



**Eureka Environment Consultant**

*We Care Our Environment*

Add: B 204, Akshar Residency, Near Shivkrupa Nagar, Hirawadi, Panchwati, Nashik - 422003.

## **Green Audit/ Environmental Audit Certificate**

This is to certify that the Eureka Environment Consultant conducted “Green Audit/ Environmental Audit” for “Maratha Vidya Prasarak Samaj’s, Arts and Commerce College, Makhmalabad, Dist: Nashik - 422003, (M.S.) India” for year 2020 to 2021. The audit focused on assessment of the green/ environment friendly initiatives, planning and implementation at the college campus that consisted of “Green Campus Management, Green Cover, Plantation, Waste Management, Rainwater Harvesting and conservation of energy” etc. We appreciate the efforts of the college and issue the certificate of ‘Green Audit/ Environmental Audit’ for the year 2020-21.

Place: Nashik

Date: 15.03.2021



**Eureka Environment Consultant**

*Malavade*

**Proprietor**

Eureka Environment Consultant, Nashik

Certified Lead Auditor

ISO 14001:2015 (Certification No.

IN/14019/144785)



Maratha Vidya PrasarakSamaj's  
**ARTS AND COMMERCE COLLEGE,**  
Makhamalabad, Dist.- Nashik (M.S.)



**GREEN/ENVIRONMENTAL AUDIT REPORT**

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## 1. INTRODUCTION

Green auditing is the process of systematically identifying, quantifying, recording, reporting, and analysing environmental diverse components. The purpose of the 'Green Audit' is to look at environmental behaviours that have an impact on the environment both on and off the college campus. It was created with the objective of inspecting the activity of organisations whose activities could damage citizens' health and the environment. Green Audit provides guidance on how to improve the state of the environment, and the rise of Green Audit has been affected by a number of factors.

Educational institutions, like many other businesses, consume resources such as water, electricity, and forest products, as well as generate waste. In India, there are no environmental regulations that govern the development and management of educational institutions. As a result, the importance of ensuring that the educational institute uses resources on campus with self-awareness is underrated. Due to their high resource consumption and waste output, several educational institutions throughout the world have adopted the eco campus concept to make them more sustainable. To maintain the campus clean, educational institutions must now implement solid and wastewater waste reduction plans.

Green Auditing of Institutions is critical for measuring educational institutions' environmental performance and analysing viable strategies for transforming the educational campus into an eco-campus.

NAAC's criterion 7, which is a self-governing agency in India that certifies institutions as Grade A, B, or C based on scores assigned during accreditation, has been given a green audit.

## 2. ABOUT THE COLLEGE

Arts and Commerce College, Makhamalabad, Nashik, is run by Maratha Vidya Prasarak Samaj, Nashik, one of the premier educational institutions in Maharashtra. Arts and Commerce College, Makhamalabad, was established in June 2008. The College is affiliated with the Savitribai Phule Pune University under IDNo.PU/NS/AC/119/ (2008). The College provides opportunities of higher education leading to B.A. (Bachelor of Arts) and B.Com. (Bachelor of Commerce) for rural and socially as well as economically

backwards students. It is situated in an intellectually and culturally prosperous suburb, Makhmalabad, only 7K.M. away from Nashik central bus stop. A natural pollution-free environment surrounds the College. The teaching staff is enthusiastically involved in academic, research, and extension activities.

The College has an active N.S.S. unit to teach values like commitment to social service and national integration. The physical education department trains the students for various indoor and outdoor games. The college ensures academic excellence and enhances students' competence in all walks of life, and equips them with a caliber to meet the challenges posed by liberalization, globalization, and privatization.

