SES COLLEGE SREEKANDAPURAM

(Accredited by NAAC with 'B' Grade) Affiliated to Kannur University

Criterion 2 Teaching- Learning and Evaluation

2.5. Evaluation Process and Reforms

2.5.2 Mechanism to deal with internal/external examination related grievances is transparent, time- bound and efficient

President :**Dr. Pradeep. K.V**
Assistant Professor Dept. of Economics

STUDENT SUPPORT AND WELFARE SCHEMES

STUDENTS GRIEVANCE CELL

Students grievance cell attempts to redress the genuine grievances of the students. Complaints related to academic matters can be brought before the grievance cell.
Convener: **Dr. Reena Sebastian**
Assistant Professor and H.O.D, Dept. of Mathematics

COUNSELLING CENTRE

The Centre supports students with timely advice and direction to their lives. Students are helped to discover their strengths and aptitudes.
Convener: **Dr. Sunitha Joseph**
Assistant Professor, Dept. of Economics

CAREER GUIDANCE CENTRE

A Career Guidance centre is functioning in our college.
Convenor: **Dr. N.M.Sreekumar**
Assistant Professor and H.O.D, Dept. of Economics

WOMEN'S WELFARE & EMPOWERMENT CELL

The cell addresses the genuine concerns, problems and difficulties of the female students in the campus. They can confide in the cell and seek support and help.
Welfare Officer: **Smt. Shyna Janardhanan**
Assistant Professor, Dept. of English

STUDENTS AID FUND

Student's aid fund is instituted with the contribution from students. A committee formed for the purpose distributes the amount to deserving students.
Convener: **Smt. Jumaila. K**
Assistant Professor, Dept. of Commerce - B.Com

ALUMNI ASSOCIATION

The college has an active Alumni Association which

bridges the past and present for the brighter future of the institution.
Convener: **Smt. Salija. P.V**
Assistant Professor, Dept. of Chemistry

ANTI RAGGING COMMITTEE

The college ensures strict messures to make sure of the students well being and take necessary steps to prohibit ragging in the institutional environment.
Convener: **Dr. Sreekumar. N.M**
Assistant Professor, & HOD, Dept. of Economics

ANTI-DRUGS PROGRAMME & COTPA

Convener: **Dr. Sunitha Joseph**
Assistant Professor, Dept. of Economics

INTERNAL COMPLAINTS COMMITTEE

Convener: **Dr. Reena Sebastian**
Assistant Professor, & HOD, Dept. of Mathematics

EXTENTION ACTVITIES COMMITTEE (NOSES)

Convener: **Dr. Sunitha Joseph**
Assistant Professor, Dept. of Economics

SCHOLARSHIP AND ENDOWMENT COMMITTEE

Convener: **Shyna Janardhanan** (Scholarship)
Assistant Professor, Dept. of English

Convener: **Smt. Nasreena. P.K** (Endowment)
Assistant Professor, Dept. of History

DOCUMENTATION COMMITTEE

Convener: **Smt. Anumol Thomas**
Assistant Professor, Dept. of Commerce - BBA

PUBLIC RELATIONS OFFICER

Convener: **Dr. Pradeep. K.V**
Assistant Professor, Dept. of Economics

REPORT ON INDUSTRIAL VISIT TO KASARAGOD

SOLAR POWER PLANT

SUBMITTED BY-: ANJANA TK

Reg.no:- SE20CPHR06

SES COLLEGE SREEKANDAPURAM

Department of Physics
S. E. S. COLLEGE
SREEKANDAPURAM

Dr. Dhanya. A.C
Assistant Professor & HOD
Department of Physics
SES College Sreekandapuram
Kannur-670631

ACKNOWLEDGEMENT

We take this opportunity to thank our Head OF department Dr Dhanya A C for giving us an opportunity for industrial visit . Our visit taken place on 5th November 2022.Very heartfelt gratitude also goes out to solar power plant Kasaragod for guiding us through the various process and machinery used . A special thank to the Sir Augustine Thomas ,Chief engineer KSEBL(Rtd) for providing the opportunity and support. Finally heartfelt gratitude to all our classmates and other faculties of SES College Sreekandapuram providing the facilities and making this trip a memorable one.

FIELD STUDY REPORT

Solar Park Visit Report

INTRODUCTION:

I recently had the opportunity to visit the Solar Park in Kasargod, which is located in the Indian state of Kerala. The Solar Park is a vast expanse of land dedicated to harnessing the power of the sun and generating electricity using solar panels. It is one of the largest solar parks in India and is a flagship project of the Indian government's renewable energy initiative. In this report, I am sharing my experience and insights from the visit.

