

BLDE ASSOCIATION'S
S.B.ARTS AND K.C.P SCIENCE COLLEGE,
VIJAYAPUR



DEPARTMENT OF PHYSICS
ADVANCED LEARNERS
FOR THE ACADEMIC YEAR 2022-23



**B. L. D. E. ASSOCIATION'S
S. B. ARTS AND K. C. P. SCIENCE COLLEGE**

Int. Bangaramma Sajjan Campus, Shri B. M. Patil Road (Solapur Road), Vijayapur-586 103

Accredited with CGPA of 2.99 at 'B++' Grade in 4th Cycle by NAAC

(Affiliated to Rani Channamma University, Belagavi)

Phone: (08352) 262770, Extn. 2223, 2224

Website: www.bldeasbkcp.ac.in E-mail: bldeasbkcp@gmail.com



Policy documentation for advanced learners

- ❖ Introduction
- ❖ Advanced learners
- ❖ Identification for advanced learners
- ❖ Activities for advanced learners
- ❖ Method of assessment



Introduction

Advanced learners

Advanced learners are those students who have more potential with the regard to critical, creative thinking and contextualizing and practical. They are hardworking, goal oriented, achieve high scores and can should higher level of academic responsibilities. They can be also molded in teaching learning activities.

Guidelines for identifying Advanced Learners (bright Students):

Advanced Learners are identified based on the first internal examinations those who secured greater than 80%.

Following Special activities are conducted for Advanced Learners:

1. Guiding for career planning.
2. Students were performed the seminar on the advanced topic.



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Date: 02/01/2023

DEPARTMENT OF PHYSICS

NOTICE

The UG Department of Physics will be conducting seminar for the B.Sc I, III & V Semesters students (Advanced learners) of the Academic year 2022-23(odd Semester) from 03/01/2023 to 13/01/2023.

SD'

HOD
Head

Department of Physics
S.B.Arts & K.C.P.Science College
Vijayapur-586103.

[Signature]

IQAC Coordinator

IQAC, Co-ordinator
S.B.Arts & K.C.P.Science College,
Vijayapur.

[Signature]

Principal
Principal,

S.B. Arts and KCP Science College
VIJAYAPUR




List of Advanced Learners

Sl.No	Name of the student	Class	Reg.No
1.	SHWETA	B.Sc I	U15KM22S0002
2.	MADUMATHKALAGOND	B.Sc I	U15KM22S0024
3.	LAXMI	B.Sc I	U15KM22S0025
4.	SITNADAI	B.Sc I	U15KM22S0033
5.	MADIVIBPATHI	B.Sc I	U15KM22S0060
6.	S.P.CHIKKALAKI	B.Sc I	U15KM22S0068
7.	SHAILASHREE KANASHETTI	B.Sc I	U15KM22S0108
8.	PUSHPANAGATAN	B.Sc I	U15KM22S0113
9.	SAHANA B.M.	B.Sc I	U15KM22S0125
10.	BIHAGYASHREE P JAMBRE	B.Sc I	U15KM22S0128
11.	ROOPA PUJARI	B.Sc I	U15KM22S0131
12.	JAYASHREE	B.Sc I	U15KM22S0153
13.	ASHWINE'S SANDIMANI	B.Sc I	U15KM22S0154
14.	BIHIMARAY UPPAR	B.Sc I	U15KM22S0163
15.	CHANNAMMA JAVOR	B.Sc I	U15KM22S0170
16.	S.R.BIRADAR	B.Sc I	U15KM22S0175
17.	BHOOMIKA KONDAGULI	B.Sc I	U15KM22S0180
18.	SUMA	B.Sc I	U15KM22S0184
19.	ABDULYADAGIRI	B.Sc I	U15KM22S0221
20.	UDAYAKUMAR CHAPPARA	B.Sc I	U15KM22S0246
21.	DANAMMA PUJARI	B.Sc I	U15KM22S0294
22.	S.R.MUCHHANDI	B.Sc III	U15KM21S0134
23.	MADUPRIYA	B.Sc III	U15KM21S0150
24.	P.D.PUJARI	B.Sc III	U15KM21S0151
25.	AKSHATA HUNAGUND	B.Sc III	U15KM21S0160
26.	PRAJWAL AIHOLE	B.Sc III	U15KM21S0163
27.	ANKITA V. GORANAI	B.Sc III	U15KM21S0166
28.	AISHWARYA U. AMARANI	B.Sc III	U15KM21S0173
29.	P.S.PATHI	B.Sc III	U15KM21S0177
30.	SHRISHAIL GARADE	B.Sc III	U15KM21S0179
31.	M.D.PINJAR	B.Sc III	U15KM21S0188
32.	PRIYANKA	B.Sc III	U15KM21S0189
33.	J.R.BIRADAR	B.Sc III	U15KM21S0207
34.	SHAFIYA RAMALI	B.Sc III	U15KM21S0225
35.	SHIRUTI	B.Sc III	U15KM21S0244

