

**Maharashtra Engineering Training Academy, Nashik**

Professional Exam Division

Practice Question for AE2/JE Exam - Set 13 - (22/08/2024)

**Water Supply & Sanitary Engineering**

सदर सराव प्रश्न हे परीक्षार्थींच्या सोईसाठी व सरावासाठी देण्यात येत आहेत. परीक्षार्थींच्या वारंवार मागणीनुसार सदर प्रश्नांची उत्तरे उपलब्ध करून देण्यात येत आहेत. तरी या सराव प्रश्न व उत्तरे यांची खात्री परीक्षार्थींनी आपल्या स्तरावर तपासून पाहणे. या विषयीच्या कुठल्याही तक्रारीची दखल या कार्यालयामार्फत घेण्यात येणार नाही याची नोंद घ्यावी.

Sr. No.	Question	Correct Answer	Option 1	Option 2	Option 3	Option 4
1	What does "sanitary engineering" primarily focus on?	1	Water supply and wastewater treatment	Structural design	Electrical systems	Building aesthetics
2	What is the primary purpose of sewage treatment?	1	To remove contaminants from wastewater	To increase water pressure	To store clean water	To filter rainwater
3	What does "sedimentation" achieve in sewage treatment?	1	The removal of suspended solids by allowing them to settle	The addition of chemicals to disinfect water	The biological breakdown of organic matter	The filtering of fine particles
4	What is a "clarifier" used for in wastewater treatment?	1	To remove suspended solids from wastewater	To add chemicals to wastewater	To store treated water	To increase water pressure
5	What is "eutrophication"?	1	The enrichment of water bodies with nutrients leading to excessive growth of algae	The process of cleaning water	The removal of sediments from water	The process of treating wastewater
6	What is a "primary clarifier"?	1	A tank where large solids are removed from wastewater	A device for disinfecting water	A chamber for storing sludge	A filter for removing fine particles
7	What does "stormwater management" aim to do?	1	Control and direct runoff from storms to prevent flooding	Treat and purify drinking water	Store water for future use	Increase water pressure
8	What is "sludge digestion"?	1	The process where microorganisms break down organic matter in sludge	The removal of large debris from wastewater	The addition of chemicals to treat sewage	The filtering of water
9	What does "disinfection" do in sewage treatment?	1	Kills harmful microorganisms to make the treated water safe	Removes large solids from wastewater	Adds nutrients to the water	Increases water temperature
10	What is a "septic system"?	1	A system for treating and disposing of household wastewater	A system for purifying drinking water	A water storage tank	A system for collecting rainwater
11	What does "sewage" refer to?	1	Wastewater and its by-products from households and industries	Clean drinking water	Rainwater runoff	Water from rivers and lakes
12	What is "chlorination" in sewage treatment?	1	The process of adding chlorine to disinfect water	The removal of large particles from wastewater	The biological treatment of organic matter	The addition of nutrients to sewage
13	What does "dechlorination" involve?	1	Removing chlorine from treated sewage	Adding chlorine to untreated sewage	Measuring chlorine levels in water	Adding chemicals to increase chlorine levels
14	What is the role of "aeration" in wastewater treatment?	1	To increase the oxygen level for microbial activity	To filter out large particles	To add chemicals to the water	To measure water flow rate
15	What is "sludge" in the context of wastewater treatment?	1	The solid residue that settles out during treatment	The liquid portion of wastewater	The chemical used for disinfection	The air used for aeration

