#### **INSTIUTIONAL BEST PRACTICE-1**

## K.V.R GOVERNMENT COLLEGE FOR WOMEN (A) HOSTEL, KURNOOL

TITLE OF THE PRACTICE: STUDENT MANAGED HOSTEL

#### **OBJECTIVES OF THE PRACTICE:**

- To inculcate leadership skills and managerial skills.
- To imbibe financial management skills and procurement skills.

#### THE CONTEXT:

Students are not getting any financial aid from the government. So the students are contributing establishment amount and paying mess bills for the maintenance of hostel. Almost all the students are economically backward and are from rural background. If they are not having hostel facility then parents are not interested in continuing their studies. So, there is an acute need to continue the hostel. Students are proactive in taking the responsibility to maintain the hostel.

#### THE PRACTICE:

The college has an attached Student Managed Hostel. Seats are allotted on the basis of admissions in each department. At present, total strength of the hostel is 1100. The hostlers have to bear all the expenses including salaries of the hostel staff, Establishment charges, Electricity bill, Purchase of goods and provisions. The mess bill is calculated in equal shares. The billing system is transparent and is monitored by the student representatives at all stages. The government will not bear any expenditure. A new block was added to the hostel in 2019 to provide accommodation to the growing number of students with UGC funds. A new women's hostel for Cluster University is under construction.

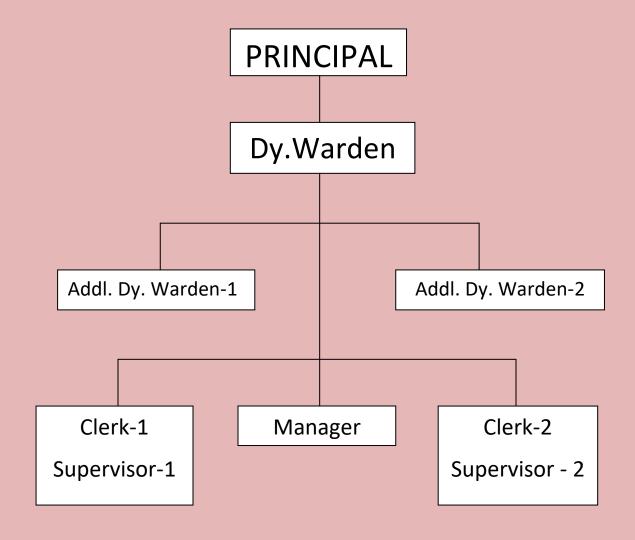
All students including scholarship holders need to pay the mess bill within the stipulated time regardless of the fact whether they receive the scholarship amount or not. Students who discontinue hostel facility will have to forfeit the establishment fee.

All student secretaries efficiently discharge their responsibilities towards maintenance of the hostel and they keep the hostel neat and clean.

Three General Secretaries will guide the following secretaries:

- 1.Strength Secretaries 3
- 2.Store Secretaries 3
- 3.Mess Secretaries 3
- 4.Gas Secretaries 3
- 5. Health Secretaries 3
- 6. Cultural Secretaries 5
- 7. Snacks Secretaries 4
- 8. Vegetables Secretaries 3
- 9.Electrical Secretaries 3
- 10.Task force Secretaries 3
- 11. Cleaning Secretaries 3
- 12.Study Secretaries 4
- 13. Workers Secretaries 3
- 14. NCC Secretaries 3
- 15. Accounts Secretaries 3
- 16.Sports Secretaries-3

## **ORGANOGRAM CHART:**



#### **Functions of the Secretaries:**

**1. General Secretaries**: General Secretaries monitor the hostel in each and every aspect. If at all they find any discrepancy then immediately they will inform the Dy.warden and Principal. On the basis of the instructions of the Principal and Dy.warden, they handle the situation accordingly and guide the secretaries concerned.