36.	RASMI	B.Sc III	U15KM21S0284
37.	BHAGYANIDHI BUDHIAL	B.Sc III	U15KM21S0339
38.	POOJA BAGALI	B.Sc III	U15KM21S0346
39.	KASHIBAI PUJARI	B.Sc III	U15KM21S0370
40.	AISHWARYA PARAGOND	B.Sc III	U15KM21S0390
41.	VIDYA S BIRADAR	B.Sc III	U15KM21S0396
42.	SHIVANI B GADAGL	B.Sc III	U15KM21S0444
43.	R M DATTA	B.Sc III	U15KM21S0456
44.	B N JATTI	B.Sc III	U15KM21S0509
45.	V AISHNAVI LANGADI	B.Sc III	U15KM21S0511
46.	A D V ALIKAR	B.Sc V	S2028414
47.	A S HIRAMATHI	B.Sc V	S2028423
48.	AISHWARYA UNNIBAVI	B.Sc V	S2028425
49.	AJAYAKUMAR CHAVAN	B.Sc V	S2028429
50.	AJITH KAROTI	B.Sc V	S2028431
51.	AKSHATA K MELAKADE	B.Sc V	S2028443
52.	AKSHATA S SANGAPUR	B.Sc V	S2028448
53.	A S MIRAGI	B.Sc V	S2028459
54.	ARCHANA MARUTI DAPARADAR	B.Sc V	S2028486
55.	ARPITA ARAVIND KORI	B.Sc V	S2028487
56.	ASHWINI KSHATRI	B.Sc V	S2028492
57.	ASHWINI DONI	B.Sc V	S2028494
58.	BHAGYASHREE	B.Sc V	S2028509
59.	BHAGYASHREE BIRADAR	B.Sc V	S2028514
60.	BHAGYASHREE TENIHALI	B.Sc V	S2028524
61.	BHAVANI BASAYYA MUTTAGI	B.Sc V	S2028526
62.	BHAVANI PRAKASH KULKARNI	B.Sc V	S2028527
63.	POORNIMA HALI	B.Sc V	S2028687
64.	RATNA BHAVIKATTI	B.Sc V	S2028745
65.	S N MAGANAVAR	B.Sc V	S2028769
66.	SHRUTI BENUR	B.Sc V	S2028823
67.	SOL BHAGYA	B.Sc V	S2028851
68.	V AISHNAVI BIRADAR	B.Sc V	S2028920
69.	RASMI CHIVAN	B.Sc V	S2044882


Head
 Department of Physics
 S.B.Arts & K.C.P.Science College
 Vijayapur-586103.


IQAC, Co-ordinator
 S.B.Arts & K.C.P.Science College,
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Principal,
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Date: 21/01/2023

DEPARTMENT OF PHYSICS

Seminar Report


The Department of Physics conducted the seminars for Advanced Learners of B.Sc I, III, and V semesters. Students given seminars on the chapters covered in their syllabus, each student given 10 minutes for the topic which covers 8 minutes for seminar and 2 minutes for discussion.

The objective of conducting the seminars was to help the students that to improve their communication skills, knowledge and to reduce stage fear for the students.


HOD

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S.B.Arts & K.C.P.Science College
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Principal
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S.B. Arts and KCP Science College
VIJAYAPUR

S.B. Arts
&
K.C.P Science College
Vijayapur.