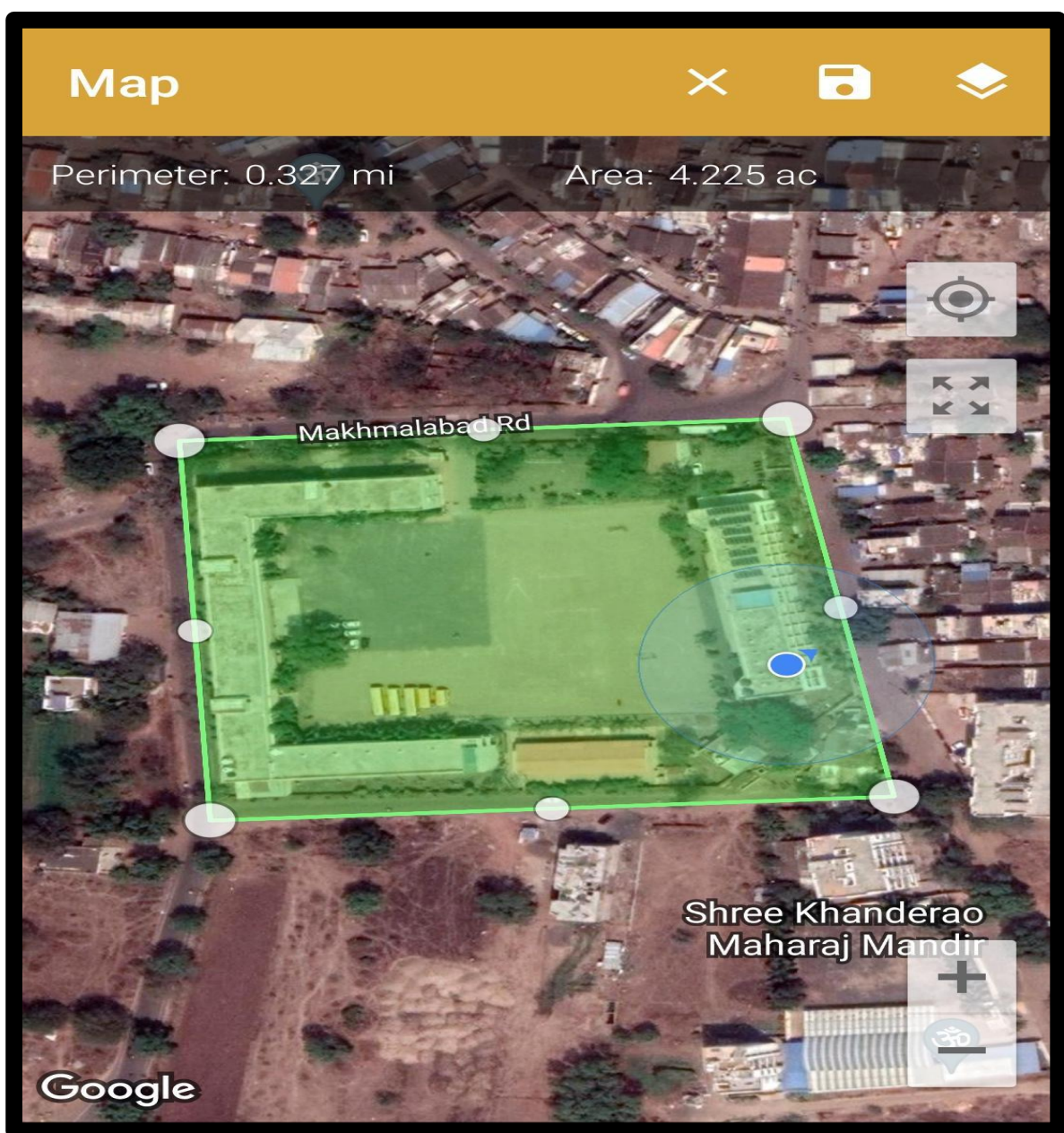


Fig. Google image of the college.

## 1. OBJECTIVE OF STUDY

The green audit's major goal is to encourage environmental management and conservation on the college campus. The audit's goal is to identify, measure, explain, and priorities a framework for environmental sustainability that adheres to all applicable legislation, policies, and standards. The following are the major goals of a Green Audit:

- ✓ To introduce and make students aware of real concerns of the environment and its sustainability.
- ✓ To secure the environment and cut down the threats posed to human health by analyzing the pattern and extent of resource use on the campus.
- ✓ To establish a baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections require high cost.
- ✓ To bring out a status report on environmental compliance.

## ENVIRONMENTAL CONSERVATION COMMITTEE

Sr. No.	Name of Member	Designation	Title in Committee
1.	Dr. V.S. Kale	Principal	Chairman
2.	Prof. A. S. Jadhav	Asst. Professor	Coordinator
3.	Prof. G. R. Pingale	Asst. Professor	Member

## FUNCTIONS OF ENVIRONMENTAL CONSERVATION COMMITTEE

The college has established an Environmental Cell to educate student teachers about environmental issues and challenges, as well as to motivate them to spread information and educate schoolchildren and the general public about these issues.

- To raise awareness among student teachers about the Institute and environmental issues.
- To instill a sense of responsibility for the development of planet Earth, as well as an

appreciation for its beauty, by giving chances to gain knowledge, skills, attitudes, and dedication to environmental preservation.

- To teach students about the interconnectedness of economic, social, and environmental concerns.
- To prepare student teachers to teach environmental education to students in the classroom through curricular and extracurricular activities.
- To improve the college campus's environment.
- To raise student awareness of the importance of environmental preservation in society.
- To handle the college's solid trash, liquid waste, and e-waste.

## **4. METHODOLOGY**

The approach for doing a green audit comprised several instruments such as questionnaire development, physical inspection of the campus, observation and study of paperwork, interviewing key people, data analysis, measurements, and suggestions.

### **A. SCOPE OF WORK**

The following Environmental Issues were studied for the abovementioned campus area.

- Water Environment including rain water harvesting potential of the campus.
- Plant diversity.
- Noise Environment.
- Solid Waste Management Practices.
- Air Environment.

This study has been created based on the available data, samples, and information supplied by the Arts and Commerce College, Makhamalabad and recommendations for improving the campus environment have been made by college officials.

### **B. BACKGROUND DATA**

This is one of the leading educational institutes in Nashik. The institute has spread its roots in diverse fields of education. Arts and Commerce College, Makhamalabad was founded in 2008 with the vision to provide the students of Makhamalabad and nearby regions the

opportunity to pursue higher education at their doorstep. This provided the students an opportunity to excel in their respective fields of interest and pave way to their hidden potential. The college has 05 Graduate department viz. Marathi, Psychology, English, Economic and Commerce.

With keen interest and initiative from Prin. Dr.V.S. Kale (Principal) of the College to undertake the Environmental Audit of the campus, the audit was undertaken.