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16	What is a "trickling filter" used for?	1	Biological treatment of sewage using microbial growth on media	Chemical treatment of wastewater	Filtering large particles from sewage	Storing treated water
17	What does "groundwater" refer to?	1	Water found underground in soil and rock formations	Water from rivers and lakes	Water that falls as rain	Water stored in tanks
18	What is "activated sludge"?	1	A process where microorganisms are used to treat wastewater	A type of chemical used in sewage treatment	A method of filtering large debris	A type of wastewater storage tank
19	What is "effluent" in sewage treatment?	1	The treated water that leaves the treatment facility	The incoming raw sewage	The solid waste collected during treatment	The chemicals used in treatment
20	What is a "drainage basin"?	1	An area of land where all the rainwater collects and drains into a common outlet	A container for holding clean water	A part of a sewage treatment plant	A filter used for water purification
21	What does "backflow" mean in water supply systems?	1	The reversal of water flow from its intended direction	The addition of chemicals to water	The process of filtering water	The increase in water pressure
22	What does "stormwater management" aim to do?	1	Control and direct runoff from storms to prevent flooding	Treat and purify drinking water	Store wastewater	Increase water pressure
23	What is a "septic tank" used for?	1	Treating and storing wastewater	Filtering drinking water	Storing clean water	Collecting stormwater
24	What is the main purpose of a "septic tank"?	1	To treat and store wastewater	To store drinking water	To filter rainwater	To collect stormwater
25	What is "contaminant" in water?	1	Any substance that degrades the quality of water	A type of water filter	A method of water purification	A measure of water temperature
26	What is a "sewage pump station"?	1	A facility that pumps sewage to higher elevations for treatment	A tank for storing clean water	A filter for treating water	A chamber for measuring water flow
27	What does "biosolid" mean in sewage treatment?	1	Treated sludge that is safe for land application	Raw sewage	Water used for disinfection	The air used for aeration
28	What is the main purpose of "sedimentation" in water treatment?	1	To remove suspended solids by allowing them to settle	To filter out dissolved contaminants	To add disinfectants	To increase water temperature
29	What is the "primary treatment" of wastewater?	1	The initial process of removing large solids from wastewater	The addition of chemicals for disinfection	The biological treatment of organic matter	The storage of treated water
30	What is the purpose of "screening" in sewage treatment?	1	To remove large objects and debris from incoming sewage	To add chemicals to the wastewater	To filter out fine particles	To measure water quality
31	What does "potable" water quality mean?	1	Safe for human consumption	High in minerals	Suitable for industrial use	Only for irrigation
32	What does "settling tank" do in sewage treatment?	1	Allows solids to settle out from wastewater	Adds disinfectants to the sewage	Increases water pressure	Measures the quality of the treated water
33	What is "Nitrification" in sewage treatment?	1	The biological process of converting ammonia to nitrates	The addition of nitrogen to wastewater	The removal of nitrates from water	The physical filtration of wastewater
34	What is the purpose of a "drain field"?	1	To treat and disperse effluent from a septic system into the soil	To store rainwater	To filter stormwater	To add chemicals to wastewater

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35	What does "filtration" remove from water?	1	Suspended particles and solids	Dissolved gases	Large objects only	Chemicals
36	What is "denitrification"?	1	The biological process of converting nitrates to nitrogen gas	The addition of nitrogen to sewage	The removal of ammonia from water	The physical removal of solids
37	What is "anaerobic digestion"?	1	A process that breaks down organic matter in the absence of oxygen	A method of adding oxygen to wastewater	A technique for filtering large debris	A process for disinfection
38	What is the function of a "water treatment plant"?	1	To treat and purify water for safe consumption	To store wastewater	To increase water pressure	To filter out large debris
39	What does "biodegradable" mean in the context of waste?	1	Capable of being broken down by microorganisms	Harmful to the environment	Non-reusable	Highly toxic
40	What does "filtration" remove from sewage?	1	Suspended solids and particles	Dissolved gases	Large debris	Nutrients
41	What is "chlorine" used for in water treatment?	1	Disinfection to kill harmful microorganisms	Softening water	Increasing water flow	Measuring water pressure
42	What is a "sand filter" used for in sewage treatment?	1	To remove suspended solids from wastewater	To disinfect water	To add chemicals	To increase water temperature
43	What is "cross-connection" in water supply systems?	1	An improper link between potable and non-potable water systems	A type of water filter	A method of increasing water pressure	A component of a sewage treatment plant
44	What is "sludge dewatering"?	1	The process of removing excess water from sludge	The addition of chemicals to sewage	The biological breakdown of organic matter	The filtering of water
45	What does "primary treatment" of sewage involve?	1	Removing large solids and debris from wastewater	Adding chemicals to disinfect water	Biological treatment of organic matter	Filtering out fine particles
46	What is the primary role of "sewage treatment"?	1	To remove contaminants from wastewater	To increase water pressure	To store clean water	To add disinfectants
47	What does "influent" refer to in a wastewater treatment plant?	1	Incoming wastewater entering the treatment facility	Outgoing treated water	The chemicals used in treatment	The filtered water
48	What does "primary effluent" refer to?	1	Wastewater that has undergone primary treatment	Treated water leaving secondary treatment	Raw sewage before any treatment	Water used in filtration
49	What is "sludge digestion"?	1	The process of breaking down organic matter in sludge by microorganisms	The removal of large particles from wastewater	The addition of chemicals to wastewater	The filtration of treated water
50	What is the role of a "biosolid"?	1	Treated sludge that can be safely used as fertilizer	Raw sewage that has not been treated	Water used for disinfection	Large objects removed during screening
51	What is "comminution" in sewage treatment?	1	The process of grinding and shredding solid waste	The addition of chemicals to wastewater	The biological breakdown of organic matter	The filtering of water
52	What does "activated sludge process" involve?	1	Aeration of sewage to promote microbial digestion	Filtration of large debris from wastewater	Addition of chemicals to sewage	Measurement of water quality
53	What is a "rotating biological contactor" (RBC)?	1	A device that provides surface for microbial growth to treat wastewater	A filter for removing solids from sewage	A tank for storing treated water	A pump for increasing water pressure
54	What is a "membrane bioreactor" (MBR)?	1	A system that combines biological treatment with membrane filtration	A device for measuring water flow	A filter for removing large particles	A tank for chemical dosing
55	What does "TSS" stand for in sewage treatment?	1	Total Suspended Solids	Total Soluble Salts	Total Sewage Solids	Total Saturated Solids

