

GOVERNMENT DEGREE COLLEGE FOR WOMEN BEGUMPET-HYDERABAD
(AUTONOMOUS)

GREEN AUDIT REPORT

2014-2016

Seen
Verified
U. / 1.9.2020



UNIVERSITY COLLEGE FOR WOMEN

(Autonomous)

Koti, Hyderabad, Telangana State 500 095.

Estd : September - 1924

(Constituted College of Osmania University)

Re-Accredited - 'A'



No. 1368 /UCW/Admn /2016

Date 04-08-2016

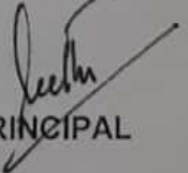
To
The Principal
Govt. Degree College for Women
Begumpet
Hyderabad - 500 016.

Madam,

In response to the request from you, we have identified the following two teachers who would conduct the Green audit of your College and submit the report to you:

1. Dr. K. Shailaja, Department of Botany
2. Ms Laxmi Poornima Chauhan, Dept. of Environmental Science

Sincerely,


PRINCIPAL



UNIVERSITY COLLEGE FOR WOMEN

(Autonomous)

Koti, Hyderabad, Telangana State 500 095.

Estd : September - 1924

(Constituted College of Osmania University)

Re-Accredited - 'A'



No. 1392 /UCW/ Adm/2016

Date :

22-08-2016

To
The Principal
Govt. Degree College for Women
Begumpet
Hyderabad - 500 016.

Madam,

In response to the request from you, the following two teachers conducted Green audit of your College for the years 2014-2016::

1. Dr. K. Shailaja, Department of Botany
2. Ms Laxmi Poornima Chauhan, Dept. of Environmental Science

Their report is enclosed herewith.

Sincerely,

PRINCIPAL



UNIVERSITY COLLEGE FOR WOMEN

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No. 1392 /UCW/Admn/2018

Date : _____

REPORT

We appreciate Government Degree College for Women, Begumpet, Green Audit team for their commendable performance in various conservation practices implemented in the campus. We also look forward for more enhanced practices to maintain eco-friendly environment.

Suggestions:

- We expect the in-house Green Audit team to identify trees which control pollution and plant them in the campus, as the campus is situated in a centrally located area where there is lot of vehicular traffic.
- Paper waste generated from the college, suggested to link up with paper recycling units, so that the waste paper generated in the college can be reused for office purpose.

K. Shailaja
PROJECT COORDINATOR

[Signature]
PROJECT INVESTIGATOR

[Signature]
PRINCIPAL

Principal Dr. P. Rajani inaugurating GREEN AUDIT Survey



INTRODUCTION:

The term "GREEN AUDIT" means eco-friendly or not damaging environment. This can acronymically called as "Global Readiness in Ensuring Ecological Neutrality"(GREEN)".

Green auditing is an umbrella term, is known by other name "Environmental Auditing". The green audit practically involves energy conservation, use of renewable resources, rainwater harvesting, plantation, hazardous waste management and E-waste. It is also a requirement of NAAC committee to degree colleges.

The concept of green audit is considered as a tool to evaluate environmental standards and most efficient and ecological way to solve environmental problems. It is a practice of saving environment through the various programmes like Go Green, Save Water, Save Trees, Plantation of trees are to taken up. It will definitely work for the future.

It is necessary to conduct green audit in college campus and involve students to get awareness of green audit and its advantage to save planet.

GDC (W) Begumpet conducts green audit for every two years and strives to maintain eco-friendly atmosphere in and around the campus. The green audit committee is group of staff members and students and also it is necessary to conduct a green audit in college campus and involve students in this concept so that students get awareness of green audit, its advantage to save planet earth.