SEMINAR

Name : Poojamma. A. Halli

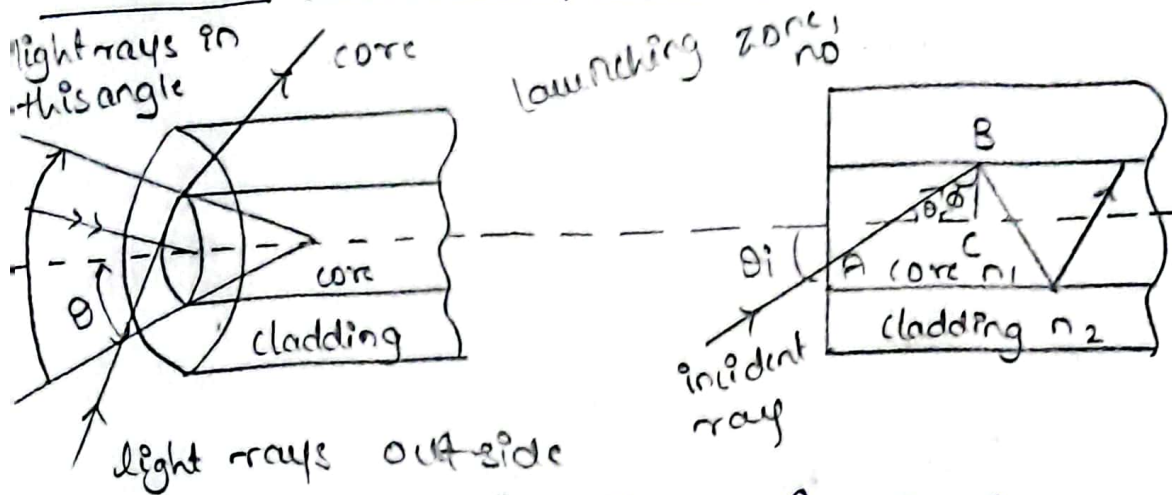
Class : B.Sc V sem

Subject : Physics.

UUCMS No : S2028687.



* NUMERICAL APERATURE AND ACCEPTANCE ANGLE



acceptance angle θ
leak out of core

$n_1 \rightarrow$ refractive index of core n_1

$n_2 \rightarrow$ refractive index of cladding n_2

Let us consider optical fibre surrounded by a medium of refractive index no. n_1 be the refractive index of core & n_2 be refractive index of cladding so $n_1 > n_2$ let a ray of light launched from launching zone & incident at an angle θ_i wrt fiber axis this ray suffers refraction with an angle of refraction θ_r . once again of refraction θ_r . once again of ray incident at a point B which is lying on the core cladding interface with an angle of incidence ϕ_i if $\phi_i > \phi_c$ then ray suffers TIR as shown above figure.

when θ_i is increased beyond θ_{max} then ray never suffers TIR instead it escapes from the fiber.

By Applying Snell's law
launching zone to core

$$\frac{\sin i}{\sin r} = \frac{n_2}{n_1}$$

$$\frac{\sin \theta_i}{\sin \theta_r} = \frac{n_1}{n_0} \rightarrow (1)$$

from ΔABC

$$\theta_r = 90 - \phi$$

$$\sin \theta_r = \sin(90 - \phi)$$

$$\sin \theta_r = \cos \phi$$

from eq (1)

$$\sin \theta_i = \frac{n_1}{n_0} \sin \theta_r$$

$$\sin \theta_i = \frac{n_1}{n_0} \cos \phi$$

while $\phi = \phi_c$ $\theta_i = \theta_{max}$

Substitute these changes in the above eq
we get

$$\sin \theta_{max} = \frac{n_1}{n_0} \cos \phi_c \rightarrow (2)$$

$$\text{But } \sin \phi_c = \frac{n_2}{n_1}$$

$$\cos^2 \phi_c = 1 - \sin^2 \phi_c$$

$$\cos \phi_c = \sqrt{1 - \sin^2 \phi_c}$$

$$= \sqrt{1 - \frac{n_2^2}{n_1^2}}$$

$$\cos \phi_c = \sqrt{\frac{n_1^2 - n_2^2}{n_1^2}}$$

$$\cos \phi_c = \frac{1}{n_1} \sqrt{n_1^2 - n_2^2}$$

eqⁿ ② becomes

$$\sin \theta_{\max} = \frac{n_1}{n_0} \frac{1}{n_1} \sqrt{n_1^2 - n_2^2}$$

$$\sin \theta_{\max} = \frac{1}{n_0} \sqrt{n_1^2 - n_2^2}$$

$$\theta_{\max} = \sin^{-1} \left(\frac{1}{n_0} \sqrt{n_1^2 - n_2^2} \right)^{-1}$$

Acceptance Angle - The maximum angle of incidence at the entrance of fiber for which the light ray suffers total internal reflection at core cladding interface & propagates through the fiber is called Acceptance angle.

