GREEN AUDIT REPORT

DYAL SINGH COLLEGE

KARNAL-132001, HARYANA

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Green Audit Report
Dyal Singh College, Karnal
Haryana
Year 2024-25

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Haryana
Year 2024-25

ACKNOWLEDGEMENT

We would like to extend our heartfelt gratitude to the Principal Dr. Ashima Gakhar, advisors of the Green Audit staff Advisors: Sh Sushil Kumar and Dr. Anita Agarwal for their invaluable guidance and support throughout the process of conducting this audit. Their expertise, insights, and dedication have been instrumental in shaping the direction of our efforts and ensuring the quality of our work.

We also wish to express our sincere appreciation to all faculties and technical staff, who generously contributed their time, knowledge, and resources to assist us in collecting the necessary data for the Green Audit. Their cooperation and collaboration have been essential in gathering the information needed to compile a comprehensive and successful report.

Together, with the collective efforts of our advisors Sh Sushil Kumar and Dr Anita Aggarwal, Committee members Dr Rubi, Dr Kapil Gulati, Ms. Nikita Arya, Dr Sonal Saluja, technical staff and Sh Dharambir, Sh Parveen Kumar, Sh Balwant Singh. We have made significant strides towards promoting environmental sustainability and fostering a culture of responsible stewardship within our organization. Thank you for your unwavering support and commitment to making a positive impact on our environment.

Dr. Isha

Green Audit Committee

Incharge

Dr. Parvesh Puri

Green Audit Committee

Member

DYAL SINGH COLLEGE, KARNAL

NOTICE

05.02.2026

The following committees are hereby constituted for conducting Internal Audit for 2023-2024, 2024-2025:

Overall Incharge : Sh Sushil Kumar

Co-incharge : Dr Anita Agarwal

Green Audit Committee:

1. Dr Isha
2. Dr Parvesh Puri

Energy Audit Committee

1. Dr Rubi
2. Ms Nikita Arya

Environment Audit Committee

1. Dr Kapil
2. Dr Sonal Saluja

Principal

Principal
Dyal Singh College
KARNAL

GREEN INITIATIVES TAKEN BY THE COLLEGE

The Green Audit of the college reflects its continuous commitment to environmental sustainability, resource conservation, and ecological responsibility. The institution has undertaken several initiatives to promote a green and environmentally conscious campus. These efforts aim to minimize environmental impact while creating awareness among students, faculty, and the community. The major green initiatives implemented by the college are summarized below.

- **Tree Plantation and Green Cover**

  The college has made significant efforts to enhance the green cover of the campus through regular tree plantation drives. At present, approximately 410 trees are present on the campus, contributing to improved air quality, biodiversity conservation, and a healthier campus environment. In addition, the college distributes saplings to students as part of outreach activities to encourage environmental responsibility and promote afforestation beyond the campus.

- **Plastic-Free Campus**

  The institution has taken strong measures to maintain a plastic-free campus. The use of single-use plastic is strictly prohibited within the campus premises. Students and staff are encouraged to adopt environmentally friendly alternatives such as metal utensils, reusable containers, glass bottles, and cloth bags. This initiative significantly reduces plastic waste and promotes sustainable consumption practices.

- **Vehicle-Free Day and Sustainable Transportation**

  To reduce carbon emissions and promote eco-friendly commuting, the college regularly observes Vehicle-Free Days and organizes activities such as cycle rallies and awareness campaigns. Students and staff members are encouraged to use public transport, bicycles, or carpooling to minimize vehicular pollution. To support this initiative, the college provides free parking facilities for students who commute by bicycle.

- **Environmental Awareness and Educational Activities**

  The college actively promotes environmental awareness through various academic and co-curricular activities. For the past 30 years, the institution has been organizing the State-Level Dewan Anand Kumar Memorial Environmental Quiz, which encourages students from various colleges across Haryana to develop a deeper understanding of environmental issues. In addition, the college regularly conducts seminars, workshops,

poster competitions, and awareness campaigns related to environmental conservation and sustainability.

- **Water Conservation Measures**

  Water conservation is a key focus of the college's sustainability efforts. The campus has installed two Rainwater Harvesting Systems that help recharge the groundwater table by collecting and channeling rainwater from rooftops and open areas. Additionally, wastewater generated from air conditioners and water purification systems is collected and reused for gardening and other non-potable purposes, ensuring efficient water utilization.

- **Solar Energy Utilization**

  With support from the Government of India, the college has installed a 50 kW Solar Power Plant on the roof of the Science Block. This renewable energy system contributes significantly to reducing the institution's dependence on conventional electricity and helps lower the overall carbon footprint and energy costs of the campus.

- **Vermicomposting and Organic Waste Management**

  To manage biodegradable waste in an environmentally responsible manner, the college has established vermicomposting pits. Organic waste generated on campus is processed through vermicomposting to produce nutrient-rich manure. This manure is then used for maintaining campus greenery and gardens, thereby promoting a circular and sustainable waste management system.

- **QR Code-Based Tree Identification System**

  An innovative QR code system has been implemented for the identification of trees across the campus. By scanning these QR codes, students and visitors can access information about the species, ecological importance, and other botanical details of the trees. This initiative enhances environmental awareness and encourages learning about biodiversity.

- **Three-Bin Waste Segregation System**

  The college has adopted a three-dustbin waste segregation system to facilitate proper waste management. Separate bins are provided for biodegradable waste, recyclable waste, and non-recyclable waste. This practice encourages responsible waste disposal habits among students and staff and supports efficient recycling and waste treatment processes.

- **Faunal Biodiversity Conservation**

  The college has undertaken a Faunal Biodiversity Augmentation Drive to enhance animal and bird diversity on the campus. Bird nests, feeders, and water baths have been installed at various locations to support local bird populations. Informative display boards about campus fauna have also been placed to educate students about wildlife conservation and ecological balance.

- **Green Landscaping and Vertical Gardening**

  The campus features well-maintained green landscapes, lawns, and vertical gardens, which enhance the aesthetic appeal of the institution while contributing to improved air quality and microclimate regulation. Vertical gardening helps maximize greenery even in limited spaces and supports sustainable landscaping practices.

- **Sustainable Canteen Practices**

  The campus canteen has adopted environmentally responsible practices by minimizing plastic usage and promoting biodegradable packaging materials. The use of locally sourced ingredients also supports local farmers and reduces the environmental impact associated with transportation.

- **Energy Conservation Measures**

  The institution has gradually replaced conventional lighting systems with LED lights and energy-efficient appliances to reduce electricity consumption. Regular monitoring of energy usage and awareness programs encourage responsible energy use among students and staff.

- **Digitalization and Paper Reduction**

  The college promotes digital communication and documentation through online notices, digital records, and QR-based information systems. This initiative significantly reduces paper consumption and contributes to resource conservation.

AREAS OF IMPROVEMENT

Although the college has implemented several commendable green initiatives, certain areas require further attention to strengthen environmental sustainability and resource efficiency.

- **Energy Conservation**

  There is scope to further improve energy efficiency through wider adoption of LED lighting, energy-efficient appliances, and smart energy management systems. Expanding the use of renewable energy sources such as solar power can further reduce dependence on conventional electricity.

- **Sustainable Transportation**

  While efforts are being made to encourage eco-friendly commuting, the promotion of cycling, carpooling, and public transportation among students and staff can be strengthened to reduce vehicular emissions within and around the campus.

- **Waste Management**

  The existing waste segregation system can be further improved through strict implementation of waste segregation at source, increased awareness among students, and strengthening of recycling and composting practices for organic waste.

- **Water Conservation**

  Additional water conservation measures such as efficient water fixtures, improved rainwater harvesting capacity, and reuse of wastewater for gardening and landscaping can further enhance sustainable water management on the campus.

- **Environmental Awareness and Participation**

  Greater participation of students and staff in environmental activities can be encouraged through regular awareness campaigns, workshops, and sustainability programs to further strengthen environmental responsibility within the campus community.

- **Digitalization and Paper Reduction**

  Further efforts can be made to promote digital documentation and communication systems in administrative and academic processes in order to reduce paper consumption and support sustainable practices.

OTHER SUGGESTIONS & RECOMMENDATION

- **Expansion of Renewable Energy**

  The college should consider **expanding the capacity of the solar power system** and exploring additional renewable energy options to reduce dependence on conventional electricity and further lower the institution's carbon footprint.

- **Strengthening Waste Management Practices**

  The existing **three-bin waste segregation system** should be strictly implemented across the campus. Awareness programs should be conducted regularly to ensure proper segregation of biodegradable, recyclable, and non-recyclable waste. Collaboration with **authorized recycling agencies** for proper disposal of e-waste and plastic waste is also recommended.

- **Promotion of Green Transportation**

  The institution should continue promoting **eco-friendly transportation practices** such as cycling, walking, carpooling, and the use of public transport. Creating **designated bicycle parking areas and organizing regular awareness drives** can further encourage sustainable commuting.

- **Development of a Biodiversity Garden**

  The college can establish a **dedicated biodiversity garden with native plant species, medicinal plants, and pollinator-friendly vegetation** to enhance ecological diversity and serve as a learning resource for students.

- **Promotion of Sustainable Campus Landscaping**

  The college may further enhance its green infrastructure by developing **vertical gardens, green walls, and eco-friendly landscaping practices**. These initiatives will improve campus aesthetics, regulate temperature, and contribute to better air quality.

- **Periodic Environmental Audits**

  Regular **Green Audits and Environmental Audits** should be conducted to monitor the effectiveness of sustainability initiatives and identify new areas for improvement.

- **Community Outreach and Collaboration**

  The college may strengthen collaboration with **local communities, NGOs, government agencies, and environmental organizations** to implement sustainability programs and promote environmental awareness beyond the campus.

CHAPTER- 1

INTRODUCTION

1.1 About the College

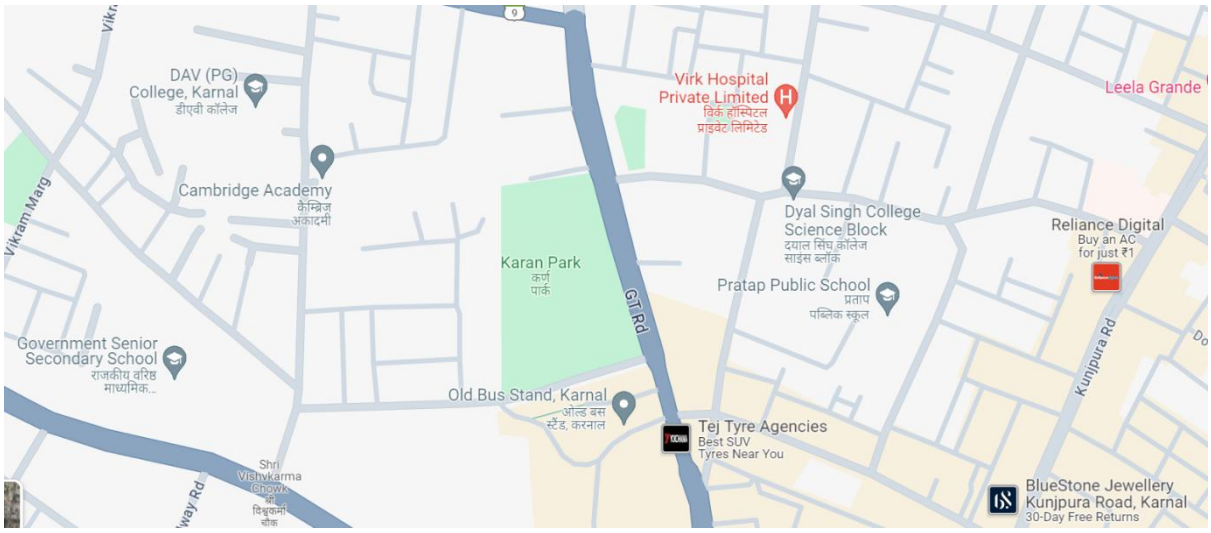
Dyal Singh College, Karnal as it stands today, is a premier co-educational center of learning of Northern India. With the strength of **2901** students, the college has all three streams of learning- Arts, Science and Commerce, with Post Graduate courses in English, Hindi, Political Science, Commerce and Chemistry, along with the add-on and vocational courses. The college also offers a 5-year Integrated Course M.Sc. Forensic Science under innovative program sponsored by the UGC. The college is making progress under the esteemed guidance of Shri D.K. Raina – an embodiment of rare wisdom, learning and love from academia - President Dyal Singh, College Governing Body, and the dynamic leadership of Vice Admiral (Retd.) Satish Soni, PVSM, AVSM, NM, a man of letters with administrative acumen, who holds the office of the General Secretary. This unique center of teaching and learning completed hundred years and more than a decade of its birth and turned into a century - old Fortress of learning and Education, maintaining the tradition of Spirituality and Scientific temper in a world of diminishing human values, inculcating in young minds, a harmonious blend of the “wisdom of the East and West”. To quote our honourable Ex. President Dewan Gajendra Kumar, “the lead word in our motto is Wisdom and Morality and Ethics are not far behind”. True to the Will of our Illustrations Founder, Late Sardar Dyal Singh Majithia, the path of Wisdom, Morality and Ethics has been the kindling force all along.

