GOVERNMENT DEGREE COLLEGE, WARDHANNAPET, WARANGAL

From

The Principal (FAC),

Government Degree College,

Wardhannapet, Warangal.

To

The Commissioner of

Collegiate Education,

Hyderabad.Telangana

Respected Sir,

Sub: GDC,Wardhannapet-Submission of Green Audit Report, 2023 -Reg.

With the subject cited above, I am here by submitting Green Audit Report, 2023 of Government Degree College, Wardhannapet. This is for your kind information.

Thanking you,

Yours Sincerely,

CHENNA SRINIVASA RAO

Digitally signed by CHENNA SRINIVASA RAO
Date: 2023.02.28 11:49:13 +05'30'

GOVERNMENT DEGREE COLLEGE WARDHANNAPET, WARANGAL DIST.

GREEN AUDIT REPORT

2022-23

Submitted to

Commissioner of Collegiate Education, Hyderabad

COMMISSIONERATE OF COLLEGIATE EDUCATION,
TELANGANA: HYDERABAD
PROFORMA FOR GREEN AUDIT

College Profile

Name of the College:	GOVERNAMENT DEGREE COLLEGE
Address:	WARDHANNAPET, WARANGAL
Contact Info:	9052412838
Campus Area:	16610 Sq.ft.
Built-up Area:	3336 Sq.ft.

Is the building has ventilators for natural air flow in all rooms: Yes/No-yes

The Student and faculty strength of the college:

Strength	Male	Female	Total
No of students	214	127	341
No of Teaching staff	6	7	13
No of Non-Teaching staff	4	1	5

Physical Structure

The available land of the college: 16610 Sq.ft.
The built-up area of the college: 3336 Sq.ft.

No. of Class Rooms	07
No. of Laboratories	02
No. of Conference halls	-
Library Halls	-

Auditorium	-
Canteen	-
Any other(please specify)(Toilets)	

Objectives:	Proper utilization of natural resources. Using energy in reduction way. Proper utilization of water for drinking,cleaning and watering the plants. Conducting awareness programs about energy and water consumption.
Prepared by:	B.SWETHA
Approved by:	CH.SRINIVASA RAO
Remarks:	-
FORMS AND SUPPORT MATERIAL	
Questionnaire document ref. name/no.:	-
Checklist for Environmental Audit document ref. name/no.	-
Additional forms and support material:	-

Background: The history of an Institution / Organization, including information on the setting and construction plan, environmental practices, known environmental issues from the site and neighbours, previous environmental damage/spill at the site and monitoring

records. Any changes made or occurred up to the time of the last audit and future plans for the development. The natural resources used as input, processing of materials and all finished products (energy, water, raw material use) and wastes including hazardous and toxic wastes.

General Objectives (can be slightly modified according to need of an Institution)

- Environmental risk assessment including compliance to regulations, soil, Water, solid and E-wastes, emissions, hazardous products & noise pollution.
- Waste minimization and environmental pollution control plans.
- The optimal utilization of energy, water and other natural resources.
- Recycling programs and product life cycle considerations.
- Emergency response plans and procedures.

Protocols used for Environmental Audit

Internal Audit Team Structure: (7+2=9): It comprises Principal as Chairman, IQAC coordinator as Vice-Chairman, Principal of the neighboring college as special invitee, one coordinator from faculty of Botany/Zoology/ Environmental Science and three other members from any faculty interested in environment related activities. College can include two extra invitee members from Forest Department / Pollution control board / Health Department/ etc.

Questionnaire : this is used for acquiring basic information related to different categories to be covered in an institution.

Check List: This is used for providing a detailed listing of all issues to be covered in an institution.

Photographs: A picture speaks 1000 words. Use photographs to support findings and to highlight good practices with geo-tagging.

Comprehensive Methods: The detailed methodology is required for environmental audit and it must be conducted using comprehensive protocols and fixed procedures to ensure collection and documentation of the required data and verification of facts based on the information provided.

Relevant Measures and Standards : The standard measures could be adjusted to be relevant to the organization or activity being audited.

Written Reports: Reports should contain factual observations, reasoning and the documentation of the processes. The Clarity and accuracy should be maintained while presenting the findings with the support of valid and documented evidence.

Evidence verification : The concept of evidence and verification of environmental deficiencies is one of the key elements in an environmental audit. Initially the Internal audit team must verify all procedures, collected data and information through direct field inspection.

Certification and Grading: The External audit team will assess and evaluate the internal audit report and after thorough verification certificate along with grade will be issued.

PROCEDURE		
Procedure	**Description**	**Responsibility**
Annual plan	The environmental audit report is prepared by College Authorities each year and it ensures that the entire environmental management system is examined, must specify when the audit was carried out and those responsible for carrying it out.	Internal Environmental audit team/ coordinator
Preparation	The typical questionnaire and check-lists are developed for the area to be audited before the actual individual audits are carried out. It is done using established procedures, objectives and action plans. They can be used to measure results in each area. The staff and in charges of the area to be audited should be informed well in advance about when the audit would be done and what it covers.	Internal audit team

Internal Audit	Based on the questionnaire and checklists, the audit is carried out in the form of interviews / physical visit about - and observations of the actual state of affairs. The Team suggests further changes and correction as and when required.	Internal Audit team
Wrap-up meeting	An audit report is prepared which is examined together with the in-charges responsible for the each area; minor areas are taken care of immediately, while a conclusion for the audit as a whole is written down. Correction reports are examined and corrective action is agreed upon. The internal audit team and the College Management / Principal sign the reports made. Then the reports must be submitted to the CC Office at Hyderabad.	Internal audit team
Follow-up	When deadlines for corrective action are reached, the Coordinator responsible for the area audited is contacted and the environmental manager checks the corrective action carried out. If corrective action is effective, the case is closed. If not, a new report is prepared.	Coordinator
Reporting	A comprehensive joint report is prepared on the basis of all the internal environmental audits of the college. This report forms the basis for certification and grading by the external audit team and it holds the authority to review the entire report.	External Audit team/ Principal/ IQAC coordinator

AUDITING FOR WATER MANAGEMENT

1. List out uses of water in your college.
    1. Drinking
    2. Cleaning
    3. Bathrooms
    4. Labs
2. What are the sources of water in your college?