- **2. Strength Secretaries**: Strength Secretaries monitor the total strength in the hostel. They allot the rooms to the students. They take the attendance in the morning from 5:30 a.m. to 6:30 a.m. and in the evening from 6:00 p.m. to 8:00 p.m.
- **3. Store Secretaries**: On the basis of hostel strength, they will purchase provisions and issue provisions to kitchen workers regularly in the morning from 10:00 a.m. to 11:00 a.m. They will check the quality of provisions at the time of receiving from the supplier and if they find any norms are not followed by the supplier, immediately they will return the stock and at the time of issue of provisions to kitchen also they will check the condition of the provisions regularly. They will provide doormats, dustbins, broomsticks and cleaning material to each and every room.



#### ISSUE OF PROVISIONS BY STORE SECRETARIES TO WORKERS

**4. Mess Secretaries**: On the basis of the student strength, they will give instructions to kitchen workers regarding the quantity of food to be prepared for breakfast, lunch, snacks, and dinner. They always check and prevent the wastage of provisions. They always try to minimize the wastage of food. They will maintain discipline in the Mess Hall. They always instruct the students not to waste either water or food.



**5. Gas Secretaries**: Gas Secretaries will check the no. of cylinders that are available and check any leakage of gas, condition of the cylinders, etc., regularly.



- **6. Vegetable Secretaries**: On the basis of hostel strength, they will place order for purchase of vegetables and leafy vegetables from the supplier, and check the quality and quantity of the vegetables at the time of receiving. They will compare the rates of the vegetables with that of Raithu Bazar. If they find any discrepancy, immediately they will return the provisions to the supplier.
- **7. Snacks Secretaries**: On the basis of room strength, they provide the snacks to the students. On Sundays and Mondays, they will provide the Special Snacks. They strictly monitor the quality of the snacks.



**8. Health Secretaries**: Health Secretaries enquire about the health condition of the students in the hostel daily. In case of sick students, they will inform the doctor who visits immediately. If they do not recover within 2 days, they will be sent home.



HEALTH SECRETARIES TAKING CARE OF SICK STUDENTS IN
SICK ROOM

**9. Cleaning Secretaries**: Cleaning Secretaries will check the cleanliness of the rooms.



- **10.** Workers Secretaries: Workers Secretaries will check the work done by the workers in cleaning, maintenance of washrooms, and the total hostel campus.
- 11. Electrical Secretaries: Electrical Secretaries will check the electrical requirements and repairs in the hostel campus, plumber work, carpenter work, sanitary repairs etc., in the hostel. On the basis of the requirement, they will inform the workers concerned.
- **12. Accounts Secretaries**: Accounts Secretaries will check the preparation of mess bill, total cost statements, payments statement, funds available in the hostel.



13. Study Secretaries: Study Secretaries will monitor the study hours in the morning and evening daily. They will maintain the hostel library, issue the books to the hostellers, maintain the issue and return register properly. They conduct quiz and group discussions regularly.



- **14. NCC Secretaries**: NCC Secretaries will monitor the practice of march-past of the NCC cadets in the hostel and as per instructions of NCC in-charge, they will guide the students.
- **15. Sports & Games Secretaries**: Sports and Games Secretaries create awareness about the importance of physical education, mental health and provide practice every day.



- **16.** Cultural Secretaries: Cultural Secretaries will arrange the programmes for the Hostel Day and Freshers' Day.
- **17. Task Force Secretaries**: Task Force Secretaries will check the sanitizers and masks utilization in the hostel. They will provide isolation room in the hostel on the basis of the need.



