Sanjay Ghodawat University, Kolhapur

2020-21

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017

EXM/P/09/00

Year and Program: T.Y.B.TECH	**School of Technology**	**Department: Civil**
Course Code: CET310R1	**Course Title: Water Supply Engineering**	**Semester :VI**
Day and Date:	**End Semester Examination**	**Time : 2 Hrs.** **Max Marks : 50**

Instructions: 1) All Questions are compulsory.

Q.1		**Answer/Solve the following (any Two)**– *Unit I & II*	**Marks**	Bloom's Level	CO
	a)	Water supply scheme is to be designed for population 1, 44,000. Determine various demands of water for an average water consumption.	8	L3	CO2
	b)	Draw a flow chart of public water supply scheme and explain each unit.	8	L3	CO2
	c)	What are various materials used for pipes?	8	L1	CO4
Q.2		**Answer/Solve the following (any two)** – *Unit III & IV*			
	a)	What is the aeration process? Explain the types of aerators in detail.	8	L2	CO2
	b)	Explain in detail the filtration process of rapid sand filter with diagram.	8	L3	CO3
	c)	Explain the factors affecting disinfection process.	8	L1	CO3
Q.3		**Answer/Solve the following (any two)** – *Unit V & VI*			
	a)	Explain with neat sketches of layouts of water distribution networks.	9	L3	CO4
	b)	Calculate the storage required to supply the demand shown in the following table if the inflow of water to the reservoir is maintained at a uniform rate throughout 24 hrs. (Solve this problem with analytical method).	9	L3	CO2 &4
	c)	Explain with neat sketches the working & function of 1) Gate valve 2) Non-return valve 3) Air relief valve	9	L2	CO4

Time(hrs)	00-04	04-08	08-12	12-16	16-20	20-24
Demand in million	0.48	0.87	1.33	1.00	0.82	0.54

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