ANS: Ground water (Bore Water)

3. How many wells are there in your college?

ANS: NIL

4. No. of motors used for pumping water from each well?

ANS: One motor is being used bore well

5. What is the total horsepower of each motor?

ANS: 1HP

6. What is the depth of each well?

ANS: NA

7. What is the present depth of water in each well?

ANS: NA

8. How does your college store water?

ANS: Tank

9. Quantity of water stored in your overhead water tank? (In liters)

ANS: 1000 Liters

10. Quantity of water pumped every day? (In liters)

ANS: 1000 Liters

11. If there is water wastage, specify why.

ANS: Nil

12. How can the wastage be prevented / stopped?

ANS: NA

13. Locate the point of entry of water and point of exit of waste water in your College.

ANS: Point of entry – Backside of Building

Point of Exit – Back side of Building

14. Where does wastewater come from?

ANS: Bathrooms and Labs

15. Where does the waste water go?

ANS: Drinage

16. What are the uses of waste water in your college?

ANS: NA

17. What happens to the water used in your labs? Whether it gets mixed with ground water?

ANS: NA

18. Is there any treatment for the lab water?

ANS: NA

19. Whether green chemistry methods are practiced in your labs?

ANS: NA

20. Write down four ways that could reduce the amount of water used in your college.

ANS:

a) We are Rain using Rain water.

b) Using water in proper way.

c) Conducting awareness programs to students and staff on water conservation in the college.

d) Using meters for tank for now overflowing water

21. Record water use from the college water meter for six months.

ANS: Not Available

22. Bimonthly water charges paid to water connections if any

ANS: Nil.

23. No. of water coolers. Amount of water used per day? (in liters)

ANS: Nil

24. No. of water taps. Amount of water used per day?

ANS: 13, 1000 Liters

25. No. of bath rooms in staff rooms, common, hostels. Amount of water used per day?

ANS: 11, 1000 Liters

26. No. of toilets, urinals. Amount of water used per day?

ANS: No

27. No. of water taps in the canteen. Amount of water used per day?

ANS: Nil

28. Amount of water used per day for garden use.

ANS: 100 Liters used for garden.

29. No. of water taps in laboratories. Amount of water used per day in each lab?

ANS: 01, 20 liters

30. Total use of water in each hostel?

ANS: NA

31. At the end of the period, compile a table to show how many liters of water have been used in the college for each purpose.

ANS:

S. No.	Item	Quantity of water used per day in liters
1	Toilets	800
2	Drinking	100
3	garden	100
	Total	**1000**

32. Is there any water used for agricultural purposes?

ANS: NA.

33. Does your college harvest rain water?

ANS: No.

34. If yes, how many rain water harvesting units are there? (Approx. amount)

ANS: NA.

35. How many of the taps are leaky? Amount of water lost per day?

ANS: Nil.

36. Are there signs reminding people to turn off the water? Yes / No

ANS: Yes

37. Is there any waterless toilets?

ANS: Nil.

38. How many water fountains are there?

ANS: Nil

39. How many water fountains are leaky?

ANS: Nil

40. Is drip irrigation used to water plants outside? YES/NO

ANS: No.

41. How often is the garden watered?

ANS: Daily

42. Quantity of water used to watering the ground?

ANS: No

43. Quantity of water used for bus cleaning? (Liters per day)

ANS: Nil. (There is no college bus)

44. Amount of water for other uses? (Items not mentioned above)

ANS: Nil

45. Area of the college land without tree/building canopy.

ANS:

46. Is there any water management plan in the college?

ANS: No

47. Are there any water saving techniques followed in your college? What are they?

ANS: NA

48. Please share Some IDEA for how your college could save more water.

ANS: NA

AUDITING FOR ENERGY MANAGEMENT

1. List ways that you use energy in your college. (Electricity, electric stove, kettle, microwave, LPG, firewood, Petrol, diesel and others).

   Ans: Electricity.

2. Electricity bill amount for the last year

   Ans:

3. Amount paid for LPG cylinders for last one year. Ans: NA

4. Weight of firewood used per month and amount of money spent? Also mention the amount spent for petrol/diesel/ others for generators?
   Ans: Nil

5. Are there any energy saving methods employed in your college? If yes, please specify. If no, suggest some.

Ans: Lights and Fans will be switched off when there is nobody in the room

6. How much money does your college spend on energy such as electricity, gas, firewood, etc. in a month? Ans: ₹4500/-

7. How many CFL bulbs has your college installed? Mention use (Hours used/day for how many days in a month)
   Ans: NIL

8. Energy used by each bulb per month? (For example- 60 watt bulb x 4hours x number of bulbs = Kwh).
   Ans: NIL

9. How many LED bulbs are used in your college? Mention the use (Hours used/day for how many days in a month)

Ans: 26, 02 hr/day, 25days/month

10. Energy used by each bulb per month? (kWh). Ans:60 Kwh

11. How many incandescent (tungsten) bulbs have your college installed? Mentions use (Hours used/day for how many days in a month)

    Ans: NA

12. Energy used by each bulb per month? (kWh). Ans: NA

13. How many fans are installed in your college? Mention use (Hours used/day for how many days in a month)
    Ans: 32, 02hr/day, 25 days/month

14. Energy used by each fan per month? (kWh). Ans**:**70 kWh/month

15. How many air conditioners are installed in your college? Mention use (Hours used/day, for how many days in a month)

    Ans: NA

16. Energy used by each air conditioner per month? (kWh). Ans: NA

17. How many electrical equipment including weighing balance are installed your college? Mention the use (Hours used/day for how many days in a month)
    Ans: 25

18. Energy used by each electrical equipment per month? (kWh).
    Ans: 10 kwh/month

19. How many computers are there in your college? Mention the use (Hours used/day for how many days in a month) Ans: 13 25/days 02 hr/day

20. Energy used by each computer per month? (kWh). Ans: 10 kWh/month

21. How many photocopiers are installed by your college? Mention use (Hours used/day for how many days in a month).
    Ans: NA
22. How many cooling apparatus are in installed in your college? Mention use (Hours used/day for how many days in a month) Ans: 1 Hr

23. Energy used by each cooling apparatus per month? (kWh) Mention use (Hours used/day for how many days in a month)
    Ans: 10 kwh/month

24. Energy used by each photocopier per month? (Kwh) Mention the use (Hours used/day for how many days in a month) how many inverters your college installed? Mentions use (Hours used/day for how many days in a month)
    Ans: One invertor, 30 days, 24 hr/day

25. Energy used by each inverter per month? (kWh). Ans: 10 Kwh

26. How many electrical equipment are used in different labs of your college? Mention the use (Hours used/day for how many days in a month) Ans: NA

