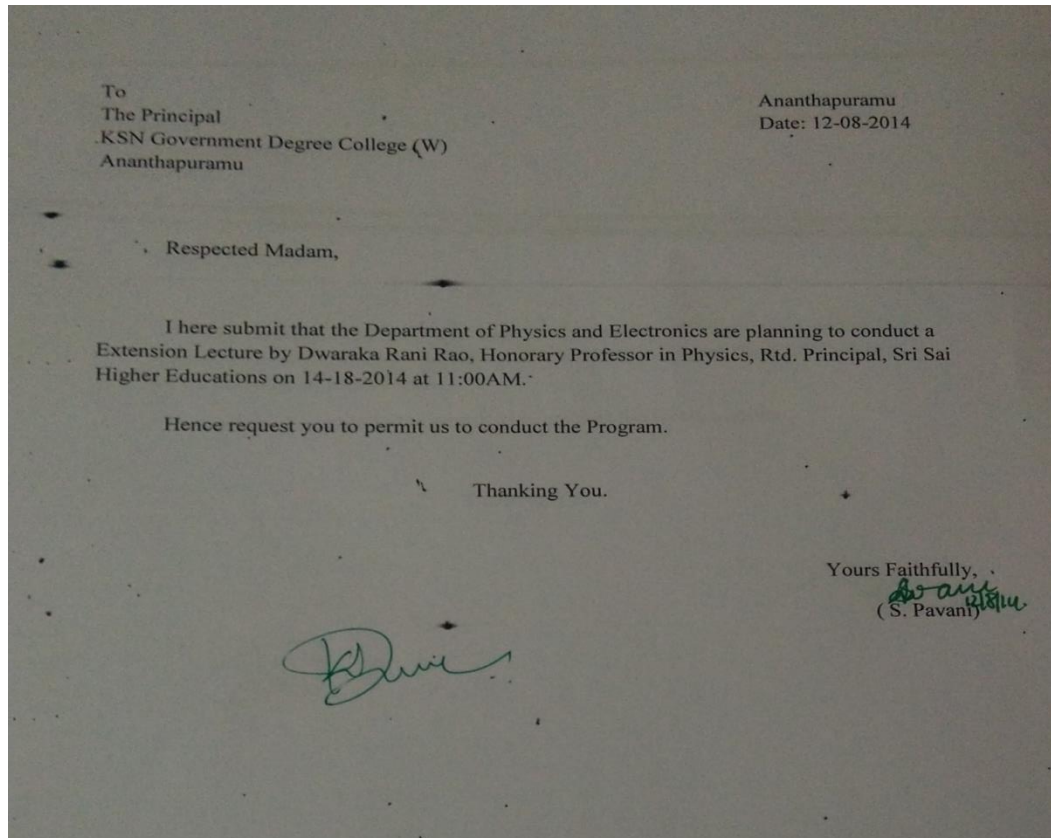


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Department of Electronics

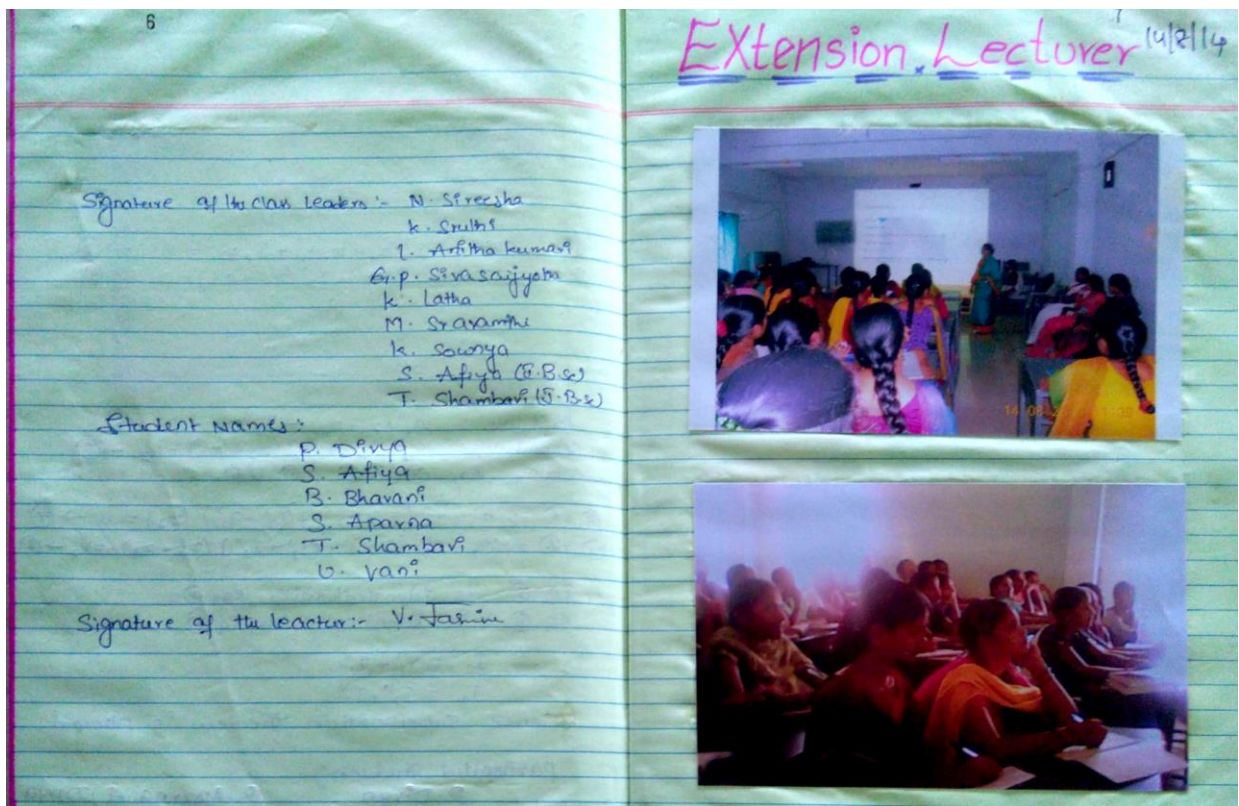
2014-15 Annual Report

Activity: Extension Lecture

Dated:14-08-2014



KSN Government Degree College for Women, Anantapur
Department of Electronics



Activity : Student Seminar

Dated : 22-08-2014

Name of the Student: V. Nagamani (II MECs)

Student Seminar by II Bsc 22/8/14

Topic :- P-N Junction half wave Rectifier
Name of the Student :- V. Nagamani
class :- II Bsc
Signature of participant :- V. Nagamani
Signature of class representatives :- P. Santhi Lakshmi

P-N Junction half wave Rectifier:-
The P-N Junction half wave Rectifier circuit shown in below figure. In this circuit the AC voltage to be rectifier is connected to the primary coil 'P' of the power transformer 'T' one end of the secondary 'S' of the transformer is connected to p-region of the diode 'D' while its another end is connected to n-region through a load Resistance 'R'.

