Instructor Name: Dr. Radwan M. Baroud Student No.: ______ Student Name: ______ College Name: ______ Dep. / Specialist: _____ Using Dictionary (No)

Question One:

(10 Marks)

Answer by using correct (T) for the correct statement and (F) for the wrong statement:

- 1. Liquid waste is classified as waste water containing less than 1% of solid matter.
- 2. Sewage is a collection of all domestic, industrial, and storm-water run-off.
- 3. Hazardous clinical wastes are 70% 80% of the total hospital waste.
- 4. The high intensity of noise and its continued use can cause injury to the ears.
- 5. One of the hardest insects to control in food establishments is the cockroach.
- 6. Light-skinned persons and infants are at a higher risk of damage by exposure to the sun.
- 7. Chemical control is almost always necessary to eliminate a cockroach infestation.
- 8. Rodents and some insects are considered vectors because they cannot transmit diseases to man.
- 9. Healthcare medical waste is a product of healthcare facility.
- 10. The provision of a safe working environment will lead to the reduction of occupational injuries and diseases and protect workers.

10	9	8	7	6	5	4	3	2	1	question
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Total Grade:

Instructor Name: Dr. Radwan M. Baroud Student No.: ______ Student Name: ______ College Name: ______ Dep. / Specialist: ______ Using Dictionary (No)

Question Two:

(10 Marks)

Match the following terms on the left column with its meaning on the right column

1	Ozone	arises from photochemical reactions in the lower atmosphere by the interaction of volatile organic compounds (VOCs) and nitrogen oxide (Nox) released by exhausts of automobiles and some stationary sources.
2	Biochemical Oxygen Demand (BOD)	a combination of liquid or water carried wastes removed from residents, institutions, and commercial, and industrial establishment
3	Environmental health	The waste effluent is passed over rocks or other solid materials upon which microbial films have developed.
4	Air pollution	Science that deals with maintaining the safety and human health, and providing safe working environments free from Causes of accidents or injuries or occupational diseases.
5	Waste	is contamination of the indoor or outdoor environment by any chemical, physical or biological agent that modifies the natural characteristics of the atmosphere
6	Trickling filters	Is materials that are perceived to be of negative value.
7	Waste water	It is a measure of the amount of oxygen needed (in milligrams per liter) by bacteria and other microorganisms to oxidize the organic matter present in a water sample over a period of 5 days.
8	Occupational health	The resulting solid material from the primary treatment is called
9	Smog	is a special form of oxygen, made up of three oxygen atoms rather than the usual two oxygen atoms.
10	Sludge	consists of preventing or controlling disease, injury, and disability related to the interactions between people and their environment

2013/2014

Total Grade:

Instructor Name: Dr. Radwan M. Baroud Student No.: ______ Student Name: ______ College Name: ______ Dep. / Specialist: ______ Using Dictionary (No)

Question Three:

- 1) Why should we manage our hazardous hospital waste? (6 marks)
- 2) Discuss briefly the methods of flies control? (6 marks)
- 3) Enumerate the steps of radioactive waste treatment? (4 marks)
- 4) Enumerate the steps of Tertiary waste liquid treatment Process? Mention the

faith (end results) of treated waste water? (4 marks)

Question Four:

(20 Marks)

(20 Marks)

Attached 30 MCQ questions, please select the only one correct answer from them and circle it.

1. A high Biochemical Oxygen Demand (BOD) indicates:

- a. the presence of excess amounts of organic carbon.
- b. the presence of less amounts of organic carbon
- c. the presence of little amounts of organic carbon
- d. the presence of equal amounts of organic carbon

2. The combined use of primary and secondary treatment of liquid waste:

- a. can be recycled into drinking water
- b. reduces approximately 80% to 90% of the BOD
- c. reduces approximately 20% to 30% of the BOD
- d. none of them

3. All the following are signs rodent except:

- a. Mouse droppings
- b. gnaw holes in packaged food
- c. clean place
- d. see them

4. For Tertiary Treatment of liquid waste all are true except:

- a. very cheap process
- b. sharply reduces inorganic nutrients (PO4, NO3)
- c. Treated water is discharged to waterways
- d. Used for irrigation
- e. Recycled into drinking water