Total area of this solar park is about 600 acres , containing 48 inverter station,each with capacity 5MW.These station used to convert DC current into AC, which is then transmitted to grid . KSEB substation is located about 6 km away from solar park and a total capacity of 1000 MVA. The solar park is maintained by a team of skilled technicians who regularly inspects the panels and inverter for any faults or damage.

DESCRIPTION OF THE SOLAR PARK:

The Solar Park is spread over an area of around 2000 acres and is situated in the village of Kasargod. It has a total installed capacity of 200 MW, which is generated using photovoltaic solar panels. The park is operated by the Kerala State Electricity Board (KSEB) and was commissioned in 2018. The Solar Park is divided into various sections, each consisting of multiple solar panels, transformers, inverters, and other equipment necessary for the generation and distribution of electricity.

Solar power plants are becoming an increasingly popular method of generating electricity from renewable sources. These plants work by harnessing the energy from the sun and converting it into electricity that can be used to power homes, businesses, and industries. This paper aims to explain the working of a solar power plant and the different types of solar power plants.

WORKING OF SOLAR POWER PLANT:

The basic principle of a solar power plant is to use the energy from the sun to produce electricity. This is done through a process known as the photovoltaic effect. In this process, sunlight is absorbed by solar panels, which are made up of semiconductor materials like silicon. The energy from the sun excites electrons in the material, which creates a flow of electrons that can be harnessed as electricity.

The solar panels are connected to an inverter, which converts the DC (direct current) electricity generated by the panels into AC (alternating current) electricity that can be used to power homes and businesses. The electricity generated by the solar panels can also be stored in batteries for later use.

DIFFERENT TYPES OF SOLAR POWER PLANTS:

Photovoltaic (PV) Solar Power Plants: This is the most common type of solar power plant. It uses solar panels to generate electricity from the sun's energy. The panels are arranged in arrays, which are then connected to an inverter to convert the DC electricity into AC electricity.

Concentrated Solar Power (CSP) Plants: This type of solar power plant uses mirrors or lenses to focus sunlight onto a small area. This concentrated heat is used to generate steam, which drives a turbine to generate electricity.

Hybrid Solar Power Plants: These plants use a combination of PV and CSP technologies to generate electricity. They are designed to take advantage of the strengths of both technologies, such as the ability of CSP to generate electricity even when the sun is not shining, and the ability of PV to generate electricity in a wider range of conditions.

Floating Solar Power Plants: These plants are built on bodies of water, such as lakes or reservoirs. The solar panels are mounted on floating platforms, which are anchored to the bottom of the body of water. Floating solar power plants have several advantages over traditional solar power plants, including increased efficiency due to cooler temperatures and reduced land usage.

CONCLUSION:

In conclusion, solar power plants are a valuable source of renewable energy that is becoming increasingly popular around the world. These plants work by harnessing the energy from the sun and converting it into electricity that can be used to power homes, businesses, and industries. There are different types of solar power plants, including photovoltaic, concentrated solar power, hybrid, and floating solar power plants. Each of these types has its own advantages and disadvantages, and the choice of which type to use depends on factors such as location, climate, and cost. Overall, solar power plants are a promising and important source of renewable energy for the future.


Kasaragod, Kerala, India
Jeswin Mukk Rd, Kerala 671531, India
Lat 12.367677°
Long 75.181351°
05/11/22 03:56 PM
Google

S.E.S. COLLEGE, SREEKANDAPURAM

INTERNAL MARK SHEET

10

Programme : BSc Physics

Semester : II

Subject : 2BC2 PHY MATHEMATICAL PHYSICS AND ERROR ANALYSIS

Sl.No.	Reg.No.	Name	Exam (5)	Assignment (2.5)	Attendance (2.5)	Total (10)	Remarks	Signature
1	SE22CPHR01	Sreeraj V P	5	4		9		
2	" 02	Avani M P	5	4		9		
3	" 03	Nigaraj K R	6	4		10		
4	" 04	Theertha Prakash MV	4	4		8		
5	" 05	Aparna K V	1	4		5		
6	" 06	Hrithik K P	1	3		4		
7	" 07	Ananya T V	6	4		10		
8	" 08	Devananda T P	2	4		6		
9	" 09	Neha K P	3	4		7		
10	" 10	Nihara K	2	3		5		
11	" 11	Shamilulu CK	6	4		10		
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18			Prepared by					
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21					Dr. Rejith P. P.			
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Dr. Dhanya. A.C
Assistant Professor & HOD
Department of Physics
SES College Sreekandapuram
Kannur - 670 631