Working of the rectifier
During the first half cycle of A.C, one end of 'S' the secondary i.e. A becomes positive then the diode 'D' is forward bias and hence current through the load 'R' in the directions of arrows shown in fig. During the next half cycle, the end A becomes -ve and consequently the Diode 'D' is Reverse bias. Therefore no current flows through the load R.

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Activity : Student Seminar

Dated :22-08-2014

Name of the Student: P. Santha Lakshmi (II MECs)

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Thus we get unidirectional current across R which flows in the form of half sin waves separated by a period of π -radians as shown by the side of the figure

participated students:-

- V. Nagamani
- D. Yndrajaja
- G. Ammujan
- N. Harika
- K. Ramadevi
- C. Latha Ramanamurthy
- P. Santha Lakshmi
- V. Chandipriya
- D. Sumalatha

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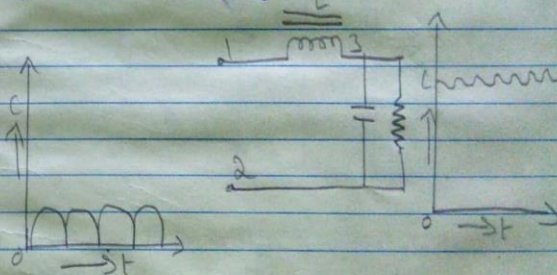
22/8/14