Vision

Excellence, is a journey, not an end……

Mission

- To create top quality human resources by developing the innate talent of our students.
- To provide conductive environment for holistic development of personality and improve the overall academic performance.
- To inculcate the spirit of Secularism, Nationalism. Communal Harmony and Rationalism.
- To inculcate discipline as a value system and motivate youth to render service to the society at large.



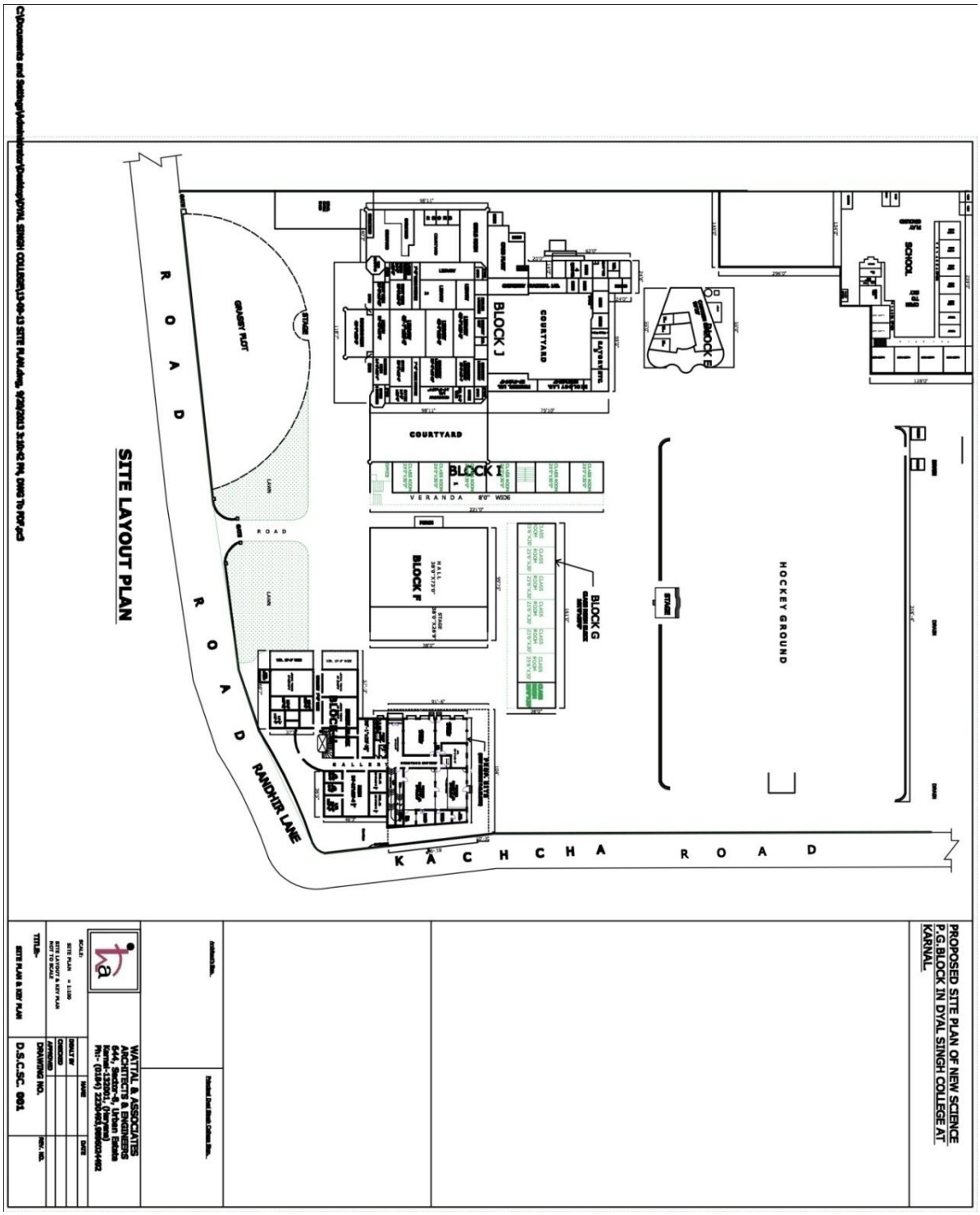
Satellite image of Dyal Singh College, Karnal (Source: Google Maps)

College build –up area

Details of total build –up area given in the table:

Area Type	Area in sq. mts.
Campus Area	**32374.85**
Built-up Area	**13310.53**

Layout of College Campus



1.2 About Green Auditing

Eco Campus is concepts implemented in many educational institutions, all over the world to make them sustainable because of their mass resource utilization and waste discharge into the environment.

Green audit means to identify opportunities to sustainable development practices, enhance environmental quality, improve health, hygiene and safety, reduce liabilities achieve values of virtue. Green audit also provides a basis for calculating the economic benefits of resource conservation projects by establishing the current rates of resource use and their associated cost.

Green auditing of" **Dyal Singh College Karnal, Haryana**" enables to assess the lifestyle, action and its impact on environment. This green audit was mainly focused on greening indicators like optimum use of secondary energy sources (petrol and diesel) in the College campus, vegetation and carbon footprint of the campus etc. The aim of green auditing is to help the institution to apply sustainable development practices and to set examples before the community and young learners.

1.3 Objectives of Green Auditing

The general objective of Green Audit is to prepare a baseline report on "Green Campus" & alternative energy sources, measures to mitigate resource wastage and improve sustainable practices.

The specific objectives are:

- To embed values of sustainable development practices within the college community through the implementation of the green audit mechanism.
- To establish a comprehensive database that facilitates the identification of areas needing corrective actions and informs future sustainability planning.
- To pinpoint gap areas in current practices and infrastructure, offering insights to enhance the college's green campus status.
- To propose actionable recommendations aimed at improving environmental sustainability across campus operations.
- To monitor progress towards sustainability goals and track the effectiveness of implemented initiatives.
- To promote transparency and accountability in environmental management practices.

- To engage stakeholders in the green audit process, fostering a sense of ownership and commitment to sustainability.
- To contribute to the broader goal of creating a greener, more environmentally responsible educational institution.

1.4 Audit of Green Energy

According to the **Environmental Protection Agency (EPA),** green energy provides the highest environmental benefit and includes power produced by solar, wind, geothermal, biogas, low- impact hydroelectric and certain eligible biomass sources. Green energy can also reduce your carbon footprint and achieve a sustainable lifestyle.

CHAPTER-2

GREEN CAMPUS

2.1 Green Audit

In the survey, focus has been given on assessment of present status of diversity in the form of plants in college campus and efforts made by the college authorities for nature conservation. The campus is home to approximately **544** trees, medicinal herbs and ornamental plants. The detail is given below:

2.2 List of Plants in the College Campus

S.No.	Botanical Name	Common Name	Number
1	*Psidium guajava*	Guava	12
2	*Livistona sp.*	Palm	14
3	*Michelia sp.*	Champa	1
4	*Neolamarckia cadamba*	Kadam	2
5	*Mimusops elengi*	Maulsari	12
6	*Ficus virens*	Pilkhan	2
7	*Polyalthia longifolia*	False Ashoka	23
8	*Roystonea regia*	Royal Bottle Palm	5
9	*Syzygium cumini*	Jamun	8
10	*Moringa oleifera*	Swanjana	3
11	*Madhuca longifolia*	Mahua	3
12	*Callistemon viminalis*	Bottle Brush	1
13	*Cassia fistula*	Amaltas	2
14	*Pinus roxburghii*	Chir pine	2
15	*Mangifera indica*	Mango	12
16	*Aegle marmelos*	Bael	3
17	*Cascabela thevetia*	Kaner	6
18	*Araucaria*	Christmas tree	2
19	*Terminalia mantaly*	Madagascar Almond	1
20	*Dalbergia sissoo*	Shisham	2
21	*Morus alba*	Shahtut	3
22	*Ficus benghalensis*	Bargad	1
23	*Azadirachta indica*	Neem	3
24	*Phyllanthus emblica*	Amla	7
25	*Ixora javanica*	Jawanica	4
26	*Butea monosperma*	Dhak	2
27	*Bauhinia variegata*	Kachnar	2
28	*Grevillea robusta*	Silver Oak	5
29	*Melia azadarach*	Drake	3
30	*Kigelia africana*	Sausage tree	1
31	*Jacaranda mimosifolia*	Jacaranda	1
32	*Sapindus mukorossi*	Reetha	1
33	*Juniperus*	Juniperus	2
34	*Prunus domestica*	Plum	3

S.No.	Botanical Name	Common Name	Number
35	*Terminalia arjuna*	Arjuna	9
36	*Bambusa sp.*	Bamboo	1
37	*Manilkara zapota*	Chikoo	4
38	*Ficus sp.*	Ficus	1
39	*Delonix regia*	Gulmohar	1
40	*Citrus limetta*	Mausami	2
41	*Ficus religiosa*	Peepal	1
42	*Terminalia chebula*	Harar	1
43	*Artocarpus heterophyllus*	Kathal	2
44	*Alstonia scholaris*	Devil's tree	3
45	*Elaeocarpus angustifolius*	Rudraksh	1
46	*Toona ciliata*	Toon	1
47	*Dracaena*	Dracaena	10
48	*Ficus sp.*	Ficus	2
49	*Nyctanthes arbor-tristis*	Jasmine	1
50	*Ficus carica*	Fig	2
51	*Platycladus orientalis*	Chinese thuja	5
52	*Citrus nobilis variety*	Orange	3
53	*Eriobotrya japonica*	Loquat	4
54	*Prunus persica*	Peach	3
55	*Croton sp.*	Croton	3
56	*Calliandra sp.*	Calliandra	2
57	*Ricinus communis*	Castor bean	3
58	*Citrus limon*	Lemon	5
59	*Ficus benjamina*	Weeping fig	2
60	*Cupressus golden*	Cupresses	15
61	*Murraya keonigii*	Kadipatta	3
62	*Tabernaemontana divaricata*	Pinwheel flower	3
63	*Rosa indica*	Rose	- (Bush)
64	*Withania somnifera*	Ashwagandha	- (Bush)
65	*Coleus*	Coleus	6
66	*Euphorbia splendens*	Crown of thorns	- (Bush)
67	*Plumbago zeylanica*	Chitrak	- (Bush)
68	*Cycas sp.*	Cycas	2
69	*Schleichera oleosa*	Kusum	1
70	*Adhatoda vasica*	Vasa	- (Bush)

S.No.	Botanical Name	Common Name	Number
71	*Punica granatum*	Pomegranate	1
72	*Catharanthus roseus*	Madagascar Periwinkle	10
73	*Curcuma longa*	Turmeric	5
74	*Tylophora indica*	Dambel	4
75	*Mentha×piperita*	Peppermint	3
76	*Cymbopogon citratus*	Lemon grass	10
77	*Chamaecostus cuspidatus*	Insulin plant	5
78	*Stevia rebaudiana*	Stevia	1
79	*Bacopa monnieri*	Brahmi	1
80	*Pimenta dioica*	All spice	5
81	*Barleria prionitis*	Kala Bansa	5
82	*Ocimum sanctum*	Holy Basil	5
83	*Cinnamomum verum*	Cinnamomum	5
84	*Pyrus* sp.	Pear	3
85	*Ruscus* sp.	Butcher's Broom	- (Bush)
86	*Lantana* sp.	Red Sage	- (Bush)
87	*Chlorophytum comosum*	Spinder Plant	- (Bush)
88	*Epipremnum aureum*	Money Plant	- (Bush)
89	*Dieffenbachia*	Dumb Cane	- (Bush)
90	*Cyperus alternifolius*	Umbrella Palm	1
91	*Cupressus macrocarpa*	Golden cypress	87
92	*Bambusa ventricosa*	Buddha Bamboo	4
93	*Passiflora caerulea*	Rakhi Bel	3
94	*Bougainvillea*	Paperflower	18
95	*Hibiscus*	China rose	15
96	*Asparagus racemosus*	Shatamull, shatawari	02
97	*Asclepias curassavica*	Milkweed	02
98	*Sansevieria cylindrica*	African spear	02
99	*Valeriana officinalis*	Garden heliotrope	01
100	*Aegle marmelos*	Duck Bael	01
101	*Syzygium paniculatum*	Vanaegated sygyium	02
102	*Philodendron oxycardium*	oxycardon	05
103	***Polystichum munitum***	Sword fern	05
104	***Rhapis excelsa***	Raphis dwarf	07
105	*Lilium longiflorum*	Lily	05

S.No.	Botanical Name	Common Name	Number
106	***Araucaria heterophylla***	Araucaria	01
107	***Chrysalidocarpus lutescens***	Areca Palm	55
108	***Chamaecostus cuspidatus***	Sugar plant	05
109	***Bambusa vulgaris***	Bamboo	01
110	***Litchi chinensis***	Litchi	03
		Total	544

Observation

The college has **544** trees and other plants in campus. This is the result of the good initiative for a green campus taken by the college management by running many plantation campaigns throughout the year. **It's Very Appreciable**

2.3 Green House

The greenhouse of our college has various herbs that are grown under regulated climatic conditions. The herbs growing in the greenhouse are of great economic importance and are used for research purpose by the students. The herbs are aromatic, evergreen and are widely used in traditional medicines.