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56	What is the purpose of a "disinfection chamber" in sewage treatment?	1	To kill harmful microorganisms using chemicals or UV light	To remove large solids from wastewater	To add nutrients to the water	To increase water pressure
57	What is the main function of a "sand bed" in sewage treatment?	1	To filter out solid particles from treated sewage	To disinfect water	To store excess water	To measure water flow
58	What is "land application" of biosolids?	1	Applying treated sludge to land as fertilizer	Disposing of untreated sludge in landfills	Storing biosolids in tanks	Filtering water using land
59	What does "nitrogen removal" in sewage treatment involve?	1	Converting ammonia and nitrates into nitrogen gas	Adding nitrogen to wastewater	Removing large solids from sewage	Measuring water quality
60	What is "secondary clarifier"?	1	A tank where biological treatment is further settled	A device for disinfecting water	A chamber for storing sludge	A filter for removing fine particles
61	What is the role of "settling basins" in wastewater treatment?	1	To allow solids to settle out from wastewater	To add chemicals for disinfection	To increase water flow	To measure water quality
62	What is the purpose of "carbon adsorption" in water treatment?	1	To remove organic contaminants using activated carbon	To filter out large particles	To increase water temperature	To add disinfectants
63	What does "sludge thickening" do?	1	Reduces the volume of sludge by removing water	Adds chemicals to the sludge	Increases the flow rate of water	Filters out fine particles
64	What is a "grit chamber" used for?	1	To remove heavy inorganic particles like sand and gravel from wastewater	To add chemicals to the sewage	To filter large solids	To measure water quality
65	What is "biological nutrient removal"?	1	The process of removing nitrogen and phosphorus from wastewater	The addition of nutrients to sewage	The removal of large solids	The filtering of fine particles
66	What does "discharge permit" refer to?	1	A legal authorization to release treated wastewater into the environment	A license for constructing a sewage treatment plant	A certificate for water quality testing	An agreement for importing chemicals
67	What is "suspension" in the context of sewage treatment?	1	The condition of solid particles being dispersed in a liquid	The removal of dissolved gases	The addition of chemicals to sewage	The filtering of large debris
68	What is a "septic drain field"?	1	The area where treated effluent is distributed into the soil for further treatment	A tank for storing untreated sewage	A device for disinfecting wastewater	A chamber for filtering large particles
69	What is the purpose of "sludge stabilization"?	1	To reduce the volume and pathogen content of sludge	To add nutrients to the sludge	To increase water flow	To measure water quality
70	What is a "trickling filter"?	1	A rotating drum covered with microbial media for biological treatment	A sand filter for removing particles	A device for chlorinating water	A tank for storing treated water
71	What is "ultrafiltration"?	1	A membrane filtration process to remove very fine particles and microorganisms	A chemical method of disinfecting water	A technique for sludge thickening	A method of adding nutrients to sewage
72	What is the function of a "weir" in a treatment plant?	1	To control the flow of water and measure its volume	To filter out large solids	To disinfect wastewater	To aerate sewage

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73	What does "ozonation" do in water treatment?	1	Uses ozone to disinfect and remove organic contaminants	Adds oxygen to the water	Filters out large debris	Measures water quality
74	What is "graywater"?	1	Wastewater from sinks, showers, and washing machines	Water from toilets	Stormwater runoff	Drinking water
75	What does "sludge composting" involve?	1	Aerobically decomposing sludge into a usable organic material	Removing water from sludge	Filtering out fine particles	Disinfecting treated water
76	What is "biological treatment" in sewage processing?	1	Using microorganisms to break down organic matter	Adding chemicals to treat sewage	Filtering out large solids	Measuring water temperature
77	What is "landfilling" in the context of waste management?	1	Disposing of waste in a controlled area covered with soil	Adding chemicals to waste	Treating waste with microorganisms	Filtering out large debris
78	What is a "leach field" used for?	1	Distributing treated wastewater into the soil for further treatment	Storing untreated sewage	Filtering large particles from wastewater	Measuring water quality
79	What does "sludge volume index" (SVI) measure?	1	The settling characteristics of activated sludge	The amount of dissolved gases in water	The concentration of chemicals in sludge	The temperature of the sewage
80	What is "chemical precipitation" used for in sewage treatment?	1	Removing dissolved contaminants by forming solids	Adding disinfectants to sewage	Filtering out large debris	Increasing water flow
81	What is the purpose of a "gravity thickener"?	1	To concentrate sludge by allowing solids to settle by gravity	To filter out fine particles	To disinfect wastewater	To store treated water
82	What is "biological filter"?	1	A medium where microorganisms treat wastewater	A device for removing large solids	A chamber for disinfecting water	A pump for increasing water flow
83	What is "separation" in sewage treatment?	1	The process of dividing wastewater into solid and liquid components	Adding chemicals to treat wastewater	Filtering out fine particles	Increasing water temperature
84	What does "sludge handling" refer to?	1	The processes of collecting, treating, and disposing of sludge	Measuring water quality	Filtering large debris	Adding disinfectants
85	What is "chemical oxidation" used for?	1	Breaking down organic contaminants using chemicals	Adds oxygen to the water	Filtering out large solids	Measuring water temperature
86	What is "treatment lagoon"?	1	A shallow pond where wastewater undergoes natural treatment processes	A tank for storing clean water	A filter for removing solids	A device for increasing water pressure
87	What does "pre-treatment" involve in sewage processing?	1	Initial treatment steps before the main treatment processes	The final stage of treating sewage	The addition of chemicals to water	The biological breakdown of sludge
88	What is a "decanting process"?	1	The removal of clarified liquid from a treatment tank	The addition of chemicals to wastewater	The filtering of large particles	The biological treatment of sludge
89	What does "ozone treatment" do?	1	Disinfects and oxidizes contaminants using ozone	Adds oxygen to water	Filters out solids	Measures water quality

