

ENVIRONMENTAL AUDIT

QUESTIONNAIRE

Name of College: - Maulana Azad College of Arts, Science and Commerce.

Address: - P.O. Box 27, Rauza Bagh, Aurangabad. (M.S)

Telephone No: - 0240-2381102

Email id: - macprincipal@gmail.com

Principal: - Dr. Mazahar Ahmad Farooqui

Name of Coordinator: - Dr. Ashfaq M. Khan

Telephone: - 9637777482

Date commenced: - 07-09-2020

Date Completed: - 15-03-2021



**Maulana Azad College of Arts, Science and Commerce,
Dr. Rafiq Zakaria Campus-I, Aurangabad**

In 1963 the Maulana Azad College of Arts and Science a mother institute of Maulana Azad Education Society was established. The founder chairman late Dr. Rafiq Zakaria was an Indian politician and Islamic religious cleric. He was closely associated with the Indian independence movement and Indian National Congress party. He was known for his advocacy of conservative and old minded Islam. A pioneering institute that brought the degree course to the doorstep of the people of Marathwada was started. This institute was established for educationally deprived students of this region in general and Minorities in particular. Maulana Azad College of Arts, Science and Commerce, is a bubbling campus of 27 acres situated on the sprawling, lush green Dr. Rafiq Zakaria Campus-I, Aurangabad. The College is affiliated to Dr. Babasaheb Ambedkar Marathwada University, Aurangabad. More than 50 years of its inception, the College today symbolizes quality education and professional achievement.

Department of Botany was established in the year 1963 under the supervision of Mr. Mir Riyasat Ali. The department has all modern equipments facilities, infrastructure, spacious laboratory, staff room, botanical garden, museum, shade net house, and store room that are required for teaching, learning and research. Since 1980, the department has been recognized as post-graduate research center in Botany by Dr. B. A. M. U. Aurangabad.

Maulana Azad College has its own Botanical Garden (Medicinal Plants/ Garden) that enriches not only the natural beauty of this campus but also becomes highly useful as green cover to this area. Despite various flowering plants, herbs, shrubs and trees the garden possesses some valuable medicinal plants. Plants belonging to different groups like Angiosperms, Gymnosperms and Pteridophyta are planted and grown naturally. The department of botany maintains and conserves all the plants at the campus.

Put mark in appropriate box

What is the total strength of student and teachers in your college? (Approx)

Stream	Number of Students	Number of Teachers
BA/B.Com/B.Sc.	1443	37
M.Sc.	396	12
Ph.D.	86	21(Research Guide)
Total	1925	70

Which of the following are available in your college?

- 1) Garden area with lawn 03
- 2) Play ground 30
- 3) Kitchen 20
- 4) Toilets 11
- 5) Garbage dumps 03
- 6) Laboratory
- 7) Canteen
- 8) Other (Specify)
(Rain water harvesting, underground percolation tank)

Which of the following are found near your College?

Mark the level of disturbance it create for the College in a scale of 1 to 9

- 1) Municipal dump yard 02
- 2) Garbage head 02
- 3) Public convenience 05
- 4) Sewer line 01
- 5) Stagnant water 02
- 6) Open drainage 01
- 7) Industry 01
- 8) Bus/ Railway station 02
- 9) Market / Shopping complex/ Public halls 03

I- WASTE

1) Does your college generate any waste?

If so, what are they? **Yes**

Garden waste, Paper, Glass, Cartoon box, Plastic, Computer accessories, Batteries etc

2) What is the approximate amount of waste generated per day?

(In Kilograms) (Approx)

Approx	Biodegradable	Non-biodegradable	Hazardous	Others
< 1 kg	--	< 1 kg	NIL	--
2-10 kg	--	--	NIL	--
>10 kg.	>10 kg.	--	NIL	--

3) How is the waste generated in the college managed?

Composting



Vermicompost Plant Installed

Recycling



Recycling

Reusing



Municipal Plant

Other (Specify)

Printing Paper Back to Back/ Paperless work.

(Hazardous Materials)

Hazardous materials from the Chemistry department (Used Chemicals/Solvents) are collected separately and are handed over to external agency for dispose off. At the time of cleaning, some small amount of Chemical waste is drained out in sink, but it is quantitatively very less.

4) How many separate boxes do you think you would need to put a class room laboratory to start a waste segregation and recycling campaign. **Two**

Red (Non degradable) and Green (Biodegradable)

5) Do you use recycled paper in college? **No**

6) How would you spread the message of recycling to other in the community?

Have you taken any initiatives? If yes, please specify **Yes**

Green Audit Committee, NSS and NCC units of college separately organize number of programmes to make aware the need of reduce, reuse and recycle.

7) Can you achieve zero garbage in your college? If yes, How? **No**

II- GREENING THE CAMPUS

8) Is there a garden in your college Yes

Do student spend time in the garden Yes

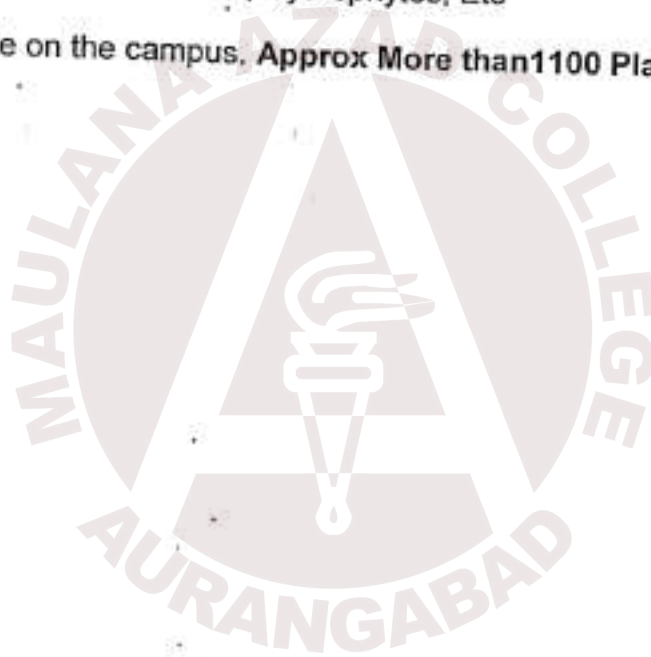
List the plants with approx numbers of each species.