ABOUT US:

The Government Degree College for Women, Begumpet was established in 1971. The college is affiliated to Osmania University, and has been accredited by National Assessment accreditation council(NAAC) with GPA of 2.76 at 'B' grade in the year 2010. The college provides education to deserving young women in secular environment and committed to serve for the cause of economically weak and socially under privileged women students. During the last four and half

decades the college has grown from strength to strength and presently facilitates approximately 2000 students to access higher education. As a part of requirement for re-accreditation process by NAAC in 2016 the college needs to undergo green audit.

In this regard government Degree College for women begumpet approached department of environmental science, University college for women koti, Hyderabad, Requesting to carry out environmental audit, vide letter no. Rc.No. 254/GDC/2016. Dated; 20.7.2016.

Accordingly department of environmental science ,university college for women koti agrees to conduct green audit with the project team.

Project team:

Project co-coordinator: **Dr. K.Shailaja**

Dr. K. Shailaja
Dr. K. Shailaja

Project Investigator: **MS. Laxmi Poornima Chauhan**

Team Members:1. Tasneem Farhat

Students: Manish

2. Dr. P. Vijaya

3. B. Rukmini Devi.

4. B. Vijaya Laxmi.

5. Dr. K. Sudha Rani

Department of environmental science, University college for women, koti is a well-established department. It imparts education to students at UG and PG level in the field of environmental science under the guidance of Dr. Shailaja. The research scholars under her guidance undertakes various projects covering environmental issues relating to biodiversity, environmental awareness, waste management and research.

5 **Pre-audit activities:**

- Schedule
- Planning of audit.
- Pre-audit questionnaire.

Schedule:

The schedule for green audit is from 22.6.2016 to 25.7.2016

✓ **Contact with audit team:**

The college green audit committee contacted the project co-ordinator Dr. Shailaja and received the pre audit questionnaire to start the survey along with audit team members.

✓ **Planning of audit:**

Based on the committee questionnaire planning of audit is prepared.

As per committee questionnaire green audit involves the following scopes.

1. Campus infrastructure
2. Plantation.
3. Water
4. Solid waste
5. Hazardous waste
6. E-waste
7. Energy

6 Campus infrastructure:

College administration is vital to the process of realizing campus sustainability and the policies made by the administration is an essential instrument for any substantial change in the campus environment. Principal of the college Dr.P.Rajani and administrative officer C.P.Ashok kumar play a key role in making policies of administration.

1.	Total campus area	2.32 acres
3.	Canteen area	225 Sq.mts,
4.	Ladies room	68.73
5.	Gymkhana hall	16
6.	Toilet blocks I,II,III,IV	44
7.	English language lab	48
8.	Dept. of statistics	12
9.	Depts. Of languages	12
10.	library	48
11.	Reading room	50
12.	Class rooms	520
.13.	Sports room	96
14.	Computer Labs I and II	84 each
15	Labs <i>sciences</i>	42

7 Plantation:

- College has rich plantation in and round campus. Which include trees, shrubs, herbs and medicinal plants are being growing a separate medicinal garden, composting pit is also being maintained and the produce is used as bio fertilizer to the garden plants.

List of audited plants:

TREES:

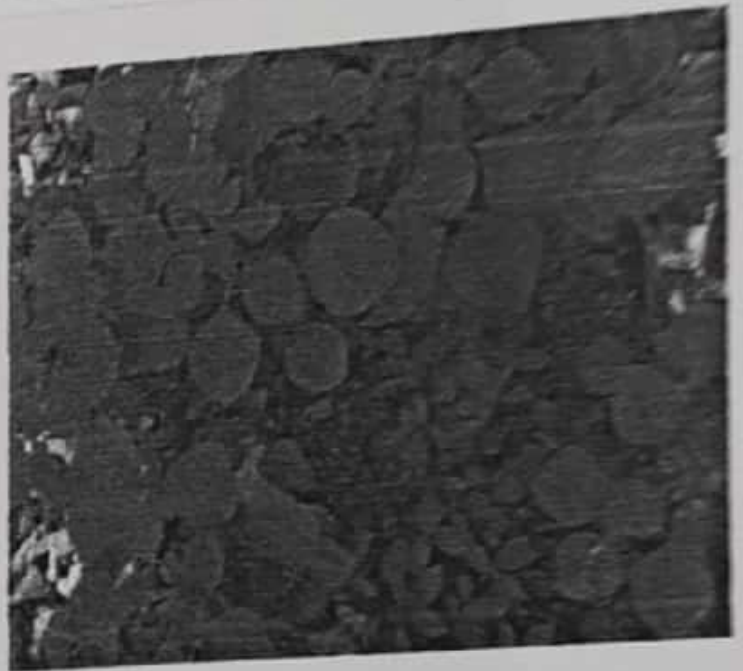
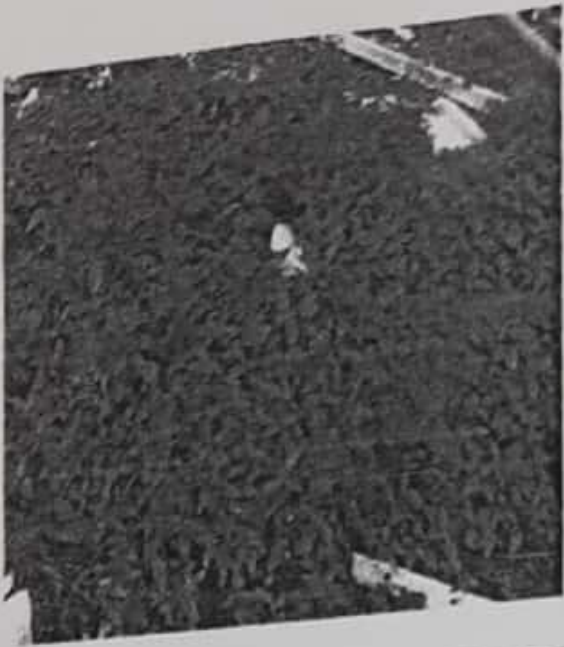
S.No.	Botanical name /common name	Uses
1.	<u>Saraca indica</u> - Ashoka tree <i>Polyalthia longifolia</i> <small>ANNONACEAE</small>	Stem, bark-used In treating leprosy, gynec problems, piles.
2.	Mangifera indica-Mango <i>Anacardiaceae</i>	Fruit edible, root, bark used to treat leucorrhea, thirst, ulcers.
3.	<u>Samanea saman</u> -Rain tree	Road side shade tree. Pods used as fodder.
4.	Expendicularis wall-kada amlle	Scented flower plant road side tree
5.	Azadiracta indica-Neem	Road side tree Indian herbal doctor
6.	Annona squamosa-custard apple. <i>ANNONACEAE</i>	Fruit bearing, bark is used I skin disorders.
7.	Syzygium cumini-jamum	Fruit yielding, seeds are for diabetic
8.	<u>Ficus religiosa</u> -Peepal	Shade tree stem bark is for skin disorders
9.	Tabernaemontana divaricata <i>APOCYNACEAE</i>	Ornamental, fowers useful for eye disorders
10.	<u>Ficus bengalensis</u> -Banyan tree	Shade giving road side tree, root for hair growth
11.	Areca catechu-nut tree	Nut has high medicinal value
12.	Cocos nucifera-coconut <i>POACEAE</i>	Fruit yielding, whole plant is economically important
13.	Colacasia esculanta-chama <i>ARACEAE</i>	Corms are stem vegetables, good for piles
14.	Pongamia pinnata-ganuga <i>FABACEAE</i>	Bio-diesel plant
15.	Tectona grandis-teakwood	High quality timber yielding
16.	Murraya koenigii-karyapak <i>RUTACEAE</i>	Aromatic leaves of high medicinal value