**18. Hostel Library:** Hostel library has books related to competitive exams, academics, magazines and newspapers.



## **HOSTEL PREMISES**













































## K.V.R.GOVERNMENT COLLEGE FOR WOMEN (A), Kurnool

## **HOSTEL STAFF**



DR.M.INDIRA SANTHI PRINCIPAL & WARDEN



L.V.SHOWBHA RANI DY.WARDEN



S.GIRIJA RANI ADDL.DY.WARDEN



S.VEDAVATHI ADDL.DY.WARDEN

## K.V.R.GOVERNMENT COLLEGE FOR WOMEN (A), Kurnool

#### HOSTEL MINISTERIAL STAFF



SRI RAMANNAIAH HOSTEL MANAGER



SMT. SUMALATHA

CLERK -1



Ms. A.SOWJANYA
SUPERVISOR & CLERK



Smt.SARA DAY,
NIGHT SUPERVISOR

## **FACILITIES IN THE HOSTEL**

## **\* DOCTOR FACILITY**



Dr. Haveela

Day duty Doctor in K.V.R.Student Managed Hostel

Timings: Morning: 10:00a.m to 2:00p.m



Dr. Pushpalatha
Evening: 6:00p.m to 8:00p.m

## MODERN EQUIPMENT IN KITCHEN





**IDLY COOKER** 

RICE-COOKERS



RICE COOKERS

# K.V.R. GOVERNMENT COLLEGE WOMENS HOSTEL WATER FACILITIES



MINERAL WATER PLANT IN THE HOSTEL



BOREWELLS IN THE HOSTEL

## HOSTEL BUILDINGS











#### 2021-2022

#### **Hostel Secretaries**

General Secretaries	J.Divya , III B.A (HEP)
	B.Anusha , III MPCS
	A.Neeraja , III MPCS

	J.Divya B.Anusha	III B.A(HEP)III MPCS III MPCS
Mess Secretaries	M.Manjula	III B.COM(G) III
	S.Maneesha	B.COM(CA)III
	P.Modheenbi	MPCS
Store Secretaries	M.Anitha	III B.COM(G)III
	M.Vemeswaramma G.Punyavathi	B.A(AE) III BIO.CHEM
	G.Fullyavauli	пі віо.снем
Strength Secretaries	E.L.Srivani	III BZC(E/M)III
	B.Malleswari	B.A(AE) III
	K.Roopa	B.A(HEP)
Account Secretaries	K.N.Anuhya	III MPC
	S.Rangamma	III B.COM(CA)III
	E.Mounika	MPC
Study Secretaries	K.Yalleshwari	III B.A(AE)III
	G.Sreelakshmi	MCDS III
	G.Nagaveni G.Sreeya	MCDS III BIO.TECHNOLOGY
Task Force Secretaries	M.Ashwini	III MPC III
Task Force Secretaries	M.Ashwini T.Lalitha	MPC III MPCSIII
	B.Ramadevi	MCDS
Cultural Secretaries	B.Radha D.Saleema	III MPCSIII MCDS
	BegumP.Amrutha D.Bhargavi	III B.COM(CA)III
	B.S.Mamatha	MCDS
		III MCDS
Snacks Secretaries	B.Geetanjali K.Lalitha	III MPCS III
	R.Sireesha J.Supraja	BIO.TECHIII
		B.A(HEP) III BIO.TECH
Vegetable Secretaries	M.Jyothi G.Chandana PriyaN.Pavani	III BIO.CHEMIII B.A(RD) III MPCS
	Filyalv.Favaiii	B.A(RD) III MFCS
Worker Secretaries	A.Nayomi	III B.A(AE) III
	U.Lavanya	B.A(HEP) III
	D.Divya	BIO.TECH
Cleaning Secretaries	S.Yamuna	III B.A(AE) III
	K.Manasa	B.A(RD) III
	P.Shruthi	BZC(T/M)
Health Secretaries	M.Sumathi M.Lakshmi	III BZC(E/M)
	Narayanamma T.Sireesha	III HOME SCIENCEIII B.COM(G)
Electric Secretaries	S.Sunitha K.Jhansi	III MCDS III
Electric Secretaries	S.Sunitha K.Jhansi DeviB.Aswini	MPCS III
	Devib.Aswiiii	B.A(AE)
Gas Secretaries	G.Mallika M.Venkateswaramma	III B.A(HEP) III
2.00.0211100	D.Shakhila	BIO.CHEMIII
		BZC(T/M)
Sports Secretaries	P.Iswarya K.Lakshmi	III B.COM(CA)III
	Devi	MCDS
	M.Chandana gunavathi	III BZC(E/M)
NCC Senior's	U.Sarala K.Surekha V.Divya Sree	III BZC(E/M)III MCDS III MCDS
	v.Divya siee	MCDS III MCDS

## **INSTITUTIONAL BEST PRACTICE-2**

# Hydroponics: Heart of incredible farming -Welcome to the future

**TITLE OF THE PROJECT:** Growing of leafy vegetables through hydroponic system.

"You don't need a tractor or a plow or other big implements, and you don't need to inherit a farm. You can get in very quickly, and can maintain another job." Bob Hochmuth, Director of the Suwannee Valley Agricultural Extension Centre at University of Florida.