### **COURSES OFFERED BY THE COLLEGE**

Sr.NO.	Name of Faculty	Name of Program	Name of Subject
1.	Faculty of Arts	BA	Marathi
2.			English
3.			Psychology
4.			Economics
5.	Faculty of Commerce	B.Com	Commerce

### **TOTAL POPULATION OF THE CAMPUS**

Sr. No.	Particulars	Total population of institute (incl. Students, Permanent, Temporary staff & visitors)
1.	College Staff (Teaching and Non-Teaching)	22
2.	College Students (Girls and Boys)	584(M - 293 / F - 291)
3.	Residential Students	00
4.	Residential Staff	00
5.	Floating Population	00
	Total	606

## **C. STEPS IN GREEN AUDIT**

### **Pre-Audit**

1. Make a plan for the audit.
  2. Form an auditing team
  3. Schedule for an audit.
  4. Gather the necessary background information.
  5. On Site Visit
- 
1. Understand the scope of audit



2. Analyze the strengths and weaknesses of the internal controls
3. Conduct the audit
4. Evaluate the observations of audit program
5. Prepare a report of the observations side by side

### **Post-Audit**

1. Produce a draft report of the data collected
2. Produce a final report of the observations and the inference with accuracy
3. Distribute the final report to the management
4. Prepare an action plan to overcome the flaws
5. Keep a watch on the action plan

## **4. WATER AUDIT**

Biodiversity, agriculture, human population, and the economy all benefit from water. As a result of recent events in India and throughout the world, water scarcity and security are becoming increasingly crucial problems. Maharashtra has also been severely impacted by water shortage in recent years. As a result, water management has been incorporated in the Sustainable Development Goals as a vital component of attaining sustainable development (SDGs).

Unplanned urban growth and economic development have led in unprecedented pressures on natural resources, notably water. In regions like Makhamalabad, the increased demand for water emphasizes the importance of overall water management. According to the National Water Mission's standard standards, metro cities should have a water supply of 150 lpcd, smaller cities/towns with sewage systems should have 135 lpcd, and cities/towns without sewage systems should have 70 lpcd.

### **A. CALCULATION OF WATER REQUIREMENT**

One Borewell and Municipal Corporation (1 tap) was identified as a key source of water in the study. Water from the RO system is utilized for drinking. Borewell Water is utilized in the canteen, bathrooms, laboratories, and for landscaping. During the survey, there were no leaks or overflows of water from above tanks, therefore there was no water loss. The information gathered from all departments is scrutinised and validated. On average, the

college uses 25,560 L/day of water, including for staff 440 L/day and for students 11,680 L/day.

There are following water storage tanks within the campus:

Sr. no	Tank	Number	Storage Capacity (Liters)
1	Cement tank	1	20000
3	Plastic tank	3	5000
4	Plastics tank	1	2500

The total water required on the campus is shown below:

Sr. No.	Particulars	Total population	Required Water Supply (lpcd)	Water Requirement (lpcd)
1.	College Staff (Teaching and Non-Teaching)	22	20	440
2.	College Students (Girls and Boys)	584	20	11,680
	Total	606	-	12,120

Note: The water requirement is calculated as per Rule of World health Organisation (WHO)

## B. QUALITY OF WATER IN CAMPUS

As the college has major one types of water sources ground (Borewell) and Municipal waste water (by tap). The water is used for toilets, gardening and drinking purpose. The water is treated with purifying system and then it is made available for drinking. Following table shows the potable water testing result.

Sr. No.	Parameters	Result for Borewell	Result for Municipal Waste water	Acceptable Limit as per IS 10500 : 2012	Units
1	Color	0.9	1.1	5	Hazen unit
2	Odour	Agreeable	Agreeable	Agreeable	-

3	pH	7.35	8.1	6.5-8.5	-
4	Turbidity	0.6	0.6	1	N.T.U
5	Total Dissolved Solids	256	193	500	mg/lit
6	Calcium	38	29	75	mg/lit
7	Chloride	112	136	250	mg/lit
9	Iron	< 0.05	< 0.05	0.3	mg/lit
10	Magnesium	15	18	30	mg/lit
11	Nitrate	21	32	45	mg/lit
12	Sulphate	89	75	200	mg/lit
13	Alkalinity	133	96	200	mg/lit
14	Total Hardness	172	125	200	mg/lit
15	E. Coli	Absent	Absent	Should be Absent	/ 100 ml
16	Total Coliform	Absent	Absent	Should be Absent	/ 100 ml

### C. RAINWATER HARVESTING POTENTIAL

The campus buildings possess large terrace areas and non-paved. Currently, none of the buildings have Rain Water Harvesting (RWH) System implemented. The campus has a potential for RWH but due to moderate average rainfall the college needs to large storage capacity in the campus. Both underground reservoirs and municipal water source are the main source of water on the college campus. Rain water fall on the college campus buildings is harvested by using well injection system and can help during driest month of the year.



Fig : Rainwater harvesting and collection system in the college campus

Sr. No.	Building Name	Roof Top Area (Sq.m.)	Runoff Coefficient	Rain water Harvested Liters/day
1.	College Building	61	0.7	121

(Note : If the total annual rainfall is 1037mm)

The total amount of water that can be collected from this roof is not enough to fulfil the total water demand.