Topic :- Filters
Name of the student :- P. Santha Lakshmi
Name of class :- II BSC
Signature of participant :- P. Santha Lakshmi
Signature of class representatives :- P. Santha Lakshmi

Filter :-
 π -Section Filter

Figure shows a typical capacitor input filter as π -section. It consists of a filter capacitor C_1 connected across the rectifier output a choke L in series and another filter capacitor C_2 connected across the load.

The pulsating output from the rectifier is applied across the input terminals (i.e. terminals 1 & 2) of the filter. The filtering action. The filtering action of the three components i.e. C_1 , L & C_2 of this is described.



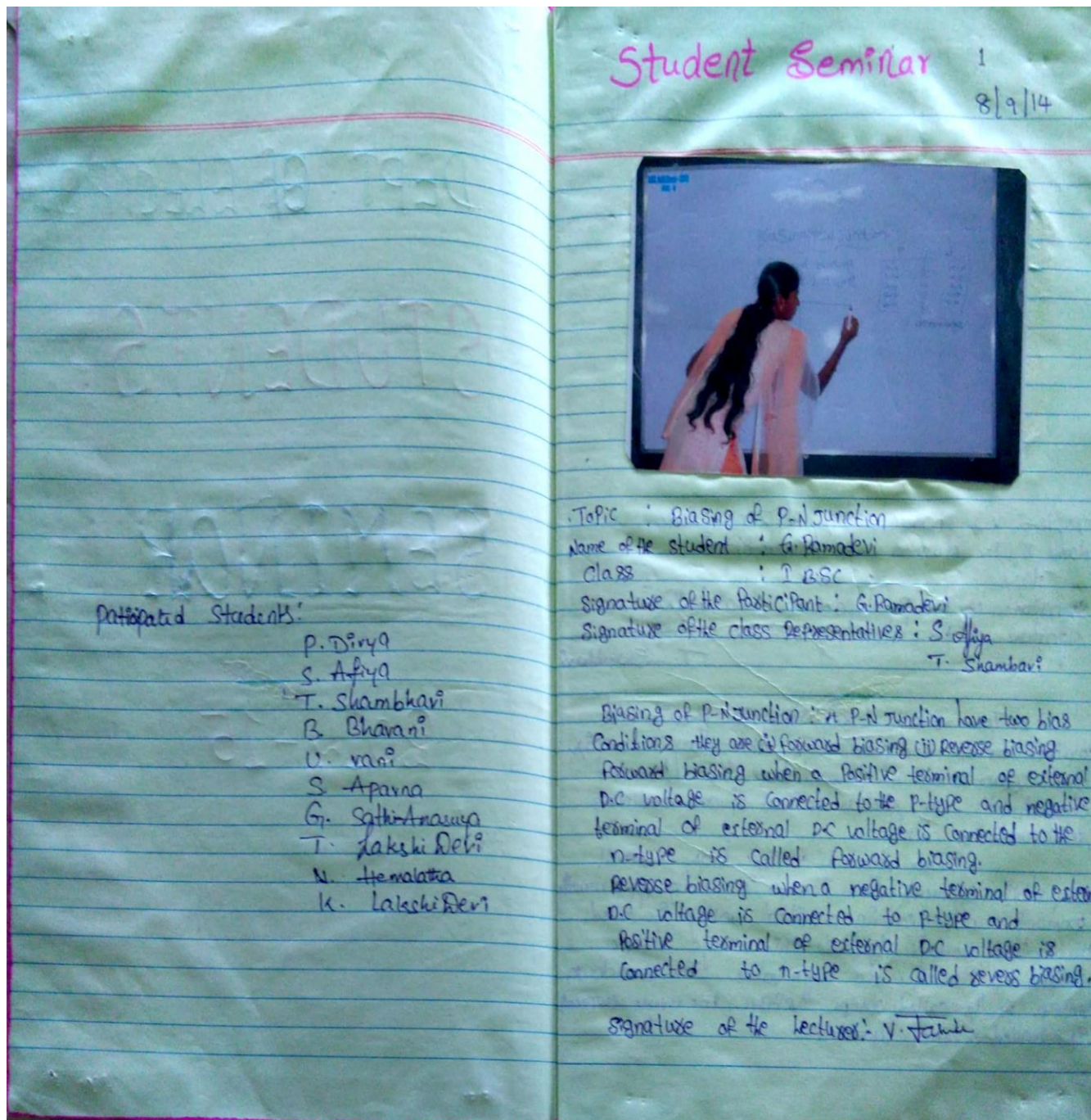
The filter capacitor C_1 :-
It offers low reactance to A.C component of rectifier output while, it offers in finite reactance to the D.C. component. Therefore, capacitor C_1 by passes an appreciable amount of A.C component while the D.C.