GREEN HOUSE
GPS Map Camera
Dyal singh college, Karnal, Haryana, India
MXVQ+6PV, Dyal Singh Colony, Karnal, Haryana 132001, India
Lat 29.693120° Long 76.989305°
Tuesday, 01/10/2024 09:30 AM GMT +05:30
Google


GPS Map Camera
Dyal singh college, Karnal, Haryana, India
MXVQ+6PV, Dyal Singh Colony, Karnal, Haryana 132001, India
Lat 29.693120° Long 76.989305°
Wednesday, 02/10/2024 09:45 AM GMT +05:30
Google

Table: List of herbs growing in the Green House

Sr. No.	Botanical Name	Common Name
1	*Withania somnifera*	Ashwagandha
2	*Catharanthus roseus*	Madagascar Periwinkle
3	*Curcuma longa*	Turmeric
4	*Tylophora indica*	Dambel
5	*Mentha×piperita*	Peppermint
6	*Cymbopogon citratus*	Lemon grass
7	*Chamaecostus cuspidatus*	Insulin plant
8	*Stevia rebaudiana*	Stevia
9	*Bacopa monnieri*	Brahmi
10	*Pimenta dioica*	All spice
11	*Barleria prionitis*	Kala Bansa
12	*Ocimum sanctum*	Holy Basil
13	*Cinnamomum verum*	Cinnamomum
14	*Hylocereus undatus*	Dragon fruit
15	*Saussurea obvallata*	Brahma Kamal
16	*Salvia officinalis*	Sage
17	*Sword philodendron*	Silver sword
18	*Bacopa monnieri*	Brahmi Booti
19	*Origanum majorana*	Sweet Marjoram

Observation

During the audit, it is observed that total 19 Species of herbs are growing in the greenhouse in the college campus. **It's Quite Appreciable.**

2.4 Botanical Garden

The college botanical garden serves as an important educational and ecological resource within the campus. It provides students with a unique opportunity to gain **practical knowledge of plant diversity, taxonomy, ecology, and conservation** through direct observation and field-based learning. The garden functions as an open learning space where students can study various plant species, their characteristics, and their ecological roles in a natural setting.

The presence of a wide variety of plant species in the garden helps students understand the **importance of biodiversity and the role of plants in maintaining ecological balance**. It also provides valuable exposure to **medicinal plants and economically important species**, enabling students to learn about their traditional uses as well as their significance in modern medicine and agriculture.

Furthermore, the botanical garden promotes **environmental awareness and conservation values** among students and visitors. It contributes to the aesthetic beauty of the campus while creating a peaceful and green environment conducive to learning. Overall, the botanical garden plays a vital role in **supporting academic activities, research, biodiversity conservation, and environmental education** within the institution.

Table: List of plant species in Botanical Garden

Sr. No.	Botanical Name	Common Name
1	*Psidium guajava*	Guava
2	Juniperus	Juniperus
3	*Prunus domestica*	Plum
4	*Terminalia arjuna*	Arjun
5	*Bambusa* sp.	Bamboo
6	*Aegle marmelos*	Bael
7	*Mimusops elengi*	Maulsari
8	*Manilkara zapota*	Chikoo

Sr. No.	Botanical Name	Common Name
9	*Ficus sp.*	Ficus
10	*Azadirachta indica*	Neem
11	*Madhuca longifolia*	Mahua
12	*Neolamarckia cadamba*	Kadam
13	*Delonix regia*	Gulmohar
14	*Mangifera indica*	Mango
15	*Citrus limetta*	Mausami
16	*Ricinus communis*	Castor Bean
17	*Withania somnifera*	Ashwagandha
18	*Cupressus*	Cupressus
19	*Dracaena*	Dracaena
20	*Hibiscus rosa sinensis*	Hibiscus
21	*Croton sp.*	Croton
22	*Coleus*	Coleus
23	*Euphorbia splendens*	Crown of thorns
24	*Nyctanthes arbor-tristis*	Harsingar
25	*Plumbago zeylanica*	Chitrak
26	*Murraya keonigii*	Kadipatta
27	*Cascabela thevetia*	Kaner
28	*Citrus nobilis variety*	Orange
29	*Calliandra sp.*	Calliandra
30	*Prunus persica*	Peach
31	*Cycas sp.*	Cycas
32	*Rosa indica*	Rose
33	*Schleichera oleosa*	Kusum

Sr. No.	Botanical Name	Common Name
34	*Adhatoda vasica*	Vasa
35	*Ficus carica*	Fig
36	*Punica granatum*	Pomegranate
37	*Pyrus* sp.	Pear
38	*Ruscus* sp.	Butcher's Broom
39	*Lantana* sp.	Red Sage
40	*Chlorophytum comosum*	Spinder Plant
41	*Epipremnum aureum*	Money Plant
42	*Dieffenbachia*	Dumb Cane
43	*Cyperus alternifolius*	Umbrella Palm
44	*Antirrhinum majus*	Dog Flower
45	*Nephrolepis exaltata*	Boston fern
46	*Gladiolus palustris*	Gladiola
47	*Saccharum officinarum*	Sugarcane
48	*Dracaena trifasciata*	Snake plant
49	*Bryophyllum pinnatum*	Patharchatta
50	*Calotropis procera*	Aak/ Milkweed
51	*Justicia gendarussa*	Water Willow
52	*Dieffenbachia*	Dumb cane

Botanical Garden

Observation

The presence of 52 diverse plant and tree species thriving in the botanical garden is truly commendable, showcasing a rich tapestry of botanical diversity. It reflects our commitment to nurturing a sustainable environment and fostering a deep appreciation for the natural world among our campus community.

CHAPTER-03

CARBON FOOTPRINT

3.1 About Carbon Footprint:

Climate change is one of the greatest challenges facing nations, governments, institutions, business and mankind today.

Carbon footprint is a measure of the impact your activities have on the amount of carbon dioxide (Co_2) produced through the burning of fossil fuels and is expressed as a weight of CO_2 emission produced in tonnes.

We focus on the consumption in each of our five major categories: housing, travel, food, products and services. In addition to these we also estimate the share of national emissions over which we have little control, government purchases and capital investment.

For simplicity and clarity all our calculations follow one basic method. We multiply a use input by an emission factor to calculate each footprint. All use inputs are per individual and include things like fuel use, distance, calorie consumption and expenditure. Working out your inputs is a matter of estimating them from your home travel, diet and spending behavior.

Although working out our inputs can take some investigation on your part the much more challenging aspect of carbon calculations is estimating the appropriate emissions factor to use in your calculation. Where possible you want this emissions factor to account for as much of the relevant life cycle as possible.

3.2 Methodology and scope

The carbon footprint gives a general overview of the College greenhouse gas emissions, converted into CO_2 equivalents and it is based on reported data from internal and external systems. The purposes of the carbon indicators are to measure the carbon intensity per unit of the product, in addition to showing environmental transparency towards external stakeholders.

The carbon footprint reporting approach undertaken in the study follows the guidelines and principles set out in the "Greenhouse Gas Protocol Corporate Accounting and Reporting Standards" (hereafter referred to as the GHG Protocol) developed by the Greenhouse Gas Protocol Initiative and International Standard for Quantification and Reporting of

greenhouse Gas Emission- ISO 14064. This is the most widely used and accepted methodology for conducting corporate carbon footprints.

The study has assessed carbon emission from the college campus. This involves accounting for and reporting on, the GHG emission from all those activities for which the company is directly responsible. The items quantified in this study are classified under the ISO 14064 standards: The report calculates the greenhouse gas emission from the College. This includes electricity as well as emission associated with diesel consumption in the Institute vehicle.

The emission associated with air travel, waste generation, administration and marketing related activities has been excluded from the current study. Emission from business activity are generally classified as scope 1, 2 or 3 areas classified under the ISO 14064 standards.

3.3 Carbon emission from Electricity

Direct emissions factors are widely published and show the amount of emissions produced by power stations in order to produce an average kilowatt-hour within that grid region. Unlike with other energy sources, the carbon intensity of electricity varies greatly depending on how it is produced and transmitted. For most of us, the electricity we use comes from the grid and is produced from a wide variety of sources. Although working out the carbon intensity of this mix is difficult, most of the work is generally done for us.

Electricity used in the site is the significant contributors towards GHGs emission from the unit. Electricity used onsite is the most direct and typically the most significant, a contributor to a units carbon footprint. Thus using an average fuel mix of generating electricity, carbon dioxide intensity of electricity for Indian National Grid is assumed to be 0.716 Kg CO_2/kWh.

Table: Carbon emission from Electricity

Sr. No.	Year	Total Unit Consumption (kWh)	Emission Factor (Kg CO_2/kWh)	Emission (ton CO_2/ year)
1	2024-2025	137927	0.716	98.75

3.4 Carbon Emission from Diesel Generator sets:

College has two Diesel Generator sets installed on the campus for emergency power supply in the college.

Table: Total diesel consumption in the year 2024-25

Sr. No	Month & Year	Total Diesel Consumption (Litre)
1	April-2024	58.7
2	May-2024	94.0
3	June-2024	40.0
4	July-2024	51.5
5	August -2024	34.5
6	September-2024	14.5
7	October-2024	0.0
8	November-2024	25.0
9	December-2024	35.5
10	January-2025	46.0
11	February-2025	25.0
12	March-2025	21.5
	Total	**446.2**

Every liter of diesel fuel contains 720 grams of pure carbon. It can be assumed that about 99% of the fuel is oxidized (It is assumed that somewhat less than 1% will fail to fully oxidize and will be emitted as a particulate of unburned hydrocarbon instead of CO_2).

Calculation of total CO_2 by DG sets

- CO2 emissions from a Liter of diesel : 2689.56 grams CO_2/litre.
- Diesel consumption April-2024 to March-2025 = 446.2 Litre
- 446.2×2689 = 1200081.6 gram or 1.20 Ton CO_2/year.