Instructor Name: Dr. Radwan M. Baroud Student No.: ______ Student Name: ______ College Name: ______ Dep. / Specialist: _____ Using Dictionary (No)

5. Flies transmit disease in the following ways:

- a. Vomits on food
- b. Defecates on food
- c. Carries bacteria on body
- d. All of them
- e. None of them

6. Radioactive materials used in different field such as:

- a. Medicine
- b. Nuclear plants
- c. Research
- d. All of them
- e. None of them

7. Liquid waste treatment and chlorination considered:

- a. Tertiary Treatment of liquid waste
- b. Very important in control diseases
- c. Increase chemical substance in water
- d. a + b
- e. b+c

8. Hazardous hospitals waste that needs treatment include:

- a. Toilet paper
- b. Blood products
- c. Kitchen garbage
- d. Expired medications
- e. b+d

9. Hazardous hospitals sharps can cause:

- a. Mumps
- b. Hepatitis c
- c. AIDS
- d. Measles
- e. b+c

10. All the following occurred due to excess exposure to sunlight except:

- a. Damages the skin
- b. Cause no harm
- c. Results in blisters,
- d. Results in pain

Final Exam 2013/2014 Total Grade: Instructor Name: Dr. Radwan M. Baroud Student No.: ______ Student Name: ______ College Name: ______ Dep. / Specialist: _____ Using Dictionary (No)

11. The person who work in the radioactive materials should:

- a. work hours not exceed 7 hours per day
- b. work 5 days per week
- c. need at least one month vacation per year
- d. All of them
- e. None of them

12. The steps of treatment of radioactive wastes are the following:

- a. Reduction in the Generation of Waste
- b. Incineration
- c. Chemical Treatment
- d. Canning
- e. a + c + d
- f. All of them

13. Tertiary Treatment Process of LWM include:

- a. Precipitation
- b. Filtration
- c. Chlorination
- d. None of them
- e. All of them

14. Hazardous clinical wastes are:

- a. 10% 20% of the total hospital waste.
- b. 5 10% of the total hospital waste.
- c. 20 40% of the total hospital waste.
- d. 1 2% of the total hospital waste.

15. Hazardous hospitals sharps are:

- a. Any object that can cut or puncture the skin
- b. They include needles, scalpels, lancets, broken vials or glass
- c. Gauze and bandage
- d. a + b
- e. a + c

16. Poisoning mice with commercially prepared anticoagulants:

- a. is allowed by the operator
- b. used according to the label
- c. it is control measures are effective against rats
- d. None of them
- e. All of them



Instructor Name: Dr. Radwan M. Baroud Student No.: ______ Student Name: ______ College Name: ______ Dep. / Specialist: ______ Using Dictionary (No)

17. Flies transmit disease in the following ways except:

- a. Vomits on food
- b. Inject poison
- c. Defecates on food
- d. Carries bacteria on body

18. Cockroach is one of the hardest insects to control due to:

- a. cockroaches hide in dark recesses
- b. cockroaches hide in areas generally cannot be properly cleaned
- c. chemical control not effective
- d. a+b
- e. a+c

19. Hospitals waste may expose healthcare personnel, waste handlers, and the community to:

- a. infectious agents
- b. toxic materials
- c. an increased risk of injury
- d. b+c
- e. a + b + c

20. Considered percentage of healthcare workers have been exposed over their lifetime to needle stick injuries. This percentage reach:

- a. Almost 70% of all healthcare workers
- b. Almost 20% of all healthcare workers
- c. Almost 10% of all healthcare workers
- d. Almost 90% of all healthcare workers

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Final Exam 2013/2014 Total Grade: Instructor Name: Dr. Radwan M. Baroud Student No.: ______ Student Name: ______ College Name: ______ Dep. / Specialist: ______ Using Dictionary (No)

University of Palestine

Final Exam 2013/2014 Total Grade: Instructor Name: Dr. Radwan M. Baroud Student No.: ______ Student Name: ______ College Name: ______ Dep. / Specialist: ______ Using Dictionary (No)

End of Questions Good Luck