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Activity : Student Seminar

Dated :08-09-2014

Name of the Student: G. Ramadevi(I MECs)

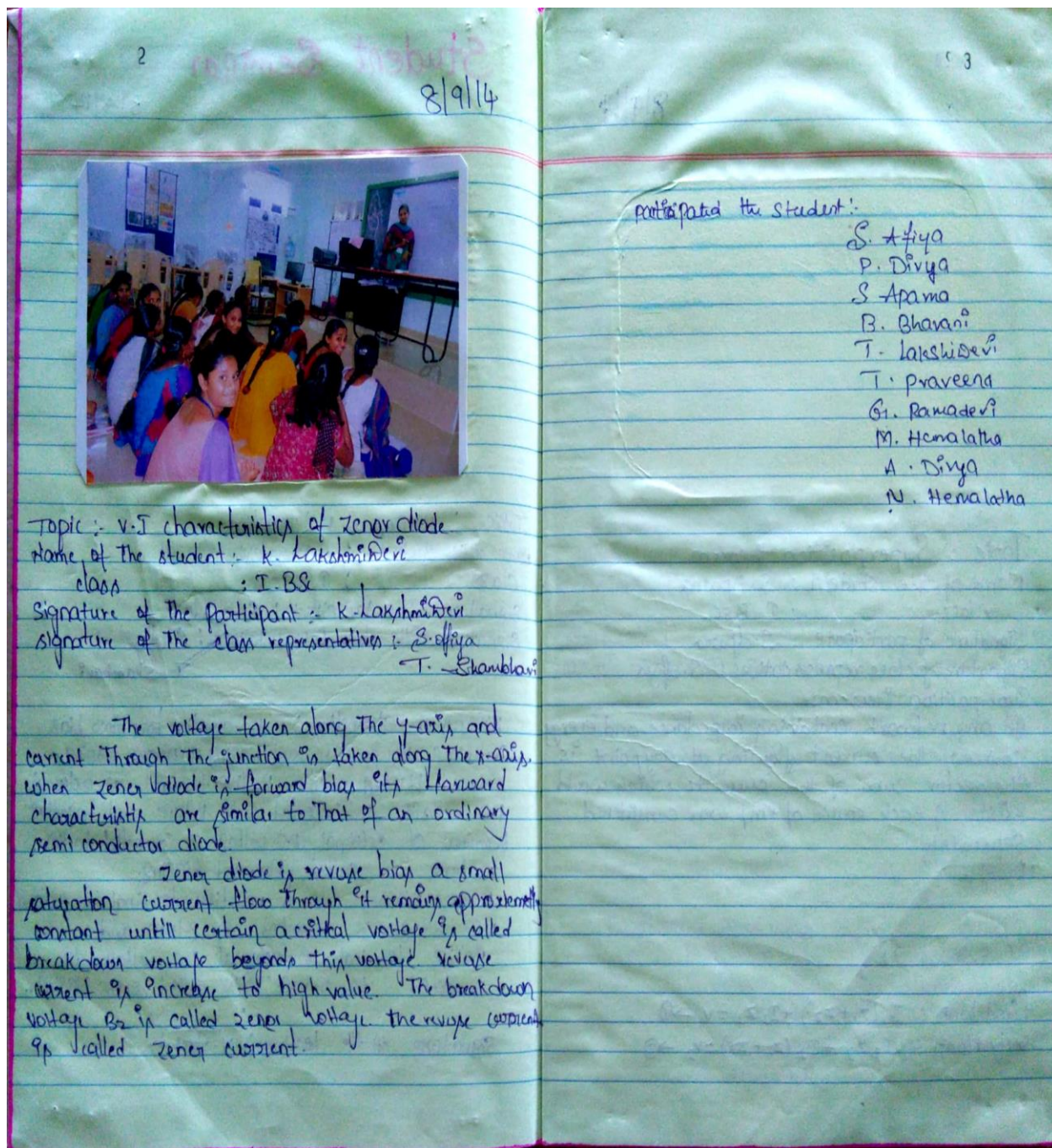


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Activity : Student Seminar

Dated :08-09-2014

Name of the Student: K. Lakshmi Devi(I MECs)



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Activity : Student Seminar

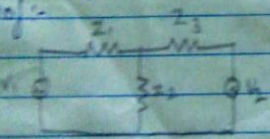
Dated :08-09-2014

Name of the Student: S. Aparna (I MECs)

8/9/14

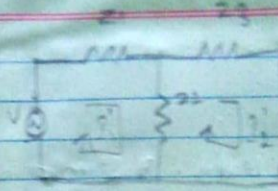


Topic : Superposition theorem
 Name of the student : S. Aparna
 class : I-BSC
 Signature of participant : S. Aparna
 Signature of class representative : S. Afiya
Superposition theorem:-
 In any network containing impedance and energy sources the current flowing at any point is the vector sum of the currents which would exist if each source of emf were considered separately.
Proof:-

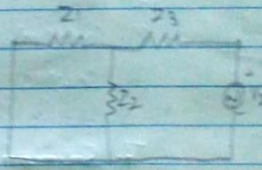


First loop : $I_1(Z_1 + Z_2) + I_2 Z_2 = V_1 \rightarrow (1)$
 Second loop : $I_2 Z_2 + I_2(Z_2 + Z_3) = V_2 \rightarrow (2)$

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First loop :- $I_1'(Z_1 + Z_2) + I_2' Z_2 = 8V_1 \rightarrow (3)$