3.5 Calculation of Biomass and CO_2 sequestration of the Trees:

1 Estimation of Above Ground Biomass (AGB)

$K = 34.4703 - 8.0671D + 0.6589D^2$

Where, K is the Above Ground Biomass

D is the Breast height diameter in (cm)

2 Estimation of Below Ground Biomass (BGB)

$BGB = AGB \times 0.15$

3 Total Biomass (TB)

$TB = AGB + BGB$

4 Calculation of CO_2 weight sequestered in the tree in Kg

$C = W \times 0.50$

5 Calculation of the weight of CO_2 sequestered in tree per year in Kg

$CO_2 = C \times 3.666$

Where,

AGB	=	Above Ground Biomass
D	=	Diameter of tree breast height
BGB	=	Below Ground Biomass
C	=	Carbon
TB	=	Total Biomass

Calculation of Biomass of Tree

Sr. No.	Common Name	Average Diameter (CM) (25to100)	AGB	BGB	Total Biomass (TB)	Carbon Storage	Amount of CO_2 sequestered (kg)	No. of Tree	Total Amount of CO_2 Sequestered (kg)	Annual amount of CO_2 Sequestered (Tons/Year)
1	Guava	75	3248.258	487.24	3735.50	1867.748	6847.164	12	82165.97	1.12
2	Palm	60	1994.490	299.17	2293.66	1146.832	4204.285	14	58859.99	0.80
3	Champa	50	1328.370	199.26	1527.63	763.813	2800.138	1	2800.14	0.04
4	Kadam	50	1328.370	199.26	1527.63	763.813	2800.138	2	5600.28	0.08
5	Maulsari	40	798.030	199.70	917.73	458.867	1682.207	12	20186.49	0.27
6	Pilkhan	55	1644.458	246.67	1891.13	945.563	3466.434	2	6932.87	0.09
7	False Ashoka	40	798.030	119.70	917.73	458.867	1682.207	23	38690.77	0.53
8	Royal Bottle Palm	65	2378.468	356.77	2735.24	1367.619	5013.691	5	25068.45	0.34
9	Jamun	30	403.470	60.52	463.99	231.995	850.495	8	6803.96	0.09
10	Swanjana	30	403.470	60.52	463.99	231.995	850.495	3	2551.48	0.03
11	Mahua	30	403.470	60.52	463.99	231.995	850.495	3	2551.48	0.03
12	Bottle Brush	35	583.778	87.57	671.34	335.672	1230.574	1	1230.57	0.02
13	Amaltas	45	1046.228	156.93	1203.16	601.581	2205.395	3	6616.19	0.09
14	Chir pine	50	1328.370	199.26	1527.63	763.813	2800.138	2	5600.28	0.08
15	Mango	36	623.912	93.59	717.50	358.750	1315.176	12	15782.11	0.21
16	Bael	35	583.778	87.57	671.34	335.672	1230.574	3	3691.72	0.05
17	Kaner	45	1046.228	156.93	1203.16	601.581	2205.395	6	13232.34	0.18
18	Christmas tree	60	1994.490	299.17	2293.66	1146.832	4204.285	2	8408.57	0.11
19	Madagascar Almond	45	1046.228	156.93	1203.16	601.581	2205.395	1	2205.40	0.03
20	Shisham	40	798.030	119.70	917.73	458.867	1682.207	2	3364.41	0.05

Sr. No.	Common Name	Average Diameter (CM) (25to100)	AGB	BGB	Total Biomass (TB)	Carbon Storage	Amount of CO_2 sequestered (kg)	No. of Tree	Total Amount of CO_2 Sequestered (kg)	Annual amount of CO_2 Sequestered (Tons/Year)
21	Shahtut	30	403.470	60.52	463.99	231.995	850.495	3	2551.48	0.03
22	Bargad	65	2378.468	356.77	2735.24	1367.619	5013.691	1	5013.69	0.07
23	Neem	65	2378.468	356.77	2735.24	1367.619	5013.691	3	15041.07	0.20
24	Amla	25	257.108	38.57	295.67	147.837	541.970	7	3793.79	0.05
25	Jawanica	35	583.778	87.57	671.34	335.672	1230.574	4	4922.30	0.07
26	Dhak	36	623.912	93.59	717.50	358.750	1315.176	2	2630.35	0.04
27	Kachnar	30	403.470	60.52	463.99	231.995	850.495	2	1700.99	0.02
28	Silver Oak	27	311.579	46.74	358.32	179.158	656.793	5	3283.97	0.04
29	Drake	28	340.852	51.13	391.98	195.990	718.498	3	2155.49	0.03
30	Sausage tree	30	403.470	60.52	463.99	231.995	850.495	1	850.49	0.01
31	Jacaranda	54	1578.524	236.78	1815.30	907.652	3327.451	1	3327.45	0.05
32	Reetha	35	583.778	87.57	671.34	335.672	1230.574	1	1230.57	0.02
33	Juniperus	37	665.405	99.81	765.22	382.608	1402.641	2	2805.28	0.04
34	Plum	45	1046.228	156.93	1203.16	601.581	2205.395	3	6616.18	0.09
35	Arjuna	15	66.218	9.93	76.15	38.075	139.583	9	1256.25	0.02
36	Bamboo	26	283.664	42.55	326.21	163.107	597.950	1	597.95	0.01
37	Chikoo	75	3248.258	487.24	3735.50	1867.748	6847.164	4	27388.65	0.37
38	Ficus	45	1046.228	156.93	1203.16	601.581	2205.395	1	2205.40	0.03
39	Gulmohar	30	403.470	60.52	463.99	231.995	850.495	1	850.49	0.01
40	Mausami	30	403.470	60.52	463.99	231.995	850.495	2	1700.99	0.02
41	Peepal	25	257.108	38.57	295.67	147.837	541.970	1	541.97	0.01
42	Harar	46	1099.940	164.99	1264.93	632.466	2318.619	2	2318.62	0.03
43	Kathal	54	1578.524	236.78	1815.30	907.652	3327.451	2	6654.90	0.09

Sr. No.	Common Name	Average Diameter (CM) (25to100)	AGB	BGB	Total Biomass (TB)	Carbon Storage	Amount of CO_2 sequestered (kg)	No. of Tree	Total Amount of CO_2 Sequestered (kg)	Annual amount of CO_2 Sequestered (Tons/Year)
44	Devil's tree	28	340.852	51,13	391.98	195.990	718.498	3	2155.49	0.03
45	Rudraksh	50	1328.370	199.26	1527.63	763.813	2800.138	1	2800.14	0.04
46	Toon	36	623.912	93.59	717.50	358.750	1315.176	1	1315.18	0.02
47	Dracaena	39	752.464	112.87	865.33	432.667	1586.156	10	15861.56	0.22
48	Ficus	36	623.912	93.59	717.50	358.750	1315.176	2	2630.35	0.04
49	Jasmine	46	1099.940	164.99	1264.93	632.466	2318.619	1	2318.62	0.03
50	Fig	35	583.778	87.57	671.34	335.672	1230.574	2	2461.14	0.03
51	Hibiscus	26	283.664	42.55	326.21	163.107	597.950	15	8969.25	0.12
52	Chinese thuja	80	3734.070	560.11	4294.18	2147.090	7871.223	5	39356.11	0.54
53	Orange	75	3248.258	487.24	3735.50	1867.748	6864.164	3	20592.49	0.28
54	Loquat	36	623.912	93.59	717.50	358.750	1315.176	4	5260.68	0.07
55	Peach	37	665.405	99.81	765.22	382.608	1402.641	3	4207.92	0.06
56	Croton	57	1780.397	267.06	2047.46	1023.728	3752.988	3	11258.96	0.15
57	Calliandra	50	1328.370	199.26	1527.63	763.813	2800.138	2	5600.28	0.08
58	Castor bean	46	1099.940	164.99	1264.93	632.466	2318.619	3	6955.86	0.09
59	Lemon	37	665.405	99.81	765.22	382.608	1402.641	5	7013.20	0.10
60	Weeping fig	30	403.470	60.52	463.99	231.995	850.495	2	1700.99	0.02
61	Cupresses	28	340.852	51.13	391.98	195.990	718.498	15	10777.35	0.15
62	Kadipatta	32	471.520	70.73	542.25	271.124	993.940	3	2981.82	0.04
63	Pinwheel flower	35	583.778	87.57	671.34	335.672	1230.574	3	3691.72	0.05
64	Pomegranate	30	403.470	60.52	463.99	231.995	850.495	1	850.49	0.01
65	Madagascar Periwinkle	28	340.852	51.13	391.98	195.990	718.498	10	7184.98	0.10

Sr. No.	Common Name	Average Diameter (CM) (25to100)	AGB	BGB	Total Biomass (TB)	Carbon Storage	Amount of CO_2 sequestered (kg)	No. of Tree	Total Amount of CO_2 Sequestered (kg)	Annual amount of CO_2 Sequestered (Tons/Year)
66	Turmeric	30	403.470	60.52	463.99	231.995	850.495	5	4252.47	0.06
67	Dambel	23	208.067	31.21	119.639	119.639	438.595	4	1754.38	0.02
68	Peppermint	46	1099.940	164.99	632.466	632.466	2318.619	1	2318.61	0.03
69	Lemon grass	25	257.108	38.57	147.837	147.837	541.970	10	5419.70	0.07
70	Insulin Plant	35	583.778	87.57	335.672	335.672	1230.574	5	6152.87	0.08
71	Stevia	30	403.470	60.52	231.995	231.995	850.495	1	850.495	0.01
72	Brahmi	35	583.778	87.57	335.672	335.672	1230.574	1	1230.574	0.02
73	All Spice	45	1046.228	156.93	601.581	601.581	2205.395	5	11026.98	0.15
74	Kala Bansa	67	2541.563	381.23	1461.399	1461.399	5357.488	4	21429.95	0.29
75	Holy basil	45	1046.228	156.93	601.581	601.581	2205.395	5	11026.98	0.15
76	Cinnamommum	40	798.030	119.70	458.867	458.867	1682.207	5	8411.04	0.11
77	Pear	32	471.520	70.73	271.124	271.124	993.940	3	2981.82	0.04
78	Cycas	64	2298.956	344.84	2643.80	1321.900	4846.085	2	9692.17	0.13
79	Kusum	25	257.108	38.57	295.67	147.837	541.970	1	541.97	0.01
80	Coleus	29	371.482	55.72	427.20	213.602	783.065	2	1566.13	0.02
81	Umbrella palm	25	257.108	38.57	295.67	147.837	541.970	1	541.97	0.01
82	Golden cypress	15	66.218	9.93	76.15	38.075	139.583	87	12,136	0.17
83	Buddha Bamboo	23	208.067	31.21	119.639	119.639	438.595	4	1754.38	0.02
84	Rakhi bel	15	66.218	9.93	76.15	38.075	139.583	3	418.74	0.01
85	Bougainvillea	26	283.664	42.55	326.21	163.107	597.950	18	10763.10	0.15
87	Shatamull, shatawari	15	66.218	9.93	76.15	38.075	139.583	**2**	279.16	0.00
88	Monkey puzzle	67	2541.563	381.23	1461.399	1461.399	5357.488	**1**	5357.488	0.07

Sr. No.	Common Name	Average Diameter (CM) (25to100)	AGB	BGB	Total Biomass (TB)	Carbon Storage	Amount of CO_2 sequestered (kg)	No. of Tree	Total Amount of CO_2 Sequestered (kg)	Annual amount of CO_2 Sequestered (Tons/Year)
89	African spear	23	208.067	31.21	119.639	119.639	438.595	**2**	877	0.01
90	Garden heliotrope	25	257.108	38.57	147.837	147.837	541.970	**1**	541.970	0.01
91	Duck Bael	39	752.464	112.87	865.33	432.667	1586.156	**1**	1586.156	0.02
92	Vanaegated sygyium	32	471.520	70.73	271.124	271.124	993.940	**2**	1987.8	0.03
93	oxycardon	28	340.852	51.13	391.98	195.990	718.498	**5**	3592.49	0.05
94	Sword fern	15	66.218	9.93	76.15	38.075	139.583	**5**	697.915	0.01
95	Raphis dwarf	23	208.067	31.21	119.639	119.639	438.595	**7**	3070.16	0.04
96	Sugar plant	35	559.27	83.89	643.16	321.58	1178.12	**5**	5890.60	0.08
97	Bamboo	26	283.66	42.55	326.21	163.10	597.95	**1**	597.95	0.01
98	Litchi	40	798.03	119.70	917.73	458.87	1682.21	**3**	5046.62	0.07
							Total	**477**		**9.81**

Observation

The college has **477** trees and other plants in campus. This is the result of the good initiative for a green campus taken by the college management by running many plantation campaigns throughout the year. **It's Very Appreciable.**

The total CO_2 sequestering is **9.81 Tons/Year** which is bound to improve by the ongoing tree plantation campaigns.

3.6 Total CO_2 Emission by the College

CO_2 Emission caused by the College

Sr. No.	Source	CO_2 Emission (Tons/Year)
1.	Electricity	**98.75**
2.	DG sets	**1.20**
	Total CO_2 Emission	**99.95**

CO_2 Emission neutralized by College

Sr. No.	Source	CO_2 Sequestered (Tons/Year)
1.	Trees	**9.81**
	Total CO_2 Sequestered	**9.81**

Net CO_2 Emission caused by the College

CO_2 Emission - CO_2 Sequestered

99.95 - 9.81 = **90.14 Tons/Year**

Observation

It is observed that total CO_2 emission of college is 90.14 which has reduced from the emission from last year (94.21 Tons/Year). This decrease is the result of the installation of Solar Power Plant, increased tree cover and other green initiatives taken by the college.

Recommendation

- The use of renewable energy appliances like solar light and solar pumps may be increased.
- More tree plantation are required in college premises to increase CO_2 sequestering.

3.7 Other Emissions Excluded

This study did not evaluate the carbon sequestration potential of existing from the staff commuting, food supply, official flights, paper products, water supply, waste

disposal and recycling due to limited data availability. The current study identifies areas where data monitoring, recording and archiving need to be developed for enlarging the scope of mapping of GHGs emission in the future years. Accordingly, a set of tools and record keeping procedure will be developed for improving the quality of data collection for the future carbon footprint studies.