A flat roof has a runoff coefficient of 0.7, which means that 70% of the rain can be harvested. Based on this runoff coefficient and a roof area of 61 square meters a volume of 17 litres (0.4 mm x 61 m<sup>3</sup> x 0.7) of water can be collected in the driest month (February)

and 14027 litres (328.5 mm x 61 m<sup>3</sup> x 0.7) in the wettest month (July). The total yearly amount of water that can be collected from the roof is 44300 litres (44 m<sup>3</sup>) in an average year.

The water demand is 12120 lpd, which equals to about 363600 lpm. The total water demand is 4423800 lpy. The amount of water collected from the roof is 44000 litres. Thus, the collected water might help to reduce the stress on ground water extraction, as the college is dependent on the borewells as a main source of water.

### **C. WASTE WATER MANAGEMENT**

Based on statistics on water usage and the fact that around 80% of the water provided is converted to waste water via washrooms and other ways, the campus created approximately 12120 liters of waste water every day.

As the college has only Arts and Commerce department so there is no use of any chemicals in the laboratory. This reduces the generation of waste water containing high amount of chemicals. The waste water generated from the college is has the only source of toilets facilities, cleaning and canteen area. The drainage is directly connected to municipal sewers and the waste water is disposed directly.

### **5. WASTE QUANTIFICATION AND MANAGEMENT**

Solid wastes could be garbage or discarded substances and objects gotten from industrial, commercial, mining, agricultural, general day to day activities, and a comprehensive list of such items can be found. Most of the commonly known discarded wastes which make up the day-to-day items being disposed by the general public are known as municipal solid wastes (MSWs), and it includes all substances or objects thrown away as products of packaging, lawn cuttings, furniture, clothing materials, bottles/glasses, food scraps, electric appliances, newspapers, paint, and batteries, etc

## A. QUANTIFICATION OF WASTE GENERATED ON CAMPUS

This indicator considers the creation and disposal of a variety of wastes, including paper, food, plastic, biodegradables, construction, glass, dust, and other materials, as well as recycling. Furthermore, solid waste often contains wasted material resources that may be better utilized through recycling, repair, and reuse. Solid waste generation and management is a hot problem. Solid waste management that isn't based on science can put everyone in risk. The survey sought information on the volume, kind, and current management of solid waste generated on campus. Various solid wastes were collected, as previously stated.

## A. AGGREGGATION OF WASTE

- For the collection of waste, separate dust bins are kept. Garbage is collected into dust bins and disposed to Municipal Corporation (Ghanta Gadi). With Municipal Corporation college had SOP
- Sanitary Napkin Destroyer” is installed in ladies’ washrooms for incineration of used napkins.



Fig. Type of Dustbins used

## B. VERMICOMPOSTING



The college campus, has established one vermi compost units with a capacity of about up to half quintals of organic waste processing per batch. After two to three months vermi compost is removed and given to botanical garden and college campus plants

## C. E-WASTE QUANTIFICATION AND MANAGEMENT

Consumer and corporate electronic equipment that is nearing or at the end of its useful life is referred to as e-waste. Electronic components contain cadmium, lead, mercury, and polychlorinated biphenyls (PCBs), which can harm human health and the environment. They account for around 5% of all municipal solid trash globally, although they are far more harmful than other garbage.

Tubelights, CFLs, and LEDs are among the E-waste items that are kept at the college's scrap yard. This garbage has not yet been disposed off. The amount of e-waste created on campus is quite little. With the cooperation of many departments, the administration organizes E-waste Management awareness programmes. The E-waste and malfunctioning items from the computer lab are appropriately kept. In order to dispose of E-waste in a scientific way, the college collect the waste separately and hand it to the Municipal Solid waste unit

## 5. ENVIRONMENTAL QUALITY AUDIT

Environmental auditing is a type of environmental management tool that assesses the environmental impact of various operations against a set of criteria or standards. There are several sorts of environmental audits depending on the types of criteria and the audit's emphasis. Environmental issues are increasingly recognized as important by all types of organizations, and they realize that their environmental performance will be scrutinized by a wide variety of interested parties.