List of Plants at Campus Enclosed

9) Suggest plants for your campus. (herb, shrub, trees, etc)

Herbs, Shrubs, Trees, Climbers, Hydrophytes, Etc

10) List of the plants available on the campus. Approx More than 1100 Plants



**Flora Maulana Azad College of Arts Science and Commerce,
Dr. Rafiq Zakaria Campus-I, Rauza Bagh, Aurangabad**

Sr. No.	Plant Habit	Botanical Name	Family	Common Name	Number of Plants
1	Tree	<i>Acacia longifolia</i>	Mimosaceae	Golden wattle	4
2	Tree	<i>Acacia nilotica</i>	Mimosaceae	Babul	2
3	Shrub	<i>Adhatoda vasica</i>	Acanthaceae	Adhulsa	6
4	Shrub	<i>Agave</i>	Agavaceae	Century Plant	1
5	Tree	<i>Allanthus excelsa</i>	Simnroubaceae	Mahaneem	3
6	Tree	<i>Albizia lebbek</i>	Mimosaceae	Shirish	18
7	Shrub	<i>Allamanda cathartica</i>	Apocynaceae	Golden trumpet	1
8	Shrub	<i>Aloe vera</i>	Liliaceae	Korhad	5
9	Tree	<i>Alstonia scholaris</i>	Apocynaceae	Saptaparni	2
10	Tree	<i>Ammonia reticulata</i>	Annonaceae	Ramphal	1
11	Tree	<i>Ammonia squamosa</i>	Annonaceae	Sitaphal	20
12	Tree	<i>Araucaria</i>	Araucariaceae	Christmas Tree	2
13	Tree	<i>Artocarpus heterophyllus</i>	Moraceae	Jack Fruit	3
14	Shrub	<i>Arum sp.</i>	Araceae	Arvi	5
15	Shrub	<i>Asparagus racemosus</i>	Liliaceae	Shatavari	Many
16	Tree	<i>Azadirachta indica</i>	Meliaceae	Neem	60
17	Tree	<i>Bambusa bambos</i>	Poideae	Bamboo	Many
18	Tree	<i>Bauhinia variegata</i>	Caesalpinaceae	Orchid Tree	6
19	Tree	<i>Bombax ceiba</i>	Bombaceae	Red Cotton Tree	8
20	Shrub	<i>Bougainvillea spectabilis</i>	Nyctaginaceae	Kagzi Phool	Many
21	Herb	<i>Brassica juncea</i>	Cruciferae	Rye	20
22	Tree	<i>Butea monosperma</i>	Fabaceae	Palas	1
23	Shrub	<i>Caesalpinia pulcherrima</i>	Caesalpinaceae	Peacock flower	1
24	Tree	<i>Callistemon rigidus</i>	Myrtaceae	Bottle Brush	14
25	Shrub	<i>Calotropis procera</i>	Asclepiadaceae	Rubber Bush	2
26	Shrub	<i>Canna india</i>	Cannaceae	Kardal	Many
27	Shrub	<i>Canthium coromandelium</i>	Rubiaceae	Coromondal	6
28	Shrub	<i>Carica papaya</i>	Calvicaceae	Papaya	12
29	Tree	<i>Caryota mitis</i>	Arecaceae	Fish tail Palm	1
30	Shrub	<i>Cassia sinea</i>	Caesalpinaceae	Tarota	14
31	Tree	<i>Casuarina equisetifolia</i>	Casuarinaceae	Saru	1
32	Shrub	<i>Catharanthus roseus</i>	Apocyanaceae	Sada Bahar	Many
33	Tree	<i>Ceiba pentandra</i>	Malvaceae	Silk Cotton	2
34	Shrub	<i>Cestrum diurnum</i>	Solanaceae	Din ka Raja	2
35	Shrub	<i>Cestrum nocturnum</i>	Solanaceae	Ratrani	5
36	Tree	<i>Citrus aurantifolia</i>	Rutaceae	Neemu	5
37	Tree	<i>Citrus karna</i>	Rutaceae	Bitter Orange	1
38	Shrub	<i>Clerodendron</i>	Verbenaceae	Bag flower	5