S.E.S. COLLEGE, SREEKANDAPURAM

INTERNAL MARK SHEET

12

Programme : BSc. Physics

Semester : II

Subject : 2C02 MAT_PH MATHEMATICS FOR PHYSICS II

Sl.No.	Reg.No.	Name	Exam (5)	Assignment (2.5)	Attendance (2.5)	Total (10)	Remarks	Signature
1	SE22CPHR01	Sreeraj. V. P	4	5		9		
2	" 02	Avani M P	3	5		8		
3	" 03	Nigaraj K R	5	5		10		
4	" 04	Theertha Prakash MV	4	5		9		
5	" 05	Aromal K. V	1	5		6		
6	" 06	Hrithik K. P	1	5		6		
7	" 07	Ananya T. V	5	5		10		
8	" 08	Devananda T. P.	2	5		7		
9	" 09	Neha K. P	3	5		8		
10	" 10	Nihara K.	2	5		7		
11	" 11	Shamalulu C.K.	5	5		10		
12								
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18								
19								
20								
21								
22								
23								

Prepared by

Silja. C

Dr. Dhanya. A.C
Assistant Professor & HOD
Department of Physics
SES College Sreekandapuram
Kannur-670631

SES COLLEGE SREEKANDAPURAM
VI Semester BSc Degree Internal Examination-1, February 2023
6B10 PHY : SOLID STATE PHYSICS & SPECTROSCOPY

Time: 1hour **Total Marks: 20**

SECTION-A
(Answer all questions each carry FIVE marks)

1. Explain diatomic vibrating rotator

(5X1=5)

SECTION-B
(Answer any FIVE each carry 3 marks)

2. Explain the energy of HCL molecule.
3. Explain zeropoint energy and draw vibrational spectra of a simple harmonic oscillator.
4. What is an anharmonic oscillator and draw energy level diagram of it.
5. What are overtones , Explain different types.
6. Explain vibration rotation spectrum of Carbon Monoxide.
7. The spacing between the vibrational levels is of the order 10^3 cm-1. Find the population at room temperature.

(5X3=15)

S E S COLLEGE, SREEKANDAPURAM

VI SEMESTER MODEL EXAMINATION – MARCH 2023

6B10 PHY : SOLID STATE PHYSICS & SPECTROSCOPY

Time: **3** hours

Max Marks: **40**

Section A: Answer ALL questions **Short answer type**, Each question carries 1 mark)

1. Define the term space lattice
2. What is mean by symmetry operation ?
3. What is mean by Bragg's plane ?
4. Write the selection rule of a rigid diatomic molecule.
5. What are linear molecules?
6. Explain moment of inertia in spherical tops

(6 x 1 = 6)

Section B: Answer any SIX questions (**Short Essay type**-Each question carries 2 marks)

7. Which are electromagnetic radiations?
8. How food is being cooked within a microwave oven?
9. Explain degeneracy in spectroscopy.
10. Define a unit cell
11. Write a note on reflection symmetry in cubic crystal.
12. What is mean by Coordination number ? What is the coordination number of a simple cube ?
13. Explain Bragg's law
14. Describe the importance of Miller indices of Crystal planes.

(6 x 2 = 12)

Section C: Answer any FOUR questions (**Problem type**-Each question carries 3 marks)

15. Show that Five fold rotation axis is not compatible with a lattice.
16. The rotation spectrum of Carbon Monoxide is 3.84235 cm^{-1}. Calculate the moment of inertia and bond length of the same.
17. Explain the working of Bragg's X-ray Spectrometer

8. Which are the classification of molecules according to their principal moments of inertia.

19. Explain the effect of isotopic substitution in a rigid diatomic molecule.

20. Draw the degenerate orientations of rotational angular momentum vector for a molecule with J=1, J=2, J=3.

(4 X 3 = 12)

Section D: Answer any TWO question (**Long essay type**-Each question carries 5 marks)

21. Discuss the BCC and FCC structures

22. Explain hexagonal Close Packed Structure

23. With proper diagrams explain a diatomic vibrating Rotator.

24. What is Raman effect? Explain classical and Quantum explanations of it.

(2 X 5 = 10)

S E S COLLEGE SREEKANDAPURAM

VI SEMESTER INTERNAL MARK

6B10 PHY : SOLID STATE PHYSICS & SPECTROSCOPY

Reg number	Name	CT1(20)	Model (40)
SE20KPHYR001	Arjun Rajeev K V	10	12
SE20KPHYR002	Prathyush V C	9	14
SE20KPHYR003	Sagar P	16	13
SE20KPHYR004	Shamal Chandran	10	11
SE20KPHYR005	Suraj P	6	13
SE20KPHYR006	Anjana T K	18	35
SE20KPHYR007	Gopika R	10	16
SE20KPHYR008	Hanana N P	9	24
SE20KPHYR009	Sreeja Padmam	3	16
SE20KPHYR010	Abhiram A	4	6
SE20KPHYR011	Anand K K	16	35
SE20KPHYR012	Nikhil P	6	8
SE20KPHYR013	Saran P	7	6
SE20KPHYR014	Sayanth K	4	12
SE20KPHYR015	Sourav C	11	21
SE20KPHYR016	Sreeharı Ramesh	10	10
SE20KPHYR017	Vaishna K	12	4
SE20KPHYR018	Vaishna M V	7	14
SE20KPHYR019	Adwaitha S P	9	17
SE20KPHYR020	Anuhitha P	11	12
SE20KPHYR021	Manitha P P	9	13
SE20KPHYR022	Reshma C K	NIL	NIL
SE20KPHYR023	Shreya P	7	19