27. Energy used by each equipment per month? NA

28. How many heaters are used in the canteen of your college? Mention the use (Hours used/day for how many days in a month) Ans: Nil

29. Energy used by each heater per month? (kWh)
    ns: Nil

30. No of street lights in your college?Ans: Nil

31. Energy used by each street light per month? (kWh) Ans: NA

32. No of TV in your college and hostels? Ans: Nil

33. Energy used by each TV per month? (kWh)
    Ans: Nil

34. Any other item that uses energy (Please write the energy used per month) Mention the use (Hours used/day for how many days in a month) Ans: NA
35. Are any alternative energy sources/nonconventional energy sources employed / installed in your college? (Photovoltaic cells for solar energy, windmill, energy efficient stoves, etc..) Specify. Ans:No

36. Do you run "switch off" drills at college? Ans: Yes

37. Are your computers and other equipment put on power-saving mode?
    Ans: Yes

38. Does your machinery (TV, AC, Computer, weighing balance, printers, etc.) run on standby mode most of the time? If yes, how many hours?
    Ans: NA

39. What are the energy conservation methods adapted by your college?
    Ans: Turning off unnecessary lights

    Unpluging unused electronics

40. How many boards are displayed for saving energy awareness? Ans: 01

41. How much ash is collected after burning firewood per day in the Canteen?
    Ans: Nil

42. Write a note on the methods/practices/adaptations by which you can reduce the energy use in your college campus in future.

Ans: Use energy efficient appliances
Use smart power strips
Turn off unnecessary lights
Unplug unused electronics

AUDITING FOR WASTE MANAGEMENT

What is the total strength of students, teachers and Non-teaching staff in your College?

No. of Students; 341

No. of Teachers; 13

No. Non-teaching staff; 05

Gents – 10

Ladies= 08

Total: 18

Which of the following are available in your College?

Give area occupied, Garden area and Garbage dump (number) NA

Playground area, Laboratory, Kitchen, Canteen, Toilets (number) Car/scooter shed area

Number of class rooms, Office rooms and others (specify)

Class Rooms- 07

Laboratory- 02

Ofiice Rooms- 01

Which of the following are found near your college? Mark the level of disturbance it creates for the college in a scale of 1 to 9.

Municipal dump yard **No**

Garbage heap **No**

Public convenience Sewer line **No**

Stagnant water **No**

Open drainage Industry – (Mention the type) **No**

Bus / Railway station Market / shopping complex / public halls **Bus**

WASTE

Does your college generate any waste? If so, what are they? No

How much quantity? **NA**

Number or weight E-waste Hazardous waste (toxic) **No**

Solid waste **No**

Dry leaves : Yes

Canteen waste**No**

Liquid waste**No**

Glass**No**

Unused equipment **No**

Medical waste if any No

Napkins Others (Specify) No

Is there any waste treatment system in the college? No

Is there any treatment for toilet/urinal/sanitary napkin waste? NA

1 What is the approximate quantity of waste generated per day? (in Kilograms) Office Laboratories Canteen/kitchen NA

2 Why waste is a problem? Recycling problem

3 Whether waste is polluting ground/surface water? How? NA

4 Whether waste is polluting the air of the college? How? NA

5 How is the waste generated in the college managed?

Methods 1 Composting 2 Recycling 3 Reusing 4 Others (specify) NA

6 How many separate boxes do you think you would need to put into a classroom to start a waste segregation and recycling campaign? Nil

What should be the use for each box? (Develop a Colour code with reasons)NA

7 Do you use recycled paper in College? No

8 Is there any waste wealth program practiced in the college? NA

Approx. Bio degradable Non-Bio degradable Hazardous Others < 1 kg. 2 –10 kg. > 10 kg.

Approx. Bio degradable Non-Bio degradable Hazardous Others < 1 kg. 2 – 10 kg. > 10 kg.

Approx. Bio degradable Non-Bio degradable Hazardous Others < 1 kg. 2 – 10 kg. > 10 kg.

9 How would you spread the message of recycling to others in the community? Have you taken any initiatives? If yes, please specify.

Ans:Providing awareness to the students

10 Can you achieve zero garbage in your college? (Reduce, Recycle, Reuse, Refuse) If yes, how? **No**

AUDITING FOR GREEN CAMPUS MANAGEMENT

1. Is there a garden in your college? Area? Yes

2. Do students spend time in the garden? No

3. List the plants in the garden, with 18 pprox..numbers of each species.

Plant Species recorded in the college campus-92

Sl. No	Botanical Name	vernacular / common name	Family	No.of Species	Herb/ Shrub /Trees
1	Tectona grandis	Teak	Verbenaceae	20	Tree
2	Syzygium cumina	Black palm	Myrtaceae	02	Tree
3	Ficus bengamina	Ficus tree	Moraceae	01	Tree
4	Terminalia catappa	Indian almond	Combretaceae	02	Tree
5	Aeseulus turbinata	Japanese horse chestnut	Sapindaceae	01	Tree

6	Peltophorum pterocarpum	Yellow flame tree	Fabaceae	02	Tree
7	Alstonia seholaris	Scholar tree	Apocynaceae	06	Tree
8	Tecoma stans	Yellow bells	Bignoniaceae	01	Tree
9	Spanthodea companulate	Africal tulip tree	Bignoniaceae	01	Tree
10	Leucaena leucocephala	White lead tree	Fabaceae	03	Tree
11	Kalanchoe pinnata	Air plant	Crassulaceae	01	Herb

4. **Suggest plants for your campus. (Trees, vegetables, herbs, etc.)**

   Herbs

5. **List the species planted by the students, with numbers.**

Sl no	Name of Plant	Habit	Family	Number of plants
1	Tectona grandis	Teak	Verbenaceae	10
2	Kalanchoe pinnata	Air plant	Crassulaceae	01

6. **Whether you have displayed scientific names of the trees in the campus?** Yes

7. Is there any plantations in your campus? If yes specify area and type of plantation.

Some plants planted in college area
Tectona grandis, Syzygium camini, Ficus benjamina, Terminalia catappa, Aesculus turbinata , Peltophorum pterocarpum, Alstonia seholaris, Tecoma stans, Spanthodea companulate, Leucaena leucocephala, Kalanchoe pinnata.