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90	What is a "combined sewer overflow" (CSO)?	1	The discharge of untreated sewage and stormwater during heavy rains	The storage of clean water	The filtering of large solids	The addition of chemicals to wastewater
91	What is "reverse osmosis" used for?	1	Removing contaminants from water by passing it through a semi-permeable membrane	Adding chemicals to treat wastewater	Filtering out large solids	Measuring water temperature
92	What is a "digester" in sewage treatment?	1	A tank where microorganisms break down organic matter in sludge	A device for measuring water flow	A filter for removing large particles	A chamber for storing clean water
93	What is "hydraulic loading"?	1	The volume of wastewater entering a treatment facility per unit of time	The pressure applied to water in a treatment process	The temperature of the wastewater	The amount of chemicals added to wastewater
94	What is "biosolids composting"?	1	The process of creating compost from treated sludge	The removal of water from biosolids	The filtering of wastewater	The addition of chemicals to sludge
95	What is a "settling pond"?	1	A pond where solids in wastewater settle out naturally	A filter for removing fine particles	A device for adding chemicals to sewage	A chamber for measuring water quality
96	What is "secondary effluent"?	1	Wastewater that has undergone secondary treatment	Raw sewage before any treatment	Treated water leaving tertiary treatment	Water used for filtration
97	What does "volatilization" involve in sewage treatment?	1	The process of converting contaminants into gases for removal	The filtering of large particles	The biological treatment of sludge	The addition of chemicals to wastewater
98	What is "chemical dosing"?	1	Adding chemicals to water or wastewater for treatment purposes	Measuring the chemical content in sewage	Filtering out large solids	Increasing water temperature
99	What is "wastewater reuse"?	1	Using treated wastewater for various purposes like irrigation or industrial processes	The addition of chemicals to wastewater	The removal of large solids	The filtering of fine particles
100	What does "filtration" achieve in water treatment?	1	Removal of suspended particles and contaminants from water	Addition of chemicals to water	Measurement of water temperature	Aeration of sewage
101	What is "membrane filtration"?	1	A method using membranes to separate contaminants from water	A device for aerating water	A chemical process for disinfection	A tank for storing treated sludge
102	What is "chemical flocculation"?	1	The process of adding chemicals to cause particles to clump together for removal	The filtering of large solids	The addition of disinfectants to water	The biological treatment of sewage
103	What does "secondary clarifier" do in a treatment plant?	1	Settles out biological solids after secondary treatment	Filters large particles from wastewater	Adds disinfectants to the water	Measures water quality
104	What is a "septic system"?	1	A system for treating and disposing of household wastewater on-site	A tank for storing clean water	A device for disinfecting sewage	A filter for removing large solids

