

SPSR NELLORE DIST, ANDHRA PRADESH-524126



ADD ON PROGRAMME (Value Addition Programme)

WATER ANALYSIS

Department of Chemistry

2021-22

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From The Department of Chemistry Government Degree College Naidupet Date: 8/11/21

To The Principal Government Degree College

Naidupet

Sir

Sub: Department of Chemistry – permission seeking to conduct add on course on "Water Analysis"–Regarding.

I would like to submit that the Department of Chemistry has planned to organize an add on certificate course for III year students from the academic year 2021-22 onwards.

At this juncture we request your honour to permit the department to organize the above requested Add on certificate course instantly

This is for your favourable consent

Thanking you sir

Yours sincerely Along as Dr P. Sujana

Department of Chemistry

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SPSR NELLORE DIST, ANDHRA PRADESH-524126



<u>Circular</u>

Date: 09/11/2021

All the III year BSC students are here by instructed that, the Department of Chemistry is going to start an "Add on Certificate Course" for BSC students in "Water Analysis" from this academic year onwards.

So, interested students are directed to contact Dr P. Sujana, Lecturer in Chemistry and register for the course.

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incipal 📉 PRINCIPAL Govt. Degree College NAJOUPET, SPSR Nellore Dt

Head DEPARTMENT OF CHEMISTRY GCV* Degree College NAIDOPET SPSR Nellore Dt

CHEMISTRY

Add-on- Programme

WATER ANALYSIS

Syllabus:

Unit-1

Source of water pollution and pollutants: introduction – principle factors – dissolved oxygen - Acidity and alkalinity – Trace elements – Microorganisms – Types of pollutants – Effects – Pathogens – Water related diseases and their causative organisms.

Unit-2

Mosquito Control: protection against water borne diseases - Mosquito borne diseases - Mosquito control - Destruction of larvae and pupae - Protection against mosquito bite.

Harvesting of rain water: Harvesting rainwater -by using the existing well – through pits – Decentralized percolation trenches – Various methods of traditional rainwater harvesting -Earthen reservoirs – tanks – ponds – rainwater harvesting through watershed management.

Unit-3

Unit-4

Quantities Analysis: Temperature -Ph – Turbidity – Total dissolved solids (TDS) Dissolvedoxygen (DO) -Bio chemical oxygen demand (BOD) total phosphate test – total nitrogen test – microorganisms - Heavy metals.

PRACTICALS

- Determination of pH in various water samples.
- Estimation of following ions present in various sample chlorides, calcium, magnesium and Iron



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Water Analysis

Learning Outcomes:

- 1. Learn the procedure for the estimation of total hardness of water
- 2. Learn calculation of PH and turbidity of water
- 3. Estimate the COD and BOD
- 4. Learn the procedure for the estimation TDS

Addon	Course

started 2021 November.

<u> </u>		<u>2021 - 2022</u> Pupi	S A1		en	d	e 1	nc	;e	5	le	g	IS	te	r		ð		ల	హ	ිස	ď.) ă	2	(10	ske	uxs	జరు .)		4			తరగ సెర్ల్షన్	8
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పరా

K. Vennela Date III rd Mpc 22/3/2022 Addon Programme Examination Fill in the blanks 1. Hardness of water is due to presence of ______ salts. 2. Color of silver chloride is <u>Kedish Bolown</u> 3. Diarrheais caused due to presence of Giaria organisms 4. Desirable do level of natural water is 7 Ppm 5. Expand the term BOD bidgial > Hardness of water is due to presence of <u>Callitum</u> salts. 6. γ Is an indicator used in estimation of ca+²ion. -inhord 7. of domestic. Source of water pollution are discharge 9. Nessler's reagent is made up off Hg+1210. Color of silver chromate is <u>Redish Brown</u> Answer the following Questions 11. What is total Dissolve solids? 12. What is meant for BOD? 13. Name some microorganisms present in water? 14. What are the trace elements? 15. What are the traditional water harvesting? 16. What are the method used to rechange the ground water? 17. Give and example of Heavy metals? **18.** How to calculate the $ca+^2$ ion presence in water? 19. Give some examples of water pollutions? 20. Explain TDS and Nitrogen test?

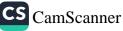


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20. Explain TDS and Nitrogen test?		1
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¹⁹. Give some examples of water pollutions?

²⁰. Explain TDS and Nitrogen test?



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Evaluation

The Course syllabus and evaluation pattern are decided by the department and approved by the principal. The evaluation is done by the department itself. That is internal evaluation. Examinations are conducted and the final evaluation is done by awarding grades. Each qualified student is awarded with a certificate. The awarding of grades is in the following pattern,

Grade A-more than 75%

Grade B- from 60% to 75%

Grade C- from 50% to 60%

Grade D- not qualified

Evaluation

SNo	Name of the Student	Grade	Result(P/F)
1	K. Bharathi	В	Р
2	K. Vennela	В	Р
3	K. Sumathi	Α	Р
4	K. Vimala	В	Р
5	N. Rajesh	D	F
6	R. Venkateswarlu	Α	Р
7	A.Mounika	В	Р
8	B. Somasekhar	С	Р
9	F. Akhila	Α	Р
10	G. Subhashini	В	Р
11	K. Sai Kumar	В	Р
12	K. Dileep Kumar	С	Р
13	K. Bhanu Prasad	A	Р
14	K. Soma Teja	В	Р
15	M. Narayanamma	В	Р
16	K. Lakshmi Prasanna	В	Р
17	Y. Devendra Kumar	D	F

Organizing secretary (Dr. P. Sujana)

Ro Principal PRINCIPAL Jovt. Degree College UPET, SPSR Neilore L



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