Numerical Aperture - It is light gathering capability of optical fiber is said to be Numerical aperture.

$$NA = \sin \theta_{\max}$$

$$NA = \frac{1}{n_0} \sqrt{n_1^2 - n_2^2}$$

$$NA = \frac{\sqrt{n_1^2 - n_2^2}}{1}$$

Refractive index of air
= 1 = n_0

$$NA = \sqrt{n_1^2 - n_2^2} \rightarrow \textcircled{1}$$

$$n_1^2 - n_2^2 = (n_1 + n_2)(n_1 - n_2)$$

$$n_1^2 - n_2^2 = \frac{(n_1 + n_2)(n_1 - n_2)}{2n_1} \times 2n_1$$

$$n_1^2 - n_2^2 = \frac{n_1 + n_2}{2} \frac{n_1 - n_2}{n_1} \times 2n_1$$

$$= n_1 \frac{(n_1 - n_2)}{n_1} \times 2n_1$$

$$n_1^2 - n_2^2 = 2n_1^2 \Delta$$

where

$$\Delta = \text{Relative difference of RI}$$

$$\Delta = \frac{n_1 - n_2}{n_1}$$

eqⁿ ① becomes

$$NA = \sqrt{2n_1^2 \Delta}$$

$$NA = n_1 \sqrt{2\Delta} //$$

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DEPARTMENT OF PHYSICS & ELECTRONICS

Class: BSC
Sem: V Sem

Date: 4/01/2023
Subject: physics

Seminar Attendance Sheet

Roll No	RCUB Seat No	Sign	Roll No	RCUB Seat No	Sign
110	S2028455		97	S2028902	
	S2028463			S2028847	
	S2028430		121	S2028635	
	S2028464		150	S2028737	
237	S2028567		100	S2028411	
287	S2028560		122	S2028722	
239	S2028712		115	S2028589	
	S2028776		98	S2028423	
265	S2028436		97	S2028480	
25	S2028916		236	S2028524	
23	S2028618		494	S2028445	
364	S2028782			S2028486	
	S2028839			S2028442	
384	S2028675			S2028443	
26	S2028614			S2028447	
90	S2028448				
424	S2028425				
167	S2028421				
246	S2028816				
	S2028459				
84	S2028870				
459	S2028882				
	S2028612				
264	S2028621				
	S2028859				
	S2043187				
	S2028462				
	S2028471				



GPS Map Camera

Vijayapura, Karnataka, India

RPW6+GRC, Bangaramma Sajjan Campus, Vijayapura, Karnataka

586103, India

Lat 16.846794°

Long 75.711896°

04/01/23 09:30 AM GMT +05:30

Google

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- ❖ Activities for advanced learners
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Advanced learners

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Guidelines for identifying Advanced Learners (bright Students):

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Date: 17/07/2023

DEPARTMENT OF PHYSICS

NOTICE

The UG Department of Physics will be conducting seminar for the B.Sc II, IV, VI Semester students (Advanced learners) of the Academic year 2022-23(Even Semester) from 19/07/2023 to 04/08/2023

HOD

Head

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S.B.Arts & K.C.P.Science College
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IQAC Coordinator

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LIST OF ADVANCED LEARNERS B.SC II SEM PHYSICS (DSC)

Sl.No	Name of the student	Class	Reg.No
1.	MADHUMATI KALAGOND	B.Sc II	U15KM22S0024
2.	ARSHAD PATEL PATIL	B.Sc II	U15KM22S0120
3.	SAHANA B MALLAPPAGOL	B.Sc II	U15KM22S0125
4.	BHAGYASHREE P JAMBRE	B.Sc II	U15KM22S0128
5.	JAYASHREE	B.Sc II	U15KM22S0153
6.	ARPITA SAJJAN	B.Sc II	U15KM22S0165
7.	BHOOMIKA KONDAGULI	B.Sc II	U15KM22S0180
8.	SUMA	B.Sc II	U15KM22S0184
9.	SOUJANYA S GUDAGUNTI	B.Sc II	U15KM22S0210
10.	ANJANA GANGANAGOUDA PATIL	B.Sc II	U15KM22S0213
11.	ABDUL YADAGIRI	B.Sc II	U15KM22S0221
12.	ABHI MADAR	B.Sc II	U15KM22S0234
13.	AKSHATA ADAGALLA	B.Sc II	U15KM22S0257
14.	PRIYANK GURAPPA HATTI	B.Sc II	U15KM22S0275
15.	DANAMMA POOJARI	B.Sc II	U15KM22S0294