39	Climber	<i>Clitoria ternatea</i>	Fabaceae	Gokarna	Many
40	Tree	<i>Cocos nucifera</i>	Arecales	Coconut	6
41	Shrub	<i>Codiaeum variegatum pict</i>	Euphorbiaceae	Croton	Many
42	Climbers	<i>Combretum indicum</i>	Combretaceae	Madhumalti	3
43	Tree	<i>Cordia dichotoma</i>	Boraginaceae	Indian Cheri	1
44	Herb	<i>Coriandrum sativum</i>	Umbelliferae	kothmari	Many
45	Climber	<i>Cuscuta reflexa</i>		Amarvel	5
46	Tree	<i>Cycas revoluta</i>	Cycadaleae	Saga Palm	6
47	Tree	<i>Dalbergia sisso</i>	Fabaceae	Shisham	3
48	Tree	<i>Delonix regia</i>	Caesalpinaceae	Gulmohar	40
49	Tree	<i>Dendrophthoe falcate var.</i>	Loranthaceae	Honey Suckle	1
50	Shrub	<i>Dracaena deremensis</i>	Agavaceae	Dracena	Many
51	Tree	<i>Erythrina variegata</i>	Fabaceae	Pangree	1
52	Tree	<i>Eucalyptus tereticornis</i>	Myrtaceae	Nilgiri	8
53	Succulent	<i>Euphorbia antiquorum</i>	Euphorbiaceae		1
54	Shrub	<i>Euphorbia caducifolia</i>	Euphorbiaceae	Milk hedge	10
55	Shrub	<i>Euphorbia milii</i>	Euphorbiaceae	Crown of thorns	10
56	Tree	<i>Ficus benghalensis</i>	Moraceae	Banyan tress	1
57	Tree	<i>Ficus elastica</i>	Moraceae	Rubber Tree	2
58	Tree	<i>Ficus racemosa</i>	Moraceae	Cluster fig	2
59	Tree	<i>Ficus religiosa</i>	Moraceae	Peepal	3
60	Shrub	<i>Gossypium hirsutum</i>	Malvaceae	Cotton	1
61	Shrub	<i>Hamelia patens</i>	Rubiaceae	Fire Bush	Many
62	Shrub	<i>Hibiscus rosa sinensis</i>	Malvaceae	Jaswant	Many
63	Shrub	<i>Hibiscus rosa-sinensis</i>	Malvaceae	Pink Jaswant	5
64	Herb	<i>Hydrilla Verticillata</i>	Hydrocharitaceae	Water thyme	Many
65	Tree	<i>Hyophorbe lagenicaulis</i>		Bottle Palm	30
66	Shrub	<i>Ixora Chinensis</i>	Rubiaceae	Jungle Geranium	3
67	Climber	<i>J. grandiflorum</i>	Oleaceae	Jasmine	7
68	Shrub	<i>Jasminum sambac</i>	Oleaceae	Arabian Jasmine	Many
69	Shrub	<i>Kalanchoe pinnata</i>	Crassulaceae	Bryophyllum	Many
70	Shrub	<i>Lantana camara</i>	Verbanaceae	Gochadi	Many
71	Shrub	<i>Lantana indica</i>	Verbenaceae	Wild saga	Many
72	Tree	<i>Leucaena latisiliqua</i>	Mimosaceae	White lid tree	8
73	Tree	<i>Limonia acidissima</i>	Rutaceae	Kawit	1
74	Tree	<i>Mangifera indica</i>	Anacardiaceae	Mango	103
75	Shrub	<i>Manilkara zapota</i>	Sapotaceae	Chiku	1
76	Herb	<i>Mentha spicata</i>	Lamiaceae	Pudina	Many
77	Tree	<i>Millingtonia hortensis</i>	Bignoniaceae	Akash Neem	50
78	Shrub	<i>Mimosa pudica</i>	Mimosaceae	Touch me not	3
79	Tree	<i>Moringa oleifera</i>	Moringaceae	Drum Stick	1
80	Tree	<i>Morus alba</i>	Moraceae	Shahtoot/Mulberry	Many

81	Tree	<i>Murraya koenigii</i>	Rutaceae	Curry leaf	7
82	Shrub	<i>Nephrolepis</i>		Fern	Many
83	Shrub	<i>Nerium indicum</i>	Apocyanaceae	Kanher	10
84	Shrub	<i>Nopalea cochenillifera</i>	Cactaceae	Cactus	5
85	Shrub	<i>Opuntia elatior</i>	Cactaceae	Prickly Pear	3
86	Tree	<i>Peltophorum pterocarpum</i>	Caesalpinaceae	Yellow Flame	17
87	Tree	<i>Phoenix sylvestris</i>	Arecnaceae	Date Palm	1
88	Tree	<i>Phyllanthus emblica</i>	Phyllanthaceae	Amla	2
89	Shrub	<i>Plumbago zeylanica</i>	Plumbaginaceae	Chitrak	Many
90	Tree	<i>Plumeria alba</i>	Apocyanaceae	Champa	40
91	Shrub	<i>Plumeria pudica</i>	Apocyanaceae	Bridal Bouquet	20
92	Tree	<i>Plumeria rubra</i>	Apocyanaceae	Temple Tree	8
93	Tree	<i>Polyalthia longifolia</i>	Annonaceae	Ashok	112
94	Shrub/tree	<i>Pongamia pinnata</i>		Karanj	1
95	Tree	<i>Prosopis juliflora</i>	Mimosaceae	Algaroba	1
96	Tree	<i>Psidium guajava</i>	Myrtaceae	Peru	10
97	Shrub	<i>Punica granatum</i>	Punicaceae	Anar	1
98	Shrub	<i>Pyrostegia ignea</i>	Bignoniaceae	Sankrank vel	Many
99	Shrub	<i>Rosa damascena</i>	Rosaceae	Rose	Many
100	Shrub	<i>Sanseveria cylindrica</i>	Agavaceae	Snake Plant	Many
101	Tree	<i>Santalum album</i>	Santalaceae	Sandal	47
102	Tree	<i>Sapindus emarginatus</i>	Sapindaceae	Ritha	4
103	Tree	<i>Spathodea campanulata</i>	Bignoniaceae	Nandi	5
104	Tree	<i>Syzygium cumini</i>	Myrtaceae	Jamun	20
105	Shrub	<i>Tabernaemontana divaricata</i>	Apocyanaceae	Chandni	2
106	Herb	<i>Tagetes erecta</i>	Asteraceae	Marigold/Jhendu	Many
107	Tree	<i>Tamarindus indica</i>	Caesalpinaceae	Imli	20
108	Tree	<i>Tecoma stans</i>	Bignoniaceae	Yellow Bells	36
109	Tree	<i>Tectona grandis</i>	Verbenaceae	Teak	15
110	Tree	<i>Terminalia cattapa</i>	Combretaceae	Desi Badam	30
111	Shrub	<i>Thevetia peruviana</i>	Apocyanaceae	Parola Pimple	7
112	Shrub	<i>Thuja SP</i>		Morpankhee	12
113	Shrub	<i>Thunbergia alata</i>	Acanthaceae	Susun vine	Many
114	Herb	<i>Tradescantia spathacea</i>	Commelinaceae	Nargis	Many
115	Herb	<i>Trigonella foenum-graecum</i>	Fabaceae	Methi	Many
116	Tree	<i>Vitex negundo</i>	Lamiaceae	Virgudi	1
117	Shrub	<i>Withania somnifera</i>	Solanaceae	Ashwagandha	4
118	Shrub	<i>Yucca spp</i>	Agavaceae	Needle Palm	3
119	Shrub	<i>Zamia furfuracea</i>		Cardborad Palm	1
120	Tree	<i>Ziziphus jujube</i>	Rhamnaceae	Berry	4

III ENERGY

11) List ten ways you use energy in your campus

Department: Chemistry

Building: M.Sc.