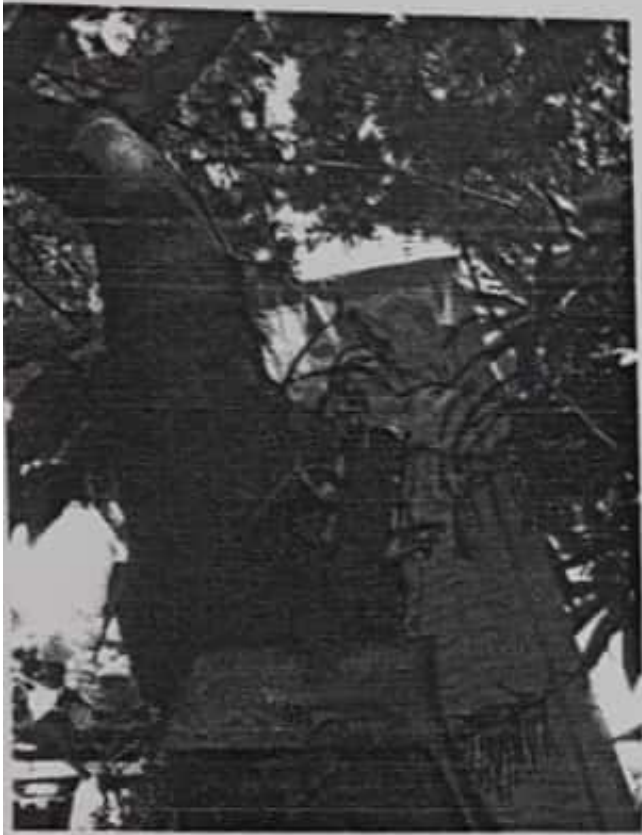
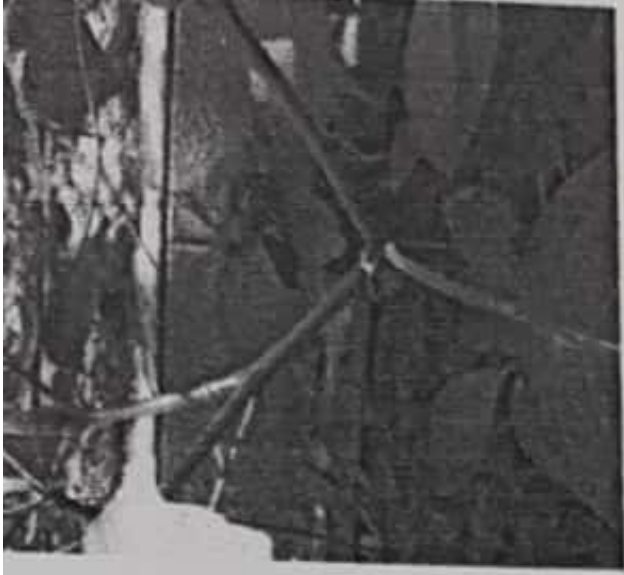
8 Herbs:

S.no.	Name of the plant	Uses
1.	Common grass Poaceae	Used as lawn
2.	Cloris barbata Poaceae	weed
3.	Salvia Lamiaceae	Ornamental
4.	Asters Asteraceae	Ornamental
5.	Canna Cannaceae	Ornamental
6.	crotons	Ornamental
7.	Parthenium Asteraceae	weed
8.	Heliotropium Boraginaceae	weed
9.	Solanum Solanaceae	Fruit bearing
10.	Acalypha Euphorbiaceae	weed
11.	Hibiscus Malvaceae	Ornamental
12.	Tridax Asteraceae	weed
13.	Asclepias Apocynaceae	weed
14.	Calotropis Asclepiadaceae	weed
15.	Euphorbia hirta Euphorbiaceae	weed
16.	Achyranthus aspera Amaranthaceae	Medicinal
17.	Boerhaavia Nyctaginaceae	Medicinal
18.	Dracaena Asparagaceae	Ornamental
19.	Tecoma stans Bignoniaceae	Ornamental
20.	Tribulus terrestris Zygophyllaceae	weed
21.	Antigonon leptopus Polygonaceae	Ornamental
22.	Lantana camara Rubiaceae	Boundary plant
23.	Duranta repens Verbenaceae	Ornamental
24.	Coleus Lamiales	Ornamental
25.	Rheodiscolor Commelinaceae	Ornamental
26.	Commelina commelinaceae	Ornamental
27.	Bryophyllum Crassulaceae	Ornamental
28.	Asiatic Lilly Liliaceae	Ornamental