8. Is there any vegetable garden in your college? If yes how much area?

No

9. Is there any medicinal garden in your college? If yes how much area?

No

10. What are the vegetables cultivated in your vegetable garden? (Mention the quantity of harvest in each season)

No

11. How much water is used in the vegetable garden and other gardens? (Mention the source and quantity of water used).

No

12. Who is in charge of gardens in your college?

No

13. Are you using any type of recycled water in your garden?

No

14. List the name and quantity of pesticides and fertilizers used in your gardens?

NA

15. Whether you are doing organic farming in your college? How?

NA

16. Do you have any composting pit in your college? If yes, what are you doing with the compost generated? NA

17. What do you doing with the vegetables harvested? Do you have any student market?

NA

18. Is there any botanical garden in your campus? If yes give the details of campus flora. NA

Plant Species recorded in the college campus-92

19. Give the number and names of the medicinal plants in your college campus. NO

20. Any threatened plant species planted/conserved?

No

21. Is there a nature club in your college? If yes what are their activities?

No

22. Is there any arboretum in your college? If yes details of the trees planted.

No

23. Is there any fruit yielding plants in your college? If yes details of the trees planted.

No.of Fruit Yielding plants in the college campus

Sl.No.	Botanical Name	vernacular / common name	Family	No.of Fruit yielding plants
1	Syzygium cumina	Black palm	Myrtaceae	02
2	Terminalia catappa	Indian almond	Combretaceae	02

24. Is there any groves in your college? If yes details of the trees planted.

No

25. Is there any irrigation system in your college? NA

26. What is the type of vegetation in the surrounding area of the college? NA

27. What are the nature awareness programmes conducted in the campus?

    1) We conducted a Seminar on Nature Protection.
    2) A Project work on Nature by Students.

28. What is the involvement of students in the green cover maintenance?

Watering the Plants

29. What is the total area of the campus under tree cover? Or under tree canopy?

NA

30. Share your IDEAS for further improvement of green cover**.** Major plantation program in the campus.

AUDITING FOR CARBON FOOTPRINT

1. What is the total strength of students and teachers in your College?

No. of Students-

No. of Teachers-

No. of Non-teaching-

staff Gents-

Ladies-

Total:

2. Total Number of vehicles used by the stakeholders of the college. (per day) -12

3. No. of cycles used –NA

4. No. of two wheelers used (average distance travelled and quantity of fuel and amount used per day) -12,30Km,0.5L,RS.60/-

5. No. of cars used (average distance travelled and quantity of fuel and amount used per day)NA

6. No. persons using common (public) transportation (average distance travelled and quantity of fuel and amount used per day) : 140, 300 KM, 10 L, Rs.1080

7. No. of persons using college conveyance by the students, non-teaching staff and teachers (average distance travelled and quantity of fuel and amount used per day) NA

8. Number of parent-teacher meetings in a year? Parents turned up (23pprox..) 02

9. Number of visitors with vehicles per day?NA

10. Number of generators used per day (hours). Give the amount of fuel used per day. NA

11. Number of LPG cylinders used in the canteen (Give the amount of fuel used per day and amount spent). NA

12. Quantity of kerosene used in the canteen/labs (Give the amount of fuel used per day and amount spent). NA

13. Amount of taxi/auto charges paid and the amount of fuel used per month for the transportation of vegetables and other materials to canteen. NA

14. Amount of taxi/auto charges paid per month for the transportation of office goods to the college. NA

15. Average amount of taxi/auto charges paid per month by the stakeholders of the college. NA

16. Use of any other fossil fuels in the college (Give the amount of fuel used per day and amount spent). NA

17. Suggest the methods to reduce the quantity of use of fuel used by the stakeholders/students/teachers/non-teaching staff of the college:

We suggested the students and staff

Drive only when needed.

Avoid idling

Minimize air conditioning.

Maintain proper tire inflation.

Reduce weight in the vehicle

18. Are the Rooms in Campus are Well Ventilated? Yes/No-Yes

19. Window Floor ratio of the Rooms Good/Not Enough-Good

Carbon Footprint – Sample Report

· Petrol used by two wheelers/day–229 L

· (Per person to and fro 40 Kms=1L) Fuel used by four wheelers (52 Persons) – 104 L

· (Per person to and fro 40 Kms=2L) Fuel for persons (total 2314 persons) travelling by common

· Transportation =184 L (4L x 50 persons)

Total fossil fuel use is 517 L / day

Total fuel cost per day for transportation =Rs. 36190/- (517 L x Rs70)

Cost of stakeholder transportation per month (Rs.36190x22 days)- Rs.796180

Water management

SL NO	PARAMETERS	Response	Remarks
1	Source of water	Bore well	

2	No. of Wells	00	
3	No. of motors used	01	
4	Horse power – Motor	1hp	
5	Depth of well –Total	100Feets	
6	Water level	35 Feets	
7	Number of water tanks	01	
8	Capacity of tank	1000L	
9	Quantity of water pumped every day	1000L	
10	Any water wastage/why?	NA	
11	Water usage for gardening	100L	
12	Waste water sources	Bathrooms	
13	Use of waste water	NA	
14	Faith of waste water from labs	NA	
15	Whether waste water from labs mixed with ground water	NA	
16	Any treatment for lab water	NA	
17	Whether any green chemistry method practiced in labs	NA	
18	No. of water coolers	NA	
19	Rain water harvest available?	NA	
20	No. of units and amount of water harvested	NA	
21	Any leaky taps	NA	
22	Amount of water lost per day	NA	
23	Any water management plan used?	NA	
24	Any water saving techniques followed?	NA	

25	Are there any signs reminding peoples to turn off the water?	NA	

Results of water quality

Parameters	Bore Well water	Municip al Tap water	Standard value (BIS)
Dissolved Oxygen (mg/l)	8.4	11.21	6-8
Acidity (mg/l)	5.1	8.53	200
Alkalinity (mg/l)	1.02	9.03	200
Chloride (mg/l)	58	27.01	250
Hardness (Total)	240	134.50	200
Conductivity (µs)	1.34	0.52	
Ph.	8.0	7.01	6.5-8.5
Total Dissolved Solids (ppm)	424.15	185.12	500
Salinity (ppt)	7.1	8.02	
Total coliform	7	21	0
Fecal coliform	4	13	0

Water Quality analysis (Biological) report of college – II (with Photographic evidence)

S.No	Parameter/ WHO permissible level	Zooplankton (No of Samples/Sites)	Methodology
1	Protozoan (Ciliates)	88 (6 Samples)	
2	Rotifers	480(6 Samples)	