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105	What does "sludge thickening" involve?	1	Concentrating sludge by reducing its water content	The removal of fine particles from sewage	The addition of chemicals to wastewater	The biological breakdown of organic matter
106	What is a "chlorine contact tank"?	1	A tank where chlorine is allowed to remain in contact with water for disinfection	A device for filtering large solids	A chamber for measuring water flow	A pump for increasing water pressure
107	What is "biological nutrient removal" in sewage treatment?	1	The process of removing nitrogen and phosphorus from wastewater	The addition of nutrients to sewage	The removal of large solids	The filtering of fine particles
108	What does "dosing" refer to in sewage treatment?	1	Adding chemicals or other substances to wastewater for treatment	Measuring the flow rate of water	The physical separation of solids from liquids	The removal of organic matter
109	What is a "leachate collection system" in a landfill?	1	A system designed to collect and manage the liquid that percolates through the landfill	A device for measuring waste volume	A tank for storing treated water	A filter for removing large particles
110	What is "nutrient removal" in wastewater treatment?	1	The process of removing nutrients like nitrogen and phosphorus from wastewater	The addition of nutrients to sewage	The filtering of large solids	The biological breakdown of organic matter
111	What does "chemical oxidation" do?	1	Converts contaminants in wastewater into less harmful substances using chemicals	Filters out large particles	Increases water temperature	Adds nutrients to sewage
112	What is "membrane filtration"?	1	A method using membranes to separate contaminants from water	A device for aerating water	A chemical process for disinfection	All of These
113	What is "chemical flocculation"?	1	The process of adding chemicals to cause particles to clump together for removal	The filtering of large solids	The addition of disinfectants to water	All of These
114	What does "secondary clarifier" do in a treatment plant?	1	Settles out biological solids after secondary treatment	Filters large particles from wastewater	Adds disinfectants to the water	All of These
115	What is a "septic system"?	1	A system for treating and disposing of household wastewater on-site	A tank for storing clean water	A device for disinfecting sewage	All of These
116	What does "sludge thickening" involve?	1	Concentrating sludge by reducing its water content	The removal of fine particles from sewage	The addition of chemicals to wastewater	All of These
117	What is a "chlorine contact tank"?	1	A tank where chlorine is allowed to remain in contact with water for disinfection	A device for filtering large solids	A chamber for measuring water flow	All of These
118	What is "biological nutrient removal" in sewage treatment?	1	The process of removing nitrogen and phosphorus from wastewater	The addition of nutrients to sewage	The removal of large solids	All of These
119	What does "dosing" refer to in sewage treatment?	1	Adding chemicals or other substances to wastewater for treatment	Measuring the flow rate of water	The physical separation of solids from liquids	All of These

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120	What is "biological oxygen demand" (BOD)?	1	A measure of the amount of oxygen required by microorganisms to break down organic matter	The amount of chlorine in water	The level of suspended solids in water	All of These
121	What is the purpose of "chlorination" in water treatment?	1	To disinfect and kill harmful microorganisms	To filter out large particles	To soften water	All of These
122	What is a "leachate collection system" in a landfill?	1	A system designed to collect and manage the liquid that percolates through the landfill	A device for measuring waste volume	A tank for storing treated water	All of These
123	What is "nutrient removal" in wastewater treatment?	1	The process of removing nutrients like nitrogen and phosphorus from wastewater	The addition of nutrients to sewage	The filtering of large solids	All of These
124	What does "chemical oxidation" do?	1	Converts contaminants in wastewater into less harmful substances using chemicals	Filters out large particles	Increases water temperature	All of These
125	What does a water treatment plant primarily do?	2	Increase water temperature	Remove impurities from water	Store water	Distribute water
126	What is the primary function of a "strainer" in a water distribution system?	2	Measure water flow	Remove large debris	Increase water pressure	Treat water chemically
127	What is a common type of pump used in water systems?	1	Centrifugal pump	Gear pump	Diaphragm pump	Peristaltic pump
128	Which standard is commonly used to define the acceptable limits of turbidity in water?	2	WHO	EPA	NSF	ANSI
129	What does "aquifer" refer to?	1	Underground layer that holds water	Surface water body	Water treatment plant	Water storage tank
130	In water distribution networks, what does "scour" refer to?	2	Cleaning of water tanks	Removal of accumulated sediments from pipes	Testing of water quality	Inspection of water pumps
131	What is the function of a water meter?	1	Measure water quantity	Measure water quality	Control water flow	Disinfect water
132	What is "hard water"?	1	Water with high mineral content	Water that is soft	Water that is pure	Water with low mineral content
133	What is the main function of a "dosing pump" in a water treatment facility?	2	To filter particles	To regulate chemical addition	To measure water flow	To store chemicals
134	What is the primary use of "floculants" in water treatment?	2	To disinfect water	To aggregate fine particles into flocs	To increase water pressure	To adjust pH levels
135	What is the purpose of a water filter?	2	To heat water	To remove impurities	To add flavor	To measure pH
136	What does "TDS" stand for in water quality testing?	1	Total Dissolved Solids	Total Dissolved Salts	Total Dissolved Sugars	Total Dissolved Sulfides
137	What is the concept of "equilibrium" in the context of water treatment chemistry?	2	The balance between chemical addition and removal	The state where chemical reactions are balanced	The condition where water pressure is stable	The point where water temperature stabilizes
138	What does "peak flow" refer to in the design of water supply systems?	1	The maximum flow rate expected during peak usage	The average flow rate over a day	The minimum flow rate during off-peak times	The flow rate after disinfection
139	What is the purpose of a sluice gate?	1	To control water flow	To filter water	To store water	To disinfect water
140	What is a common method of removing bacteria from water?	3	Filtration	Sedimentation	Chlorination	Coagulation
141	What is the function of a "pressure booster station" in a water distribution system?	2	To filter water	To increase water pressure	To measure water quality	To disinfect water
142	What does "chloramine" refer to in water disinfection?	2	A type of chlorine-based disinfectant	A combination of chlorine and ammonia	A water filtration material	A pH adjusting chemical
143	What is an elevated water tank used for?	1	Storing water	Filtering water	Measuring water quality	Pumping water
144	What does the term "backflow" mean?	1	Water flowing backwards into the system	Water that is treated	Water being stored	Water that has been filtered