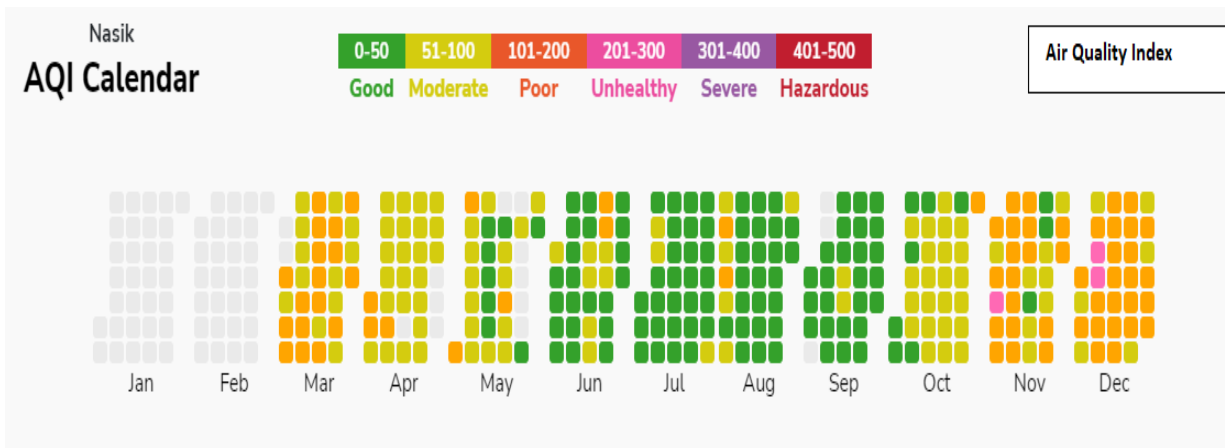
### A.AIR QUALITY

The health of the students, instructors, and staff at the academic institute is dependent on the air quality. Windstorms, pollen grains, natural dust, traffic emissions, generators, fires, and laboratory smells, among other things, are all causes of air pollution on the college campus.

Following is the Meteorological data of Environmental Factors:

Sr. No.	Parameter	Result	NAAQS 2009	Unit
1	Average Wind	15	-	Km/h
2	Wind Direction	W-E	-	-
3	Relative Humidity	1014	-	mb
4	Temperature	33°C	-	°C
5	Sulphur Dioxide	2	80	µg/m <sup>3</sup>
6	Nitrogen Dioxide	9	80	µg/m <sup>3</sup>
7	Carbon Monoxide	1.7	4	mg/ m <sup>3</sup>
8	Particulate matter < 10 µm	134	100	µg/m <sup>3</sup>
9	Particulate matter < 2.5 µm	50	60	µg/m <sup>3</sup>
10	Ozone	20	180	µg/m <sup>3</sup>





## B.NOISE LEVEL

Noise pollution is one of India's most serious environmental problems, yet most of us are ignorant of the dangers it poses. In India, we are all exposed to loud noises for long periods of time on a daily basis as well as during the year during festival seasons such as Ganesh Festival, Diwali, and others.

On a regular basis, unwelcome noises such as honking, other traffic noise, loudspeakers, and, of course, domestic noise such as television and music system sounds are unavoidable. In our nation, there is a widespread belief that happiness can only be communicated via making loud noises.

Sr. NO.	Location	Min Noise Level (A) dB	Max Noise Level (A) dB	Noise Standards (A)* dB
1.	Main Building	39	84	50
2.	Staff room	57	87	50
3.	College Canteen	38	56	50
4.	Lecture Hall Building ground floor	39	84	50
5.	Lecture Hall Building First floor	38	84	50
6.	Gate	57	88	50



In order to avoid sound pollution in the college campus, or to avoid causing noise, the college has tried various means to prevent sound pollution. The campus has been declared as Silent Zone and the students have been instructed with the help of boards of silence zone. An instruction has been given to students to operate mobile phones in silent mode, especially at the library and auditorium hall.

#### a. GREEN BELT ANALYSIS

Sr. No	Botanical Name	Common Name	Family	Number
1	<i>Deloneix regia</i>	Gulmohar	Caesalpinaceae	01
2	<i>Samantiasaman</i>	Rein tree	Mimoceae	06
3	<i>Ficusbengalnesis</i>	Vad	Moraceae	02
4	<i>Peltophorumpterospermum</i>	TamraVruksha	Fabaceae	07
5	<i>Ficus religiosa</i>	Pimpal	Moraceae	03
6	<i>Plumeria alba</i>	Pandharachapha	Apocynaceae	04
7	<i>Azadirectaindica</i>	Neem	Meliaceae	04
8	<i>Lantana camera</i>	Guntura	Verbonaceae	01
9	<i>Micheliachampaka</i>	Sonchapha	Annonaceae	01
10	<i>Moringa oleifera</i>	Shevaga	Moringaceae	01

11	<i>Citrus lemon</i>	Limbu	Rutaceae	01
12	<i>Oscimum sanctum</i>	Tulas	Labiataeae	15
13	<i>Aloe vera</i>	Korpad	Liliaceae	01
14	<i>Kigeliapinnata</i>	Hattiphal	Bignonaceae	03
15	<i>Adathodavasica</i>	Adulsa	Acanthaceae	01
16	<i>Mimosoupselingi</i>	Bakul	Sapotaceae	01
17	<i>Phyllanthus indica</i>	Aawala	Phyllanthaceae	07
18	<i>Callistemon lanceolatus</i>	Bottle brush	Myrtaceae	02
19	<i>Nyctanthusarboratales</i>	Parijatak	Oleaceae	02
20	<i>Eugenia jambhulana</i>	Jambhul	Myrtaceae	01
21	<i>Mangifera indica</i>	Aamba	Anacardiaceae	02
22	<i>Terminalia chebula</i>	Hirada	Combretaceae	03
23	<i>Eucalyptus globosus</i>	Nilgiri	Myrtaceae	08
24	<i>Annona squamosa</i>	Sitaphal	Annonaceae	01
25	<i>Cassia fistulosa</i>	Bahava	Fabaceae	01
26	<i>Dalbergiasisso</i>	Shissam	Fabaceae	01
27	<i>Ficusglomerata</i>	Audumbar	Moraceae	02
28	<i>Ixora Coccinea</i>	Lokhandi	Rubiaceae	01
29	<i>Ficusbenjamina</i>	Nandruk	Moraceae	09
30	<i>Simarouba glauca</i>	Lakshmi taru	Simarubaceae	01
31	<i>Melia azadirachta</i>	Bakam	Meliaceae	01
32	<i>Eucalyptus globosus</i>	Nilgiri	Myrtaceae	11
33	<i>Samaniassaman</i>	Rein tree	Mimoceae	03
34	<i>Alstoniascholaris</i>	Saptaparni	Apocynaceae	02
35	<i>Ficusbengalnesis</i>	Vad	Moraceae	04
36	<i>Azadirachta indica</i>	Neem	Meliaceae	01
37	<i>Samaniassaman</i>	Rein tree	Mimoceae	04
38	<i>Jacrandamomosaefolia</i>	Nilmohar	Bignoniaceae	01
39	<i>Ficus religiosa</i>	Pimpal	Moraceae	01
40	<i>Roystonea regia</i>	Arecaceae	Bottle palm	03
41	<i>Eucalyptus globosus</i>	Nilgiri	Myrtaceae	01
42	<i>Plumeria alba</i>	Pandharachapha	Apocynaceae	02