These plants indicate that there are luxurious types of vegetation of diverse families. Every year mass tree plantation is taken up as a part of Haritha Haram activity,







10 Water:

Water consumption

S.No.	Area of consumption	Gallons /day
1.	Domestic purpose including canteen	17 gallons
2.	Gardening	10
3.	Laboratory	10

- Supply of municipal water is through Municipal taps which is again purified through R.O. System which is installed on the floor.
- A bore well is also present in the college premises and water is pumped to overhead tank and supplied to usable area.
- Two rain harvesting pits are constructed in the college area

11 Hazardous waste:

Hazardous waste represents a significant risk to human health and ecological imbalance. It includes waste from laboratories

The measures taken to dispose hazardous wastes are:

- No expired chemicals exist in Laboratories.
- The broken glass ware is disposed by taking permission of principal.
- Botany lab dissected material is used in composting and chemical produced is almost nil.
- Zoology lab dissected material is dumped in dumping pits and buried properly.
- The waste from microbiology and biotechnology labs is disposed through the method of autoclaving and later the glass ware is washed thoroughly.

12 E-Waste:

The e-waste produced is disposed as per the CCE instructions vide letter Rc.no.20/o.p.II-I-2016.dated;05/5/2016.

The letter states that with regard to e-wastage i.e., computers, printer, cartridges and other electronic items a committee has to be constituted and the procedure should be followed in accordance with the G.O.Ms.No.24,dated 03.9.2010.

13 Solid waste

The solid waste is segregated at source by providing separate dust bins for biodegradable and plastic waste.

Waste segregated from different labs is dumped in separate dump yard.

The observed waste from different areas include:

S.No.	Source of waste	Quantity /day	Method of disposal
1.	Canteen waste	2 Big buckets	Organic composting
2.	Tree waste	6 big buckets	Organic composting
3.	Plastic waste	1 big basket	Municipal disposal
4.	Solid waste from labs	3 Small buckets	Organic composting

Energy:

Energy consumption and conservation is an important scope of green audit.

Our college architectural design is based upon use of natural lighting and ventilation to save extra power from bulbs and fans.

Fluorescent bulbs are replaced with CFL bulbs.

The college has canopy of trees and plants that make environment carbon dioxide free and to maintain health of inmates. The garden has palm trees neem trees and others which provide shade and reduce temperature in environment and also give a beautiful ambience..

Energy is conserved by using natural light in the class rooms.

AT GDCW Begumpet a solar generator is being installed in open area with a capacity of 5KV. The benefit is when the normal power supply is off then the power generated from the solar generator switches on automatically to important consumption points. These are great replacement for traditional gas powered models . They do not put any noxious fumes and are virtually silent making them perfect.

An ELCB-Earth Leakage circuit breaker is also installed in the college campus. It is a safety device with high earth impedance to voltages to prevent shock. It detects small stray voltages on the metal enclosures of electrical equipment and interrupts the circuit if a dangerous voltage is detected. The main purpose of ELCB is to prevent injury to humans and animals due to electric shock.

The power can be switched off in the entire floor when not in use.

There are EIGHT solar bulbs installed in front of the college building and automatically switch on during night and conserve electrical energy during whole night..

CFL bulbs are also being installed in the campus

Conclusion;

Universities and colleges have broad impact around them. The activities perused by colleges can create a variety of impact on society especially environmentally sustainable solutions. GDCW Begumpet has taken a number of positive steps to improve environment.

This report serves to highlight colleges many accomplishments and to make recommendations for improving the college's environmental sustainability.