SES COLLEGE SREEKANDAPURAM

KANNUR

Name of Examination : First Semester Model Examination 2023
(Course & Year)

Subject : Physics

Code :

Date 2 0 0 1 2 0 2 3
DATE MONTH YEAR

No. of Booklets used 3

Question No.	Mark	Question No.	Mark
1	1	31	
2	1	32	
3	1	33	
4	1	34	
5	1	35	
6	2	36	
7	2	37	
8	1½	38	
9	2	39	
10		40	
11	2	41	
12	1	42	
13	3	43	
14		44	
15	2½	45	
16		46	
17	4½	47	
18	4½	48	
19		49	
20		50	
21		51	
22		52	
23		53	
24		54	
25		55	
26		56	
27		57	
28		58	
29		59	
		60	

Register No.

CHE 08

Name of Examination
(Course & Year)

First Semester Model Examination January 2023

Subject Physics

Paper Mechanics

Code

Signature of the Candidate

Signature of the Invigilator

Booklet No

4517

SES COLLEGE SREEKANDAPURAM

KANNUR

Name of Examination : 3rd Sem Model Examination
(Course & Year)

Subject : Optics & Photonics

Code : 3C03 PHY

Date: 29 | 11 | 2022 (DATE MONTH YEAR)

No. of Booklets used

Question No.	Mark	Question No.	Mark
1	1	31	
2	1	32	
3		33	
4	1	34	
5	1	35	15 1/2
6	1	36	
7	1	37	
8	1/2	38	
9		39	
10		40	
11		41	
12		42	
13		43	
14		44	
15		45	
16	1	46	
17		47	
18		48	
19		49	
20	2 1/2	50	
21		51	
22		52	
23		53	
24		54	
25		55	
26		56	
27		57	
28		58	
29		59	
30		60	

Register No.

SE21CMSR09

Name of Examination

(Course & Year)

3rd Sem modelexaminat

Subject Optics and Photonics

Paper

Code 3C03 PHY

Signature of the Candidate

Signature of the Invigilator

Booklet No.

3513

6BIO PH4 : Solid State physics & Spectroscopy

CT + Model = 60
Assignment = 4 } Total

Sl No:	Reg. NO:	Name.	CT1 (20)	Model (40)	Assignment	Internal Distribution.	Total + 0.5	Final
1	SE20CPHR01	Arjun Rajeev. K. V	10	12	4	3.0 + 4 = 7.0	7.5	8.0
2	" 62	Prathyush. V. C	09	14	4	2.7 + 4 = 6.7	7.2	7.0
3	" 03	Sagar. P	16	23 ✓	4	5.0 + 4 = 9.0	9.5	10
4	" 04	Shamal Chandran	10	11	4	3.0 + 4 = 7.0	7.5	8
5	" 05	Swag. P	06	33	4	5.0 + 4 = 9.0	9.5	10
6	" 06	Anjana. T. K	18	35 ✓	4	5.3 + 4 = 9.3	9.8	10
7	" 07	Gopika. R	10	16	4	3.0 + 4 = 7.0	7.5	8
8	" 08	Havana. N. P	09	24	4	3.6 + 4 = 7.6	8.1	8
9	" 09	Sreya Padmam	03	16	4	2.4 + 4 = 6.4	6.9	7
10	" 10	Abhinav. A	04	06	4	1.2 + 4 = 5.2	5.7	6
11	" 11	Anand K K	16	35	4	5.3 + 4 = 9.3	9.8	10
12	" 12	Nikhil. P	06	08	4	1.8 + 4 = 5.8	6.3	6
13	" 13	Saran. P	07	06	4	2.1 + 4 = 6.1	6.6	7
14	" 14	Sayanth. k	04	12	4	1.8 + 4 = 5.8	6.3	6
15	" 15	Sonav. C	11 ✓	21	4	3.3 + 4 = 7.3	7.8	8
16	" 16	Sreehari Ramesh	10	10	4	3.0 + 4 = 7.0	7.5	8
17	" 17	Vishnu. K	10	08	4	3.0 + 4 = 7.0	7.5	8
18	" 18	Vishnu M V	09	14	4	2.7 + 4 = 6.7	7.2	7
19	" 19	Adwaitha. S. P	09	37	4	5.6 + 4 = 9.6	10.0	10
20	" 20	Arshitha. P	11	32	4	4.8 + 4 = 8.8	9.3	9
21	" 21	Mudiha. P. P	06	13 + 2	4	2.3 + 4 = 6.3	6.8	7
22	" 22	Rohana. C. K						
23	" 24	Shilpa. P.	03	19	4	2.9 + 4 = 6.9	7.4	7