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145	What is the main advantage of using "ozonation" in water treatment?	1	It removes organic and inorganic contaminants effectively	It adds chlorine for disinfection	It reduces water hardness	It filters out large particles
146	What does "Sewerage System" refer to in urban planning?	2	A system for managing stormwater	A network for collecting and transporting wastewater	A water purification process	A type of water storage tank
147	What is a common way to measure water flow rate?	1	Flow meter	Water pump	Sedimentation tank	Coagulant
148	What is the primary goal of "advanced oxidation processes" (AOP) in water treatment?	3	Sedimentation	Coagulation	Degradation of organic contaminants	Filtration
149	Which substance is commonly used to disinfect drinking water?	2	Sodium	Chlorine	Potassium	Calcium
150	What does "hydraulic conductivity" measure?	1	The ease with which water can flow through a medium	The pressure required to pump water	The amount of water stored in a tank	The flow rate of water in a pipe
151	What does a water softener do?	2	Remove bacteria	Reduce hardness	Add minerals	Increase pH
152	In water treatment, what does "flotation" refer to?	1	Removing suspended particles by floating them to the surface	Adding chemicals to increase density	Filtering out large debris	Measuring water clarity
153	What is the function of a pressure relief valve?	2	Increase pressure	Decrease pressure	Measure pressure	Store pressure
154	What does "BOD" stand for?	2	Biological Oxygen Demand	Biochemical Oxygen Demand	Basic Oxygen Demand	Biological Organic Demand
155	What is the primary goal of "nutrient removal" in wastewater treatment?	1	To reduce the amount of nitrogen and phosphorus	To increase water temperature	To remove large solids	To add beneficial microorganisms
156	What does "dynamic head" refer to in hydraulic engineering?	1	The pressure head due to fluid motion	The static pressure in a system	The height of a water column	The pressure head due to elevation
157	What is a common feature of groundwater?	1	Found in aquifers	Stored in reservoirs	On the surface	Found in rivers
158	What does "membrane filtration" involve?	1	Using a semi-permeable membrane to separate particles from water	Adding chemicals to water	Heating water to remove contaminants	Using a physical filter to trap large debris
159	What is the primary use of a chlorinator?	2	To filter water	To add chlorine	To store water	To measure water quality
160	What is the primary purpose of a "hydrostatic test" in water supply systems?	1	To check the integrity of pipes and tanks under pressure	To measure water flow rate	To analyze water quality	To calculate storage capacity
161	What is the purpose of a water reservoir?	2	To treat water	To store water	To filter water	To pump water
162	What does "settling basin" do in water treatment?	1	Allows particles to settle out of the water	Filters out dissolved substances	Adds chemicals to the water	Stores water temporarily
163	What is "rainwater harvesting"?	4	Collecting rainwater	Disinfecting rainwater	Filtering rainwater	Storing rainwater
164	What does the term "flocculation" refer to?	2	Filtering water	Clumping particles together	Measuring water quality	Adding chemicals
165	What is "backwashing" used for in water filtration systems?	1	Cleaning the filter by reversing the flow of water	Adding chemicals to the water	Measuring the filter's efficiency	Storing filtered water
166	What is "ultrafiltration" in water treatment?	1	A membrane process for separating particles smaller than those in microfiltration	A method of adding chemicals to the water	A technique for increasing water pressure	A process for disinfecting water
167	What type of filter removes large particles?	1	Sand filter	Carbon filter	Reverse osmosis	Distillation
168	What does "dechlorination" refer to in water treatment?	1	The removal of chlorine from treated water	The addition of chlorine for disinfection	The process of filtering chlorine particles	The adjustment of pH levels
169	What is "scour" in water supply systems?	1	Cleaning pipes	Adding chemicals	Measuring flow	Treating water
170	What does "potable" mean in terms of water?	2	Unfit for drinking	Clean and safe to drink	Used for irrigation	Contaminated
171	Which of the following is a common design parameter for a water treatment plant?	1	Hydraulic loading rate	Oxygen demand	Turbidity level	Ambient temperature
172	What does "hydraulic gradient" refer to?	1	Slope of water flow	Amount of dissolved solids	Water temperature	Water pH level