S. No.	Name of Equipment	Total Number	Watts	Total Watts
01	Tube Light	40	40	6600
02	Fan	11	60	1260
03	Projector	01	600	600
04	Printer	03	800	2400
05	Refrigerator	08	450	3600
06	A.C. 1 Ton	02	1500	3000
07	Microwave Oven	04	750	3000
08	Computer	03	160	480
09	LED Bulb	22	06	132
10	Exhaust Fan	07	300	2100
11	Electronic Equipment			1500
12	Autoclave	02	2000	4000
13	Scientific Muffle Furnace	01	2000	2000
			Total	30672 Watts

Electric meter connected from Consumer Number 490010647204 Principal MAC,
Chemistry Department.

Building: New Science Building

S. No.	Name of Equipment	Total Number	Watts	Total Watts
01	Tube Light	323	40	12920
02	Fan	155	60	9300
03	Projector	02	800	1600
04	Printer	05	350	1750
05	Refrigerator	05	450	2250
06	A.C. 1,1.5 and 2 Ton	07		17000
07	Autoclave	02	2000	4000
08	Computer	18	160	2880
09	LED Focus	01	50	50
10	Exhaust Fan	10	240	2400
11	Light Bulb Outside	07	12	84
12	EPBX Machine	01	300	300
13	Television	01	300	300
14	Microwave Oven	03	750	2250
15	Geezer	03	2000	6000
16	Autoclave	02	2000	4000
17	Water Cooler	01	450	450
18	Electronic Equipment	20	100	1000
19	Table Fan	01	100	100
20	LED Panel Light	64	12	768
21	Wall Fan	03	60	180

22	Lift/ 05 HP Motor	01		05 HP
23	Pressure Pump Motor	1.5 HP		1000
			Total	70622 Watts

Electric meter connected from Consumer Number 490010209771 Principal MAC
New Science Building.

Department: Shastrri Memorial Hall

S. No.	Name of Equipment	Total Number	Watts	Total Watts
01	Tube Light	114	40	4560
02	Fan	29	60	1740
03	Projector	01	800	800
04	Printer	06	350	2100
05	Refrigerator	02	450	900
06	A.C. 2 Ton	01	3000	3000
07	Autoclave	02	2000	4000
08	Computer	26	160	4160
09	DVR	02	100	200
10	Exhaust Fan	02	60	120
11	Light Bulb Outside	02	20	40
12	Focus	01	50	50
13	Television	01	300	300
14	Microwave Oven	01	750	750
15	Electronic Balance	01	20	20
16	Water Bottle	01	50	50
17	Incubator	01	100	100

18	Electronic Equipment		500	500
			Total	23440 Watts

Electric meter connected from Consumer Number 490011590419 Principal MAC
New Science Building

Department: MCVV Shade

S. No.	Name of Equipment	Total Number	Watts	Total Watts
01	Tube Light	08	40	320
02	Fan	16	60	960
03	CFL Bulb	08	18	144
			Total	1424 Watts

Electric meter connected from Consumer Number 4900105267126 Junior College.

Department: Commerce

Building: Commerce Building

S. No.	Name of Equipment	Total Number	Watts	Total Watts
01	Tube Light	65	40	2600
02	Fan	21	60	1260
03	Projector	02	600	1200
04	Printer	09	1000	9000
05	Refrigerator	01	450	450
06	A.C. 2 Ton	01	3000	3000
07	Water Cooler	01	1000	1000
08	Computer	39	160	6240

09	DVR	01	100	100
10	Exhaust Fan	01	60	60
11	Outside Light	03	40	120
			Total	24970 Watts

Electric meter connected from Consumer Number 490011590419 Principal MAC.

Department: Administrative Building MAC

S. No.	Name of Equipment	Total Number	Watts	Total Watts
01	Tube Light	60	40	2400
02	Fan	36	60	2160
03	Projector	01	300	300
04	Printer	14	800	11200
05	Refrigerator	01	450	450
06	A.C. 1,2,4 Ton	05	1500	13500
07	Computer	24	160	3840
08	Exhaust Fan	01	100	100
			Total	33950 Watts

Electric meter connected from Consumer Number 490010647219 Principal MAC.
Administrative Department

12) Are there energy saving methods employed in your college? Yes

- Use of energy efficient equipments
- LED Lamps are in use.
- Use of Natural Light wherever necessary
- Unnecessary use of electricity avoided in offices, classrooms and Laboratories.

13) How much money does college spend on energy such as electricity, gas

Firewood etc. in month. Record of monthly use Rs-80,000.00/- approx

Month	Units Consumption	LPG Consumption	Fuel for Generator
September 2020	2748	1 l	--
October 2020	2508	1.5 l	--
November 2020	2396	1.5 l	--
December 2020	2151	1.5 l	--
January 2021	2088	1.5 l	--
February 2021	2462	2.0 l	--

14) How many CFL/LED bulbs has your college installed?

CFL: 08 LED: 87

15) Are any alternative energy sources employed / installed in your college?

No

16) Do you run "Switch off" drills at college?

Yes

17) Are your computers and other equipments put on power saving mode

Yes

18) Does your machinery (TV, AC, Computer, weighing balance etc) run on standby modes most of the time?

Yes 01 Hour

III- WATER CONSERVATION

19) List four uses of water in your college

1. Drinking
2. Washrooms
3. Laboratories
4. Gardens
5. Kitchens
6. Canteens
7. Hostel

20) How does your college store water? Are there any water saving techniques followed in your college? What are they?