CHAPTER-4

WASTE MANAGEMENT

4.1 About Waste:

Human activities inevitably generate waste, and the manner in which this waste is **handled, stored, collected, and disposed of** can significantly affect environmental quality and public health. Effective waste management is therefore essential for maintaining an **eco-friendly and sustainable campus environment**. In a college campus, different types of waste are generated from various sources such as classrooms, laboratories, offices, hostels, and the canteen, making its proper collection and management a challenging task Solid waste generated on campus can generally be categorized into **three types: biodegradable, non-biodegradable, and hazardous waste**.

- **Biodegradable waste** includes organic materials such as food waste from the canteen, garden waste, paper waste, and other decomposable materials.
- **Non-biodegradable waste** consists of materials that do not easily decompose, such as plastics, metal cans, glass bottles, and packaging materials commonly discarded in educational institutions.
- **Hazardous waste** includes substances that may pose risks to human health or the environment, such as laboratory chemicals, cleaning agents, acids, and other potentially harmful materials.

Improper or unscientific disposal of waste, such as open dumping or burning, can lead to the **release of harmful contaminants into soil and water bodies**, and the emission of greenhouse gases that contribute to **environmental pollution and climate change**. Therefore, special care must be taken in the **handling, storage, and disposal of hazardous waste** generated within the campus.

Biodegradable waste can be effectively managed through **composting or vermicomposting**, converting organic waste into nutrient-rich manure that can be used for campus gardens and landscaping. Non-biodegradable waste should be managed through **proper segregation, recycling, and reuse practices** to reduce

the amount of waste sent to landfills. Hazardous waste should be disposed of following **appropriate safety guidelines and authorized disposal methods**.

Thus, minimizing solid waste generation and promoting responsible waste management practices are essential steps toward creating a **clean, healthy, and sustainable college campus**. The Green Audit helps assess the existing waste management practices of the institution and provides recommendations for improving waste handling and disposal systems.

Table: Different types of waste generated in the College Campus

Sr. No.	Types of Waste	Particulars
1.	Solid wastes	Damaged furniture, paper waste, paper plates etc.
2.	Plastic waste	Pen, Refill, Plastic water bottles and other plastic containers, wrappers etc.
3.	E- waste	Computer, electrical and electronic parts etc.
4.	Glass waste	Broken glass wares from the labs
5.	Chemical waste	Laboratory waste
6.	Bio-medical waste	Sanitary napkin etc.
7.	Bio-degradable waste	Tree leaves, food waste

4.2 Waste Management and Practices adopted by college

The college generates different types of wastes like paper, plastic, dust and wet waste. The college has adopted the 3 Dustbin Waste Collection System for the collection of different type of waste generated in the college premises. It has provided dustbins near classrooms, Administrative office, laboratories, staff room and the Girls common room. The waste material is collected at the end of the day. All types of biodegradable (organic) waste is placed in the vermicomposting pits to treat and generate manure while the non-biodegradable waste is collected by the Municipal Corporation for further processing. The college manages the e-waste through a government licensed company.

Observation

The efforts of the college in the management of the solid waste in an ecofriendly way by using the 3-Dusbin system is **Very Commendable.**

4.3 Waste Collection Points:

The Audit team visited various departments, canteen and library area to find out the waste generation area and waste collection points for further improvement. Details are given in the table.

Table 4.3: Detailed of waste collection dust bin system

Sr. No.	Location	No. of Dustbins
1	Arts Block	9
2	Science Block	4
3	Commerce Block	5
4	Library	5
5	Auditorium	3
6	Canteen	9
7	Girls Common Room	6
	Total	**30**

4.4 Vermicomposting pits

The college has install vermicomposting pits to treat all type of organic waste and generate manure. This manure is further utilized in the college gardens. Vermicomposting is a sustainable and eco-friendly method of recycling organic waste by harnessing the power of earthworms to break down materials into nutrient-rich compost.

By implementing vermicomposting pits, the college demonstrates its commitment to environmental stewardship and waste reduction. Moreover, vermicomposting offers numerous benefits beyond waste diversion. It helps to improve soil structure, moisture retention, and nutrient content, thereby enhancing the overall health and fertility of campus landscapes and gardens. Additionally, it provides a hands-on learning opportunity for students to understand the principles of sustainability and participate in practical environmental initiatives.

Observation

The establishment of vermicomposting pits reflects the college's proactive approach to sustainability and environmental responsibility. By harnessing the natural process of vermicomposting, the college not only reduces its ecological footprint but also fosters a culture of conservation and resourcefulness within the campus community.

It's very appreciable.

CHAPTER-5

AIR QUALITY MANAGEMENT

The air quality survey was conducted in the various key areas of the college campus. The details are as follows:

Sr. No.	Location	$PM_{2.5}$ ($\mu g/m^3$)	Temperature (^oC)	Humidity
1.	Principal Office	37	35	22
2.	Administration Office	45	30	24
3.	Botany Laboratory	53	30	40
4.	Biotechnology Laboratory	49	33	37
5.	Chemistry Laboratory	47	32	42
6.	Computer Science Laboratory	31	32	36
7.	Forensic Science Laboratory	49	33	37
8.	Physics Laboratory	41	32	34
9.	Zoology Laboratory	48	33	34

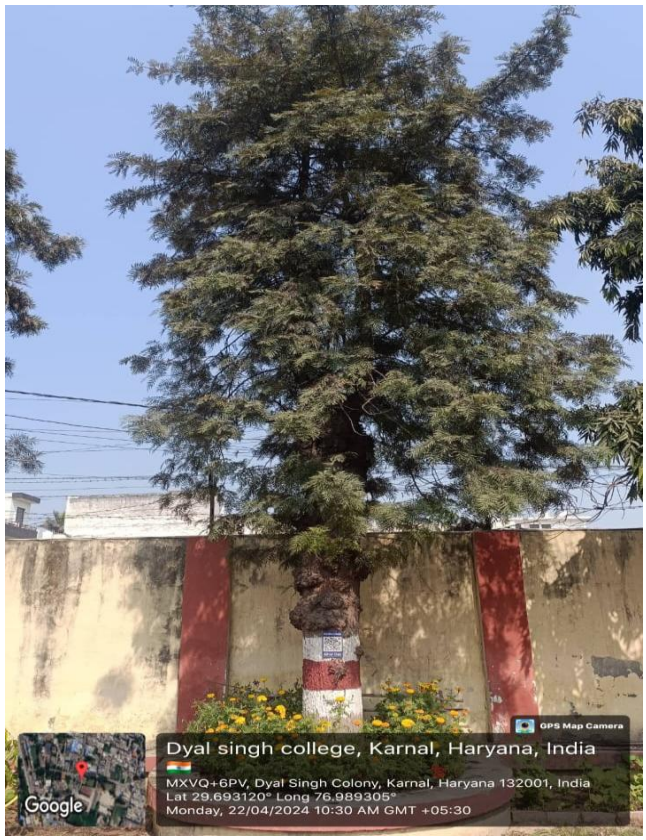
Observation

- $PM_{2.5}$ value is higher side The 24- hour concentration of $PM_{2.5}$ is considered unhealthy when it rises above 35.4$\mu g/m^3$

CHAPTER-6

QR CODE SYSTEM IN COLLEGE CAMPUS

College management has installed QR code system on trees for identification and dissemination of information to curious students. **It's appreciable.**



Recommendation

Installation of QR code plates on all the trees for identification instead on only representative trees.

Some Photograph of Tree Plantation and Sapling Distribution for Green college campus

Some Photographs of the Green Initiatives taken by the College

Some Photographs of the Green Initiatives taken by the College

DYAL SINGH COLLEGE, KARNAL

NOTICE

05.02.2026

A meeting of the members of the following committees will be held today i.e. on 05.02.2026 at 01.30 p.m. in the office of the undersigned

Agenda : Internal Audit for 2023-2024, 2024-2025:

You are requested to attend the same.

Overall Incharge : Sh Sushil Kumar

Co-incharge : Dr Anita Agarwal

Green Audit Committee:

1. Dr Isha
2. Dr Parvesh Puri

Energy Audit Committee

1. Dr Rubi
2. Ms Nikita Arya

Environment Audit Committee

1. Dr Kapil
2. Dr Sonal Saluja (on D.L.)

Principal

Principal
Dyal Singh College
KARNAL

DYAL SINGH COLLEGE, KARNAL

ATTENDANCE

05.02.2026

A meeting of the members of the following committees was held. on 05.02.2026 at 01.30 p.m. in the office of the Principal, Dyal Singh College, Karnal

Agenda : Internal Audit for 2023-2024, 2024-2025:

The following were present:

Principal Dr Ashima Gakhar

Overall Incharge : Sh Sushil Kumar

Co-incharge : Dr Anita Agarwal

Special Invitee: Dr Ambika Rani

Environment Audit Committee:

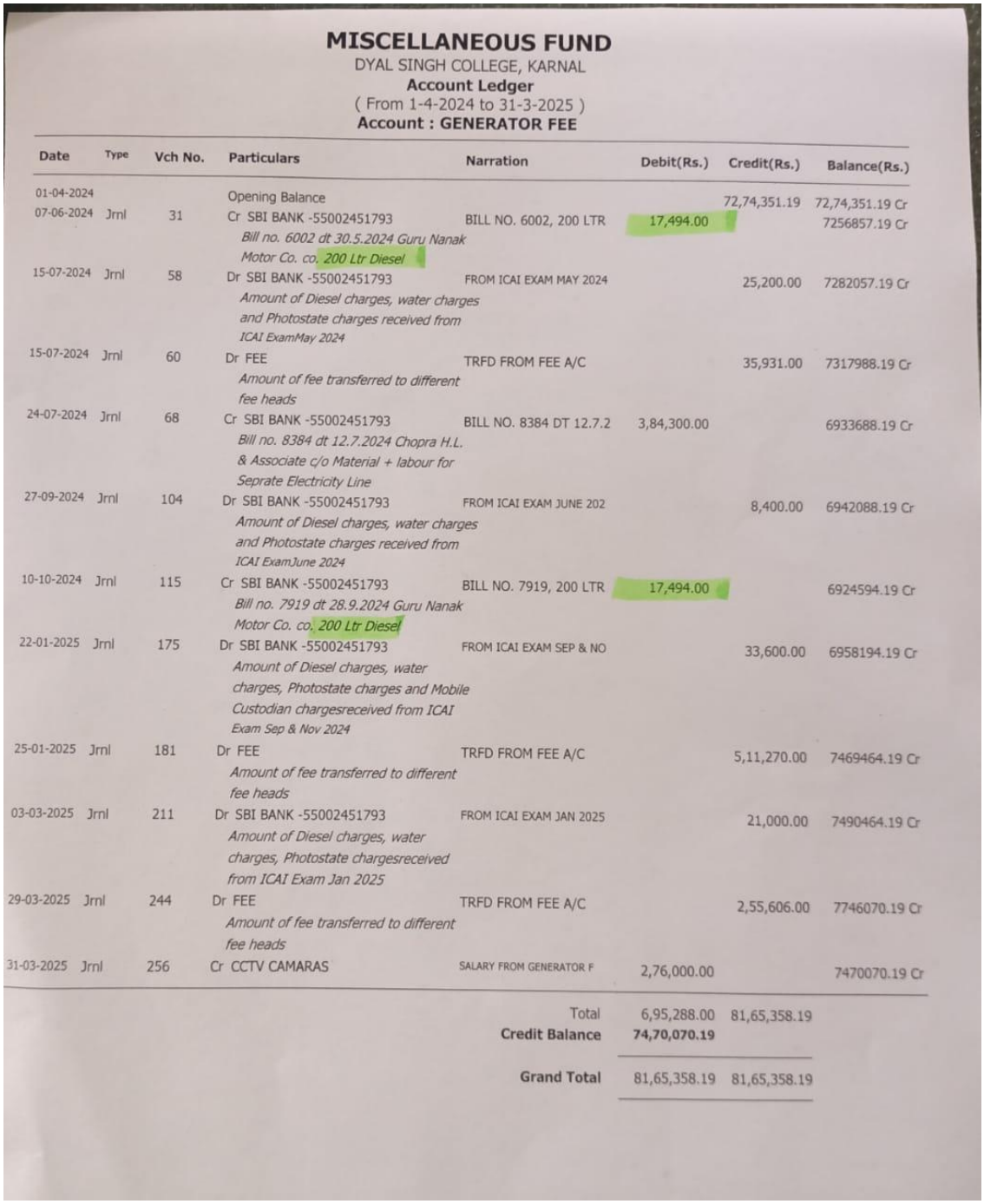
1. Dr Isha
2. Dr Parvesh Puri

Energy Audit Committee

1. Dr Rubi
2. Ms Nikita Arya

Green Audit Committee

1. Dr Kapil
2. Dr Sonal Saluja (on Duty Leave)



MISCELLANEOUS FUND

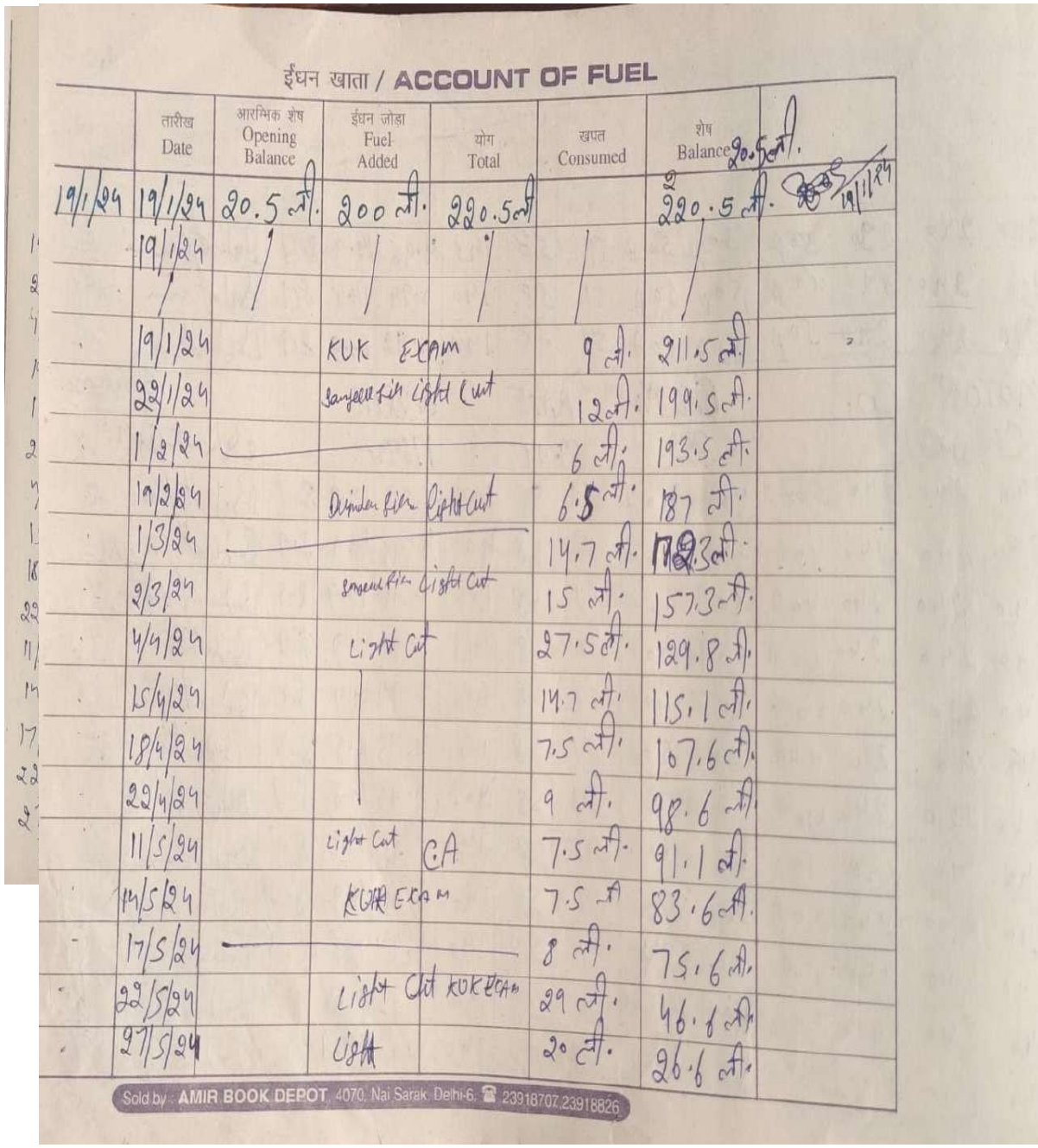
DYAL SINGH COLLEGE, KARNAL

Account Ledger

(From 1-4-2024 to 31-3-2025)

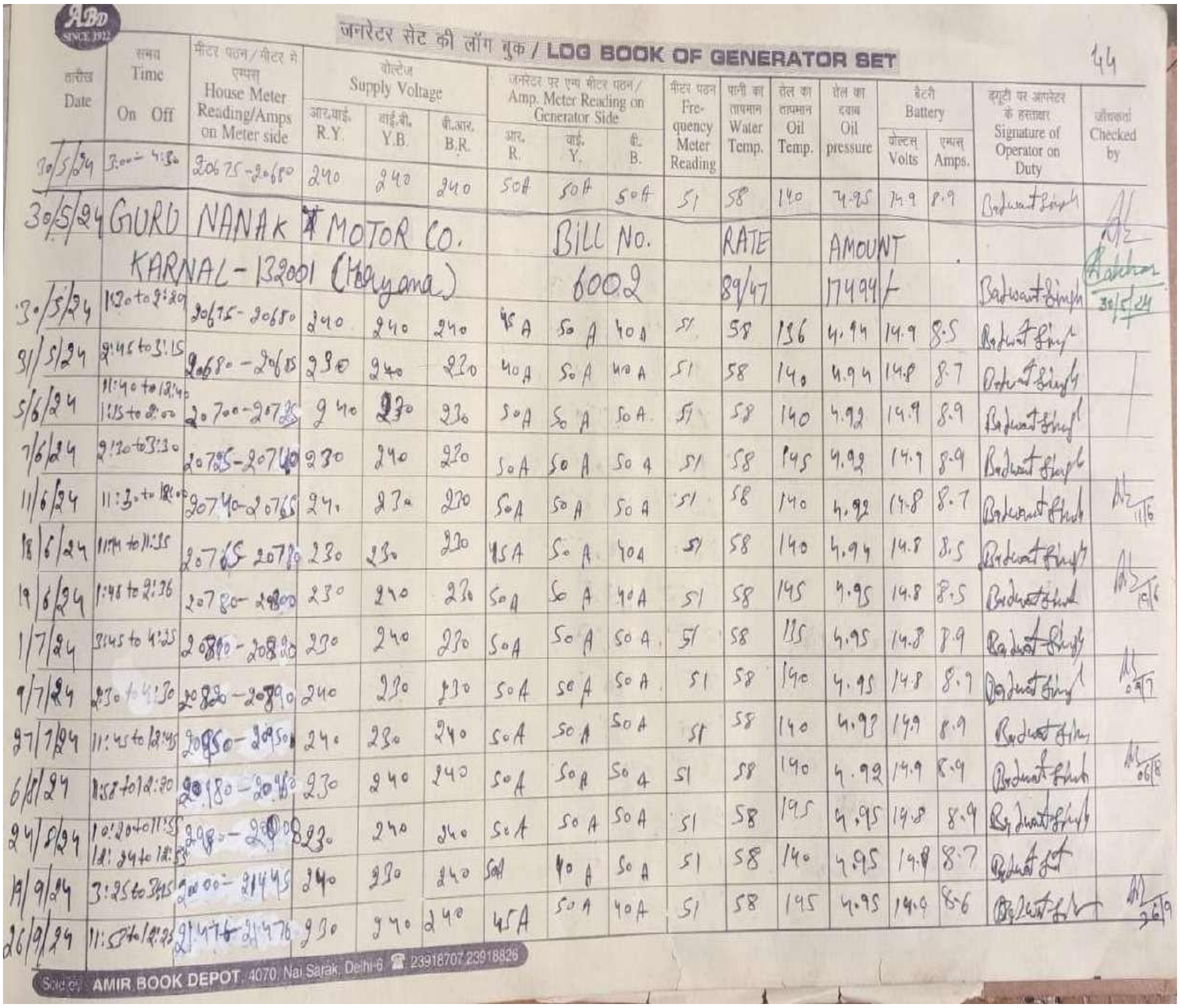
Account : GENERATOR FEE

Date	Type	Vch No.	Particulars	Narration	Debit(Rs.)	Credit(Rs.)	Balance(Rs.)
01-04-2024			Opening Balance			72,74,351.19	72,74,351.19 Cr
07-06-2024	Jrnl	31	Cr SBI BANK -55002451793 *Bill no. 6002 dt 30.5.2024 Guru Nanak Motor Co. co. 200 Ltr Diesel*	BILL NO. 6002, 200 LTR	17,494.00		7256857.19 Cr
15-07-2024	Jrnl	58	Dr SBI BANK -55002451793 *Amount of Diesel charges, water charges and Photostate charges received from ICAI ExamMay 2024*	FROM ICAI EXAM MAY 2024		25,200.00	7282057.19 Cr
15-07-2024	Jrnl	60	Dr FEE *Amount of fee transferred to different fee heads*	TRFD FROM FEE A/C		35,931.00	7317988.19 Cr
24-07-2024	Jrnl	68	Cr SBI BANK -55002451793 *Bill no. 8384 dt 12.7.2024 Chopra H.L. & Associate c/o Material + labour for Seprate Electricity Line*	BILL NO. 8384 DT 12.7.2	3,84,300.00		6933688.19 Cr
27-09-2024	Jrnl	104	Dr SBI BANK -55002451793 *Amount of Diesel charges, water charges and Photostate charges received from ICAI ExamJune 2024*	FROM ICAI EXAM JUNE 202		8,400.00	6942088.19 Cr
10-10-2024	Jrnl	115	Cr SBI BANK -55002451793 *Bill no. 7919 dt 28.9.2024 Guru Nanak Motor Co. co. 200 Ltr Diesel*	BILL NO. 7919, 200 LTR	17,494.00		6924594.19 Cr
22-01-2025	Jrnl	175	Dr SBI BANK -55002451793 *Amount of Diesel charges, water charges, Photostate charges and Mobile Custodian chargesreceived from ICAI Exam Sep & Nov 2024*	FROM ICAI EXAM SEP & NO		33,600.00	6958194.19 Cr
25-01-2025	Jrnl	181	Dr FEE *Amount of fee transferred to different fee heads*	TRFD FROM FEE A/C		5,11,270.00	7469464.19 Cr
03-03-2025	Jrnl	211	Dr SBI BANK -55002451793 *Amount of Diesel charges, water charges, Photostate chargesreceived from ICAI Exam Jan 2025*	FROM ICAI EXAM JAN 2025		21,000.00	7490464.19 Cr
29-03-2025	Jrnl	244	Dr FEE *Amount of fee transferred to different fee heads*	TRFD FROM FEE A/C		2,55,606.00	7746070.19 Cr
31-03-2025	Jrnl	256	Cr CCTV CAMARAS	SALARY FROM GENERATOR F	2,76,000.00		7470070.19 Cr
				Total	6,95,288.00	81,65,358.19	
				Credit Balance	**74,70,070.19**		
				Grand Total	81,65,358.19	81,65,358.19	