PHYSICS ASSIGNMENT

SE22CCHR12
Sivaganga V.P
Roll no: 9
BSc · chemistry
1st year.

Find the change in internal energy of a gas if its volume increases from 3.5 to 4.2 litre at a constant pressure of one atmosphere on giving 320 J of heat.

change in volume of the gas, $dV = 0.7$ litre
$= 0.7 \times 10^{-3}\ m^3$

Pressure P = 1 atmosphere $= 1.013 \times 10^5\ Nm^{-2}$

workdone $dW = PdV$
$= 1.013 \times 10^5 \times 0.7 \times 10^{-3}$
$= -70.91$ J

Negative sign indicates that work is done by the gas.

Heat given to the gas $dQ = 320$ J

change in internal energy $dU = dQ - PdV$
$= 320 - 70.91 = 249.09$ J

calculate the change in internal energy when the temperature of 0.00 kg of gas is raised from 27°c to 29.4°c at constant volume.

Given specific heat capacity of the gas at constant volume

$712.3\ J\,kg^{-1}\,k^{-1}$

Mass of the gas = 0.0045 kg

Inital temperature, $T_1 = 27°c = 300k$

final temperature, $T_2 = 29.4°c = 302.4\ K$

Heat absorbed by the gas $dQ = MC_v(T_2 - T_1)$

$= 0.0045 \times 712.3 \times 2.4 = 7.693$ J

$T^{\gamma} P^{1-\gamma}$ = constant

$P_i^{\gamma} V_i^{\gamma}$

$$\frac{P_i^{\gamma-1}}{T_i^{\gamma}} = \frac{P_f^{\gamma-1}}{T_f^{\gamma}}$$

$$\frac{T_f^{\gamma} (32P)^{\gamma-1} \times 300^{\gamma}}{P^{\gamma-1}} = \frac{32^{\gamma-1} P^{\gamma-1} \times 30^{\gamma}}{P^{\gamma-1}} \Rightarrow T_f^{\gamma} = 32^{\gamma-1} \times 300^{\gamma}$$

$$T_f = 300 \times 32^{\frac{\gamma-1}{\gamma}} = 300 \times 32^{2/5} \Rightarrow 300 \times 4 = \underline{1200\,K}$$

$$W = \frac{nR}{\gamma-1}\left[T_i - T_f\right] \Rightarrow \frac{8.3}{2/3}\left[300 - 1200\right]$$

$$= \frac{8.3}{2/3}\left[-900\right] \rightarrow 12.45 \times -900 = \underline{-11205\ J}$$

One mole of Nitrogen expands isothermally at 20°c from a volume of 10 litre to 20 litre: Assuming nitrogen to be ideal gas, find how much heat must be supplied to keep the temperature from dropping.

$T = 20^{\circ}C = 293\,K$

$V_1 = 10L$

$V_2 = 20$

Work done in isothermal process.

$$W = nRT \ln\left[\frac{V_f}{V_i}\right]$$

$$= 8.31 \times 293 \ln\left[\frac{20}{10}\right]$$

$$= 8\,31 \times 293 \ln[2] \Rightarrow 8.31 \times 293 \times 0.6931$$

$$= \underline{1687.6\ J}$$

PHYSICS ASSIGNMENT

NAME : HARIPRIYA
DEPT : BSc CHEMISTRY
REG NO : ~~SECCHR03~~
SE22CCHR03

1) Find the change in internal energy of a gas if its volume increases from 3.5 to 4.2 litre at constant pressure of one atmosphere on giving 320 J of heat

sol: Pressure $P = 1 \text{ atm} = 1.013 \times 10^5 \text{ Nm}^{-1}$

Change in volume of the gas, $dV = 0.7$ litre
$= 0.7 \times 10^{-3} \text{ m}^3$

Work done $dW = -PdV$
$= 1.013 \times 10^5 \times 0.7 \times 10^{-3}$
$= -70.91 \text{ J}$