Yes

College has its own groundwater open well and over head tanks with cover.

21) If there is water wastage, specify it and why?

No

22) Locate the point of entry of point and point of exit of waste water in your college.

Entry: - Groundwater from open well and AMC

Exit: - Municipal Drainage System

23) Write down four ways that could reduce the amount of water used in your Institute.

- Raise awareness of the importance of water
- Put signs near the basins to remind students to turn off taps as soon as they wash their hands.
- Use of Adjustable Toilet Flapper
- By Installing Low or Dual Flush Models.
- Check Your Toilets for Leaks

- Use Efficient Watering Systems

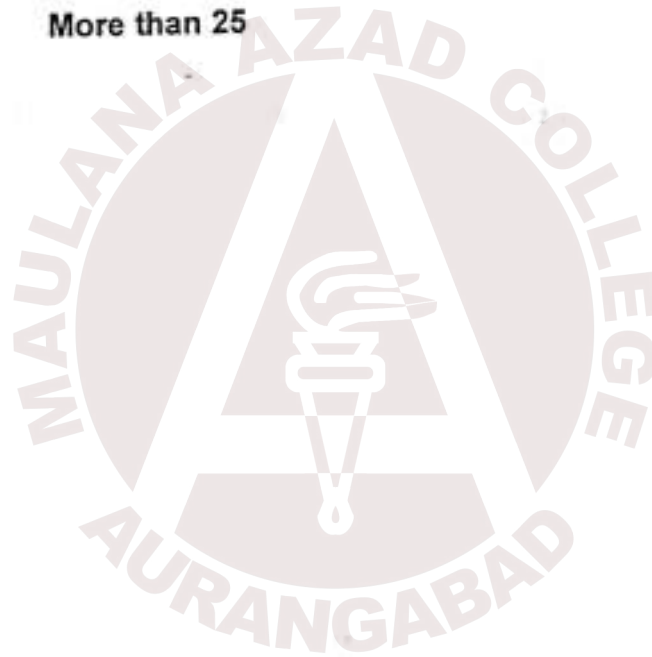
24) Record water use from the college water meter for six months.

Week	Washrooms (l)	Drinking purpose (l)	Garden Purpose (l)	Laboratory (l)
1	1200	1000	14000	200
2	1350	800	15000	250
3	1300	1500	14500	300
4	1250	1200	14000	200

25) Does your Institution harvest rain water?

If yes, how many rain water harvesting units are there?

Yes More than 25



IV- ANIMAL WELFARE

- 26) List the animals (Wild and Domestic) found on the campus (Dogs, Cats, Squirrels, birds, insects etc.)

S.NO	SCIENTIFIC NAME	COMMON NAME	Number
1	<i>Apis cerana indica</i>	Honey bee	Many
2	<i>Acheta domesticus</i>	Cricket	25
3	<i>Archilochus colubris</i>	Ruby-throated Hummingbird	15
4	<i>Argiope aurantia</i>	Yellow garden spider	10
5	<i>Calleida decora</i>	Ground beetle	25
6	<i>Camponotus floridanus</i>	Red Carpenter ants	Many
7	<i>Camponotus spp</i>	Carpenter ants	Many
8	<i>Coccinella Septempunctata</i>	Lady bird beetle	25
9	<i>Columba livia</i>	Pigeon	25
10	<i>Cornu aspersum</i>	Garden snail	25
11	<i>Corvus brachyrhynchos</i>	Crow	25
12	<i>Culex Pipien</i>	Mosquito	20
13	<i>Culiseta longiareolata</i>	Mosquito	50
14	<i>Cyanistes caeruleus</i>	Eurasian blue tit (Bird)	15
15	<i>Danaus plexippus</i>	Monarch Butter fly	25
16	<i>Dicrurus macrocercus</i>	Black drongo	25
17	<i>Drosophila melanogaster</i>	Fruit fly	Many
18	<i>Drosophila melanogaster</i>	Fruit fly	50
19	<i>Dysdercus cingulatus</i>	Red cotton bug	Many
20	<i>Ephemeroptera sp.</i>	May fly	20
21	<i>Eudynamys scolopaceus</i>	Asian Koel	10
22	<i>Euoniticellus africanus</i>	Dung beetle	10
23	<i>Euphagus carolinus</i>	Rusty black bird	15
24	<i>Euphagus cyanocephalus</i>	Brewer's Blackbird	15
25	<i>Eurema hecabe</i>	Yellow butterfly	15
26	<i>Eurymerodesmus spp</i>	Millipedes	Many
27	<i>Forficula auricularia</i>	Earwig	15
28	<i>Formica sp.</i>	Winged ant	Many
29	<i>Funambulus obscurus</i>	Squirrel	15
30	<i>Haliaeetus Savigny</i>	Eagle	20
31	<i>Herpestes auro punctatus</i>	Indian mongoose	22
32	<i>Heteronychus arator</i>	Black beetles	50
33	<i>Lampyris noctiluca</i>	Fire Flies	100
34	<i>Lasius niger</i>	Common black ant	Many
35	<i>Latrodectus Hesperus</i>	Black spider	12