Hydroponics is the practice of growing plants with their roots suspended in water containing mineral nutrients. In other words, it is **soil-less cultivation of plants**. In order to grow healthy leafy vegetables, hydroponic technique is being practised in KVR Govt. College by M.Sc. Students as a part of Project Work. This year, leafy vegetables are selected to grow through Hydroponic systems.

#### **OBJECTIVES OF THE PRACTICE:**

The objectives of hydroponic farming is,

- To cultivate vegetables with minimal use of soil and water.
- To make the students learn the techniques of hydroponic farming.
- Discuss some of the challenges facing our food system and evaluate possible solutions
- Describe the potential ways hydroponic farms can impact our community and environment

#### THE CONTEXT:

Our current agricultural system faces a huge task to increase the food production by 70% in order to meet the caloric needs of the population. The amount of resources used by traditional agriculture is astronomical. There are no sufficient land and water resources to increase the crop yield to meet the needs of the growing population. The increased use of chemical pesticides and fertilizers for high yield of crops is now threatening our food security system and ecosystem. If no changes are made to our current agricultural trajectory, it will be inevitable that more instances of mass infection and destruction by zoonotic diseases will occur. At this juncture, Hydroponic farming offers a solution to our world's current agricultural problems and can play an important role in meeting food security challenges.

#### THE PRACTICE:

#### Plant material:

Amaranth (Red & Green), Cannabinus (Gongura), Palak, Coriander is selected for the present study. Seeds of these plants are purchased from Shudh Green Company.

#### **Hydroponic set up:**

Nutrient Film Technique (NFT) of Liquid hydroponic systems are used, which have no supporting medium for the plant roots and it is an active system. Plants are placed in a polyethylene tube that has slits cut in the plastic for the roots to be inserted. Nutrient solution is pumped through this tube. NFT based closed ended system are used.

#### **Growing Medium:**

Coco peat mixed with Perlite is used as a growing medium for the better germination of seed and also for the growth of the plant. Coco peat is a natural and organic media. It is a versatile growing media for soil-less gardening due to its excellent soil conditioning properties. It acts as a perfect rooting medium due to its high moisture retention capacity. Perlite allows the right amount of water and Oxygen to get to the roots

#### **Nutrients used in Hydroponics:**

Nutrient solution is prepared for healthy growth of the plant. The nutrients required in hydroponics include,

#### I.Macronutrients:

- ➤ Nitrogen(N): Primary to foliage plant growth.
- ➤ Phosphorous(P): Helps to build strong roots, is vital for flower and seed production.
- Potassium(K): Increases chlorophyll in foliage, helps to regulate stomatal openings.

#### **II.** Micronutrients:

- ➤ Magnesium(Mg): Helps in the distribution of Phosphorous throughout the plant.
- ➤ Calcium(Ca): Spurs root growth and helps the plant in the absorption of Potassium.

#### III. Trace nutrients:

- > Sulphur(S): Heightens the effectiveness of Phosphorous and used in the production of energy.
- ➤ Iron(Fe): Important in the production of Chlorophyll.
- Manganese(Mn): Aids in the absorption of Nitrogen.
- ➤ Zinc(Zn): Necessary in the transfer of energy.
- ➤ Copper(Cu): Needed in the production of Chlorophyll.
- ➤ Boron(B): Optimum growth & development.
- ➤ Molybdenum(Mo): Helps in nitrogen absorption.

Nutrient medium was obtained from the Shudh Green Hydroponics as Medium A & Medium B along with Trichoderma (Biopesticide) and Clay balls. Equal proportions of Medium A & Medium B were added to 20 litres of distilled water. This acts as nutrient medium for the plant growth. During seed germination, Trichoderma was used as Biofertilizer which suppresses the growth of Fungal pathogens.