43	<i>Deloneix regia</i>	Gulmohar	Caesalpinaceae	02
44	<i>Acalyphahispidium</i>	Kulaki	Euphorbiaceae	01
45	<i>Lucaenalucosiphela</i>	Subabhul	Mimoceae	01
46	<i>Polyalthialongofolia</i>	Ashoka	Annonaceae	21
47	<i>Artacarpusheterophyllus</i>	Phanus	Moraceae	01
48	<i>Psidium gujava</i>	Peru	Myrtaceae	01
49	<i>Greveliarobusta</i>	Silver oak	Proteaceae	01
50	<i>Ficusbengalnesis</i>	Vad	Moraceae	31
51	<i>Adathodavasica</i>	Adulasa	Acanthaceae	01
52	<i>Putranjivaroxburghi</i>	Putranjiva	Putranjivaceae	01
52	<i>Morus alba</i>	Tuti	Moraceae	01
54	<i>Azadirectaindica</i>	Neem	Meliaceae	01
55	<i>Hibiscus rosasinensis</i>	Jasvand	Malvaceae	01
56	<i>Annona reticulata</i>	Ramphal	Annonaceae	01
57	<i>Citrus lemon</i>	Limbu	Rutaceae	01
58	<i>Plumeria alba</i>	Pandharachapha	Apocynaceae	01
59	<i>Polyalthialongofolia</i>	Ashoka	Annonaceae	11
60	<i>Taber montana</i>	Chandani	Apocynaceae	08
61	<i>Jacranda mimosaeifolia</i>	Nilmohar	Bignonaceae	02
62	<i>Polyalthialongofolia</i>	Ashoka	Annonaceae	12
63	<i>Cassia samea</i>	Kashid	Caesalpinaceae	09
64	<i>Deloneix regia</i>	Gulmohar	Caesalpinaceae	04
65	<i>Ficus religiosa</i>	Pimpal	Moraceae	01
66	<i>Peltophorumpterocarpum</i>	Copper pod	Caesalpinaceae	
67	<i>Eucalyptus globosus</i>	Nilgiri	Myrtaceae	37
68	<i>Lucaenalucosiphela</i>	Subabhul	Mimoceae	01
69	<i>Eucalyptus globosus</i>	Nilgiri	Myrtaceae	15
70	<i>Carica papaya</i>	Papai	Caricaceae	05
71	<i>Crosandraundulifolia</i>	Aboli	Acanthaceae	01
72	<i>Hibiscus rosasinensis</i>	Jasvand	Malvaceae	10
73	<i>Oscimum Sanctum</i>	Tulas	Labiatae	10
74	<i>Annona reticulata</i>	Ramphal	Annonaceae	01

75	<i>Rosa indica</i>	Gulab	Rosaceae	01
76	<i>Codiaeumvariegatum</i>	Croton	Euphorbiaceae	01
77	<i>Murrayaloenigii</i>	Kadipatta	Rutaceae	01
78	<i>Bougainvellespectabilis</i>	Bougainvel	Nyctaginaceae	01
79	<i>Dendrocalymusstictus</i>	Bamboo	Poaceae	25