3	Ostracods	212 (6 Samples)	Sedgwick Rafter Cell Method
4	Insect Larvae	54 (6 Samples)	
5	Water Fleas	40 (6 Samples)	
6	Bivalves	04 (6 Samples)	
7	Snails	NIL	
8	Mussels	NIL	
9	Any Other (Specify)	NIL	

Water Quality analysis (Biological) report of college – II (with Photographic evidence):

S.No	Phytoplanktons	Scientific Name and number	Methodology
1	Diatoms (Bacillariophyceae)	Cymbella Fragilaria	Microscopic
2	Dinoflagellates (Dinophyceae)		
3	Coccolithophores (Prymnesiophyceae)		
4	Green algae (Chlorophyceae)	Oedogonium Pediastrum Scenedesmus Spirogyra Chlamydomonas	
5	Cyanobacteria(earlier Blue-green algae)	Oscillatoria	
6	Others (specify)	nil	

2.Waste management : NOT APPLICABLE

Approximate quantity of waste generated per day (in kg)

Office				
Approx.	Biodegradable	Non - Biodegradable	Hazardous	Others
<1Kg				
2-10Kg				
>10Kg				

Laboratories				
Approx.	Biodegradable	Non - Biodegradable	Hazardous	Others
<1Kg				
2-10Kg				
>10Kg				

Canteen/kitchen				
Approx.	Biodegradable	Non - biodegradable	Hazardous	Others
<1Kg				
2-10Kg				
>10Kg				

How the waste generated in the college is managed?

A)Composting/ Vermicomposting	Yes/ No	Remark
B)Recycling	NO	
C)Reusing	NO	

D)Other ways	NO	

Waste generated in the college?

E-waste		NA
Hazardous waste		NA
Solid waste		NA
Dry leaves		NA
Canteen waste		NA
Liquid waste		NA
Glass		
Unused Equipment		NA
Napkins		
Others (specify)		NA
Do you use recycled paper in college?		NA
Any waste management methods used?		NA

Energy Audit Sample Report

Sl. No	Electrical appliances/instruments	Number	Power (W)/ unit	Total power(W)	kW	Operation /day	kW/hr.	No.of days in month	Total consumption per month
1	CFL	02	14	28	0.028	4	0.112	24	2.688
5	LED TUBE	05	20	100	0.1	4	0.4	24	9.6

					84				
6	PROJECTOR	01	280	280	0.28	1	0.28	24	6.72
7	SPEAKERS	01	10	10	0.01	1	0.01	24	0.24
8	FAN	10	60	600	0.6	4	2.4	24	57.6
9	COMPUTER	02	250	500	0.5	4	2.0	24	48
11	PRINTERS	1	60	60	0.06	1	0.06	24	1.44
14	UPS	1	1000	1000	1	12	12	24	288
33	CCTV DVR	04	10	40	0.04	24	0.96	30	28.8
	Total Consumption per month						18.222 kW/hr		

Faunal diversity in college campus (with Photographic evidence)

Faunal group	**Scientific name**	**Number (If enumeration is done)**	**Seasonality**
Spiders	Telamonia dimidiate, Lycosapictula, Hersilliasavignyi,	26	Monsoon
Moths & butterflies	CastaliusRosimon (Common Pierrot), ChiladesLajus (Lime Blue), DiscolampaEthion (Banded Blue Pierrot),TalicadaNyseus	14	**Monsoon**
Other (Dragon Flies, Bees,	Apisflorea, Coccinellaseptempunctata, Leptinotarsadecemlineata, Musca domestica, Danausplexippus, Lepismasaccharina(Silverfish),Nezarav	35	**Monsoon**

Wasps, Bugs, and Beetles etc..)	iridula		
Annelids	Hirudinaria granulosa, Peritemaposthuma,Lumbricusterrestris, Palolaviridis	52	**Monsoon**
Other Arthropods	Culexpipiens, Aedesvexans, Anopheles stephensi, Musca domestica,	60	**Monsoon**
Amphibians	Rana temporaria, Rana tigrina, Lithobatespipiens, Bufobufo	22	**Monsoon**
Reptiles	Lacerta agilis, Gekko gecko, Iguana iguana, Sphenodon punctatus, Natrixnatrix	11	**Monsoon**
Birds	Passer domesticus, Poecileatricapillus,	51	**Monsoon**
Mammals	Ovisaries, Bostaurus, Mus musculus	36	**Monsoon**

Air quality Determination:

Air Quality Index (parameters studied/recorded/ Seasonal) :

NO_2	55 ppb
NO	9
O_3	90 µg/m^3
PM2.5	25 µg/m^3
PM10	8 µm
CO	6 ppm
Humidity	33%
Barometric Pressure	19.6KPA
Wind Speed	6 Km/Hr
Wind Direction	Towards East

Sun Rise	6.15 am
Sun Set	6.09 pm

Measurements of Noise level in and around the college

S.No	place (S)	Measurements (Duration in seconds)	Minimum (dBA)	Maximum (dBA)	Average (dBA)
1	Library	NA	NA	NA	NA
2	Canteen	NA	NA	NA	NA
3	Play ground	NA	NA	NA	NA
4	Auditorium	NA	NA	NA	NA
5	Science Block	5dB	2dB	5dB	3dB
6	Any Other (Specify)	NA	NA	NA	NA

If any eco-friendly or restoration activities conducted, please specify.

Satellite Image of Govt. Degree College, Wardhannapet

Flora and fauna in Government Degree College, Wardhannapet, Warangal


GPS Map Camera
Warangal, Telangana, India
QHF7+3FF, Vardhanapeta, Telangana
506313, India
Lat 17.77261°
Long 79.561529°
07/02/23 02:56 PM GMT +05:30
Google


GPS Map Camera
Warangal, Telangana, India
QHF7+3FF, Vardhanapeta, Telangana
506313, India
Lat 17.772633°
Long 79.56153°
07/02/23 02:57 PM GMT +05:30
Google


GPS Map Camera
Warangal, Telangana, India
QHF7+3FF, Vardhanapeta, Telangana
506313, India
Lat 17.772739°
Long 79.561624°
07/02/23 03:01 PM GMT +05:30
Google

Rhesus macaque

Veranus : Monitor Lizard

Felis domestics

Coracias bengalensis

Canis lupus familiaris

Gallus gallus domesticus

Musca domestica

Heteropoda venatoria

Minutes of Meeting

Date: 06/02/2023

The staff Council meeting of CDE, Wardhannapet has conducted today under the chairmanship of Ch. Srinivasa Rao, Principal i/c, CDE, Wardhannapet and resolved the following items unanimously:

