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MID TERMBACK EXAMINATION APRIL 2023

Sub: Biomedical Waste Management

Course: BCA II Sem.

Course Code: GCA201

Time: 3 Hrs

MM: 100

Note: Each question carry 2 marks.

1. Which of the following is likely a characteristic of Hazardous waste?
 - (a) Ignitability
 - (b) Reactivity
 - (c) Corrosivity
 - (d) All of the above
2. Which of the following organism degrade the organic matter thereby, transfer the matter to the environment?
 - a) Methanogens
 - b) Manganese
 - c) Carbon dioxide
 - d) Methane
3. The Environment Protection Act, 1986 passed in march 1986, it came into force on:
 - a) 1 April 1986
 - b) 1 July 1986
 - c) 19 November 1986
 - d) 1 January 1987
4. Which of the following is not a waste treatment method for biomedical wastes?
 - a) Incineration
 - b) Chemical disinfecting
 - c) Autoclaving
 - d) Sieving
5. Why is recycled paper banned for use in food containers?
 - (a) Because it creates a lot of spaces
 - (b) Because it creates contamination
 - (c) Because paper can be used only one time
 - (d) Because paper is very thick and can't cover the food containers
6. Which of the following waste is not categorized as Hazardous waste?

- a) Garbage
 - b) Industrial waste
 - c) Hospital waste
 - d) Laboratory waste
7. As per sec. 2 (a) of Environment Protection Act 1986, Environment refers to:
- a) Water, air and land.
 - b) The inter-relationship which exists among and between water, air, land and human beings.
 - c) Other living creatures, plants and microorganisms.
 - d) All of the above
8. The Government of India enacted the Environment Protection Act 1986 under Article _____ of the constitution of India.
- a) 253
 - b) 249
 - c) 301
 - d) 251
9. Environment Protection Act 1986 contains _____ sections divided into _____ chapters.
- a) 28 and 4
 - b) 26 and 4
 - c) 20 and 2
 - d) 30 and 3
10. Which of the following should not be mixed with other wastes to avoid contamination?
- a) Tarry residue
 - b) Oily sludge
 - c) Animal waste
 - d) Vegetable oil
11. Which coloured bag is used for the collection and storage of Human Anatomical waste?
- a) Red
 - b) Yellow
 - c) White
 - d) Blue

12. The organic material of the solid waste will decompose
- (a) By the flow of water
 - (b) By the soil particles
 - (c) By the action of microorganisms
 - (d) By oxidation
13. Which of the following method is used for the treatment of human anatomical waste?
- a) Incineration
 - b) Autoclaving
 - c) Chemical disinfectant
 - d) None of the above
14. According to plastic waste management act 2016, the thickness of plastic bags should be increases up to:
- a) 50 microns
 - b) 0.5 micron
 - c) 70 microns
 - d) 25 microns
15. Which of the following method is used for the treatment of sharp waste or metals according to biomedical waste management?
- a) Incineration
 - b) Autoclaving
 - c) Chemical disinfectant
 - d) All of the above
16. Autoclaves are used in the medical applications to perform _____
- a) Vulcanization
 - b) Heating
 - c) Sterilization
 - d) Cleaning
17. What is the common temperature used in autoclaves?
- a) 109 degrees
 - b) 121 degrees
 - c) 135 degrees
 - d) 142 degrees

18. Sterilization with the help of Autoclave is based on which principle?
- a) Dry heat sterilization
 - b) Radiation
 - c) Moist heat sterilization
 - d) None of the above
19. Which of the following best describes the process of 'Disinfection'?
- a) The elimination of all forms of microorganisms and bacterial spores.
 - b) The elimination of all forms of bacterial spores.
 - c) The reduction or elimination of microorganisms and bacterial spores.
 - d) The reduction or elimination of many microorganisms and some bacterial spores.
20. Name the sterilization agent that is most frequently used in hospitals and clinical laboratories for the heat-labile liquid substances or antibiotics.
- a) Dry heat
 - b) Radiation
 - c) Filtration
 - d) Formaldehyde
21. Identify the temperature and time period commonly used for the hot air oven while sterilizing glassware in the laboratory
- a) 180 degrees Celcius for 30 mins
 - b) 63 degrees Celcius for 30 mins
 - c) 121 degrees Celcius for 15 mins
 - d) 1000 degrees for 30 mins
22. Nonionizing radiation and ionizing radiation are sterilization methods mainly used in hospitals. Ultraviolet radiation is an example of nonionizing radiation, name the ionizing radiation?
- a) Infrared
 - b) X-rays and gamma rays
 - c) Halogens
 - d) Ethylene oxide
23. Which of the following sterilizing agent is found to have bacterial sporicidal activity?
- a) Hot air oven
 - b) Ethyl alcohol
 - c) Autoclave
 - d) All of the above