Negative sign indicates that work is done by the gas

Heat given to gas $dQ = 320 \text{ J}$

Change in internal energy $dV = dQ - PdV$
$= 320 - 70.91 = 249.09 \text{ J}$

2) Calculate the change in internal energy when temperature of 0.0045 kg of gas is raised from 27°C to 29.4°C at constant volume. Given specific heat capacity of gas at constant volume $712.3 \text{ kg}^{-1} \text{ K}^{-1}$

sol: Mass of the gas = 0.0045 kg

Initial temperature $= T_1 = 27°C = 300 \text{ K}$

Final temperature $= T_2 = 29.4°C = 302.4 \text{ K}$

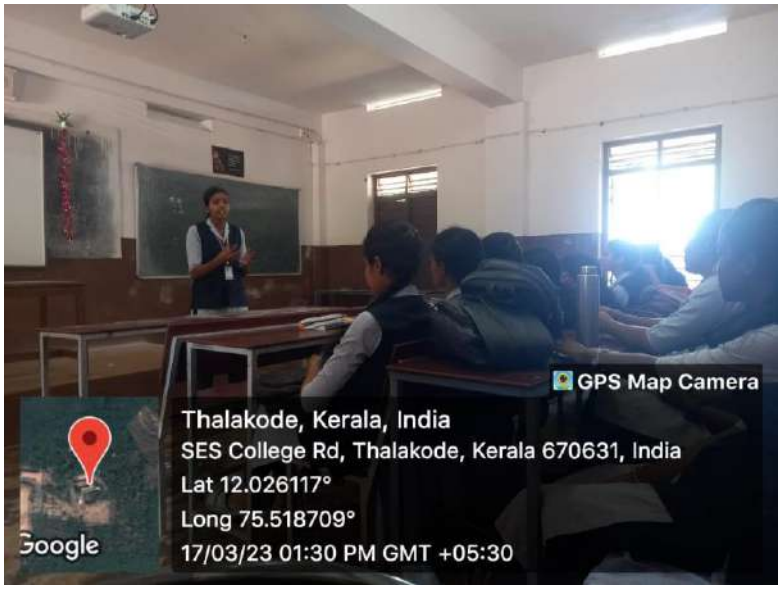
Heat absorbed by the gas $dQ = MC_v (T_2 - T_1)$

$= 0.0045 \times 712.3 \times 2.4 = 7.693 \text{ J}$

Work done $dW = 0$

change in internal energy $dV = dQ + dW = 7.693 \text{ J}$

Seminar taken by students



S E S COLLEGE SREEKANDAPURAM

VI SEMESTER INTERNAL MARK

6B10 PHY : SOLID STATE PHYSICS & SPECTROSCOPY

Reg. number	Name	CT1(20)	Model (40)
SE20CPHR01	Arjun Rajeev K V	10	12
SE20CPHR02	Prathyush V C	9	14
SE20CPHR03	Sagar P	16	33
SE20CPHR04	Shamal Chandran	10	11
SE20CPHR05	Surag P	6	33
SE20CPHR06	Anjana T K	18	35
SE20CPHR07	Gopika R	10	16
SE20CPHR08	Hasana N P	9	24
SE20CPHR09	Sreya Padmam	3	16
SE20CPHR10	Abhinav A	4	6
SE20CPHR11	Anand K K	16	35
SE20CPHR12	Nikhil P	6	8
SE20CPHR13	Saran P	7	6
SE20CPHR14	Sayanth K	4	12
SE20CPHR15	Sourav C	11	21
SE20CPHR16	Sreehari Ramesh	10	10
SE20CPHR17	Vishnu K	10	8
SE20CPHR18	Vishnu M V	9	14
SE20CPHR19	Adwaitha S P	9	37
SE20CPHR20	Arshitha P	11	32
SE20CPHR21	Musliha P P	6	15
SE20CPHR22	Rishana C K	AB	AB
SE20CPHR24	Shilpa P	3	19

AVANI M.P

SES COLLEGE

SREEKANDAPURAM

Sreekandapuram (PO), Kannur District, Kerala - 670631
Phone: 04602230293, www.sescollege.ac.in,
sescollege.skprm@gmail.com

TUTORIAL CARD

(20.22. 20.25.)

Name of Student.....AVANI. M. P.....

SES COLLEGE
SREEKANDAPURAM

TUTORIAL CARD

(2022. 2025.)