1. It is resolved and formed a Green Audit Committee to complete Green Audit Report for 2022.

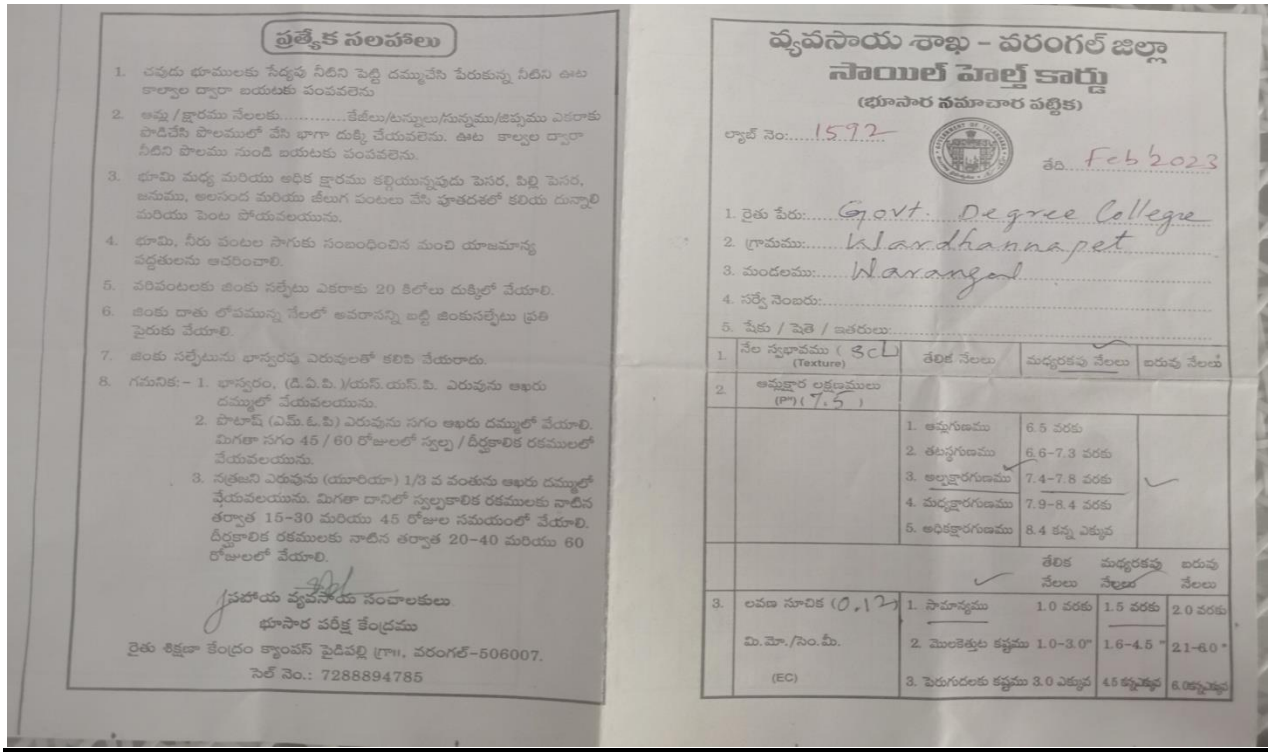
Chairman: Principal – Ch. Srinvasa Rao
Vice chairman: IQAC Coordinator – Dr. P. Malathilatha
Special Invitee: Principal Ist College,
Coordinator: Lect. in Botany, B. Sreetha
Members: 1. N. Srinvasa Rao, Lect in chemistry
2. Dr. K. Sandya, Lect in Zoology
3. B. Srinivas, Asst. Prof. of Commerce
4. Dr. N. Sreenivas, Lect in Commerce.

2. Green Audit Report must be submitted on or before 20.2.23

Principal (I/c)
Govt. Degree College
Wardhannapet, Dist. Warangal

Staff:
1. P Mohan
2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible]

Soil Test Reports



ప్రత్యేక సలహాలు

1. చవుడు భూములకు సేద్యపు నీటిని పెట్టి దమ్ముచేసి పేరుకున్న నీటిని ఈట కాల్వాల ద్వారా బయటకు పంపవలెను.
2. అమ్ల / క్షారము నేలలకు.....కేజీలు/టన్నులు/సున్నము/జిప్సము ఎకరాకు పొడిచేసి పొలములో వేసి భాగా దుక్కి చేయవలెను. ఈట కాల్వల ద్వారా నీటిని పొలము నుండి బయటకు పంపవలెను.
3. భూమి మధ్య మరియు అధిక క్షారము కల్గియున్నపుడు పెసర, పిల్లి పెసర, జనుము, అలసంద మరియు జీలుగ పంటలు వేసి పూతదశలో కలియ దున్నాలి మరియు పెంట పోయవలయును.
4. భూమి, నీరు పంటల సాగుకు సంబంధించిన మంచి యాజమాన్య పద్ధతులను ఆచరించాలి.
5. వరిపంటలకు జింకు సల్ఫేటు ఎకరాకు 20 కిలోలు దుక్కిలో వేయాలి.
6. జింకు దాతు లోపమున్న నేలలో అవరానాన్ని బట్టి జింకుసల్ఫేటు ప్రతి పైరుకు వేయాలి.
7. జింకు సల్ఫేటును భాస్వరపు ఎరువులతో కలిసి వేయరాదు.
8. గమనిక:- 1. భాస్వరం, (డి.ఏ.పి.)/యస్.యస్.పి. ఎరువును ఆఖరు దమ్ములో వేయవలయును.
   2. పొటాష్ (ఎమ్.ఓ.పి) ఎరువును సగం ఆఖరు దమ్ములో వేయాలి. మిగతా సగం 45 / 60 రోజులలో స్వల్ప / దీర్ఘకాలిక రకములలో వేయవలయును.
   3. నత్రజని ఎరువును (యూరియా) 1/3 వ వంతును ఆఖరు దమ్ములో వేయవలయును. మిగతా దానిలో స్వల్పకాలిక రకములకు నాటిన తర్వాత 15-30 మరియు 45 రోజుల సమయంలో వేయాలి. దీర్ఘకాలిక రకములకు నాటిన తర్వాత 20-40 మరియు 60 రోజులలో వేయాలి.