#### Managing nutrient solution in hydroponics:

- ❖ pH: it influences the availability of nutrients. The optimum range maintained is 5-6.5. When the pH was reduced to less than 5.5, KOH pellets were added to maintain the normal pH. When the pH of medium increases to more than 6.5, 5-6 drops of phosphoric acid was added to reduce the pH to its normal pH.
- ❖ EC: The ideal range of EC for most crops is 1.5 and 2.5 dS/m. The EC of a nutrient solutioncan be checked by using an EC meter. High EC result in a physiological drought which restricts root water uptake by the plant. EC that is too low indicates insufficient nutrition. Check the pH and EC at the same time of the day. Similarly, with the help of E. C. meter, the electrical conductivity of the medium was tested and maintained at 0.8-1.2 by supplying Medium A & Medium B in equal proportions.
- Arr Temperature: The ideal temperature for hydroponics is 18-26 $^{\circ}$ C.
- ❖ Oxygen: Plants should be able to able to handle 6-10ppm of Oxygen without any problems.
- ❖ <u>Light:</u> Sufficient natural lighting or supplementary lighting is needed.

To prevent the algal growth during germination and plant growth stage, VAM (or) Pseudomonas Biofertilizer were used.

#### The process involved in hydroponics are,

- ➤ Germination of seeds: The seeds were first sown in pro-trays containing coco peat mixed with Perlite and water is sprinkled on it. It is covered properly for one week to avoid the evaporation of water and to retain sufficient moisture for germination and then transplanted to DIY NFT channel made out of circular PVC pipes at around 15 days. The seeds are very tiny so utmost care should be taken while sowing them. The germination was observed within 2-3 days.
- ➤ <u>Transplantation of seeds into hydroponic system:</u> After one week, the seedlings were transplanted into hydroponic setup. The NFT channels were provided with circulating nutrient-richwaterfor approximately 15 minutes, at 2 hour intervals.

Coco peat should have low EC, pH should be suitable to needs of the root zone i.e., 5.5 to 6.

#### PROCEDURAL STEPS FOLLOWED IN HYDROPONICS:

#### 1. Installation of hydroponic kits

Two hydroponic kits were installed on 20<sup>th</sup> August, 2020 - one kit for 40 plants and another kit for 340 plants. Nutritive solution is filled into it and the seedlings are placed in the holes fitted in the unit.

#### 2. Setting up the reservoir

The reservoir is a container which lets no light through, to prevent algae growth and it should also be big to contain enough water which keeps the system running for a while, and you need a submersible pump which is capable of pumping the water to the height of the entry point to the system. The system should have enough power to be able to pump that distance. In the present study, 2 tanks i.e., reservoirs, 20 litres tank for small hydroponic kit and 100 litres tank for large hydroponic kit are used.

#### 3. Transplantation of the seedlings

The germinated saplings were transferred to the pots of the hydroponic systems along with Coco peat. After transplantation of seedlings, the whole system was assembled the pipes, the reservoir and also the seedlings. It was allowed to grow in proper sunlight.

#### 4. Prepare Nutrient Solution

Now it's time to take care of plants food. The nutrient solution with a dosage of 1ml. of nutrients in 1 litre of water was prepared and added regularly and the pH of the water in the reservoir was checked. Manage proper flow of the nutrient solution to the system. Along with adequate nutrients, proper aeration must be arranged for the system. Always have a check on plant's growth. For obtaining a high yield, make sure that pH of the nutrient solution must be maintained at 5.5-6(fluctuation in this range may cause less yield and stress to the plant)

#### 5. Let the Hydroponic system run

After the system is completed, start growing all sorts of plants, vegetables, herbs and fruits. Experiments with different plants were conducted. The plants were monitored daily for its growth of leaves as well as roots. The photographs were taken for evidence.

- \* Stem cuttings can be done by keeping the stem 3-6inches above its root which permits lateral roots to grow. So harvesting can be done more no. of times and hence more supply can be ensured.
- \* The growth of the plants was observed daily for about 15 days and at the end of 15th day the first harvest of the selected varieties of plants was done.