ईंधन खाता / ACCOUNT OF FUEL

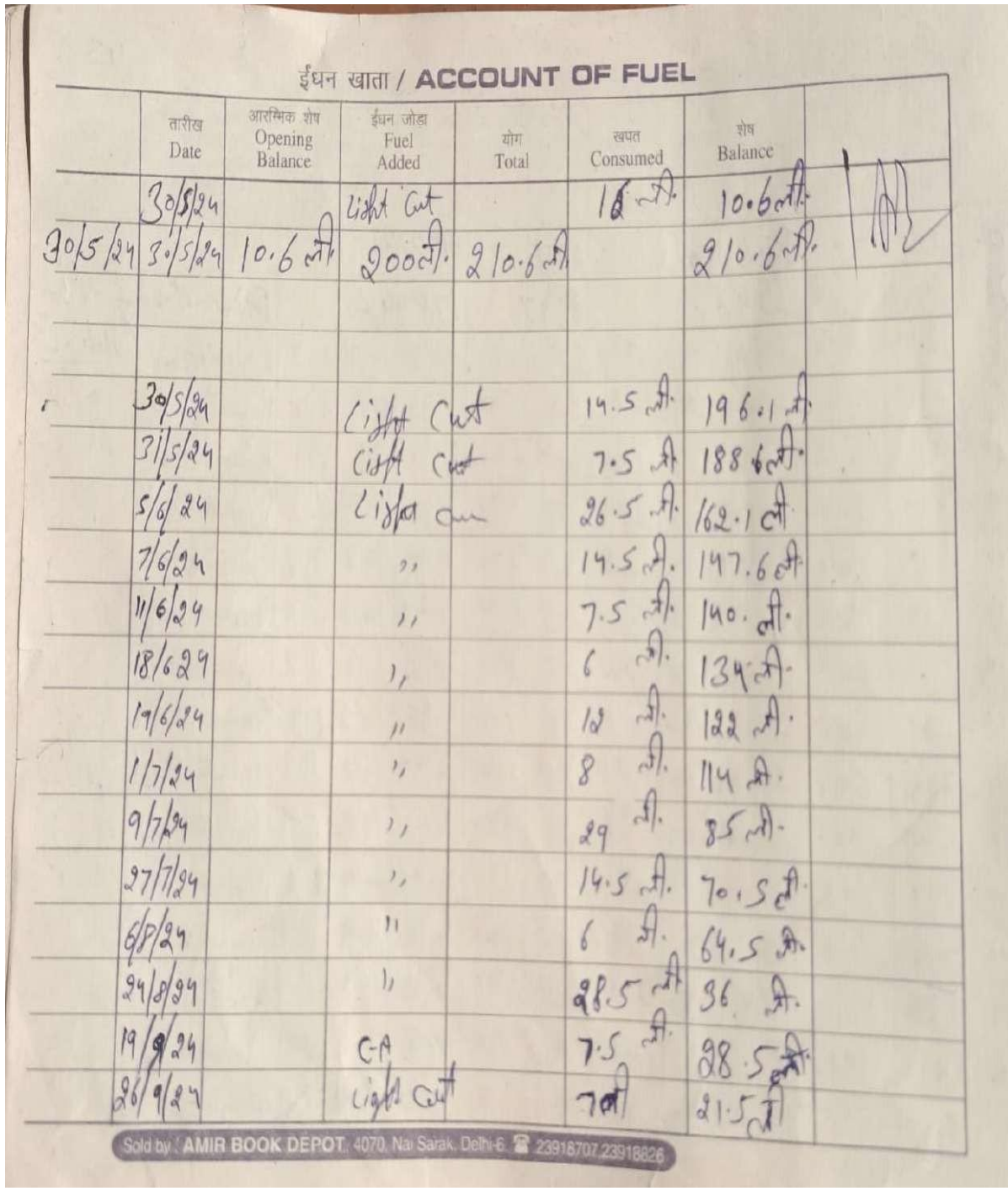
	तारीख Date	आरम्भिक शेष Opening Balance	ईंधन जोड़ा Fuel Added	योग Total	खपत Consumed	शेष Balance
19/1/24	19/1/24	20.5 ली.	200 ली.	220.5 ली.		220.5 ली. 19/1/24
	19/1/24	/	/	/	/	/
	/	/	/	/	/	/
	19/1/24		KUK Exam		9 ली.	211.5 ली.
	22/1/24		Sangeeta in light Cut		12 ली.	199.5 ली.
	1/2/24				6 ली.	193.5 ली.
	19/2/24		Dinder fire Light Cut		6.5 ली.	187 ली.
	1/3/24				14.7 ली.	172.3 ली.
	2/3/24		Sangeeta Light Cut		15 ली.	157.3 ली.
	4/4/24		Light Cut		27.5 ली.	129.8 ली.
	15/4/24				14.7 ली.	115.1 ली.
	18/4/24				7.5 ली.	107.6 ली.
	22/4/24				9 ली.	98.6 ली.
	11/5/24		Light Cut CA		7.5 ली.	91.1 ली.
	14/5/24		KUK Exam		7.5 ली.	83.6 ली.
	17/5/24				8 ली.	75.6 ली.
	22/5/24		Light Cut KUK Exam		29 ली.	46.6 ली.
	27/5/24		Light		20 ली.	26.6 ली.



जनरेटर सेट की लॉग बुक / LOG BOOK OF GENERATOR SET 44

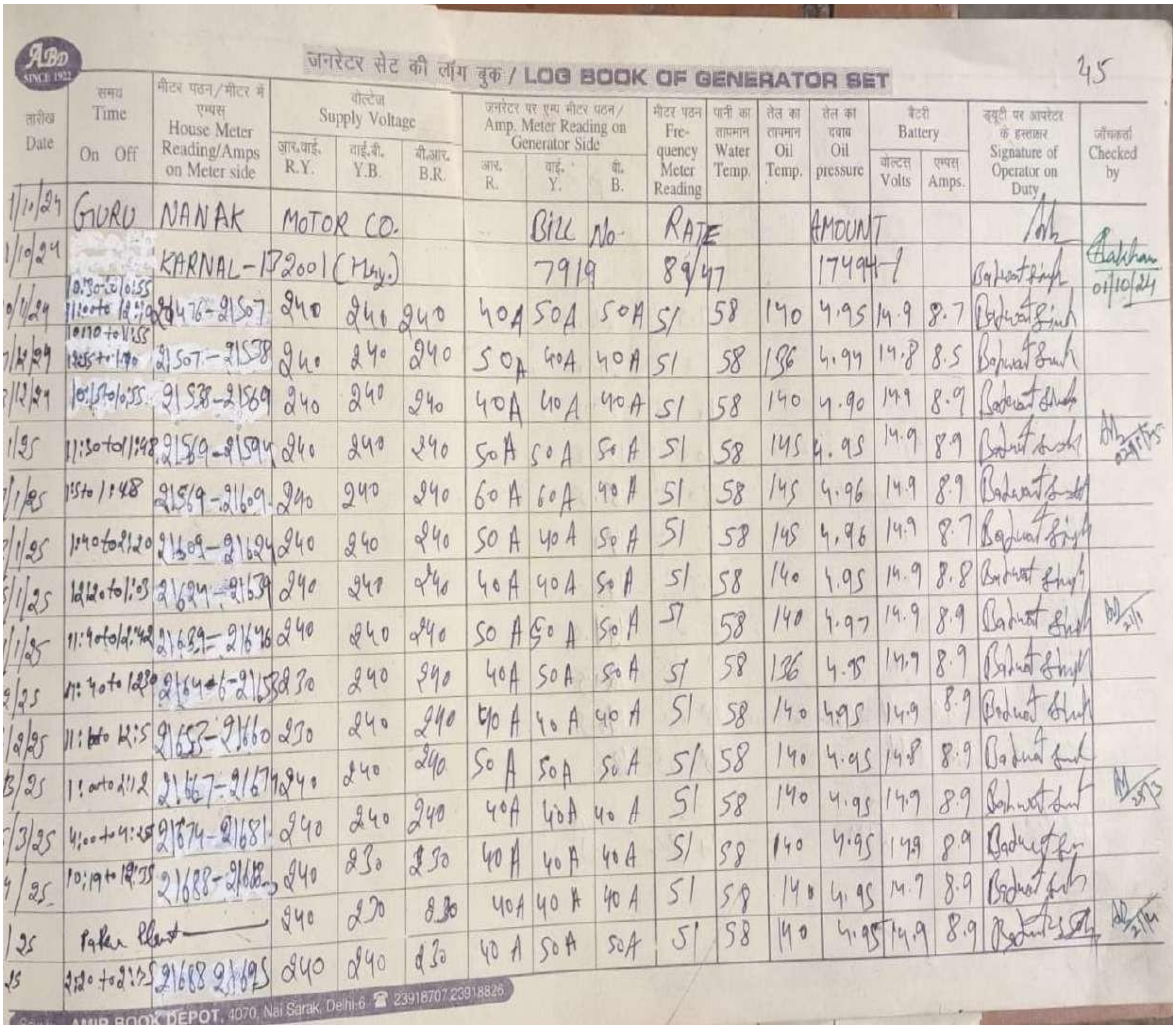
तारीख Date	समय Time On Off	मीटर पठन / मीटर में एम्पस House Meter Reading/Amps on Meter side	वोल्टेज Supply Voltage आर.वाई. R.Y.	वाई.बी. Y.B.	बी.आर. B.R.	जनरेटर पर एम्प मीटर पठन / Amp. Meter Reading on Generator Side आर. R.	वाई. Y.	बी. B.	मीटर पठन Frequency Meter Reading	पानी का तापमान Water Temp.	तेल का तापमान Oil Temp.	तेल का दबाव Oil pressure	बैटरी Battery वोल्टस Volts	एम्पस Amps.	ड्यूटी पर आपरेटर के हस्ताक्षर Signature of Operator on Duty	जाँचकर्ता Checked by
30/5/24	3:00 – 4:30	20675 – 20680	240	240	240	50A	50A	50A	51	58	140	4.95	14.9	8.9	Balwant Singh	[illegible]
30/5/24	GURU NANAK MOTOR CO. KARNAL-132001 (Haryana)						BILL NO. 6002			RATE 89/47		AMOUNT 17494/-			Balwant Singh	[illegible] 30/5/24
30/5/24	1:20 to 2:20	20675 – 20680	240	240	240	45A	50A	40A	51	58	136	4.94	14.9	8.5	Balwant Singh	
31/5/24	2:45 to 3:15	20680 – 20685	230	240	230	40A	50A	40A	51	58	140	4.94	14.8	8.7	Balwant Singh	
5/6/24	11:40 to 12:40 1:15 to 2:00	20700 – 20725	240	230	230	50A	50A	50A	51	58	140	4.92	14.9	8.9	Balwant Singh	
7/6/24	2:10 to 3:30	20725 – 20740	230	240	230	50A	50A	50A	51	58	145	4.92	14.9	8.9	Balwant Singh	
11/6/24	11:30 to 12:00	20740 – 20765	240	230	230	50A	50A	50A	51	58	140	4.92	14.8	8.7	Balwant Singh	[illegible] 11/6
18/6/24	11:14 to 11:35	20765 – 20780	230	230	230	45A	50A	40A	51	58	140	4.94	14.8	8.5	Balwant Singh	[illegible]
19/6/24	1:48 to 2:36	20780 – 20800	230	240	230	50A	50A	40A	51	58	145	4.95	14.8	8.5	Balwant Singh	[illegible] 19/6
1/7/24	3:45 to 4:25	20810 – 20820	230	240	230	50A	50A	50A	51	58	115	4.95	14.8	8.9	Balwant Singh	
9/7/24	2:30 to 4:30	20820 – 20890	240	230	230	50A	50A	50A	51	58	140	4.95	14.8	8.9	Balwant Singh	[illegible] 09/7
27/7/24	11:45 to 12:45	20950 – 20950	240	230	240	50A	50A	50A	51	58	140	4.93	14.9	8.9	Balwant Singh	
6/8/24	1:58 to 2:30	20980 – 20980	230	240	240	50A	50A	50A	51	58	140	4.92	14.9	8.9	Balwant Singh	[illegible] 06/8
24/8/24	10:20 to 11:55 12:24 to 12:55	2098 – 2100	230	240	240	50A	50A	50A	51	58	145	4.95	14.8	8.9	Balwant Singh	
19/9/24	3:25 to 3:45	21400 – 21445	240	230	240	50A	40A	50A	51	58	140	4.95	14.8	8.7	Balwant Singh	
26/9/24	11:57 to 12:25	21476 – 21476	230	240	240	45A	50A	40A	51	58	145	4.95	14.9	8.6	Balwant Singh	[illegible] 26/9