The college conducts internal audit and strives to maintain ecofriendly atmosphere in the campus.

Certain recommendations were given by green audit to maintain eco-friendly ambience

- Green building for quality living.
- Know green and think green is promoted in the campus.
- Water conservation and prevention of water wastage.
- Use of CFL bulbs.
- Use of solar powered generators.
- Say 'No' to plastic.
- Reduce-reuse-recycle methods are followed.
- Global warming, biodiversity and pollution incorporated in curriculum.

Hence GREEN AUDIT is most efficient and ecological way to solve environmental problems.

Questionnaire for GREEN AUDIT

Plantation:

1. What is the percentage of green area in your college?
25%
2. How much land area is covered by trees?
10%
3. What is per capita constructed field area?
Build up area is 7879 sq.mt
4. How many species of plants are available in your college, support?
100
5. Which pesticides does your college use?
Till now no pesticides were used.

College initiatives. *Plantation*

- Mass tree plantation is taken up every year under Haritha Haaram programme to increase the green cover of the college.
- A gardener is deployed for the gardening.
- Students actively participate and adopt the plants and nurture them.
- Birth day plants concept is introduced where students donate one sapling on their birthday.

II Water:

1) How much water does your college use?

S.No.	Area of consumption	Gallons /day
1.	Domestic purpose including canteen	17 gallons
2.	Gardening	10
3.	Laboratory	10

2) Are the sanitation facilities in your college adequate?

YES

3) Does your college follow water conservation practices?

YES, Two rain water harvesting pits were constructed, Distill water plant recycles the water to garden. Awareness programmes are conducted to teach the methods of water conservation.

4) How much rain water does your college harvest?

Through harvesting pit, approximately 10 gallons.

5) How much water does your college recycle?

Approximately 10 gallons

6) College initiatives *for Water Conservation*

- Two Rain harvesting pits were constructed to increase ground water level.
- Recycling and reuse of water to gardening.
- Awareness programmes for water consumption.

Solid waste:

S.No.	Source of waste	Quantity /day	Method of disposal
1.	Canteen waste	2 Big buckets	Organic composting
2.	Tree waste	6 big buckets	Organic composting
3.	Plastic waste	1 big basket	Municipal disposal
4.	Solid waste from labs	3 Small buckets	Organic composting

1. How much waste does your college generate?

12 Buckets

2. What is the waste collecting system?

Collection from different parts of the college and separation of plastic waste, paper waste and wet waste and dumping in different zones.

3. How much waste does your college recycle?

8 Buckets for composting.

4. What is the waste disposal record of your college?

Dry waste /paper waste is disposed to a voluntary organization.

5. College initiatives. *Waste Management*

- Composting pit is constructed for recycle of wet waste.
- No to plastic.
- Paper waste is disposed with the permission of principal

IV Hazardous material:

1. How does your college dispose off empty chemical containers?
With the permission of principal the empty glass containers are sold to waste glass purchasing persons.
2. How does your college categorizes hazardous material?
 - Chemistry lab effluents.
 - Microbial culture waste.
 - Biotechnology culture waste.
 - Dissected animal waste.
3. What are the various disposal methods followed for hazardous waste?
 - Chemistry lab effluents are released through separate outlet.
 - Microbial culture waste is autoclaved and buried in a separate zone.
 - Dissected animal waste is buried in dumping zone of the lab.
4. How much e-waste does your college generate?
Approximately 10 computers and few peripherals.
5. What are the e-waste management policies implemented by the college?
E- waste is disposed according to CCE rules and regulation Letter no. Rc.no.20/o.p.II-I-2016.dated;05/5/2016.
6. How does your college dispose off the glass ware, Sharp and other laboratory equipments?
Through the permission of principal disposed to related persons.

College initiatives.

- Hazardous produce is very less.
- Hazardous waste produced is disposed as per rules so as to reduce environmental pollution.
- E- Waste is disposed as per government rules. Electronic items are repaired and reused.