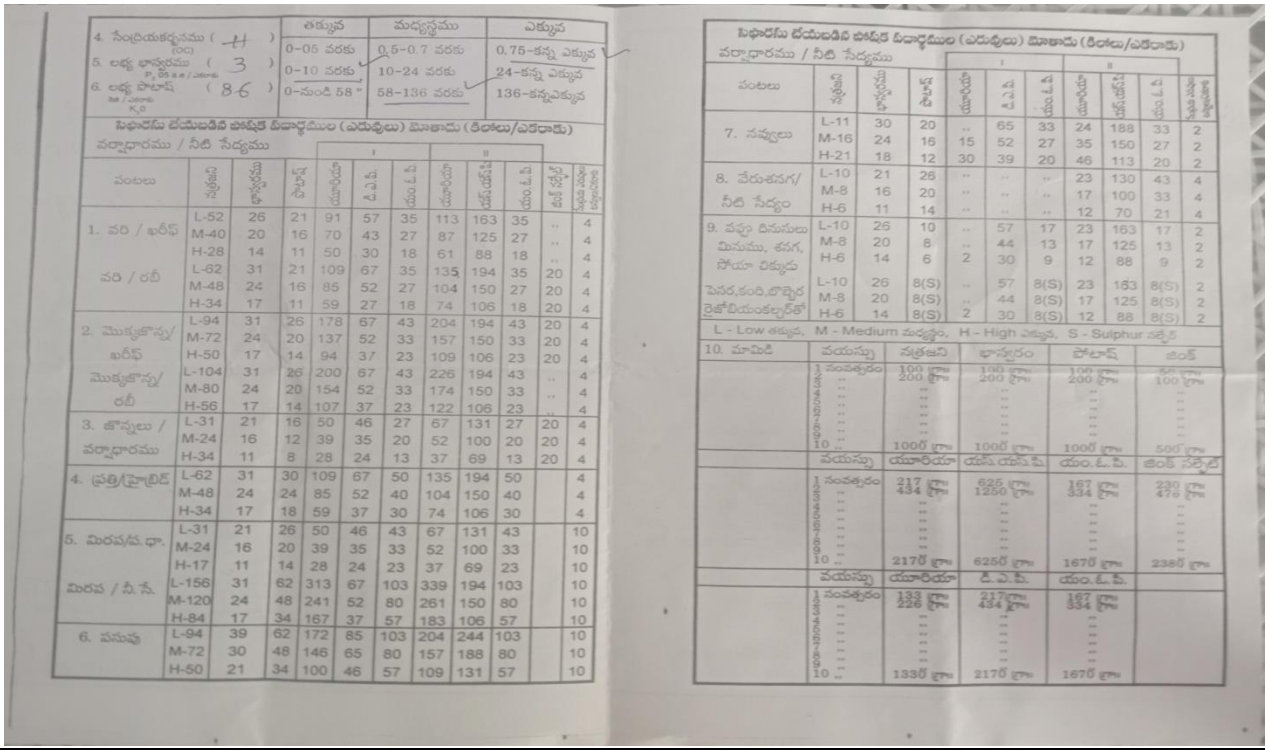
సహాయ వ్యవసాయ సంచాలకులు
భూసార పరీక్ష కేంద్రము
రైతు శిక్షణా కేంద్రం క్యాంపస్ పైడిపల్లి గ్రా॥, వరంగల్-506007.
సెల్ నెం.: 7288894785

వ్యవసాయ శాఖ - వరంగల్ జిల్లా
సాయిల్ హెల్త్ కార్డు
(భూసార సమాచార పట్టిక)

ల్యాబ్ నెం: 1592 తేది: Feb 2023

1. రైతు పేరు: Govt Degree College
2. గ్రామము: Vardhannapet
3. మండలము: Warangal
4. సర్వే నెంబరు:
5. షేకు / పెతె / ఇతరులు:

1.	నేల స్వభావము (Texture)	తేలిక నేలలు	మధ్యరకపు నేలలు ✓	బరువు నేలలు
2.	అమ్లక్షార లక్షణములు (P^H) (7.5)			
		1. అమ్లగుణము	6.5 వరకు	
		2. తటస్థగుణము	6.6-7.3 వరకు	
		3. అల్పక్షారగుణము ✓	7.4-7.8 వరకు	
		4. మధ్యక్షారగుణము	7.9-8.4 వరకు	
		5. అధికక్షారగుణము	8.4 కన్న ఎక్కువ	
		తేలిక నేలలు ✓	మధ్యరకపు నేలలు	బరువు నేలలు
3.	లవణ సూచిక (0,12) మి.మో./సెం.మీ. (EC)	1. సామాన్యము 1.0 వరకు	1.5 వరకు	2.0 వరకు
		2. మొలకెత్తుట కష్టము 1.0-3.0"	1.6-4.5 "	2.1-6.0 "
		3. పెరుగుదలకు కష్టము 3.0 ఎక్కువ	4.5 కన్నఎక్కువ	6.0కన్నఎక్కువ



		తక్కువ	మధ్యస్థము	ఎక్కువ
4. నేంద్రియకర్బనము (OC)	(H)	0-05 వరకు	0.5-0.7 వరకు	0.75-కన్న ఎక్కువ
5. లభ్య భాస్వరము P_2O_5 kg / ఎకరా	(3)	0-10 వరకు	10-24 వరకు	24-కన్న ఎక్కువ
6. లభ్య పొటాష్ K_2O kg / ఎకరా	(86)	0-నుండి 58 "	58-136 వరకు	136-కన్నఎక్కువ