 Second loop :- $I_1' Z_2 + I_2'(Z_2 + Z_3) = 0 \rightarrow (4)$



First loop :- $I_1''(Z_1 + Z_2) + I_2'' Z_2 = 0 \rightarrow (5)$
 Second loop :- $I_1'' Z_2 + I_2''(Z_2 + Z_3) = V_2 \rightarrow (6)$
 Adding Eq. (3) & (5), (4) & (6)
 $(3) + (5) \Rightarrow I_1' + I_1''(Z_1 + Z_2) + (I_2' + I_2'')(Z_2) = V_1 \rightarrow (7)$
 $(4) + (6) \Rightarrow (I_1' + I_1'')(Z_2) + (I_2' + I_2'')(Z_2 + Z_3) = V_2 \rightarrow (8)$
 Eq. (3) is identical with eq. (1)
 Eq. (5) is identical with eq. (2)
 $\therefore I_1 = I_1' + I_1''$
 $I_2 = I_2' + I_2''$
 Hence Superposition theorem is proved.

Participated Students:-

P. Divya	S. Aparna A. Divya
S. Afiya	A. Sathishanug
T. Shambhavi	S. Farida Banu
K. Lakshmi Devi	T. Lakshidevi
B. Bhavani	

KSN Government Degree College for Women, Anantapur
Department of Electronics

To
The Principal
K. S. N. Govt. Degree College (W)
Anantapuram.

As a part of Field visit, it has been planned by the Department of Electronics to take the students to **Science Museum** at JNTU road, Anantapuram on 10-09-14 from 9am to 12pm.

Hence I request you to permit the II M.E.Cs and III M.P.Cs students for the Field Visit.

Thanking you Madam.

