

GOPALAN COLLEGE OF ENGINEERING AND MANAGEMENT

Department of Computer Science and Engineering

Academic Year: **2017-18**

Semester: **EVEN**

COURSE PLAN

Semester: **VI**

Subject Code& Name: **10CV666& Rural Water Apply & sanitation**

Name of Subject Teacher: **SREEVIDYA RAMAN. S**

Name of Subject Expert (Reviewer): **K. PRABHAKAR**

For the Period: From: 6-02-12 to 2-06-17

Details of Book to be referred:

Text Books	T1. Water supply Engineering –S.K.Garg, Khanna Publishers T2. Environmental Engineering I –B C Punima and Ashok Jain T3- Environmental Engineering -Peavy, H.S.Rowe
Reference Books	R1. Water Supply & Sanitary Engineering - E.W.Steel
Lecture Notes	L1- prepared lecture notes
Web Resources	W1- http://nptel.ac.in/course/105104102 W2- www.animals.howstuffworks.com W3- http://en.m.wikipedi.org

Lecture NO	Topic Planned	Practical Applications & Brief objectives	Book referred with Pg No.	Planned Date	Executed Date	Deviation Reasons thereof	How Made Good / Reciprocate arrangement	Remarks by HOD
1.	UNIT - 1 RURAL WATER SUPPLY: Introduction to RWS	Objective To identify and recognize the potential sources of water with water quality standards. Application Adopted in water supply board and station to meet IS Standards Outcome Understand the importance of maintaining the quality and also the quantity of water resource.	R1-2 L1	6-2-17				
2.	Need for a protected water supply		T-1	7-2-17				
3.	Investigation and selection of water sources		T-31	8-2-17				
4.	water borne diseases		T1-353	9-2-17				
5.	Protection of well water		L	9-2-17				
6.	Drinking water quality standards and their Significance		T-355,356	13-2-17				
7.	TUTORIAL- Case study			14-2-17				
8.	Revision / Unit Test			16-2-17				
9.	UNIT - 2 Types of pumps	Objective To Know about different types of pumps followed by treatment methods Application Apply treatment process in water treatment Plants Outcome Understand the methods available to treat and protect water	T2-427	17-2-17				
10.	Supply systems viz., BWS		L1	17-2-17				

11.	Supply systems viz., MWS,PWS		L1	20-2-17				
12.	water treatment methods		T2-220	21-2-17				
13.	Disinfection, methods of disinfection		T2-363	23-2-17				
14.	Deflouridation and methods of deflouridation		T2-418	27-2-17				
15.	Hardness and methods of hardness removal, Iron removal		T2-404 T1-520	28-2-17				
16.	Ground water contamination and control.		T2-135	1-3-17				
17.	TUTORIAL- Case study			2-3-17				
18.	Revision / Unit Test			3-3-17				
19.	UNIT - 3 RURAL SANITATION Introduction, public latrine			3-3-17				
20.	Concept of Eco-sanitation	Objective To know the importance of sanitation system Application The approach to sanitize-and safe disposal Outcome To know the importance of eco sanitation.	W1	4-3-17				
21.	Trenching and composting methods			6-3-17				
22.	Aerobic and anaerobic composting			7-3-17				

23.	Two pit latrines			8-3-17				
24.	Aqua privy, W.C			13-3-17				
25.	Septic tank		T3-461	14-3-17				
26.	Soak pit		T3-462	16-3-17				
27.	TUTORIAL- Case study			17-3-17				
28.	Revision / Unit Test			17-3-17				
29.	UNIT - 4 DRAINAGE SYSTEMS Introduction, Storm water disposal	Objective To collect and divert the rain water and sullage by means of good drainage system to natural water body Application Mainly adopted in metropolitan cities to utilize the natural source of water Outcome Understand the importance of conserving the water resources	T3-325	20-3-17				
30.	Sullage disposal		T3-329	21-3-17				
31.	Concept of rain water harvesting		W3	23-3-17				
32.	Methods of rain water harvesting		W3	24-3-17				
33.	Uses and applications of rain water harvesting		W3	24-3-17				
34.	TUTORIAL- Case study			27-3-17				
35.	Revision / Unit Test			28-3-17				
36.	UNIT - 5 COMMUNICABLE DISEASES Introduction, communicable diseases Terminologies	Objectives Describe the scope of communicable Diseases and factors involved in the transmission of	W1	30-3-17				

37.	Classifications of communicable diseases	communicable diseases		31-3-17				
38.	Methods of communication	Outcome To know the importance of the surrounding hygiene with respect to water		31-3-17				
39.	General methods of control			1-4-17				
40.	TUTORIAL- Case study				3-4-17			
41.	Revision / Unit Test	Objective To know the effective collection, sorting and safe disposal of refuse Application To reduce the land contamination Outcome Scientific disposal methods of refuse		4-4-17				
42.	UNIT – 6 REFUSE COLLECTION AND DISPOSAL Introduction, collection methods		R1-118	6-4-17				
43.	Transportation of refuse and methods		R1-120	7-4-17				
44.	Disposal of refuse by salvaging, dumping, manure pits		R1-164	7-4-17				
45.	Disposal of refuse by manure pits & low lands		R1-167	10-4-17				
46.	Concept of composting and methods		L1	11-4-17				
47.	Aerobic composting		L1	13-4-17				
48.	Anaerobic composting			20-4-17				
49.	dung disposal in digester		L1	21-4-17				
50.	Biogas plants and types of digester.		L1	21-4-17				
51.	TUTORIAL- Case study			24-4-17				
52.	Revision / Unit Test			25-4-17				

53.	UNIT - 7 MILK SANITATION Introduction, Essentials of milk sanitation,	Objective To know the process of milk sanitation Application Apply milk sanitation techniques in dairies Outcome Aware of milk hygiene technologies in dairy industries	T3- 323	27-4-17				
54.	Test for milk quality- physical, chemical biological test		R1-204	28-4-17				
55.	Pasteurization and its methods		L1	28-4-17				
56.	Milk quality control,		R1-321	2-5-17				
57.	Cattle borne diseases and control measures		L1	4-5-17				
58.	Planning for a cow shed.		R1-332	5-5-17				
59.	TUTORIAL- Case study			5-5-17				
60.	Revision / Unit Test			6-5-17				
61.	UNIT - 8 INSECT CONTROL Introduction, Life cycle of a house fly		Objective To know the life cycle of a house fly and mosquitoes	W2	8-5-17			
62.	Life cycle of a mosquito	Outcome Control measure to reduce infection caused by the insect and protecting the environment	W2	9-5-17				
63.	diseases transmission from house fly and mosquito			15-5-17				
64.	Control measures.			16-5-17				
65.	TUTORIAL- Case study			18-5-17				

66.	Revision / Unit Test			19-5-17				
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Prepared By: _____
 (Faculty)
 Date & Sign _____

Reviewed by: _____
 (Sub. expert)
 Date & Sign _____

Approved by: _____
 (HOD)
 Date & Sign _____

Approved by: _____
 (Principal/ Acad. Co)
 Date & Sign _____