Head

**Department of Physics
S.B.Arts & K.C.P.Science College
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**IQAC, Co-ordinator
S.B.Arts & K.C.P.Science College,
Vijayapur.**

Principal,

**S.B. Arts and KCP Science College
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LIST OF ADVANCED LEARNERS B.SC IV SEM PHYSICS (DSC)

SL. NO.	STUDENT NAME	CLASS	REG. NO
1.	Krupa Biradar	IV sem	U15KM21S0001
2.	Prathamesh Kapse	IV sem	U15KM21S0009
3.	Aishwarya Ghanure	IV sem	U15KM21S0011
4.	Sabale Diksheetsa	IV sem	U15KM21S0026
5.	Aishwarya Gadagi	IV sem	U15KM21S0027
6.	Swapna Kanase	IV sem	U15KM21S0072
7.	Vijayalaxmi Mangannavar	IV sem	U15KM21S0074
8.	Priyanka Galave	IV sem	U15KM21S0086
9.	Sirina Umarji	IV sem	U15KM21S0091
10.	Rakesh Kavale	IV sem	U15KM21S0093
11.	Pushpa Pujari	IV sem	U15KM21S0094
12.	Bhuvaneshwari Agasar	IV sem	U15KM21S0097
13.	Priya Chikkanavar	IV sem	U15KM21S0112
14.	Shashank Yadahalli	IV sem	U15KM21S0113
15.	Aishwarya Aravati	IV sem	U15KM21S0149
16.	Madhupriya Malagar	IV sem	U15KM21S0150
17.	Akshata Hunagund	IV sem	U15KM21S0160
18.	Prajwal Aihole	IV sem	U15KM21S0163
19.	Aishwarya Umarani	IV sem	U15KM21S0173
20.	Prema Patil	IV sem	U15KM21S0177
21.	Sarparaj Naganasur	IV sem	U15KM21S0185
22.	Mahammadrafiq Pinjar	IV sem	U15KM21S0188
23.	Priyanka	IV sem	U15KM21S0189
24.	Ajeet Pavar	IV sem	U15KM21S0193
25.	Daneshwari Shatagar	IV sem	U15KM21S0194
26.		IV sem	U15KM21S0195
27.	Naveen Badiger	IV sem	U15KM21S0200
28.	Jyoti Jiddagi	IV sem	U15KM21S0201
29.	Jyoti Biradar	IV sem	U15KM21S0207
30.	Soundarya Tanga	IV sem	U15KM21S0210
31.	Ashok Teli	IV sem	U15KM21S0222
32.	Shafiya Ramali	IV sem	U15KM21S0225
33.	Soumya Yeladagi	IV sem	U15KM21S0230
34.	Shameem Pendari	IV sem	U15KM21S0232
35.	Siddu Dummanavar	IV sem	U15KM21S0235
36.	Shreya Dengi	IV sem	U15KM21S0240
37.	Shruti	IV sem	U15KM21S0244
38.	Sachin Ratyod	IV sem	U15KM21S0247
39.	Madivalappa Budhihal	IV sem	U15KM21S0261