V Energy:

1. What are the sources of energy in your college?
Electric source through TSCPDCL, Solar power generator is being installed with 5KV in the month of August.
2. How ----- are the sources of energy?
3. How much energy does your college consume?
5805 units/month
4. Does your college follow energy conservation practices?
 - The design and architecture itself is such that the rooms are well aerated and require no artificial lighting.
 - Power is switched off in the floors when not in use through ELCB(Earth leakage circuit Breaker).
 - Use of Solar power from the month of August.
 - Use of CFL bulbs
 -
5. How much energy does your college save?
Steps are taken to reduce energy consumption, by creating awareness programmes for SAVE ENERGY
6. College initiatives. *Energy Conservation*
 - Awareness programmes for save energy.
 - Solar generator installation in open area.
 - Use of CFL bulbs.
 - Switch off lights and fans soon after use.

GOVERNMENT DEGREE COLLEGE FOR WOMEN
BEGUMPET, HYDERABAD - 500 016



Call: 9236661193
E-Mail: begumpet_college@rediffmail.com
Website: www.gdcwbegumpet.com

Dr. P. RAJANI, M.Sc., Ph.D.
PRINCIPAL

OUR MOTTO: 'LEARNING IS THE BEST ORNAMEN'

To
The Principal
University College For Women
Koti, Hyderabad.

Dt: 20/7/2016

RC. NO. 254/GDC/2016 dt. 20.07.2016

Respected madam,

Sub: Request to conduct Green audit at Government Degree College For Women

Begumpet - Reg.

Letter No..... Date

Government Degree College For Women Begumpet, Hyderabad was established in 1971. It is centrally located at Begumpet and caters to the needs of girl students of twin cities and also near by districts. The college provide university education to deserving candidates in a secular atmosphere and is committed to serve the economically weak, socially under privileged and needy students. During the last four decades the college has grown from strength to strength and presently helps about 2000 students to access higher education. With an objective of "Empowerment of women through knowledge", the college helps the students to become truly empowered citizen. The college celebrated its silver jubilee in 1996.

We will be obliged if the department of Environmental sciences of your college can conduct Green audit of our college and give us a report, so that we can develop environmental consciousness among students and staff.

Thanking you

Your's sincerely

P. Rajani
2017

PRINCIPAL

Govt Degree College For Women
Begumpet, Hyderabad.

Received
Dr. K. Shailgoi
23/7/16

CIRCULAR

DATE 27/7/2016.

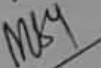
Green Audit is being conducted in our college by Dept. of Botany with the collaboration of Dept. of Environmental sciences of Osmania University College for Women, Koti.

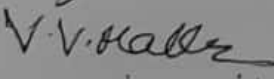
Research Scholars, students of Koti women's college along with our Green audit team of selected students will take up survey on different criteria of Green Audit. Information should be provided to Green Audit team members during survey.


PRINCIPAL



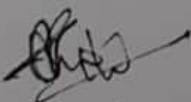






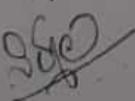












GOVERNMENT DEGREE COLLEGE FOR WOMEN

BEGUMPET, HYDERABAD – 500 016

(Autonomous - Affiliated to Osmania University)
Re-Accredited with 'B' Grade by NAAC



DR.P.RAJANI, M.Sc.,Ph.D.
PRINCIPAL

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Cell: 9290553393
E-mail: begumpet.idcollege@gmail.com
Website: www.gdcwbegumpet.com

OUR MOTTO: "LEARNING IS THE BEST ORNAMENT"

To,
The Principal,
University College for Women,
Koti, Hyderabad,
Telangana State.

Dt. 20/8/2016

Rc.No. 319/GDCWB/Estt/2016, Date: 20.08.2016.

Respected Madam,

Sub: - GDC(W), Begumpet, Hyderabad-Letter of Appreciation and
thanks giving from the Principal.