Name of Student :	AVANI M P
Course	BSC. PHYSICS
Admission No.	12604
Class No.	2
University Reg. No.	SE22CPHR02

PERSONAL PROFILE

Name of Student	Avani M P
Course	BSC PHYSICS
Admission No.	12604
Class No.	2
University Reg. No.	
Date of Birth	27/09/2004
Blood Group	A^{+ve}
Religion & Caste	Hindu, Nair
E-mail ID	avanimpkolachery@gmail.com
Telephone/Mobile No.	8590050699
Home Address	Murikkanchery Veedu. Perumachery (PO) Kolachery.
Name of Guardian	Gangadharan. M
Relationship with Student	Father
Name of Father	Gangadharan. M
Occupation	Coolie.
Name of Mother	Lathika. M. P
Occupation	House wife
Annual income of parent	48000
Contact Nos.	9605631430
Name of relative who studied in this College with year	NO
Whether received any scholarship (If yes, give details)	

Examination

Co-Curricular Activities

Unions/Clubs	
NSS/NCC	NSS
Sports & Games	
Arts	Acting
Talents and Achievements	Best Actress in 2017
Hobbies	Dancing, Listening music
WWS / SSP / ASAP	

Visit by Parent / Guardian

Date	Name of Parent	Matters Discussed	Signature of Parent
12/08/2023	Lathika. M.P		La
25/10/23	Lathika. M.P		La

SEMESTER I

Sl. No	Subject	Attentance %	Class Test	Model Exam	Internal	External	University
1.	Mechanics I	99	25	30	9	8	17
2.	Basic electronics	99	22	29	7	26	33
3.	Mathematics for physics	99	20	21	8	19	27
4.	Communicative English	99	20	28	9	26	35
5.	Readings on kerala.	99	18	20	8	21	29
6.	Hindi Kavitha.	99	25	40	10	30	40

Signature of Parent

Tutor Dr. Jinisha.B

HOD

Remarks:

SEMESTER II

Sl. No.	Subject	Attentance %	Class Test	Model Exam	Internal	External	University
1.	Mathematical Physics And Error Analysis	99	16	27	9	22	31
2	Digital Electronics	100	10	16	7	18	25
3	Mathematics OF Physics	100	18	23	8	17	25
4	Readings On Gender	100	19	25	8	25	33
5	Readings on Life And Nature	100	20	28	9	22	31
6.	Rachana Thatha Prayog.	100	23	34	9	31	40

nature of Parent

Tutor

HOD

arks:

SEMESTER III

Sl. No.	Subject	Attentance %	Class Test	Model Exam	Internal	External	University
1	Mechanics II	99%					
2	Communication systems	99%.					
3	Mathematics For Physics	98%.					
4	Readings on democracy & Secularism	98%.					
5	Katha Sahithya	98%.					
6							

Signature of Parent

Tutor

HOD

Remarks:

SEMESTER IV

Sl. No.	Subject	Attentance %	Class Test	Model Exam	Internal	External	University

Tutor

DEVANANDA

SES COLLEGE

SREEKANDAPURAM

Sreekandapuram (PO), Kannur District, Kerala - 670631
Phone: 04602230293, www.sescollege.ac.in,
sescollege.skprm@gmail.com

TUTORIAL CARD

(20.22 20.25.)

Name of Student..DEVANANDA.T.P.....

SES COLLEGE
SREEKANDAPURAM

TUTORIAL CARD

(20.22.. 20.25..)

Name of Student :	DEVANANDA T.P
Course	BSc PHYSICS
Admission No.	12654
Class No.	8
University Reg. No.	

PERSONAL PROFILE

Name of Student	Devananda . T . P
Course	Bsc Physics
Admission No.	12654
Class No.	8
University Reg. No.	
Date of Birth	26 . 05 . 2005
Blood Group	B+ve
Religion & Caste	Hindu , SC - Vannan
E-mail ID	devanandatp928@gmail.com
Telephone/Mobile No.	7306471312
Home Address	Sreeragam (H) Kuttiattoor P.O Mayyil , Kannur 670602
Name of Guardian	Valsarajan . T . P
Relationship with Student	Father
Name of Father	Valsarajan T P
Occupation	Motor Vehicle Inspecter , RTO
Name of Mother	Praseetha P.V
Occupation	HSE , Teacher
Annual income of parent	4 Lakhs
Contact Nos.	9447387587 , 9446294733
Name of relative who studied in this College with year	
Whether received any scholarship (If yes, give details)	

Marks Secured for Qualifying Examination

Name of Examination	Board/University	Grade/Mark Secured	Percentage of marks
SSLC	central Board Public Exam	A2, A1, B2, B1, B2	78%
PLUS TWO	Board of Higher Secondary	2A+ , 4A	88.5%

Co-Curricular Activities

Union/Clubs	
NSS/NCC	NCC
Sports & Games	Basketball
Arts	
Talents and Achievements	
Hobbies	Dancing, Singing, Drawing.
WWS / SSP / ASAP	

Visit by Parent / Guardian

Date	Name of Parent	Matters Discussed	Signature of Parent
12.01.2023	Praseetha. PV		
26.06/23	Valsarajan .TP		26/06/23
25/10/23	Valsarajan TP		25/10/23

