

Program: BE Civil Engineering

Curriculum Scheme: Revised 2016

Examination: Third Year Semester V

Course Code: CE-C504 and Course Name: Environmental Engineering -I

Time: 1hour

Max. Marks: 50

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Note to the students: - All questions are compulsory and carry equal marks .

Q1.	What is the permissible limit of turbidity for potable water as per BIS?
Option A:	5 ppm-10 ppm
Option B:	50 ppm-100 ppm
Option C:	100 ppm-300 ppm
Option D:	300 ppm - 500 ppm
Q2.	What is the thickness of gravel bed aerator?
Option A:	5 to 6 m
Option B:	0.2 to 1 m
Option C:	3.5 to 4.5 m
Option D:	1 to 1.5 m
Q3.	What is the frequency of cleaning of a slow sand filter?
Option A:	1 week
Option B:	1-3 months
Option C:	2-3 days
Option D:	1-3 months
Q4.	Approximately 1 mg/lit fluoride in drinking water helps to prevent
Option A:	Mottling
Option B:	Fluorosis

Option C:	Dental cavities
Option D:	Blue baby disease
Q5.	Water sedimentation process involves the settling of the impurities in a tank under the action of
Option A:	Sun rays
Option B:	gravitational force
Option C:	biological action
Option D:	flow velocity of particle
Q6.	In which of the following distribution system the clean water flows entirely under gravity?
Option A:	Gravity system
Option B:	Pressure system
Option C:	Combined gravity and pumping system
Option D:	Pumping system
Q7.	Bell and spigot joint is also called as
Option A:	Socket and spigot joint
Option B:	Expansion joint
Option C:	Flanged joint
Option D:	Flexible joint
Q8.	Which of the following is not the type of Aerator?
Option A:	Cascade
Option B:	Slat tray
Option C:	Trickling bed
Option D:	Plate tray
Q9.	Which of the following causes a decrease in per capita consumption?
Option A:	Use of metering system

Option B:	Good quality of water
Option C:	Better standard of living of the people
Option D:	Hotter climate
Q10.	Activated Carbon used to remove
Option A:	Odour and Taste
Option B:	Hardness
Option C:	Iron and Manganese
Option D:	Dissolved salts
Q11.	The ratio of the maximum daily consumption to the average daily demand is
Option A:	1
Option B:	1.2
Option C:	1.4
Option D:	1.8
Q12.	The length of rectangular sedimentation tank should not be more than (Where 'B' is the width of the tank)
Option A:	B
Option B:	2B
Option C:	4B
Option D:	8B
Q13.	What indicates the permanent hardness when alum is added to water?
Option A:	$Al(OH)_3$
Option B:	$CaSO_4$
Option C:	$CO_2$
Option D:	$Ca(OH)_3$
Q14.	What is permissible limit of turbidity for potable water as per BIS?

Option A:	5 ppm-10 ppm
Option B:	50 ppm-100 ppm
Option C:	100 ppm-300 ppm
Option D:	300 ppm - 500 ppm
Q15.	Which is not a type of water filter?
Option A:	Slow sand filter
Option B:	Rapid sand filter
Option C:	Pressure filter
Option D:	Speed filter
Q16.	In distribution pipes, air valves are provided at
Option A:	lower point
Option B:	junction point
Option C:	higher point
Option D:	anywhere
Q17.	The temperature at which the softening of water takes place by lime soda process is
Option A:	10°C - 21°C
Option B:	20°C - 30°C
Option C:	39°C - 45°C
Option D:	90°C
Q18.	Where EDTA (Ethylene Diamine Tetra Acetic Acid) method is used?
Option A:	To determine turbidity of water
Option B:	To determine alkalinity of water
Option C:	To determine chlorides content in water
Option D:	To determine hardness of water

Q19.	According to the Indian Standard recommendations, a water requirement per head per day is assumed for residential buildings is
Option A:	50 litres
Option B:	115 litres
Option C:	135 litres
Option D:	160 litres
Q20.	Which type of pipe fitting that can be used in the place where four pipes meet together?
Option A:	Bend
Option B:	Cross
Option C:	Elbow
Option D:	Tees
Q21.	How air bubbles travel in air diffusion basin?
Option A:	From top towards downward side
Option B:	From bottom towards upward side
Option C:	From left towards right side
Option D:	From right towards left side
Q22.	Coagulants, used in water treatment, function better when the raw water is
Option A:	Acidic
Option B:	Alkaline
Option C:	Neutral
Option D:	Turbid
Q23.	Per capita demand of water is calculated in
Option A:	Liters per person per day
Option B:	Liters per person per month
Option C:	Liters per person per year
Option D:	Liters per person per hour

Q24.	What is the minimum diameter of pipes used for house drainage of waste water?
Option A:	50 mm
Option B:	75 mm
Option C:	100 mm
Option D:	105 mm
Q25.	Which is the correct statement regarding per capita demand?
Option A:	Daily water required by an individual
Option B:	Water required for various purpose of a person
Option C:	Water required by an individual in a year
Option D:	Annual average amount of daily water required by one person

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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	A
Q2.	D
Q3.	B
Q4	C
Q5	B
Q6	A
Q7	A
Q8.	D
Q9.	A
Q10.	A
Q11.	D
Q12.	C
Q13.	B
Q14.	A
Q15.	D
Q16.	C
Q17.	A
Q18.	D
Q19.	C

Q20.	B
Q21.	B
Q22.	B
Q23.	A
Q24.	B
Q25.	D