



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

A. M. E. C. E. A

MAIN EXAMINATION

SEPTEMBER-DECEMBER 2020 TRIMESTER

SCHOOL OF NURSING

REGULAR PROGRAMME

NUR 409: ENVIRONMENTAL AND OCCUPATIONAL HEALTH

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Date: DECEMBER 2020

Duration: 3 Hours

INSTRUCTIONS:

- i. All questions are compulsory**
- ii. Indicate the answers in the answer booklet provided**

PART I: MULTIPLE CHOICE QUESTIONS (MCQs)

(20 MARKS):

1. "Everything is connected to everything else "
 - a) Factor important of environmental health
 - b) Principle of environmental health
 - c) Principle of occupational health and safety
 - d) Goal of environmental health
2. In the principles of environmental health, the following comprises the factors necessary for the chain of connections to occur.
 - a) Source of harm , environmental , receptor population, route of exposure
 - b) Source of harm, environment, host, route of exposure
 - c) Source of harm, environment, susceptible host,
 - d) Source of harm, portal of exit, mode of transmission, mode of entry.
3. The Six F's explains the concept of
 - a) Types of sanitation
 - b) Components of hygiene & sanitation
 - c) Public health model
 - d) Fecal- oral transmission pathway
 - e)
4. Environmental health model is made up of ;
 - a) Clinical and public health models
 - b) Clinical intervention model
 - c) Public health model

- d) Prevention only
5. Waste forms include;
- a) Sludge, garbage , solid
 - b) Gas, liquid, water waste
 - c) Solid, Gas , Liquid,
 - d) Water waste, Gas, sewage
6. One of the following is a disadvantage of Landfill method
- a) Complete decomposition usually takes more 20 years.
 - b) Can only be done in developed countries
 - c) Waste decomposes by anaerobic microbial action
 - d) It is an open method
7. “Biological process in which the organic portion of refuse is allowed to decompose under carefully controlled conditions “.Which of the method below fits the statement?
- a) Landfill
 - b) Controlled tipping
 - c) Compositing
 - d) Crude dumping
8. Compositing method involve
- a) Burning
 - b) Sorting and shredding
 - c) Pumps system
 - d) Activated sludge Process
9. In public water purification, which of the following is the first stage
- a) Sedimentation
 - b) Filtration
 - c) Disinfection
 - d) Coagulation and flocculation
10. What is the amount of total suspended solids is removed during primary treatment of waste water?
- a) 70%
 - b) 60%
 - c) 85%
 - d) 35%
11. The secondary level of waste water treatment methods are ;
- a) Trickling, Activated sludge process, Oxidation Ponds
 - b) Trickling, Sorting and shredding, Oxidation ponds,
 - c) Effluent polishing, Activated sludge, trickling
 - d) Sorting and shredding, Activated sludge, Oxidation Ponds

12. i) In Lower altitude areas, water should be boiled for longer than higher altitudes
- a) True
 - b) False
- i) Reverse Osmosis process of water purification, molecules move from area lower of lower concentration to area of higher concentration
- a) True
 - b) False
13. In food safety hygiene, adulteration means ,
- a) Term used for Cross- infection during food preparation
 - b) Chemical contamination of food
 - c) Intentionally changing the normal content of food by adding something to it that is not essential.
 - d) Contamination of food by Micro-organisms
14. Which of the following fall under indoor environmental hazards?
- a) Lead
 - b) Earthquakes
 - c) Bacteria
 - d) Pesticides
15. Radon gas will lead to
- a) Lung cancer
 - b) Skin Cancer
 - c) Brain damage
 - d) Mental retardation
16. Which is one is true of Stress hazards
- a) Posture, Exertion, Repetition. Vibration
 - b) Tendinitis ,Carpal Tunnel Syndrome, , Sprains , Trigger finger
 - c) Hypothermia Child blain Immersion foot Frost bite due to vasoconstriction
 - d) Work Overload or under load , role Uncertainty and Role Conflict , responsibility for Others , Isolation
17. Increased Biochemical oxygen demand (BOD) is found in one of the following principal pollutants
- a) Organic
 - b) Suspended solids
 - c) Electronic
 - d) Microbes
18. Alteration of milk proteins and structures,
- a) Ultra High Temperature (UHT) Pasteurization
 - b) Contamination

- c) Short Time (HTST) pasteurization
- d) Adulteration

19. Which of the following falls under the environmental social hazards ?

- a) Alcoholism, obesity, smoking
- b) Knowledge and practices
- c) Lead
- d) Pollution

20. Potential of groundwater contamination if not well lined

- a) Simple pit latrine
- b) Pour flash latrine
- c) Ventilated improved pit latrines
- d) Off- site toilets

PART-II: SHORT ANSWER QUESTIONS (SAQs)

(40 MARKS):

1. Define Environmental health (1 mark)
2. Explain Chlorination method of water purification in domestic setting (4 marks)
3. Explain with examples any three (3) types of environment (9 marks)
4. Outline Four(4) types of sanitation (4 marks)
5. Explain three (3) sources of solid waste (6 marks)
6. Describe compositing solid waste management method (5 marks)
7. Regarding Biological/Biomedical oxygen demand (BOD)
 - a) What is BOD (2 marks)
 - b) Two (2) effects in water bodies of lowered BOD (3 marks)
8. Using examples, describe any three (3) environmental hazards (6 marks)

PART III: LONG ANSWER QUESTIONS (LAQs)

(40 MARKS)

1. The community, institutions, industries, water bodies and environment will be adversely affected if proper waste water management is not done. Describe the importance of waste water treatment to each of the above factors.
(20 marks)

2. You're the Nursing Global warming is an alarming Phenomenon.
 - a) Define global warming (1 mark)
 - b) With aid of concrete examples, describe five (5) effects of global warming (10 Marks)
 - c) Explain five (5) ways of preventing global warming (9 marks)

END