1. If the pH of water is 8.0 it indicates that the sample is :
   (A) Acidic (B) Neutral (C) Alkaline (D) None of these

2. Which of the following disease is not considered to be water borne ?
   (A) Small Pox (B) Typhoid (C) Dysentery (D) Cholera

3. Water carriage system needs more :
   (A) Men (B) Area (C) Water (D) Money

4. Sullage is :
   (A) Waste water from bath (B) Drainage from road
   (C) Industrial liquid waste (D) Waste water from toilets

5. Which trap is provided at the junction of waste stack with the building drain ?
   (A) S - Trap (B) Gully Trap
   (C) Intercepting Trap (D) Floor Trap

6. In case of pipes connected in series the head loss will be :
   (A) Additive (B) Subtractive (C) Exponential (D) Logarithmic

7. A unit working purely on an aerobiosis is :
   (A) Contact Bed (B) ASP (C) Trickling Filter (D) Septic Tank

8. The "vice" mostly used by the plumber is :
   (A) Leg vice (B) Pipe vice (C) Hand vice (D) Bench vice

9. Name the valve which prevents backflow of water is :
   (A) Globe valve (B) Check valve (C) Gate valve (D) Flushing valve

10. Internal Threads on pipes are made by :
    (A) Stock and Dies (B) Screw Plate Dies
    (C) Pin Spanner (D) Taps and Wrench

11. A sanitary sewer is expected to run :

(A) Full (B) Half Full (C) 2/3 Full (D) 90% Full

12. The percentage of chlorine in fresh bleaching powder is about :

(A) 10 - 15 (B) 30 - 35 (C) 20 - 25 (D) 50 - 60

13. A manhole is provided :

(A) At every 500 m intervals (B) At every corner

(C) When flow gets divided (D) When direction or grade changes

14. Before entering a manhole candle is lowered into the manhole :

(A) to illuminate it

(B) to detect toxic gases

(C) to give a signal to the adjacent manhole

(D) to find out presence of oxygen

15. Colour of fresh sewage is :

(A) Green (B) Brown (C) Gray (D) Pink

16. An ideal crop of sewage irrigation is :

(A) Banana (B) Potato (C) Sugarcane (D) Beans

17. A fresh sludge becomes stale in :

(A) 1 hour (B) 2 hours (C) 3 - 4 hours (D) 6 - 8 hours

18. pH value of fresh sewage is expected to be :

(A) 7 (B) 3.5 (C) 8 - 11 (D) None of these

19. From septic tank, the effluents are discharged into :

(A) Soak Pit (B) Oxidation Pond (C) Cess pool (D) All of the above

20. In an egg shaped sewer, the maximum discharge occurs when the depth of flow is :

(A) 0.25 (B) 0.50 (C) 0.75 (D) 0.95

21. B.O.D means :

(A) Biochemical Oxygen Demand

(B) Biological Oxygen Demand

(C) Bacteriological Oxygen Demand

(D) None of the above

22. The bacteria die if temperature is more than :

(A) 50° C (B) 40° C (C) 30° C (D) 25° C

23. If organic matter increases in sewage, the demand of oxygen will :

(A) Increase (B) Decrease

(C) Remain constant (D) Vary from organic to organic

24. Pieces of Papers, Crockery, Scrap, metals etc. are classified as :

(A) Refuse (B) Rubbish

(C) Garbage (D) Ashes and Cinders

25. The circular section of a sewer is very common but it is best suited when diameter is up to :

(A) 0.75 m (B) 1.25 m (C) 1.5 m (D) 3 m

26. Hydraulically and economically, the best section of drains for large flow is :

(A) Circular (B) V-Shaped

(C) Rectangular (D) None of the above

27. The biological decomposition of organic matter in sewage is called :

(A) Digestion (B) Decomposition

(C) Dilution (D) None of the above

28. As compared to temperature of water, the temperature of sewage is :

(A) Lower

(B) Higher

(C) Same

(D) Depends upon the atmospheric conditions

29. Dried sludge is a good :

(A) Fuel (B) Manure

(C) Filler of a low lying area (D) Soil builder

30. The pathogenic bacteria can be killed by :

(A) Chlorination (B) Oxidation (C) Nitrification (D) All of the above

31. Sewage sickness of land can be said to occur if :

(A) The pores of soil get clogged

(B) There is no air circulation through soil pores

(C) Anaerobic condition occur

(D) All of the above are correct

32. Salvaging is :

(A) Dumping of solid waste (B) Sanitary land filling of solid waste

(C) Composting and soil conditioning (D) Extraction of essence from waste

33. Mostly adopted detention period for a septic tank under Indian condition is :

(A) 12 Hours (B) 24 Hours (C) 48 Hours (D) 72 Hours

34. A Natural method of disposal of sewage is :

(A) Sewage Irrigation (B) Septic Tank Treatment

(C) Composting (D) Aerated Lagooning

35. The minimum diameter of manhole opening is :

(A) 200 cm (B) 150 cm (C) 100 cm (D) 50 cm

36. Air relief valves are provided :

(A) At pipe
(B) At low points
(C) At summits
(D) At pipe junctions

37. The system which is most common in India is :

(A) Dead end system
(B) Grid Iron system
(C) Ring system
(D) Radial system

38. The best coagulant for removing the colour of water is :

(A) Lime (B) Alum (C) Iron Sulphate (D) Copper Sulphate

39. The best material of pipe to be laid under water is :

(A) Cast Iron
(B) Steel
(C) Cement Concrete
(D) Asbestos Cement

40. A water supply scheme is usually designed for a period of :

(A) 5 years (B) 10 years (C) 20 years (D) 50 years

41. The bacteria that can survive without oxygen is called :

(A) Facultative bacteria
(B) Anaerobic bacteria
(C) Aerobic bacteria
(D) Furobic bacteria