SEMESTER I

Sl. No.	Subject	Attentance %	Class Test	Model Exam	Internal	External	University
1	Phy - Mechanics	98%	22	35	10	23	33
2	Phy - Electronics	98%	17	21	6	23	29
3	Maths for Physics	98%	16	11	8	17	25
4	Communicative English	98%	24	34	10	33	43
5	Readings on Kerala	98%	20	31	9	22	31
6	Kathamathrikakal	98%	19	36	8	25	33

Signature of Parent

Tutor

HOD

Remarks:

SEMESTER II

Sl. No.	Subject	Attentance %	Class Test	Model Exam	Internal	External	University
1	Reading on life and gender	96%	23	31	8	23	31
2	Readings on Gender	96%	21	25	9	17	26
3	Kavitha Mathrikakal	96%	240	36	8	33	41
4	Mathematical Physics & Error Analysis	96%	16	22	6	19	25
5	Digital Electronics	96%	14	20	5	16	21
6	Mathematic for Phy II	96%	15	22	7	12	19

Signature of Parent

Tutor

HOD

Remarks:

DETERMINATION OF SOIL FERTILITY BY ELECTRICAL CONDUCTIVITY TEST

A PROJECT REPORT

Submitted by

VISHNU M V

SE20CPHR18

IN THE PARTIAL FULFILMENT FOR THE AWARD OF THE DEGREE OF

BACHELOR OF SCIENCE IN

PHYSICS

DEPARTMENT OF PHYSICS

SES COLLEGE, SREEKANDAPURAM

APRIL 2023

DETERMINATION OF SOIL FERTILITY BY ELECTRICAL CONDUCTIVITY TEST

Project report submitted to Kannur University in partialfulfilment for the BSC Degree (Physics)

By

VISHNU M V

SE20CPHR18

OTHER GROUP MEMBERS

1. **SREYA PADMAM**
2. **SARAN P**
3. **MUSLIHA P P**

DECLARATION

I VISHNU M V hereby declare that this project entitled "**DETERMINATION OF SOIL FERTILITY BY ELECTRICAL CONDUCTIVITY TEST** " has been prepared by me in partial fulfilment of the bachelor's degree in physics of Kannur University. I also assure that this project report has not been submitted by me, fully or partially for the award of any degree before.

VISHNU M V

Reg.no: SE20CPHR18

Place: Sreekandapuram

Date: 13-4-2023

CERTIFICATE

This is to certify that the project entitled :
" **Determination of soil fertility by electrical conductivity test.**"
is a bonafide record of work done by **Vishnu M V**

Register no: **SE20CPHR18,** DEPARTMENT OF PHYSICS, SES COLLEGE SREEKANDAPURAM Submitted to Kannur University towards the partial fulfilment of the requirements for the award of the bachelor's degree in physics during the period 2020-2023.

Department of Physics
S. E. S. COLLEGE
SREEKANDAPURAM

PRASHEENA.K.E
Assistant professor in contract
Department of physics
SES college Sreekandapuram

Submitted for the project Viva-Voce examination held on

_____

1.

2.

Internal Examiner

Dr. Dhanya. A.C
Assistant Professor & HOD
Department of Physics
SES College Sreekandapuram
Kannur-670631

External Examiner

ACKNOWLEDGEMENT

It is with great enthusiasm and learning spirit that we are bringing out this project report. I feel that it is the right occasion to express my sincere gratitude to those who have offered me a helping hand during the completion of my project. With immense pleasure and heartiest gratitude, I express my sincere thanks to our teacher PRASHEENA K.E for her valuable suggestions and guidance , Dr. DHANYA A.C, Head of the department of Physics for her encouragement and motivation for the completion of this work. I am extremely grateful to the principal Dr. DOMINIC THOMAS, SES College, Sreekandapuram for providing the necessary facilities. I take this opportunity to thank teaching, non-teaching staff members and all my friends for being there to help me whenever I was in need. My acknowledgement would not be complete without acknowledging my gratitude to beloved parents who have been the pillars of support and constant encouragement through the course of this project.

VISHNU M V

ABSTRACT

The project is to determine the soil fertility by measurement of electrical conductivity. The samples of different soils were collected and conductivity of each of the sample was measured. Different type of fertilizers and organic waste were mixed with soil.

Adding water to soil dissolves the nutrients present and creates an electrolyte solution of soil by placing two electrodes in the soil and applying voltage across terminals, current is measured.

Soils having high conductivity are good fertile whereas less conductivity are less fertile.

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CHAPTER 3

- OBSERVATION
- ANALYSIS USING GRAPH

CHAPTER 4

- CONCLUSION
- REFERENCE