Sold by: AMIR BOOK DEPOT, 4070, Nai Sarak, Delhi-6 ☎ 23918707, 23918826



ईंधन खाता / ACCOUNT OF FUEL

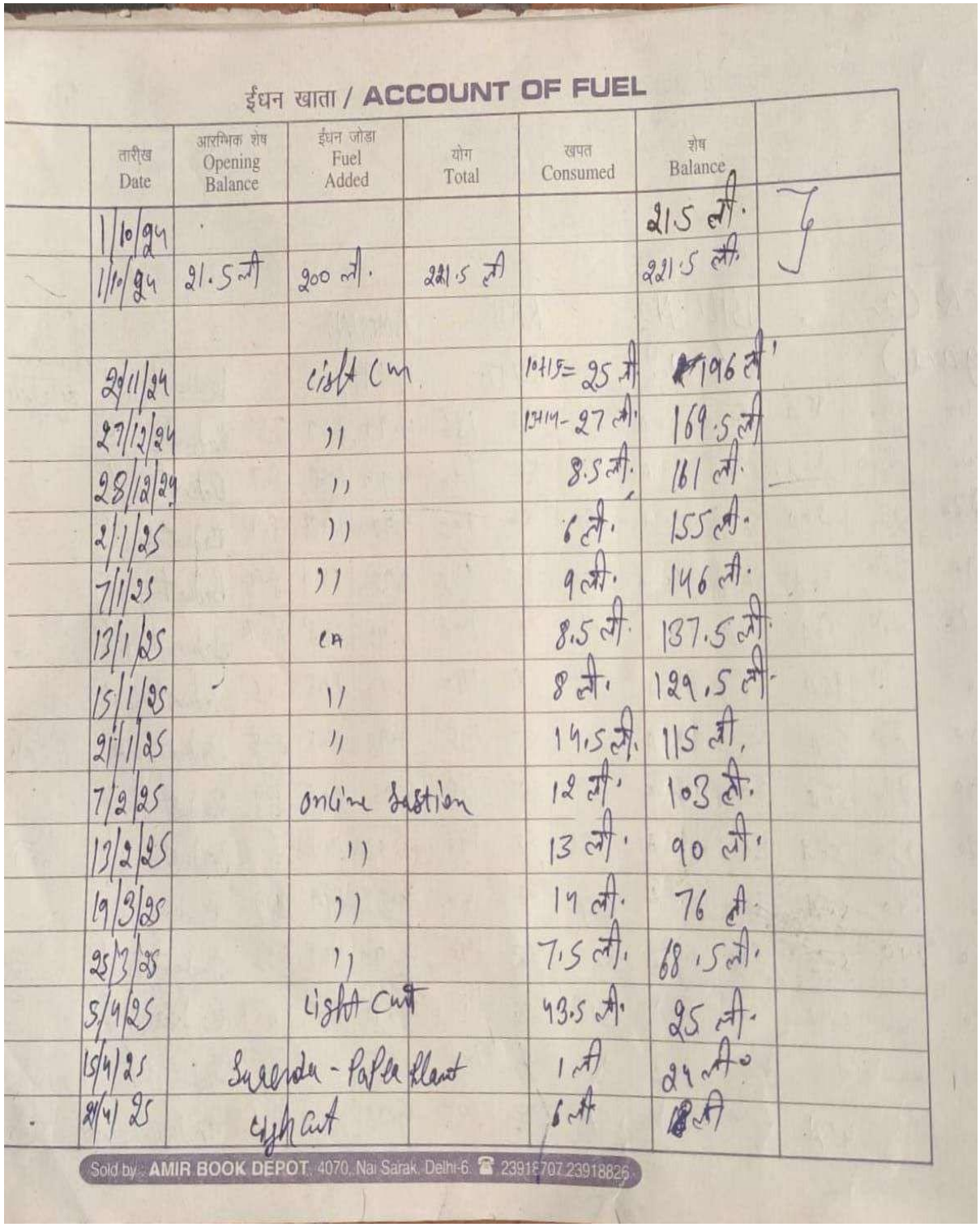
	तारीख Date	आरम्भिक शेष Opening Balance	ईंधन जोड़ा Fuel Added	योग Total	खपत Consumed	शेष Balance
	30/5/24		Light Cut		12 ली.	10.6 ली.
30/5/24	30/5/24	10.6 ली	200 ली.	210.6 ली		210.6 ली.
	30/5/24		Light Cut		14.5 ली.	196.1 ली.
	31/5/24		Light Cut		7.5 ली.	188.6 ली.
	5/6/24		Light Cut		26.5 ली.	162.1 ली.
	7/6/24		"		14.5 ली.	147.6 ली.
	11/6/24		"		7.5 ली.	140. ली.
	18/6/24		"		6 ली.	134 ली.
	19/6/24		"		12 ली.	122 ली.
	1/7/24		"		8 ली.	114 ली.
	9/7/24		"		29 ली.	85 ली.
	27/7/24		"		14.5 ली.	70.5 ली.
	6/8/24		"		6 ली.	64.5 ली.
	24/8/24		"		28.5 ली	36 ली.
	19/9/24		C-A		7.5 ली.	28.5 ली.
	26/9/24		Light Cut		7 ली	21.5 ली



जनरेटर सेट की लॉग बुक / LOG BOOK OF GENERATOR SET 45

तारीख Date	समय Time On Off	मीटर पठन/मीटर में एम्पस House Meter Reading/Amps on Meter side	वोल्टेज Supply Voltage आर.वाई. R.Y.	वाई.बी. Y.B.	बी.आर. B.R.	जनरेटर पर एम्प मीटर पठन/ Amp. Meter Reading on Generator Side आर. R.	वाई. Y.	बी. B.	मीटर पठन Frequency Meter Reading	पानी का तापमान Water Temp.	तेल का तापमान Oil Temp.	तेल का दबाव Oil pressure	बैटरी Battery वोल्टस Volts	एम्पस Amps.	ड्यूटी पर आपरेटर के हस्ताक्षर Signature of Operator on Duty	जाँचकर्ता Checked by
1/10/24	GURU	NANAK	MOTOR CO.				BILL	No	RATE			AMOUNT			[signature]	[signature] 01/10/24
1/10/24		KARNAL-132001 (Hry.)					7919		89/47			17494/-			Balwant Singh	
0/11/24	10:30 to 10:55 11:00 to 12:19	21476-21507	240	240	240	40A	50A	50A	51	58	140	4.95	14.9	8.7	Balwant Singh	
7/12/24	10:10 to 11:55 12:25 to 1:40	21507-21538	240	240	240	50A	40A	40A	51	58	136	4.94	14.8	8.5	Balwant Singh	
/12/24	10:15 to 10:55	21538-21569	240	240	240	40A	40A	40A	51	58	140	4.90	14.9	8.9	Balwant Singh	
1/25	11:30 to 11:48	21569-21594	240	240	240	50A	50A	50A	51	58	145	4.95	14.9	8.9	Balwant Singh	[signature]
/1/25	1:15 to 1:48	21569-21609	240	240	240	60A	60A	40A	51	58	145	4.96	14.9	8.9	Balwant Singh	
/1/25	1:40 to 2:20	21609-21624	240	240	240	50A	40A	50A	51	58	145	4.96	14.9	8.7	Balwant Singh	
/1/25	12:20 to 1:03	21624-21639	240	240	240	40A	40A	50A	51	58	140	4.95	14.9	8.8	Balwant Singh	
/1/25	11:40 to 12:42	21639-21646	240	240	240	50A	50A	50A	51	58	140	4.97	14.9	8.9	Balwant Singh	[signature] 2/1
/2/25	11:40 to 12:30	21646-21653	230	240	240	40A	50A	50A	51	58	136	4.95	14.9	8.9	Balwant Singh	
/2/25	11:[illegible] to 12:5	21653-21660	230	240	240	40A	40A	40A	51	58	140	4.95	14.9	8.9	Balwant Singh	
/3/25	1:[illegible] to 2:12	21667-21674	240	240	240	50A	50A	50A	51	58	140	4.95	14.8	8.9	Balwant Singh	
/3/25	4:00 to 4:25	21674-21681	240	240	240	40A	40A	40A	51	58	140	4.95	14.9	8.9	Balwant Singh	[signature] 25/3
/4/25	10:19 to 12:35	21688-21688	240	230	230	40A	40A	40A	51	58	140	4.95	14.9	8.9	Balwant Singh	
/25	Paper Plant		240	230	230	40A	40A	40A	51	58	140	4.95	14.7	8.9	Balwant Singh	
/25	2:20 to 2:35	21688 21695	240	240	230	40A	50A	50A	51	58	140	4.95	14.9	8.9	Balwant Singh	[signature] 2/4

AMIR BOOK DEPOT, 4070, Nai Sarak, Delhi-6 ☎ 23918707 23918826



ईंधन खाता / ACCOUNT OF FUEL

तारीख Date	आरम्भिक शेष Opening Balance	ईंधन जोड़ा Fuel Added	योग Total	खपत Consumed	शेष Balance	
1/10/24					21.5 ली.	
1/10/24	21.5 ली	200 ली.	221.5 ली		221.5 ली.	
29/11/24		Light Cut		10+15= 25 ली	196 ली.	
27/12/24		"		13+14= 27 ली.	169.5 ली	
28/12/24		"		8.5 ली.	161 ली.	
2/1/25		"		6 ली.	155 ली.	
7/1/25		"		9 ली.	146 ली.	
13/1/25		CA		8.5 ली.	137.5 ली.	
15/1/25		"		8 ली.	129.5 ली.	
21/1/25		"		14.5 ली.	115 ली.	
7/2/25		online Session		12 ली.	103 ली.	
13/2/25		"		13 ली.	90 ली.	
19/3/25		"		14 ली.	76 ली.	
25/3/25		"		7.5 ली.	68.5 ली.	
5/4/25		Light Cut		43.5 ली.	25 ली.	
15/4/25		Surrender - Paper Plant		1 ली	24 ली०	
21/4/25		Light cut		6 ली	18 ली	

Green Audit Report
Dyal Singh College, Karnal
Haryana
Year 2024-25

GMPV7228F1Z0 **TAX INVOICE**

M : 99107 02179
85700 02179
naturegarnish@outlook.com

VISHVAS NURSERY

NH-1, KAMBOPURA, NEAR MADHUBAN, KARNAL, HARYANA-132001

25 OCT

Party Name Principal Dyal Sigh College Karnal

GSTIN : State Haryana State Code

Invoice No. 1900

Dated 24/10/24

State : Haryana Code : 06

Sr. No.	Description of Product	HSN Code	GST %	Qty.	Rate	Amount
1)	Marigold	0602	0%	100	5	500/-
2)	Salvia	"	"	50	5	250/-
3)	Dog flower	"	"	40	5	200/-
4)	Petunia Star	"	"	75	6	450/-
5)	" Double	"	"	25	7	175/-
6)	Guldaudi	"	"	25	12	300/-

Page No: 7 on Stock Register
Cheque to be paid to Vishvas Nursery
Verified and Recommended for Payment
25/10/2024
Sonal Sahiya
25/10/24

Tax : 0.25 ..... 5% ..... 12% ..... 18% .....

Amount in Words One thousand eight hundred and seventy five only

Total Amount Before Tax	1875/-
Add. CGST@	
Add. SGST@	
Add. IGST@	
Freight Charges	
Total Amount After Tax	1875/-

Bank Details : **VISHVAS NURSERY**
A/c No. : **50200060134100** IFSC : **HDFC0002376**
HDFC BANK, Sector-3, Karnal

Terms & Conditions :
- No Guarantee of Goods once sold.
- All Subject to Karnal Jurisdiction only
- Interest @ 18% will be charged after 15 days.

69550
19/11

For VISHVAS NURSERY

Authorised Signatory

AGMPV7228F1Z0 **TAX INVOICE** 25 NOV

VISHVAS NURSERY

M : 99107 02179
85700 02179
naturegarnish@outlook.com

NH-1, KAMBOPURA, NEAR MADHUBAN, KARNAL, HARYANA-132001

Party Name Dyal Singh College Karnal

GSTIN ..... State Haryana State Code 06

Invoice No. : 1960

Dated 14/11/24

State : Haryana Code : 06

Sr. No.	Description of Product	HSN Code	GST %	Qty.	Rate	Amount
1)	Petunia	0602	0+	15	20	300
2)	Dahlia	"		15	40	600

Page No: 08 in stock register
Sonal Saluja
25/11/24

Tax : 0.25.....5%.....12%.....18%.....

Amount in Words Nine Hundred only

Total Amount Before Tax	900/-
Add. CGST@	
Add. SGST@	
Add. IGST@	
Freight Charges	
Total Amount After Tax	900/-

Bank Details : **VISHVAS NURSERY**
A/c No. : **50200060134100** IFSC : **HDFC0002376**
HDFC BANK, Sector-3, Karnal

Terms & Conditions :
- No Guarantee of Goods once sold.
- All Subject to Karnal Jurisdiction only
- Interest @ 18% will be charged after 15 days.

695345
29/11

For VISHVAS NURSERY

Authorised Signatory

MPV7228F1Z0 **TAX INVOICE** 13 DEC

M : 99107 02179
85700 02179
naturegarnish@outlook.com

VISHVAS NURSERY

NH-1, KAMBOPURA, NEAR MADHUBAN, KARNAL, HARYANA-132001

Party Name: Dyal Singh College Karnal

GSTIN: .... State: Haryana State Code ......

Invoice No.: 2037

Dated: 13/12/2024

State : Haryana Code : 06

Sr. No.	Description of Product	HSN Code	GST %	Qty.	Rate	Amount
1)	Dahlia Polybag	0602	0%	25	40	1000

Stock Register No: 08

Payment by Cheque

Sonal Sahiya 13/12/2024

Tax : 0.25..........5%..........12%..........18%..........

Amount in Words: One thousand two hundred only

Total Amount Before Tax	1000/-
Add. CGST@	
Add. SGST@	
Add. IGST@	
Freight Charges	200/-
Total Amount After Tax	1200/-

Bank Details : **VISHVAS NURSERY**
A/c No. : 50200060134100 IFSC : HDFC0002376
HDFC BANK, Sector-3, Karnal

Terms & Conditions :
- No Guarantee of Goods once sold.
- All Subject to Karnal Jurisdiction only
- Interest @ 18% will be charged after 15 days.

695578
18/12

For VISHVAS NURSERY
Authorised Signatory