Sr. No.	Question	Correct Answer	Option 1	Option 2	Option 3	Option 4
173	What is "leak detection" in the context of water supply systems?	1	Identifying and locating leaks in the system	Measuring water quality	Adding chemicals to the system	Storing water
174	What does "filtration" do in water treatment?	2	Adds chlorine	Removes particles	Increases pressure	Measures quality
175	What is "total coliform bacteria" a measure of in water testing?	1	The presence of potentially harmful bacteria	The level of chlorine in water	The hardness of water	The pH level of water
176	What is a common type of water storage tank?	1	Elevated tank	Filter tank	Chlorine tank	Pump tank
177	What does "Turbidity" measure in water?	1	Water clarity	Water hardness	Water temperature	Water flow
178	What is a common use of a water meter?	1	Measuring water quantity	Measuring water quality	Adding chlorine	Storing water
179	What does "reverse osmosis" do?	1	Filters water through a membrane	Adds chlorine	Measures water quality	Increases water pressure
180	What type of valve controls the flow of water?	1	Gate valve	Pressure relief valve	Check valve	Ball valve
181	What is the main goal of water disinfection?	2	To remove large particles	To kill harmful microorganisms	To filter out sediments	To add nutrients
182	What is a common method for storing rainwater?	1	Tanks	Filters	Pumps	Meters
183	What is the purpose of adding coagulants in water treatment?	2	To disinfect	To clump particles together	To filter out large particles	To store water
184	What does "head loss" refer to in hydraulic engineering?	2	The loss of water due to evaporation	The reduction in pressure or energy in a flow system	The volume of water lost	The loss of water due to leakage
185	What is the main purpose of sedimentation in water treatment?	2	Filtration	Removing large particles	Adding chemicals	Heating the water
186	What is a "catchment area"?	1	Area from which water is collected	Area where water is treated	Area where water is distributed	Area where water is stored
187	What is "water hardness" caused by?	1	High levels of dissolved salts	Low levels of dissolved salts	High levels of bacteria	Low levels of bacteria
188	What does a "pressure gauge" measure?	1	Water pressure	Water temperature	Water quantity	Water clarity
189	What does "filtration" in water treatment help remove?	2	Microorganisms	Large particles	Dissolved gases	Chemicals
190	What is a common feature of a rapid sand filter?	1	Faster filtration rate	Lower cost	Smaller size	Increased particle removal
191	What does "BOD" measure in water?	4	Biological Oxygen Demand	Basic Oxygen Demand	Biological Organic Demand	Biochemical Oxygen Demand
192	What is a "pressure tank" used for?	1	Storing water under pressure	Measuring water flow	Adding chlorine	Filtering water
193	What is the function of a "check valve"?	1	Prevent water from flowing backward	Control water flow rate	Add chemicals	Filter water
194	What is a common feature of an underground water tank?	1	Space-saving	Easier maintenance	Elevated storage	Increased water pressure
195	What is the primary role of a water distribution network?	3	Treating water	Storing water	Distributing water to users	Measuring water quality
196	In a gravity-driven water distribution system, what is the significance of the "hydraulic head"?	3	It determines the water temperature	It ensures water flow under pressure	It controls the flow direction and rate	It filters out contaminants
197	What is a common use of a water pump?	2	To filter water	To move water	To clean pipes	To test water quality
198	What is the term for water that flows through the ground to reach aquifers?	3	Surface water	Runoff	Infiltration	Evaporation
199	What type of valve is used to control the flow rate of water?	2	Gate valve	Ball valve	Pressure relief valve	Check valve
200	What does a water "reservoir" do?	1	Stores water	Pumps water	Filters water	Disinfects water
201	What is a "water main"?	1	Large pipe that carries water	Filter for water	Storage tank	Chemical used in treatment
202	What does "chlorine residual" refer to?	1	Chlorine left in the water after treatment	Initial chlorine amount	Chlorine concentration in raw water	Chlorine used in filtration
203	What is a "flow meter" used for?	1	Measuring the flow rate of water	Filtering water	Adding chemicals	Measuring water quality
204	What is the main reason for using a "backflow preventer"?	1	To stop water from flowing backward	To increase water pressure	To filter water	To store water
205	What is the purpose of "coagulation" in water treatment?	2	To remove bacteria	To clump small particles together	To add minerals	To disinfect water
206	What is the main function of a "storage tank" in water systems?	1	To hold water	To filter water	To pump water	To disinfect water