36	<i>Lepisma saccharina</i>	Silver fish	Many
37	<i>Leptocorisa varicornis</i>	Rice bug	70
38	<i>Loxosceles species</i>	Brown recluse spiders	70
39	<i>Musca domestica</i>	House fly	15
40	<i>Panthera tigris tigris</i>	Indian billi	10
41	<i>Papilio Krishna</i>	Krishna Peacock(Butterfly)	25
42	<i>Papilio polyxenes</i>	Black swallowtail	25
43	<i>Parasteatoda tepidariorum</i>	Common house spider	25
44	<i>Passer domesticus</i>	House Sparrow	45
45	<i>Patanga succincta</i>	Bombay locust	25
46	<i>Periplaneta americana</i>	Cockroach	25
47	<i>Phasmid sp.</i>	Stick Insects Fly	25
48	<i>pheretima posthuma</i>	Earthworm	Many
49	<i>Pieris rapae</i>	White butterfly	50
50	<i>Psittacula krameri</i>	Rose-ringed parakeet	130
51	<i>Rattus rattus</i>	Rat	10
52	<i>Schistocerca gregaria</i>	Grass hopper	120
53	<i>Scolopendra sp</i>	Centipede	12
54	<i>Setophaga palmarum</i>	Palm Wabler	20
55	<i>Solenopsis invicta</i>	Red imported fire ant	Many
56	<i>Spilopelia senegalensis</i>	The laughing dove	60
57	<i>Stegobium paniceum</i>	Borown beetle	30
58	<i>Talicada myseus</i>	Red Pierrot	20
59	<i>Teinopalpus Imperialis</i>	Kaiser-I-Hind (Butterfly)	20
60	<i>Vespula vulgaris</i>	Wasp	30

27) How many dogs in your area have undergone animal birth control anti Rabies (ABC-AR)?

Control anti Rabies (ABC-AR) NIL

28) Which is the animal welfare organization nearest to your college?

Animal Dispensary near Harsul Village

Does it have ambulance? No

FLORA OF MAULANA AZAD COLLEGE OF ARTS, SCIENCE AND COMMERCE



Codiaeum variegatum pictum.



Adhatoda vasica



Catharanthus roseus



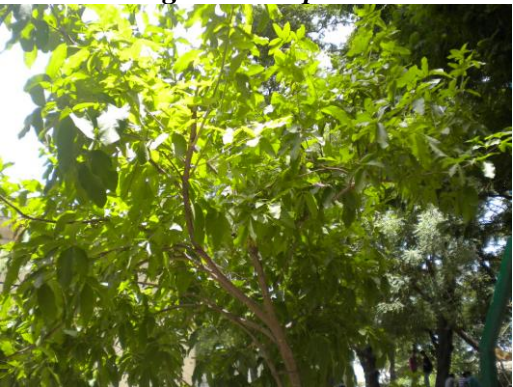
Delonix regia



Bouganvillea spectabilis



Plumeria rubra



Psidium guajava



Mangifera indica



Hibiscus rosa sinensis



Thunbergia alata



Plumeria pudica



Rosa damascena



Ficus elastic



Nerium indicum



Zamia furfuracea



Ficus benghalensis



Azadirachta indica



Araucaria



Yucca filamentosa



Agave salmiana



Sanseveria cylindrica



Caryota mitis



Australian acasia



Cocos nucifera



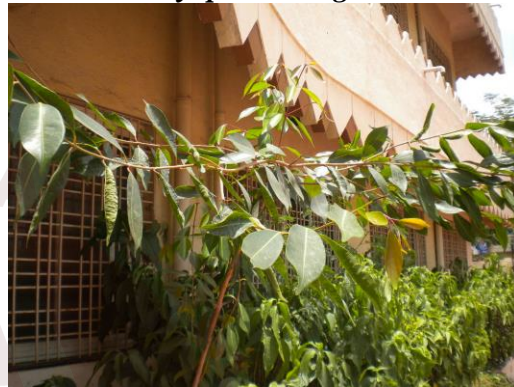
Canna indica



Hyophorbe lagenicaulis



Cuscuta reflexa



Syzygium cumini



Polyalthia longifolia



Tabernaemontana divaricata



Cycas revoluta



Bambusa bambos

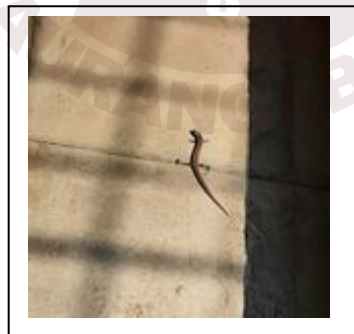
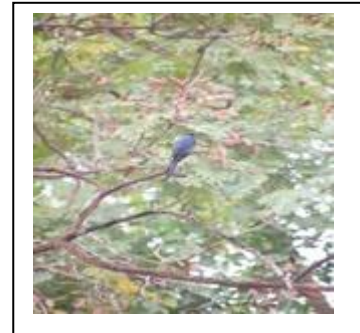
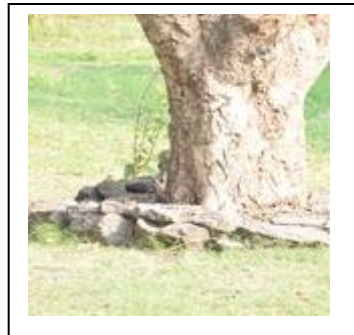


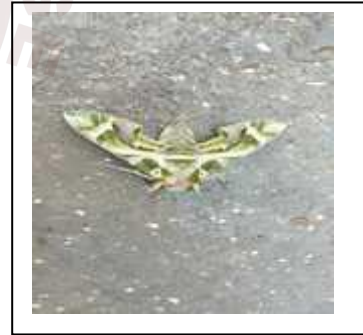
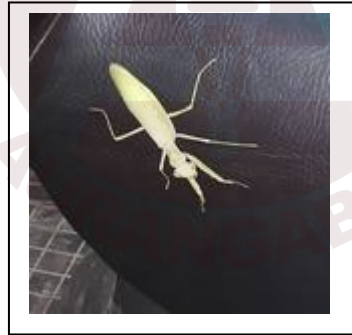
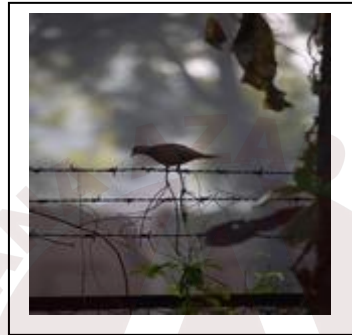
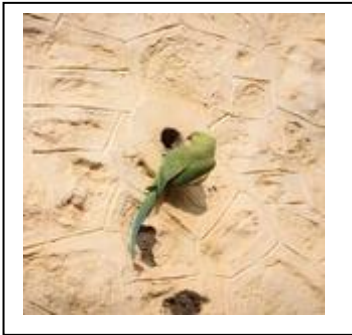
Opuntia elatior



Euphorbia milii

FOUNA OF MAULANA AZAD COLLEGE OF ARTS, SCIENCE AND COMMERCE





MAULANA ABUL KALAM AZAD COLLEGE OF ENGINEERING

29) Is there any incidence of animal getting wounded/ affected due to unfavorable conditions existing in your college or nearby (like a dog getting wounded, poisoning of animals, improper caging of animals, hunting of animals etc)

No

V- GENERAL

30) Are you aware of any environmental laws pertaining to different aspects of environmental management?