*Permitted
9/9/14*

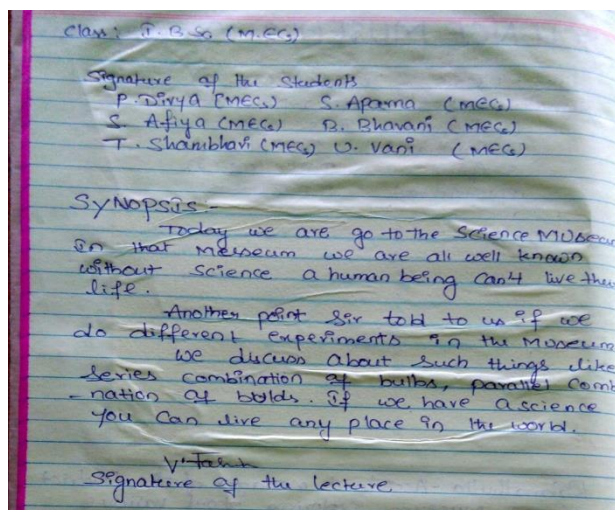
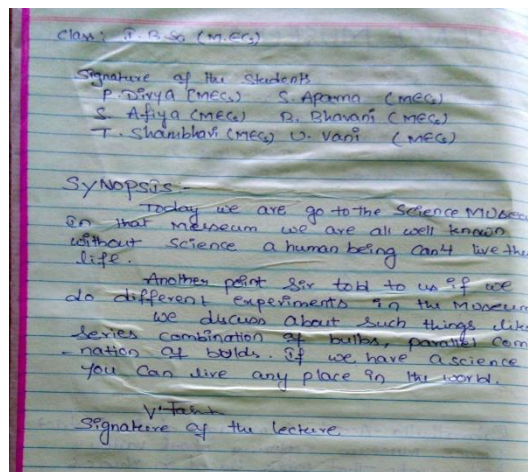
Yours Faithfully,

S. PAVANI
9/9/14
(S. PAVANI)
for dept of elec



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Department of Electronics

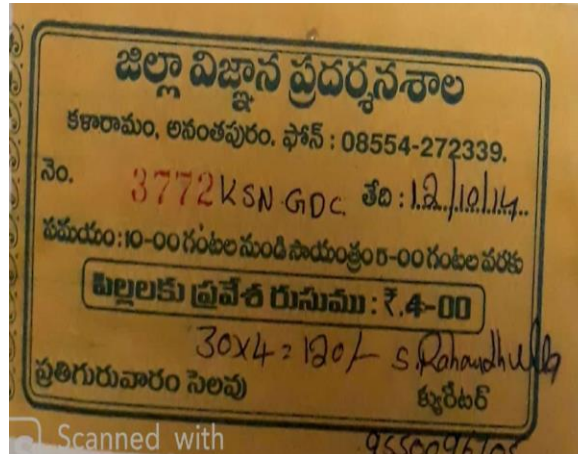


KSN GOVERNMENT DEGREE COLLEGE FOR WOMEN, ANANTHAPURAMU
Department of Physics & Electronics

**List of the students who visited the District Science Museum,
JNTU Road, Ananthapuramu on 10-9-2014**

S.No.	Name of the Student	S. No	Name of the Student
1	B MAMATHA	18	O ANUSHA
2	B DHANALAKSHMI	19	P LAKSHMIDEVI
3	B PRATHIMA	20	P JYOTHI
4	C RAMADEVI	21	P ESWARI
5	D HASEENA BEGUM	22	S KAVITHA
6	E KALAVATHI	23	S SALAMMA
7	E THRIVENI	24	S THULASI
8	E NAGAMANI	25	S KADHARUNNISA
9	G ASWANI		II MECS
10	J LALITHAMMA	26	V CHANDI PRIYA
11	K MANIULA	27	C LATHA RAMANAMMA
12	M SUJATHA	28	D SUMALATHA
13	M DIVYAVANI	29	G AMMAJAN
14	N DIVYA	30	N HARIKA
15	N SHIPLA	31	P SANTHALAKSHMI
16	N VIJAYALAKSHMI	32	M SOWMYA
17	N SUJATHA		

Lecturer in charge: *V. Jagan*
10/9/14
Lecturer in Physics



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Department of Electronics