paint spray booths, so it is uncertain whether there have been any leaks into the plant from the paint-spray booths.
- c) In an area of the plant where metal cutting occurs and workers use protective eyewear, workers have reported minor eye injuries. The area in question is where it is common knowledge that the workers do not routinely use the protective eyewear. It is often observed to be hanging on nearby hooks or to be loosely draped around the necks of workers. Workers complain that they find the protective eyewear uncomfortable and do not think it is needed or important. The plant manager is aware of this behaviour but overlooks it, since enforcing the use of the protective eyewear seems may make the workers unhappy and, consequently, less productive. The head engineer feels, could render the plant non-competitive.

Case Study Questions:

- a) What are the unsafe conditions and acts in the plant?
- b) Which of the unsafe conditions and acts identified in **part (a)** are,
 - i) of a technical nature, or
 - ii) related to human behaviour or management?
- c) Should the head engineer endeavor to rectify the health problems on her own? Should she report the problems to the plant manager beforehand?

d) Do you feel that some of the health problems that have occurred are due to worker health and safety being unduly compromised to allow the plant to be more productive or profitable?

(05 Marks)

(Total 20 Marks)

a) *“Unfortunately, violence in the workplace has become an increasingly important safety and health issue”*. Enlighten this statement.

(05 Marks)

b) *“Most occupations involve direct or indirect health risks”*. Explain any four occupational risk which are available in the modern industries.

(05 Marks)

c) *“Electricity is used in houses, farms, plants, factories, public places and practically every working place for lightning, operating appliance and machines, heating/cooling, chemical processing, transport etc. by proper precautions, electricity can be used very safely”*. Briefly explain the electrical accidents which can be happen in home setup and the reasons for the electrical accidents.

(05 Marks)

d) *“Safety devices made for protecting the operations from the point of hazards”*. Briefly explain any three (03) safety devices which can be used in Mechanical hazards.

(05 Marks)

(Total 20 Marks)

a) *Prepare a job description for a Health and Safety Manager of a manufacturing firm in Sri Lanka.*

(06 Marks)

- b) *“Every company must have a written safety policy which refers to the procedure for course of actions to be adopted and followed by the company”*. Explain the safety policy with the important considerations in it.
- c) *“The safety orientation and training as per predetermined training should be effectively imparted to all employees”*. List out the benefits of safety training to employees.
- d) Briefly elaborate any two (02) objectives of the Safety Management with examples.

(Total)

Q4. a) Fill in the blanks with the appropriate answer.

1. is an electric shock of such a magnitude that it causes direct physiological harm.
2. The audit is a full scale audit that evaluates safety factors in the plant on the basis of engineering, analysis, testing, measurement and module analysis.
3. A team is responsible for translating workplace safety policies into action, with particular emphasis on prevention.
4. A in which steam is generated by the application of heat from the burning of solids, liquids or gaseous fuel.
5. is the scientific discipline concerned with the study of interactions among humans and other elements of a system, and the process applies theory, principles, data and methods to design in order to optimize human well-being and overall system performance.

6. workers get direct personal guidance by instructors, who help the trainees by way of suitable demonstration coupled with timely critical evaluation.
7. A is a combination of the probability that a particular outcome will occur and the severity of the harm involved.
8. that carries the disease, the circumstances surrounding the accident that are extrinsic to the agent, yet part of the event, time, location, noise, mosquito, tick, water sources, etc.
9. is the method in which the actual workshop conditions are stimulated within class room meant for imparting training to employees.
10. is the First Scientific Approach to Accident/Prevention in the Accident theory.

(01 * 10 = 10 Marks)

4. b) **Mark the most appropriate answers in the answer script for the following MCQs.**

1. Occupational health should aim at,
 - a) Mental and Psychological wellbeing of employees
 - b) Social and Occupational wellbeing of employees
 - c) Physical and Mental wellbeing of employees
 - d) Occupational and Psychological wellbeing of employees
2. The reasons for establishing good occupational safety and health standards are frequently identified as,
 - a) Legal, Social and Technological
 - b) Moral, Economic and Legal
 - c) Social, Political and Economical
 - d) Economical only

3. Accident may occur due to the following combination:
- a) Human Error, Mechanical Failure, and Acts of Nature
 - b) Human Error and Acts of Nature
 - c) Acts of Nature and Fate
 - d) None of the Above
4. Model assumed that most of the accidents were due to failure to be careful or to protect themselves.
- a) Careless Worker Model
 - b) Careless Responsibility Model
 - c) Shared Responsibility Model
 - d) Responsibility Worker Model
5. users have reported complicated or failed pregnancies.
- a) Video Display Trauma
 - b) Video Display Terminals
 - c) Vision Display Terminals
 - d) None of the above
6. The reduction of injuries and deaths, concern about well-being of workers the,
- a) Moral of workers and organization
 - b) Morale of workers and organization
 - c) Legal of workers and organization
 - d) Social of workers and organization
7. Inspection to locate unsafe conditions or unsafe regulations categorizing:
- a) Unsafe, Moderately Unsafe and Less unsafe
 - b) Very unsafe, Unsafe and Less unsafe
 - c) Very unsafe, Moderately Unsafe and Less unsafe
 - d) Safe and Unsafe

8. The World Health Organization (WHO) has adopted a standard that states workers should sit,

- a) At least three feet away from the back of a terminal
- b) At least four feet away from the back of a terminal
- c) At least five feet away from the back of a terminal
- d) At least six feet away from the back of a terminal

9. Why should accidents in the workplace be reported?

- a) Reduce levels of paperwork
- b) To prevent a similar accident in the future
- c) Check whether staff are carrying out their duties
- d) To enable staff to learn from their mistakes

10. Why should regular inspections of the workplace take place?

- a) To check whether the working environment is safe
- b) To check everyone is doing their job
- c) To prepare for a visit from a HSE inspector
- d) To check that all staff are present and correct

(01 * 10 = 10 Marks)

(Total 20 Marks)

5. a) Discuss the employer responsibilities under OSHA standards.

(05 Marks)

b) Discuss five (05) new trends of Employee Health and Safety Management in the global context.

(05 Marks)

c) List out at least five (05) best Health and Safety Management Practices of Private Sector Manufacturing firms in Sri Lanka.

(05 Marks)

d) *"ISO 14000 is a series of international standards on environmental management"*. Briefly discuss about the ISO 14000 standard.

(05 Marks)

(Total 20 Marks)