24. Which of the following can be recycled many times?
- (a) Wood
 - (b) Plastic
 - (c) Aluminium
 - (d) Organic materials
25. Which of the following is NOT an example of physical sterilization?
- a) Disinfectant
 - b) Autoclave
 - c) Microwave
 - d) Radiation sterilization
26. Sterilization through microwave is based on which principle?
- a) Moist heat
 - b) Chemical
 - c) Dry heat
 - d) None of the above
27. When did Hazardous waste management act enacted in India?
- a) 1988
 - b) 1989
 - c) 1990
 - d) 1991
28. What is the goal of Hazardous Waste Management unit?
- a) Protect health and environment by risks of hazardous waste
 - b) Chemical analysis
 - c) Import
 - d) Export
29. When can we classify waste as hazardous?
- a) When waste won't cause any mortality
 - b) When waste increase mortality
 - c) When waste decrease mortality
 - d) When waste decompose itself without any aid.
30. What is a toxic waste?
- a) Substances those are not poisonous

- b) Substances those are poisonous only when it taken in large quantity.
 - c) Substances those are poisonous even when it taken in small quantity.
 - d) Substances which work as an antidote for toxic materials.
31. What is an ignitable waste?
- a) Waste which can burn relatively at low temperature.
 - b) Waste which can burn relatively at high temperature.
 - c) Waste which doesn't burn.
 - d) Waste which doesn't produce temperature.
32. Where we can get radioactive wastes?
- a) Small scale industries.
 - b) Houses
 - c) Nuclear power plants
 - d) Vehicular wastes.
33. Which of the following is a hazardous substance?
- a) Gold
 - b) Lead
 - c) Copper
 - d) Iron
34. What are objectives of Environmental protection act?
- a) To provide protection and improvement of environment.
 - b) To prevent environmental pollution.
 - c) To appoint environment officers to check environmental pollution.
 - d) All of the above.
35. Which of the following chapter of environmental protection act 1986 include the prevention, control and abatement of environmental pollution?
- a) Chapter 1
 - b) Chapter 2
 - c) Chapter 3
 - d) Chapter 4
36. Chapter 1 of environmental protection act 1986, includes:
- a) Short title
 - b) Definitions
 - c) Commencement

d) All of the above

37. An engineered facility for the disposal of municipal solid waste is called:

- a) Septic tank
- b) Sanitary landfills
- c) Dug wells
- d) Tandom landfills

38. In solid waste management, waste utilization is achieved by

- a) Recover, reclamation and reproduce
- b) Reuse, reclamation and recycling
- c) Recover, recycling and reproduce
- d) Reuse, reproduce and recycling.

39. The best method of disposal of refuse to ensure complete destruction of pathogenic bacteria is by

- a) Land disposal
- b) Incineration
- c) Pulverisation
- d) Mechanical compositing

40. Problem of solid waste disposal can be reduced through _____

- a) Recycling
- b) Lesser pollution
- c) More timber
- d) Population control

41. Which of the following is a method of chemical sterilization?

- a) Autoclave
- b) Microwave
- c) Radiation
- d) Using ethyl alcohol

42. How long does it take for a plastic bag to decompose?

- a) Up to 5 days
- b) Up to 5 years
- c) Up to 1000 years
- d) Never

43. The wastes burning are not an acceptable practice of solid waste management because _____?
- a) It requires a lot of space
 - b) It requires modern technologies
 - c) It causes several environmental issues
 - d) It is very costly
44. What is the process of turning waste into new materials?
- a) Recycling
 - b) Landfilling
 - c) Composting
 - d) Incinerating
45. A process in which garbage is burned at very high temperatures is:
- a) Landfills
 - b) Incineration
 - c) Leachate
 - d) Refuse dumped fuel
46. Why can't we make a compost out of plastic?
- a) Because plastic is biodegradable
 - b) Because it bad for the soil.
 - c) Because it catches fire.
 - d) Because plastic is non-biodegradable.
47. What kind of wastes are filled in compost pit?
- a) Biodegradable
 - b) Non- biodegradable
 - c) Both of these
 - d) None of these
48. Large open areas used for solid waste disposal.
- a) Incinerators
 - b) Playgrounds
 - c) Open dumps.
 - d) Sewerage
49. The biomedical waste management and handling rules came into force on _____

- a) 1998
- b) 1996
- c) 1999
- d) 1995

50. Which method is best suited for the disposal of category 3 (Microbiology and biotechnological) biomedical waste from the following list?

1. Incineration
2. Disinfection
3. Microwaving
4. Landfill
5. Autoclaving

- (a) 1 and 4 only.
- (b) 1,3 and 5 only.
- (c) 1,2 and 5 only.
- (d) 1,3 and 4 only.