

1. Which kind of problem(s) is/are encountered in open drains?
 - (a) May cause breeding of mosquitoes and flies
 - (b) Foul smell
 - (c) Rainwater starts overflowing due to blockages by plastic bags
 - (d) All of these
2. In a composting toilet, decomposition of excreta takes place through

(a) aerobic process	(b) anaerobic process
(c) chemicals	(d) aerobic process with the use of chemicals.
3. Which of the following statements is wrong about dried sludge?

(a) It contains 97% of water.	(b) It has high amount of soil nutrients.
(c) It is rich in organic matter.	(d) It is used as a manure.
4. Which of the following options includes organic impurities present in the sewage?

(a) Nitrates, phosphates and nitrogen	(b) Disease causing bacteria and microbes
(c) Phosphorus and metals	(d) Urea, pesticides, herbicides, etc.
5. Aeration is done during the wastewater treatment to

(i) remove foul smell from the sewage.	(ii) enhance the growth of anaerobic bacteria.		
(iii) enhance the growth of aerobic bacteria.			
(a) (i) and (iii)	(b) (i) and (ii)	(c) Only (i)	(d) Only (ii)
6. Select the incorrect statement(s).

(i) Vermi-cakes are a rich source of nutrients needed for soil.	(ii) Activated sludge contains human excreta.		
(iii) Sludge obtained in the sedimentation tank is rich in soil nutrients.			
(iv) Biogas is used as a fuel.			
(a) (i) and (ii)	(b) (ii) and (iii)	(c) Only (ii)	(d) (i), (iii) and (iv)
7. Which of the following is not an onsite sewage disposal system?

(a) Biogas plant	(b) Vermi-composting toilet
(c) Chemical toilet	(d) Composting pits
8. The full form of WWTP is

(a) world wide treatment plant.	(b) wastewater treatment plant.
(c) wastewater treatment process.	(d) world waste treatment programme.
9. Select the correct statement(s).

(i) Cleaning of water is a process of removing pollutants before it enters a water body or is reused.	(ii) The process of wastewater treatment is known as 'Sewage Treatment.'		
(iii) Wastewater is the dirty, black-brown water that flows down the drains from sinks, showers, toilets, etc., from our homes.			
(iv) Every human being has equal access to safe drinking water on earth.			
(a) (i) and (ii)	(b) (i), (ii) and (iii)	(c) Only (iv)	(d) (iii) and (iv)
10. Increasing scarcity of freshwater is due to

(i) population growth	(ii) pollution		
(iii) industrial development	(iv) mismanagement.		
(a) (i) and (ii)	(b) (i), (ii) and (iii)	(c) (ii) and (iii)	(d) All of these

11. Contamination of drinking water with sewage water can cause diseases like _____ in people consuming it.
(a) dysentery (b) typhoid (c) cholera (d) all of these

12. Organic impurities present in sewage are
(a) bacteria (b) metals (c) pesticides (d) nutrients.

13. Which chemical is added to the wastewater to treat it?
(a) Sulphur (b) Chlorine (c) Nitrate (d) Pesticide

14. Why clarified water is aerated in a Wastewater Treatment Plant?
(a) To help anaerobic bacteria to grow.
(b) To help aerobic bacteria to grow.
(c) To remove the suspended particles floating on the surface of clarified water.
(d) To mix the anaerobic bacteria well with the clarified water.

15. Cooking oil and fats should not be thrown into the drain because
(i) they can harden and block the pipes.
(ii) they can kill microbes that help to purify water.
(iii) they can clog soil pores and reduce filtering of water.
(a) (i) and (ii) (b) (i) and (iii) (c) (ii) and (iii) (d) Only (i)

16. Which of the following is not a water-borne disease?
(a) Cholera (b) Malaria (c) Typhoid (d) Hepatitis

17. Which of the following is not a low cost onsite sewage disposal system?
(a) Chemical toilets (b) Composting toilets
(c) Septic tanks (d) None of these

18. What is true about a vermi-processing toilet?
(a) It is a novel, low water-use toilet.
(b) Human excreta is treated by earthworms.
(c) Human excreta is treated with no water or small volume of flush water.
(d) All of these

19. Which of the following is a part of inorganic impurities of the sewage?
(a) Pesticides (b) Urea (c) Phosphates (d) Vegetable waste

20. Which of the following is not a source of waste water?
(a) Sewers (b) Homes (c) Industries (d) Hospitals

Assertion-Reason Codes:

(a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.

(b) If both Assertion and Reason are true and Reason is not the correct explanation of Assertion.

(c) If Assertion is true but Reason is false.

(d) If both Assertion and Reason are false.

21. Assertion: The biogas is produced while transferring of sludge into separate tank called digesters.
Reason: The biogas is used as a fuel or can be used to produce electricity.

22. Assertion: Wastewater is passed through bar screens to remove small objects.
Reason: The speed of the incoming wastewater is increased to allow sand, grit and pebbles to settle down in grit and sand removal tank.

23. Assertion: Unhygienic and unsanitary conditions are major causes for the bad health of human beings.
Reason: Flies, mosquitoes and other insects breed in contaminated water.

24. Assertion: Sludge is decomposed by anaerobic bacteria.
Reason: The treated water has a very low level of organic material.
25. Assertion: Untreated human excreta is a health hazard.
Reason: Cholera, typhoid and polio are water borne diseases.
26. Assertion: To prevent water pollution, wastewater should be treated properly.
Reason: Useful chemicals need to be eliminated before water enters the rivers.