సిఫారసు చేయబడిన పోషక ఎరువుల మోతాదు (కిలోలు/ఎకరాకు)
వర్షాధారము / నీటి సేద్యము

పంటలు	నేలరకం	భూసారము	పోషక	I యూరియా	I డి.ఏ.పి.	I యం.ఓ.పి.	II యూరియా	II డి.ఏ.పి./యస్.ఎస్.పి.	II యం.ఓ.పి.	జింక్ సల్ఫేట్	సూక్ష్మ పదార్థాలు
1. వరి / ఖరీఫ్	L-52	26	21	91	57	35	113	163	35	..	4
	M-40	20	16	70	43	27	87	125	27	..	4
	H-28	14	11	50	30	18	61	88	18	..	4
వరి / రబీ	L-62	31	21	109	67	35	135	194	35	20	4
	M-48	24	16	85	52	27	104	150	27	20	4
	H-34	17	11	59	27	18	74	106	18	20	4
2. మొక్కజొన్న/ ఖరీఫ్	L-94	31	26	178	67	43	204	194	43	20	4
	M-72	24	20	137	52	33	157	150	33	20	4
	H-50	17	14	94	37	23	109	106	23	20	4
మొక్కజొన్న/ రబీ	L-104	31	26	200	67	43	226	194	43	..	4
	M-80	24	20	154	52	33	174	150	33	..	4
	H-56	17	14	107	37	23	122	106	23	..	4
3. జొన్నలు / వర్షాధారము	L-31	21	16	50	46	27	67	131	27	20	4
	M-24	16	12	39	35	20	52	100	20	20	4
	H-34	11	8	28	24	13	37	69	13	20	4
4. ప్రత్తి/హైబ్రిడ్	L-62	31	30	109	67	50	135	194	50		4
	M-48	24	24	85	52	40	104	150	40		4
	H-34	17	18	59	37	30	74	106	30		4
5. మిరప/వ.ధా.	L-31	21	26	50	46	43	67	131	43		10
	M-24	16	20	39	35	33	52	100	33		10
	H-17	11	14	28	24	23	37	69	23		10
మిరప / నీ.సే.	L-156	31	62	313	67	103	339	194	103		10
	M-120	24	48	241	52	80	261	150	80		10
	H-84	17	34	167	37	57	183	106	57		10
6. పసుపు	L-94	39	62	172	85	103	204	244	103		10
	M-72	30	48	146	65	80	157	188	80		10
	H-50	21	34	100	46	57	109	131	57		10

సిఫారసు చేయబడిన పోషక ఎరువుల మోతాదు (కిలోలు/ఎకరాకు)
వర్షాధారము / నీటి సేద్యము

పంటలు	నేలరకం	భూసారం	పోషక	I యూరియా	I డి.ఏ.పి.	I యం.ఓ.పి.	II యూరియా	II డి.ఏ.పి./యస్.ఎస్.పి.	II యం.ఓ.పి.	జింక్ సల్ఫేట్	సూక్ష్మ పదార్థాలు
7. నువ్వులు	L-11	30	20	..	65	33	24	188	33	2	
	M-16	24	16	15	52	27	35	150	27	2	
	H-21	18	12	30	39	20	46	113	20	2	
8. వేరుశనగ/ నీటి సేద్యం	L-10	21	26	..	..	..	23	130	43	4	
	M-8	16	20	..	..	..	17	100	33	4	
	H-6	11	14	..	..	..	12	70	21	4	
9. పప్పు దినుసులు మినుము, శనగ, సోయా చిక్కుడు	L-10	26	10	..	57	17	23	163	17	2	
	M-8	20	8	..	44	13	17	125	13	2	
	H-6	14	6	2	30	9	12	88	9	2	
పెసర,కంది,దొడ్డిర రైతోవియంకల్చర్‌కో	L-10	26	8(S)	..	57	8(S)	23	163	8(S)	2	
	M-8	20	8(S)	..	44	8(S)	17	125	8(S)	2	
	H-6	14	8(S)	2	30	8(S)	12	88	8(S)	2	

L - Low తక్కువ, M - Medium మధ్యస్థం, H - High ఎక్కువ, S - Sulphur సల్ఫర్

10. మామిడి	వయస్సు	నత్రజని	భాస్వరం	పోటాష్	జింక్
	1 సంవత్సరం	100 గ్రా 200 గ్రా	100 గ్రా 200 గ్రా	100 గ్రా 200 గ్రా	50 గ్రా 100 గ్రా
	10 ..	1000 గ్రా	1000 గ్రా	1000 గ్రా	500 గ్రా
	వయస్సు	యూరియా	డి.ఏ.పి.	యం.ఓ.పి.	జింక్ సల్ఫేట్
	1 సంవత్సరం	217 గ్రా 434 గ్రా	625 గ్రా 1250 గ్రా	167 గ్రా 334 గ్రా	230 గ్రా 470 గ్రా
	10 ..	2170 గ్రా	6250 గ్రా	1670 గ్రా	2380 గ్రా
	వయస్సు	యూరియా	డి.ఏ.పి.	యం.ఓ.పి.	
	1 సంవత్సరం	133 గ్రా 226 గ్రా	217 గ్రా 434 గ్రా	167 గ్రా 334 గ్రా	
	10 ..	1330 గ్రా	2170 గ్రా	1670 గ్రా	

GRADING FOR ENVIRONMENTAL AUDIT REPORT

S.NO	COMPONENTS FOR ASSESSMENT	MARKS	GRADES	Marks Secured	Grade
1	Energy audit	**20**	**A+ : 91-100** **A : 81-90**	20	A+
2	Waste audit	**15**		-	
3	Water audit	**15**		15	A+
4	Landscape or Environment audit	**15**		15	A+
5	Carbon footprint & Oxygen emission audit	**15**		15	A+
6	Green activities (conduction of seminars/conferences/workshops/student competitions/awareness programmes/observation of environmental related days etc.	**10**	**B+ : 71-80** **B : 61-70** **C : 51 - 60**	8	B+
7	Student clubs (Environmental club/Green club/Nature club/Biodiversity club/ ECO Club/Friends and Fauna Club/Science club etc.) activity annual report	**10**		8	B+
	Total	**100**		**81**	

CHENNA SRINIVASA RAO

Digitally signed by CHENNA SRINIVASA RAO
Date: 2023.03.02 13:47:51 +05'30'

GOVERNMENT DEGREE COLLEGE, WARDHANNAPET, WARANGAL-506313

GREEN AUDIT COMMITTEE-2023

S.NO	COMMITEE	DESIGNATION	NAME	SIGNATURE
1	Chairman	Principal(FAC)	Ch.SrinivasaRao	
2	Vice Chairman	IQAC Coordinator	Dr.P.MalathiLatha	
3	Special Invitee	Principal, ID College, Narsampet.	Sri.T.Ramesh	Principal Govt. Degree College Narsampet Dist Warangal.
4	Coordinator	Contract Lecturer in Botany	B.Swetha	
5	Members	Asst.Professor of Commerce	B.Srinivas	
		Lecturer in Chemistry	N.SrinivasaRao	
		Contract Lecturer in Zoology	Dr.K.Sandhya	
		Contract Lecturer in Commerce	Dr.N.Srinivas	

Principal
Principal (FAC)
Govt. Degree College
Wardhannapet, Dist. Warangal

CHENNA SRINIVASA RAO
Digitally signed by CHENNA SRINIVASA RAO
Date: 2023.02.28 11:49:52 +05'30'