#### Comparison of plants grown in Soil and Plants grown through Hydroponics:

When compared to normal plants grown in soil, the plants obtained through hydroponics have shown maximum luxurious growth and are free of pathogens. The reasons behind this may be:

- ➤ Plants grown in soil may be deficit in nutrients.
- As they are grown in open environmental conditions, they are more prone to pathogen attacks.
- ➤ Soil borne pathogens may also affect the plants resulting in diseases and thus reduce the growth and yield of the crop.

## **Advantages:**

Though hydroponics is expensive in terms of establishment (unit purchase and also chemicals), yet the plants obtained through hydroponics are:

- Highly nutritious (rich in nutrients)
- ❖ Zero wastage of the plants
- Pathogen free
- Grown throughout the year

Thus, the objective of the present work of getting nutritious, pathogen free plants within a short span of time is fulfilled.

## **EVIDENCE OF SUCCESS:**

## 1. HYDROPONICS UNIT ESTABLISHMENT:



## 2. SOWING OF SEEDS IN SEED TRAYS:



## **3.SEEDLINGS READY FOR TRANSPLANTATION:**





## 4. TRANSPLANTATION OF SEEDLINGS INTO HYDRPONIC UNIT:





## **5. REGULAR CHECKING OF HYDROPONIC PLANTS:**



## **6. HARVESTING THE HYDROPONIC PLANTS:**







#### **KVR GOVT. COLLEGE FOR WOMEN(A), KURNOOL**

Students are given an opportunity to learn the techniques and new skills of Hydroponics through project work for PG students in 2021-22(II M.Sc Botany students in IV Semester) academic year and UG students for short-term internship conducted from 17.11.2022 to 24.12.2022. Students get hands-on experience while doing the project work and learn the new skills in cultivation of plants through Hydroponics.

## > TOTAL NO. OF PG STUDENTS WHO DID PROJECT WORK ON HYDROPONICS ARE=16

## **II M.SC BOTANY STUDENTS: 16 Students**

Name of the Mentor: Dr.S.Sunitha, Lecturer in Botany

1	2051001	Botany	V.Anuradha	Hydroponics	V.Anuradha Project work link
2	2051002	Botany	K.Deena Sudha	Hydroponics	K.Deena Sudha-Project link
3	2051003	Botany	C.Maheswari	Hydroponics	C,Maheswari link
4	2051004	Botany	N.Maheshamma	Hydroponics	N.Maheshamma link
5	2051005	Botany	M.Mounika Reddy	Hydroponics	M.Mounika Reddy link
6	2051006	Botany	Neha	Hydroponics	Neha Project link
7	2051007	Botany	Shaik Nasreen	Hydroponics	Shaik Nasreen Project link
8	2051008	Botany	D.Prameela	Hydroponics	D.Prameela Project link
9	2051009	Botany	Y.Prabhavathi	Hydroponics	Y.Prabhavathi Project link
10	2051010	Botany	Y.Roopa Reddy	Hydroponics	Y.Roopa Reddy project link
11	2051011	Botany	Shaik Sameena Begum	Hydroponics	Shaik Sameena Begum Project link
12	2051013	Botany	K.Shobha Rani	Hydroponics	K.Shobha Rani Project link
13	2051014	Botany	P.Supriya	Hydroponics	P.Supriya Project link
14	2051015	Botany	J.Sulochana	Hydroponics	J.Sulochana Project link
15	2051016	Botany	V.Sumalatha	Hydroponics	V.Sumalatha Project link

16 2051017 Botany M.Uma Gowri Hydroponics M.Uma Gowri project link

#### KVR GOVERNMENT COLLEGE FOR WOMEN (A), KURNOOL



A

PROJECT REPORT ON

"COMPARATIVE STUDIES OF SOME PROTOCOLS IN HYDROPONICS"

Submitted by

VADDEDANDAGULA ANURADHA

(Half Scket no: 2051015)

in partial fulfiltment of requirement for the award of Degree of MASTER OF SCIENCE

BOTANY

DEPARTMENT OF BOTANY

KVR GOVERNMENT COLLEGE FOR WOMEN (A)

KURNOOL

# KVR GOVERNMENT COLLEGE FOR WOMEN (A), KURNOOL DEPARTMENT OF BOTANY

#### CERTIFICATE

Certified that the project work entitled "COMPARATIVE STUDIES OF SOME PROTOCOLS IN HYDROPONICS" is camed out by VADDEDANDAGULA ANURADHA \_ bonafide student of KVR Government College for Women (A), Kurnool in partial fulfilment for the award of Degree of Master of Science in Botany from Rayalaseema University, Kurnool during the year 2021-22. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the completion of Master of Science.