At the outset I would like to express my hearty thanks for accepting our request
to conduct Green Audit at our college.

We also convey our thanks to Green Audit Team:

1. Dr. K. Shailaja-Department of Botany.
 2. Ms. Laxmi Poornima Chauhan- Department of Environmental Science.
- For their support, great efforts and interest to make the task of Green Audit a
success.

We look forward for many more such opportunities in future under your
leadership.

Thanking you

Yours Sincerely

PRINCIPAL

GOV. DEGREE COL. C.

PROCEEDINGS OF THE COMMISSIONER OF COLLEGIATE EDUCATION,
TELANGANA, HYDERABAD.

Re.No.20/O.P.II-1/2016.

Date: 5-5-2016.

Sub:- COLLEGIATE EDUCATION – Dispose of unserviceable / Unwanted books, material in Government Degree Colleges – Certain Guidelines – Issued.

Ref:- 1. G.O.Ms.No.148, Fin & Plg.(FW.ADMN.I.TFR) Dept., dt.21.10.2000.
2. G.O.Ms.No. 24 I.T & C Dept., dated 3.9.2010.

--:X:--

All the Principals Government Degree Colleges in the State are informed that it is primary duty to the head of the institution to create good ambiance to the students, staff and public. The Unserviceable/Unwanted books,material should be removed from the institution for creating of good hygienic atmosphere in the premises. An Evaluation Committee with the following member shall be constituted for verification and list-out books, material like broken chairs, tables, doors, windows, old electrical items, equipment and papers etc., pertains to the college:-

(iii)Principal

(iv)Two Lecturers and I/C Department/Stock.

The Evaluation Committee shall prepare Three (3) lists for i) Materials which can be repairable & (ii) Unserviceable / unwanted Books,material.

The solid/ good wooden furniture & the items which may useful in future and can be repairable with small investment should invariably be separated for repair. The Evaluation Committee shall evaluate upset value of Unserviceable/Unwanted books, material.

An Auction Committee shall be constituted with the following members to conduct auction to dispose unserviceable/unwanted books,material:-

(i) Principal.

(ii) Two Lecturers.

When the upset value is below Rs.5,000/- a Notice shall be placed in the Notice Board indicating all items. Wide publicity shall be given in all local Government & Private Offices for the same.

When the upset value is above Rs.5,000/- publicity shall be given without spending more amount in news papers not more than 10 days and not less than 3 days in advance of the auction.

A three hour public viewing period shall be held for the items listed-out before the auction. Auction shall be conducted in the presence of Auction Committee in the premises. 50% of amount to be paid at the time of Auction and remaining shall be paid within 24 hours of auction.

P.T.O.

--:2:--

With regard to disposal of e-wastge i.e. Computers, Printers, Catridges and other electronic items to constitute a internal Committee for verification and prepare item wise list i.e. name of the Company, Model No., Year of purchase and the letter addressed to M.D. A.P.T.S Ltd., B.R.K. Bhavan, Telangana,Hyderabad for disposal of e-wastage. The procedure should be followed in accordance with the G.O.Ms.No. 24, Dt.3.9.2010.

The amount received on auction shall be deposited in Special Fee Fund of the College and write off the items from stock registers.

These Proceedings should be acknowledged.

(ORDERS OF THE COMMISSIONER OF COLLEGIATE EDUCATION HAVE BEEN OBTAINED IN THE NOTE FILE)

DR.K.PADMAVATHI,
FOR COMMISSIONER OF COLLEGIATE EDUCATION.

To

The Principals of Government Degree Colleges in the State.


Copy to all the Regional Joint Directors of Collegiate Education in the State.

Copy to the Chairman, Telangana Govt. College Gazetted Teachers' Association,

1st floor, 21st Century Complex, Nampally,Hyderabad-500 001.

S.C.1

// t.c.f.b.o//


SUPERINTENDENTS - 5/5/2016.