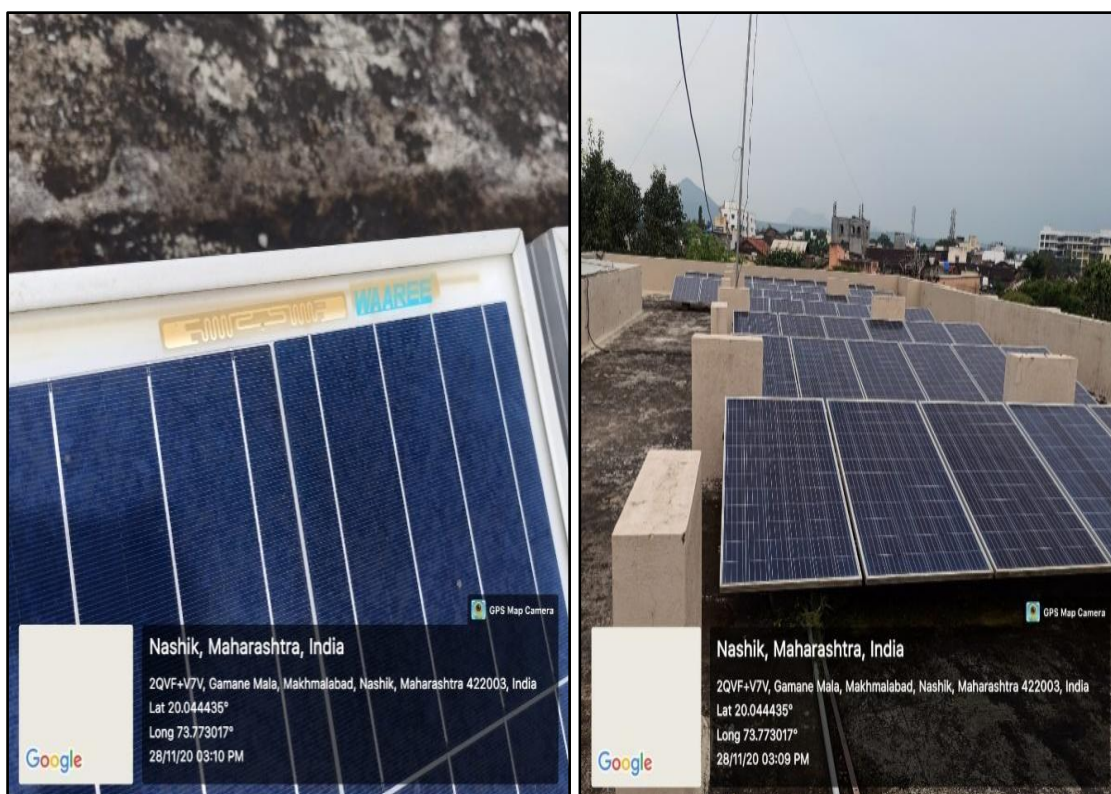
## D. USE OF RENEWABLE ENERGY

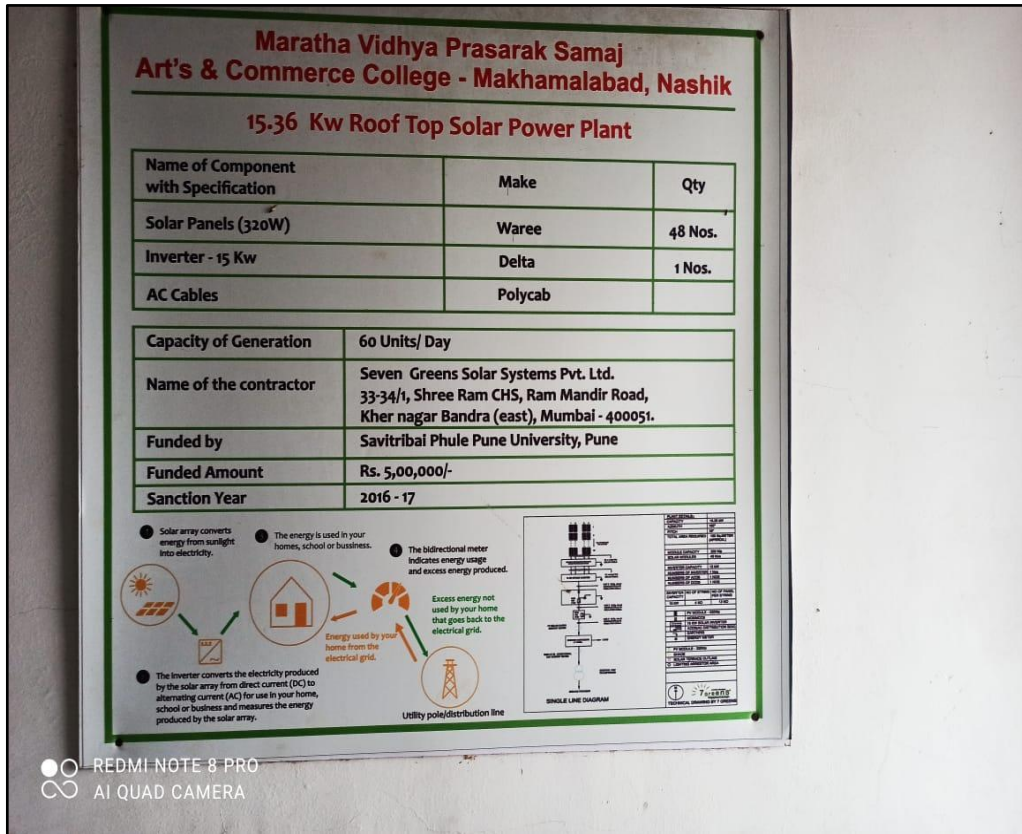
### USE OF SOLAR PANELS INSTALLED IN CAMPUS

According to Energy Conservation Act, 2001, Energy Audit is the verification, monitoring, and analysis of the use of energy including submission of a technical report containing recommendations for improving energy efficiency with cost-benefit analysis and an action plan to reduce energy consumption. The Energy and electricity audit aimed to cover the aggregate consumption of Electrical energy within the All the buildings of the college are designed and constructed in such a way that during day time no electricity is consumed for lighting of tube lights and other electric lights. Proper day light and ventilation facilities are available for every building.