Yes

31) Does your college have any rule to protect the environment

List possible rules you could include.

Educate people about environment protection

Consumption of natural energy

Water, fuel and electricity conservation

Encourage car pool and use of public transport.

Wildlife conservation etc

Action plan if any

- To take the solar energy power generation initiative.
- Recycling of mobile phones, legacy PCs & ink cartridge
- Recycling paper, cardboard, plastic bottles & aluminum can.
- Energy Monitors
- Reduce paper use for printing
- To conduct Workshops and seminars for general awareness

Conclusions

Maulana Azad college of Arts, Science and Commerce, Dr, Rafiq Zakaria campus, Aurangabad understands the Legal requirements and risk assessment in environment protection. College is committed for Environmental management system from time to time. It follows all rules for Solid and hazardous waste management if any. The management, staff and students are all involved water conservation and understands the need and importance of water for human life. Administration of college monitors air emission quality in parking area of college. It will be made mandatory for all vehicles to obtain PUC certificates in near future and any Nuisance in this case will not be tolerated. College is devoted and committed for Energy use, water use and take care CO2 emissions by planting more trees each year.



Dr. S.S. Patil.

(Professor and Head)

Department of Environmental Science,
Dr. Babasaheb Ambedkar Marathwada
University, Aurangabad. (MS) INDIA.

Professor
Department of Environmental Science,
Dr. Babasaheb Ambedkar Marathwada
University, Aurangabad



Dr. Mazhar Ahmad Farooqui.

(Principal)

Maulana Azad College of Arts, Science and
Commerce, Dr. Rafiq Zakaria Campus-I
P.O. Box 27, Aurangabad.



7.12.21
Water audit

Maulana Azad College of Arts, Science & Commerce

Dr. Rafiq Zakaria Campus, Rauza Baugh, Aurangabad.

Water Audit Survey

Sr. No	Name of Building Water tank placed	Capacity of Water tanks	Numbers of tanks and condition / Remark
01	Principal Office/ Administration building (Terrace)	1000 x 1 = 1000.00	01 Sintex water storage tank
02	Principals house(Terrace)	500 x 3 = 1500.00	03 Sintex water storage tanks
03(a)	Science Building(Terrace)	5000 x 1 = 5000	01 Sintex water storage tank
03(b)	Science Building(Terrace)	Approx 7500 to 10000 x 1	01 R.C.C. Water Storage tank
04 (a)	Marathwada Building (Terrace)	2000 x 2 = 4000 1000 x 1 = 1000	03 Sintex water storage tanks
04 (b)	Marathwada Building (Terrace)	Approx 7500 to 10000 x 1	01 R.C.C. Water Storage tank
05(a)	Y.B. Chavan & Kamla Nehru	1000 x 1 = 1000 2000 x 3 = 6000 5000 x 2 = 10000	06 Sintex water storage tanks
05(b)	Y.B. Chavan & Kamla Nehru	Approx 7500 to 10000 x 1	01 R.C.C. Water Storage tanks
06 (a)	Junior College	1000 x 1 = 1000	01 Sintex water storage tank
06(b)	Junior College	Approx 5000 to 7500 x 1	01 R.C.C. Water Storage tanks
07	M.I.M. Building	2000 x 1 = 2000	01 Sintex water storage tank
08 (a)	Hostel	2000 x 4 = 8000	04 Sintex water storage tanks
08 (b)	Hostel	Approx 3000- 5000 x 2	02 R.C.C. Water Storage tanks
09	Canteen	1000 x 1 = 1000	01 Sintex water storage tank
10 (a)	Masjid	2000 x 2 = 4000	02 Sintex water storage tank
10 (b)	Masjid	Approx 5000 to 7500 x 1	01 R.C.C. Water Storage tanks
11	Parking	Approx 3000 to 5000 x 1	01 R.C.C. Water Storage tanks
	Total	Approx 105500 liters	31 Water Tanks in good working condition.

In Maulana Azad College, campus there are 31 tanks in working condition others (defunct) to be survey later.



Dr. Rafiq Zakaria Campus ,Maulana Azad College of Arts, Science & Commerce, Rouza Baugh, Aurangabad has two old dug wells and one bore well.

Water is pumped out through a dug well which is situated in the centralized parking area, which is used for the entire campus. The tank is filled up through an underground pipeline which is then routed to different overhead tanks of colleges of the campus, through the different outlets of the tank.

The overhead tank water is then used by the concerned departments in the building. The dug well has a perennial source of ground water and the dimensions are as follows:

Depth 14.5 meter with 4.2 meter diameter .

The static water level is at 6 meters in rainy season and it further rises up to 3 meters as a static water level up to November.

The well is constructed of bricks in rectangular dimension from the top but it is round shaped in the rock formation.

The rocks are vesicular basalt which has good porosity and permeability and gives a perennial yield of groundwater.

The water is pumped out by 7 H.P submersible motor having a pipe with a capacity of 3 inch for water delivery through continuous suction as per need.

The pump house is built near the dug well with the security personal and its maintenance and upkeep are being taken care of by the college.

All security measures including safety boundaries, covers, locks and keys are with the college office .