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207	What is "aeration" in water treatment?	1	Adding air to water	Filtering out particles	Disinfecting with chemicals	Removing dissolved gases
208	What is "Biofilm" in the context of water supply systems?	1	A layer of bacteria growing on surfaces	A film used in water filtration	A chemical used in disinfection	A type of sediment
209	Which source is considered surface water?	3	Aquifers	Wells	Rivers	Springs
210	What is a common type of "disinfection" used in water treatment?	1	Ultraviolet light	Sand filter	Coagulation	Sedimentation
211	What is a "drainage system" used for?	1	Removing excess water	Storing water	Adding chemicals	Measuring water quality
212	What does a "pumping station" do?	1	Moves water from one place to another	Stores water	Filters water	Disinfects water
213	What does the term "wastewater" refer to?	1	Used or dirty water	Clean drinking water	Water from rain	Water in reservoirs
214	What is "stormwater"?	1	Water from precipitation	Water from a well	Water from a reservoir	Water used in treatment
215	What is a "pressure regulator" used for?	1	Maintaining water pressure	Measuring water quality	Filtering water	Storing water
216	What does "water quality" refer to?	1	The condition of water	The quantity of water	The pressure of water	The temperature of water
217	What is the function of a "water tank"?	1	To store water	To pump water	To treat water	To filter water
218	What does "sedimentation" help to remove?	1	Large particles	Dissolved gases	Microorganisms	Chlorine
219	What is a common method for treating water for large-scale use?	1	Municipal water treatment	Home filtration	Rainwater harvesting	Bottled water
220	What is the purpose of a "recirculation pump" in a water system?	3	To boost pressure in the system	To remove impurities	To recirculate water to prevent stagnation	To store water
221	What is the purpose of coagulation in water treatment?	3	To disinfect	To remove gases	To clump particles together	To filter water
222	What is "groundwater"?	1	Water found below the surface of the earth	Water found in rivers	Water found in lakes	Water found in the atmosphere
223	What does "pH" measure in water?	1	Acidity or alkalinity	Turbidity	Hardness	Temperature
224	What does "disinfection" in water treatment aim to remove?	1	Microorganisms	Sediments	Chemicals	Solids
225	What is a "screen" used for in water treatment?	1	Removing large debris	Adding chemicals	Measuring flow rate	Storing water
226	What is "coagulation" often followed by in water treatment?	1	Flocculation	Filtration	Sedimentation	Aeration
227	What is the purpose of a "chlorinator"?	1	To add chlorine to water	To filter out particles	To measure water quality	To store water
228	What is the primary source of surface water?	1	Rivers	Aquifers	Wells	Springs
229	What does a "flow control valve" do?	1	Regulates the flow of water	Adds chemicals	Measures pressure	Stores water
230	What does a "water treatment" system typically include?	4	Filtration	Disinfection	Coagulation	All of the above
231	What is "runoff" in water management?	1	Water flowing off surfaces	Water stored in tanks	Water from wells	Water from treatment plants
232	What does "sorption" refer to in water treatment processes?	3	The removal of particulate matter	The addition of coagulants	The attachment of contaminants to a solid phase	The removal of dissolved gases
233	What does "WTP" stand for?	1	Water Treatment Plant	Water Transfer Pipe	Water Tank Pump	Water Testing Procedure
234	What is "turbidity" a measure of?	1	Water clarity	Water hardness	Water temperature	Water pressure
235	What is the role of a "pH meter"?	1	Measuring the acidity or alkalinity of water	Measuring water flow rate	Filtering water	Storing water
236	What does a "booster pump" do?	1	Increases water pressure	Filters water	Measures water quality	Stores water
237	What is "flocculation" used for in water treatment?	1	Forming larger clumps of particles	Measuring water flow	Storing water	Adding chlorine
238	What does "disinfection" typically involve?	1	Adding chlorine	Using a screen	Flocculating water	Filtering water
239	What is a "venturi meter" used for?	1	Measuring water flow rate	Filtering water	Storing water	Adding chemicals
240	What does "sedimentation" help to clarify?	1	Water	Chemicals	Air	Soil
241	What does a "flow control valve" do?	1	Regulates the rate of water flow	Measures water temperature	Adds disinfectants	Stores water
242	What is the role of a "water softener"?	1	Removes calcium and magnesium	Adds chlorine	Measures water quality	Filters particles

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243	What does "wastewater treatment" involve?	1	Removing contaminants from used water	Storing clean water	Adding chlorine to clean water	Measuring water quality
244	What does a sedimentation tank do?	3	Filter water	Store water	Allow particles to settle	Add chlorine
245	What is the significance of "residual chlorine" in water treatment?	1	It indicates the effectiveness of disinfection	It measures water hardness	It determines the pH level	It evaluates the turbidity
246	What is a "municipal water system"?	1	A water system serving a city or town	A private water supply	A residential water tank	A small-scale water system
247	What does "filtration" remove from water?	1	Solids and particles	Dissolved gases	Microorganisms	Chemicals
248	What does a "water tank" do?	1	Stores water	Filters water	Measures water quality	Adds chemicals
249	What is "surface water"?	1	Water from rivers, lakes, and reservoirs	Water from underground sources	Water from wells	Water from rain
250	What is the purpose of "chemical dosing" in water treatment?	1	To add chemicals for treatment	To filter out particles	To measure water flow	To store water
251	What is "gravity-fed" water distribution?	1	Water flowing from higher to lower elevations	Water pumped to higher elevations	Water stored in tanks	Water filtered by gravity
252	What is the main function of a "chemical feeder" in water treatment?	1	Adding chemicals to water	Filtering water	Storing water	Measuring water flow
253	What does "water quality" assess?	1	The cleanliness and safety of water	The quantity of water	The pressure of water	The temperature of water
254	What does "water conservation" aim to do?	1	Use water efficiently	Store more water	Increase water consumption	Pump water more frequently
255	What is "drainage"?	1	Removal of excess water	Storage of water	Treatment of water	Filtration of water