# > TOTAL NO. OF UG STUDENTS WHO DID 2 MONTHS INTERNSHIP PROJECT ON HYDROPONICS= 77 (17.11.2022 to 24.12.2022)

	BIOCHEMISTRY- 8 STUDENTS		
Name	Name of the Lecturer: S		mt B. Sujatha
1	2005017	KUR	UVA.SANDHYA
2	2005018	M. K	UMARI LAKSHMI
3	2005019	MAD	DAVAKONDA PADMAVATHI
4			NGALI PADMAVATHI
5	2005022	MUE	OAVATH RAJESWARI
6	2005023	ORU	KUNTLA JHANSI
7	2005024	PINJ	ARI DADABI
8	2005025	PINJ	ARI MYRUN BEE
BZC EN	M- TOTAL	STUDEN	TS= 36 STUDENTS
Name	of the Le	cturer:Di	r G.V. Ranga Reddy
1	2	2001001	MALADASARI MEENAKSHI
2	2	2001002	MOLLA AYESHA
3	2	2001003	SHAIK SAMIWOUN
4	2	2001004	A. BLESSY EVANGALIN
5	2	2001005	AKEPOGU SAILU
6	2	2001006	AREKANTI HARSHITHA
7	2	2001007	BADDULA MEENAKSHI
8	2	2001009	BANAVATH LAKSHMI BAI
9	2	2001010	BANDAPALLE RAJA RAJESWARI
Name	of the Le	cturer:Di	r S. Sunitha
1	2	2001011	BESTHA RAJESWARI
2	2	2001012	BOJUGU NEETHA
3	2	2001014	BOYA VANI
4	2	2001015	BYATHOLI MANJULA
5	2	2001016	CHINNAMADUGULA MAMATHA
6	2	2001017	DASARI LAVANYA
7	2	2001018	DASARI SIREESHA
8	2	2001019	DESHAVATH SUNITHA BAI
9	2	2001020	ENJARLA CHANDRIKA

Name of the I	Lecturer: S	mt P. Helen Kumari
1	2001021	GAGGERA LAKSHMI SWETHA
2	2001022	GOLLA KONDAMMA
3	2001023	GOLLA RAASI
4	2001024	GUDIPATI MAMATHA
5	2001025	GUNDI ANJANAMMA
6	2001026	GURRAM SAILAJA
7	2001027	JARDODDI RECHEL JYOTHI
8	2001028	KASEPOGU SIRISHA
9	2001029	KATAGOUNI ANUSREE
Name of the I	Lecturer: S	mt B. Bhavani
Name of the I	<b>2001041</b>	mt B. Bhavani PERAPOGU PRAMEELA
1	2001041	PERAPOGU PRAMEELA
1 2	2001041 2001042	PERAPOGU PRAMEELA SATHARLA KRUPAVATHI
1 2 3	2001041 2001042 2001043	PERAPOGU PRAMEELA SATHARLA KRUPAVATHI SAYAD SAMEENA SULTANA
1 2 3 4	2001041 2001042 2001043 2001044	PERAPOGU PRAMEELA SATHARLA KRUPAVATHI SAYAD SAMEENA SULTANA SHAIK HABIBUNNISA
1 2 3 4 5	2001041 2001042 2001043 2001044 2001045	PERAPOGU PRAMEELA SATHARLA KRUPAVATHI SAYAD SAMEENA SULTANA SHAIK HABIBUNNISA SHAIK SHAHEENA
1 2 3 4 5	2001041 2001042 2001043 2001044 2001045 2001046	PERAPOGU PRAMEELA SATHARLA KRUPAVATHI SAYAD SAMEENA SULTANA SHAIK HABIBUNNISA SHAIK SHAHEENA UPPARA NANDINI