The capacity of functioning of the well is approximately 1,96,730 litres/day (or 196.73 m³/day), out of which we are using approximately 82,800 litres /day (or 82.80 m³/day).

The yielding and recuperation rates (80-100) are almost the same ,with only an hour gap for the retaining the groundwater level.

More or less the wells give the required demand of water and additionally also serves as a storage reservoir.

The college has a large campus with adequate sloping and this helps in the collection of rainwater .The rainwater harvesting module in operation in our college has increased the level of groundwater or recharged the groundwater and this has been a pioneering work done by the Geology department.

The step rainwater water harvesting and roof top water harvesting have been assembled together in the campus by pitting and trenching from all ground area in campus as a linear structure up to the dug well constructed with the understanding of ground slope and hydrological gradient.

The rain water harvesting structures have different types of linear trenches and collective pits. These are about 110 and additionally two filter beds have been designed in such a way that every drop of runoff water would be able to percolate in the ground below.

Relative intervals in trenching to control the runoff have also been considered. The trenching and pitting is bifurcated by the sewage line. The impact of rain water harvesting in recuperation of



the well water has been found to be vigorous and it maintains the recuperation rate with pump out yield.

The availability of water is more than enough to maintain the greenery of the campus, use in labs and toilets and this has been done right from conception till date. The college has been self sufficient with respect to the demand of water. Our rainwater harvesting capacity is approximately 331200 litres/day.

Muneeb-ur-Rahman
C.H.B. Asst. Professor,
Geology Department,
M.A.C.A.-

M.A. Malik
HEAD
Department of Geology
Maulana Azad College
Dr Rafiq Zakaria Campus
Aurangabad.



Dr. Mazhar Ahmad Farooqui
(Principal)
Principal
Maulana Azad College
Aurangabad

Dr. Adit Bhattacharya

COORDINATOR
Internal Quality Assurance Cell
Maulana Azad College of Arts,
Science & Commerce, Aurangabad.

External audit

Dr. Pramod Pathrikar
Asst. Prof. Dept. of Geology



Energy Audit Certificate

GV/EA/12-22/121

The study is conducted as per Indian and International Green Building Standards initiated in the capacity of an Accredited & Certified Green Building Professional

It is awarded for **2020-2021 and 2021-2022 (Analysed for 2 years)** to the Esteemed Institution

Maulana Azad Education Society's (Azad Taalimi Sangh)

Maulana Azad College of Arts, Science & Commerce

Dr. Rafiq Zakaria Campus, P.O. Box No-27, Dr. Rafiq Zakaria Marg, Rauza Bagh, Aurangabad, 431001(MS), India

(Site visit held on Wednesday, 9 November 2022)

As part of the Institution's initiatives for a Healthy & Sustainable College the audit was conducted. We appreciate the immense efforts taken by Staff and students towards the Energy Management and Conservation.

Issued on **Saturday, 03 December 2022** valid till **December 2023**


Ar. Nahida Shaikh

Architect, IGBC Accredited Professional, ISO Certified I. A. (IMS)
Assocham GEM Certified Professional (Regn. No. 22/718)

Project Head and Green Building Professional-Consultant

Sustainable Academe

Sustainability Department of Greenvio Solutions, Naigaon

An environment Design and Consultancy developing Healthy and Sustainable Environments

sustainableacademe@gmail.com | **greenviosolutions@gmail.com**



GV/ENVT/12-22/125

Environment Audit Certificate

The study is conducted as per Indian and International Green Building Standards initiated in the capacity of an Accredited & Certified Green Building Professional

It is awarded for **2020-2021 and 2021-2022 (Analysed for 2 years)** to the Esteemed Institution

Maulana Azad Education Society's (Azad Taalimi Sangh)

Maulana Azad College of Arts, Science & Commerce

Dr. Rafiq Zakaria Campus, P.O. Box No-27, Dr. Rafiq Zakaria Marg, Rauza Bagh, Aurangabad, 431001(MS), India

(Site visit held on Wednesday, 9 November 2022)

As part of the Institution's initiatives for a Healthy & Sustainable College the audit was conducted.
We appreciate the immense efforts taken by Staff and students towards the Environment Protection and Conservation.

Issued on **Saturday, 03 December 2022** valid till **December 2023**

Ar. Nahida Shaikh

Architect, IGBC Accredited Professional, ISO Certified I. A. (IMS)

Assocham GEM Certified Professional (Regn. No. 22/718)

Project Head and Green Building Professional-Consultant

Sustainable Academe

Sustainability Department of Greenvio Solutions, Naigao

An environment Design and Consultancy developing Healthy and Sustainable Env

sustainableacademe@gmail.com | greenviosolutions@gmail.com



Green Audit Certificate

GV/GA/12-22/ 124

The study is conducted as per Indian and International Green Building Standards initiated in the capacity of an Accredited & Certified Green Building Professional

It is awarded for **2020-2021 and 2021-2022 (Analysed for 2 years)** to the Esteemed Institution

Maulana Azad Education Society's (Azad Taalimi Sangh)

Maulana Azad College of Arts, Science & Commerce

Dr. Rafiq Zakaria Campus, P.O. Box No-27, Dr. Rafiq Zakaria Marg, Rauza Bagh, Aurangabad, 431001(MS), India

(Site visit held on Wednesday, 9 November 2022)

As part of the Institution's initiatives for a Healthy & Sustainable College the audit was conducted.
We appreciate the immense efforts taken by Staff and students towards the Efficient Management of Premise.

Issued on **Saturday, 03 December 2022** valid till **December 2023**


Ar. Nahida Shaikh

Architect, IGBC Accredited Professional, ISO Certified I. A. (IMS)
Assocham GEM Certified Professional (Regn. No. 22/718)

Project Head and Green Building Professional-Consultant

Sustainable Academe

Sustainability Department of Greenvio Solutions, Naigaon

An environment Design and Consultancy developing Healthy and Sustainable Env

sustainablecademe@gmail.com | **greenviosolutions@gmail.com**