42. The momentary pressure produced by the sudden stoppage of moving water in a closed conductor pipe is called :

(A) Surge
(B) Water Jump
(C) Hydraulic Jump
(D) Water Hammer

43. Galvanizing means applying a layer of :

(A) Aluminium (B) Lead (C) Nickel (D) Zinc

44. The valve which operates automatically when the pressure in the pipe exceeds the set of pressure is called :

(A) Safety valve (B) Pressure valve (C) Relief valve (D) Reflux valve

45. Copper sulphate is used in treatment of water for controlling :

(A) Algae (B) Silt (C) Bacteria (D) Mineral matter

46. The first stage in water treatment is :

(A) Disinfection (B) Sedimentation

(C) Filtration (D) Coagulation and mixing

47. Iodine is used to disinfect :

(A) Swimming Pool (B) Municipal water supply

(C) Raw water without any treatment (D) None of the above

48. Disinfection is the process of :

(A) Killing all the bacteria (B) Killing only pathogenic bacteria

(C) Complete destruction of life (D) Removal of causative organisms for disease

49. Sterilization is :

(A) Boiling (B) Disinfection

(C) Eliminating all life (D) Killing disease causing organisms

50. Potassium Permanganate is used for :

(A) Removing organic matter (B) Reducing hardness

(C) Improving colour (D) De-chlorination

51. Which of the following can be removed by Filtration :

(A) Colour (B) Pathogenic bacteria

(C) Turbidity (D) All of the above

52. Presence of Lead in Water :

(A) Changes its colour (B) Causes Turbidity

(C) Causes Alkalinity (D) None of the above

53. The desirable temperature of potable water is :

(A) 20° C (B) 10° C (C) 27° C (D) 37° C

54. The chloride content in the water for public water supply should not be more than :

(A) 250 ppm (B) 150 ppm (C) 80 ppm (D) 50 ppm

55. Unit of Turbidity :

(A) mg/lit (B) NTU

(C) Threshold number (D) None of the above

56. pH value of sea water is usually :

(A) 1 (B) Between 5 and 7

(C) Between 3 and 5 (D) Between 8 and 8.3

57. For controlling the growth of algae, the chemical generally used is :

(A) Copper Sulphate (B) Alum

(C) Lime (D) Bleaching Powder

58. Acidity in water is generally caused by :

(A) Oxygen (B) Nitrogen (C) Carbon dioxide (D) Hydrogen

59. Any trap intended to trap :

(A) Water (B) Sewage of sullage

(C) Any liquid waste (D) Fuel gases

60. Stall type urinals are best suited to :

(A) high schools (B) residential houses

(C) people of same height (D) public places

61. Of the total content of water on globe, the available quantity for use is less than :

(A) 20% (B) 2% (C) 0.03% (D) 0.1%

62. All water that occurs below the surface of the earth is called :

(A) Ground water (B) Underground water

(C) Surface water (D) None of the above

63. In sewage treatment plants, the oil and grease is removed by :

(A) Oxidation (B) Filtration (C) Skimming (D) Screening

64. Which of the following equipment can be used for the removal of paper and rags from the sewers ?

(A) Claw (B) Gouge (C) Scraper (D) Scoop

65. All traps have :

(A) A Filter (B) A grating (C) A water seal (D) A gate valve

66. Zeolite process is economical up to hardness of :

(A) 1000 mg/lit (B) 500 mg/lit (C) 50 mg/lit (D) 100 mg/lit

67. Summits are the point of :

(A) High pressure (B) Low pressure

(C) Equal pressure (D) Negative pressure

68. If the fluid particles move in Zig-Zag way, the flow is called :

(A) Unsteady (B) Non-uniform (C) Turbulent (D) Transitional

69. Mouthpieces are used to measure :

(A) Velocity (B) Pressure (C) Head (D) Rate of flow

70. The tendency of a small drop of water to remain in a spherical form is due to the property of :

(A) Viscosity (B) Adhesion (C) Capillary action (D) Surface tension

71. Sewage is :

(A) Drainage from road

(B) Any waste water of domestic or industrial origin

(C) Waste water from bath rooms

(D) Waste water from kitchen

72. Kidney damage may be caused due to the excess concentration of :

(A) Fluorides (B) Nitrates (C) Chlorides (D) Nitrites

73. Iron in water causes :

(A) Stains on cloths (B) Eutrophication (C) Rust (D) Corrosion

74. In drinking water number of coliform bacteria should not exceed :

(A) 1/100 ml (B) 0/100 ml (C) 10/100 ml (D) 100/100 ml

75. When a canal runs above the drain, the cross drainage work provided is :

(A) Canal syphon (B) Super passage (C) Aqueduct (D) Level crossing

76. The weight of silt carried by the river per unit volume of water is termed as :

(A) Silt grade (B) Silt factor (C) Silt ratio (D) Silt charge

77. The most efficient triangular section, the bottom angle is :

(A) 60° C (B) 90° C (C) 45° C (D) 120° C

78. The irrigation canals are generally aligned along :

(A) Ridge line (B) Straight line (C) Contour line (D) Valley line