## **BZC TM- TOTAL STUDENTS= 24 STUDENTS**

Name of the Lecturer:Dr Michel David			
1	2002001	ACHEPPALA RAMESWARI	
2	2002002	B. SRAVANI	
3	2002003	BANDA MEEDI SIVA PARVATHI	
4	2002004	BANDARU LAKSHMI	
5	2002005	BOGGULA PRASHANTHI	
6	2002006	BOJUGU DIVYA	
7	2002007	BOYA JAYANTHI	
8	2002008	BOYA KANAKAMMAGARI UMA	
8	2002008	MAHESWARI	
Name of the I	ecturer: S	. Rami Reddy	
1	2002017	ESALAVATH LEELAVATHI	
2	2002019	GALAGANTA HARITHA	
3	2002020	GANDLA RANI	
4	2002021	GOLLA RAJINI	
5	2002022	JANGAM BHARATHI	
6	2002023	KAMMARA RADHAMMA	
7	2002025	KONETI SHILPA	

8	2002026	KONETI SUPRIYA	
Name of the	Lecturer: S	. Salamma	
1	2002027	KUMMARI SWAPNA	
2	2002028	KURUVA HEMALATHA	
3	2002030	MADIGA MAHALAKSHMI	
4	2002031	MALA RADIKA	
5	2002032	MANDAVARU PADMAVATHI	
6	2002033	MIDDE GANGADHARI	
7	2002034	MUDA LAKSHMI BAI	
8	2002035	NENAVATH LAKSHMI BAI	
MCDS- TOTAL STUDENTS = 9 STUDENTS			
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Name of the land 1 2 3 4	2015001 2015002 2015003 2015004	mt T. Suneetha CHAKALI ANJALI GUNDEBOMMU SRI DIVYA SHAIK DILSHAD BEGUM SHAIK SAFIA BI	
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#### KVR GOVERNMENT COLLEGE FOR WOMEN (A) KURNOOL



Short Term Internship ON

HYDROPONICS

PROJECT REPORT SUBMITTED BY B. K. UMA MAHENWARI BESC REGD. NO: 2002868

DR. K. MICHAEL DAVID LECTURE IN BOTANS

la partid l'alfillment for the degree of Bachelor of Science

#### Program Bookfor Short-Term Internship

None of the Student B.K. UMA MARESWARD

Name of the College: EVE. GOVT. COLLEGE FOR WORKEY, (AL, EURODOL.

Registration Number: 2002005

Period of Basewskip Eyes 17: 11: 3002 to: 24:13:2022

Name & Address of the laters Organization:

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#### An Internship Report On

#### HYDROPONICS

Name of the College SVR GOVT COLLEGED FOR WOMEN (A), SCRNOOL Department (ROTANT)

Name of the Faceby Guide Dr. KINDCHAEL DAVID

Denotion of the Severatoly, From 17: 15: 2022, to: 24:12:2022 Name of the Seedows B.K. TAIA MAKESWARI

Programmed Study\_A SC. RX (TH)

Near of Study 2012-22

Register Navaber: 2002004

Date of Salasinous

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#### PROBLEMS ENCOUNTERED AND RESOURCES REQUIRED:

- 1. Lack of trained persons, for continuous monitoring of Hydroponic kits and
- 2. Power supply problems.
- 3. Lacking awareness of hydroponic produce among the students and members of the faculty.
- 4. High cost of produce.

#### **CONCLUSION:**

Hydroponics is the soilless cultivation of plants. In hydroponics, the nutrients are available in water at the plant's roots through which plants get its food and nutrition. A plant in nutrient rich water can spend its energy growing bigger leaves, flowers and fruits in a shorter amount of time. One benefit of growing plants hydroponically is that the nutrients in the water can be completely controlled, and the plant can receive exactly the right amount of nutrients at exactly the right time. Another benefit is that hydroponics can work in areas where the soils are not arable. Thus, hydroponics provides the best opportunity to the students to learn the techniques of hydroponics which ensures food security for the future generations.