Moreover, College is taking its initiative to utilize renewable energy has installed roof top solar panels of capacity 15.36 kw Solar Photovoltaic Plant on buildings under Quality improvement Program (QIP) with the help of Savitribai Phule Pune University of 5lakh is installed to compensate for the necessity of electrical energy within the campus. This has resulted tremendous curtailment in the electricity consumption.

Number of Solar LED lamp used :69 LED bulbs





### LIGHT INTENSITY IN THE BUILDING

Lux Meter Reading:

Class Room	Windo	Center	Windowles	Windo	Center	Windowles
	w		s	w		s
	Light On			Light Off		
GF-1	23.2	9.8	8.7	7.1	3.1	5.8
GF-2	108	8.1	6.3	65.6	1.2	0.6
GF-3	80.6	53.5	11.9	39.2	33.9	7.4
GF-4	13.4	17.3	19.2	1.8	2.9	3.4
GF-5	43.6	13.5	3.7	22.5	8.7	1.7
GF-6	66	10	13	60	7	8
GF-7	66	10	13	60	7	8
GF-8	156.2	29.1	12.2	137	34.5	5.5
GF-9	70.2	2.7	7.6	62	1.3	7
GF-10	167.5	44.2	20.5	141.5	31.5	19.8
FF-11	171.1	79.9	47.9	170	65.6	44.1

FF-12	198.6	57.9	26.7	189	49.7	24.1
FF-13	111.2	48.6	40.2	99.1	45.3	39.7
FF-14	124.3	36.1	42.3	108.3	38.5	29.5
FF-15	122	32	35	121	23	26
FF-16	83	32	26	51	27	18
FF-17	54	26	32	46	20	19
FF-18	429	10	19	408	9	9
FF-19	496	11	0.5	482	10	3
FF-20	60	29	13	58	10	4
Principal	85	0.9	0.5	77	0.6	3
BSD	61	9	11	48	5	8
Com. Dept.	32.2	12.2	7.7	20.8	5.2	5
Gymkhana	375	25	31	374	17	20
Gymnasiu m	25	20	11	19	17	0.8
ANNEX I						
1	209	31	37	201	21	25
2	340	55	43	318	46	31
3	25	18	20	22	13	7
4	98	33	11	90	24	6
5	221	47	28	214	36	14





## 2. OTHER ACTIVITY

### A. HUMAN HEALTH AND SAFETY

Students' Health Services Scheme was established to promote physical, mental & social wellbeing of the students in colleges as per rules of the Savitribai Phule Pune University. Health Check-up of every first year (after XIIth std) is compulsory. This is for benefit of the students as unrecognized diseases which they are not aware of can be detected at the time of the check-up and the treatment can be taken at appropriate time.

College has appointed a health checkup coordinator who is responsible for the implementation of Students' Health Service Scheme in the college. Health checkup is done in college premises. Whenever the number of students has been exceeded 100, then health checkup was conducted with the help of panel of doctors. All girl students are examined by lady doctors only.





## B. Convenience of Sanitary Napkin Machine:

In College ladies common room Installation of Sanitary Pads Vending Machines is a key part of our health awareness Sanitation and hygiene initiatives and goes a long way in educating and driving awareness among users and non-users. We try and also provide educational posters along with the vending machines; besides the machines dispense a pad at Rs 5, which is affordable to try for a first-timer, as well as convenient

### Objective:

- The vending machines were being installed to make sure a good and convenient mode for any time access to the sanitary napkins.
- To supply portable sanitary napkins at economical cost.
- To supply portable sanitary napkins at economical cost.
- To adopt a simple design mechanism, this can be easily maintained.
- The aim is to country safe and hygienic sanitary practices among the ladies.



## B. First Aid Box:

First AID Box are provided ladies common room, gymkhana. This will allow them to take care of minor cuts and sports injuries in the dorm room and have all of their health information on hand in case of an emergency

Motto of First Aid: First aid skills are kept simply on purpose so that people can remember and use them in an emergency to save at least one life. One set of goals of first Aid is called the “Three P’ S”

## PPP in First Aid

- Priorities
  - Preserve life - Stop the person from dying.
  - Prevent further injury (worsening) - stop the person from being injured even more.

## Aim of First Aid

- Preserve life
- Prevent illness or injury from becoming worse
- Relieve pain if possible
- Promote recovery
- Protect the unconscious

## Role of First Aider

- Assess the situation quickly and calmly. Safety checks whether you or the casualty are in danger. Find out what caused the accident or situation and find out what happened?
- Protect yourself and others from any danger:
  - Always protect yourself first: Never put yourself in danger. If you can't make an area safe call 999 or 112 for emergency help
- Prevent infection between you and them.
- Comfort and reassure - stay calm and take charge of the situation.
- Assess the casualty given first aid treatment.



## A. FIRE EXTINGUISHER

Fire Extinguishers have been set up in various places in the college so as not to cause the loss of life and financial loss through fire.

Under the Higher Education Opportunity Act of 2008 (“Act”), all colleges receiving federal funds are required to report fire safety statistics. Instructions on how to access this

information will be distributed on an annual basis to all faculty, staff, and students, and to any applicant for enrollment or employment

#### D. Toilet Facility

Separate toilets are available for students and staff in the college.