40.	Rashmi	IV sem	U15KM21S0284
41.	Mallikarjun Tambad	IV sem	U15KM21S0290
42.	Aparna Kannur	IV sem	U15KM21S0299
43.	Rutik Chavan	IV sem	U15KM21S0301
44.	Bhagyashree Halagunaki	IV sem	U15KM21S0306
45.	Shruti	IV sem	U15KM21S0310
46.	Anusha	IV sem	U15KM21S0314
47.	Prema S	IV sem	U15KM21S0315
48.	Megha Biradar	IV sem	U15KM21S0318
49.	Rajashree Uppar	IV sem	U15KM21S0323
50.	Aishwarya Seelin	IV sem	U15KM21S0330
51.	Bhagyanidhi Budhihal	IV sem	U15KM21S0339
52.	Pooja Bagali	IV sem	U15KM21S0346
53.	Suvarna Yalawar	IV sem	U15KM21S0357
54.	Pooja Patil	IV sem	U15KM21S0359
55.	Rakesh Guggari	IV sem	U15KM21S0360
56.	Savita Bilijdar	IV sem	U15KM21S0366
57.	Sushmita	IV sem	U15KM21S0367
58.	Chaitra Kanni	IV sem	U15KM21S0369
59.	Kashibai Pujari	IV sem	U15KM21S0370
60.	Spoorti Siddapur	IV sem	U15KM21S0372
61.	Shruti Pujari	IV sem	U15KM21S0384
62.	Jyoti Anjutagi	IV sem	U15KM21S0388
63.	Nagaveni Harawal	IV sem	U15KM21S0389
64.	Rashmi Yechchi	IV sem	U15KM21S0392
65.	Vidya Biradar	IV sem	U15KM21S0396
66.	Suraj Kuppi	IV sem	U15KM21S0417
67.	Laxmi Biradar	IV sem	U15KM21S0430
68.	Aishwarya	IV sem	U15KM21S0439
69.	Ananya Biradar	IV sem	U15KM21S0441
70.	Shivam Gadagi	IV sem	U15KM21S0444
71.	Laxmi Bharamachi	IV sem	U15KM21S0451
72.	Ashwini Rathod	IV sem	U15KM21S0459
73.	Priyanka Kshirasagar	IV sem	U15KM21S0460
74.	Kavya Hebbal	IV sem	U15KM21S0474
75.	Kavya Umadi	IV sem	U15KM21S0501
76.	Savita Chavan	IV sem	U15KM21S0503
77.	Bhagyashree Jatti	IV sem	U15KM21S0509
78.	Vaishnavi Angadi	IV sem	U15KM21S0511
79.	Megha Doddaningappagol	IV sem	U15KM21S0514



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Principal,
S.B. Arts and KCP Science College
VIJAYAPUR



**B. L. D. E. ASSOCIATION'S
S. B. ARTS AND K. C. P. SCIENCE COLLEGE**

Int. Bangaramma Sajjan Campus, Shri B. M. Patil Road (Solapur Road), Vijayapur-586 103

Accredited with CGPA of 2.99 at 'B' Grade in 4th Cycle by NAAC

(Affiliated to Rani Channamma University, Belagavi)

Phone: (08352) 262770, Extn. 2223, 2224

Website: www.bldeasbkcp.ac.in E-mail: bldeasbkcp@gmail.com



LIST OF ADVANCED LEARNERS B.SC VI SEM PHYSICS (DSC)

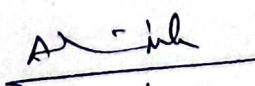
Sl. NO.	STUDENT NAME	CLASS	REG. NO
1	AISHWARYA ASHOK RAJAPUT	B Sc VI	S2028411
2	AISHWARYA DUNDAPPA WALIKAR	B Sc VI	S2028414
3	AISHWARYA KEMBHAVI	B Sc VI	S2028418
4	AISHWARYA M ATHANI	B Sc VI	S2028419
5	AISHWARYA N GADIGEPPAGOL	B Sc VI	S2028421
6	AISHWARYA SHANTAYYA HIEMATH	B Sc VI	S2028423
7	AISHWARYA UNNIBHAVI	B Sc VI	S2028425
8	AISHWARYA LOKESH WALIKAR	B Sc VI	S2028427
9	AJAYKUMAR LAXMAN CHAVAN	B Sc VI	S2028429
10	AJEET PRAKASH MANUR	B Sc VI	S2028430
11	AJEET VIRUPAKSHAPPA KAROTI	B Sc VI	S2028431
12	AKANKSHA SIDARAY NAGARALE	B Sc VI	S2028432
13	AKASH BASME	B Sc VI	S2028434
14	AKASH KHANDUBA BORAGANVAKAR	B Sc VI	S2028438
15	AKSHATA GUTTEDAR	B Sc VI	S2028442
16	AKSHATA KAMBANNA MELGADE	B Sc VI	S2028443
17	AKSHATA PATIL	B Sc VI	S2028445
18	AKSHATA RAYAGONDAPPA SINDAGI	B Sc VI	S2028447
19	AKSHATA SHARANAPPA SANGAPUR	B Sc VI	S2028448
20	AKSHAYA SHRISHAIL TALAWAR	B Sc VI	S2028452
21	AMARKANT PANDRE	B Sc VI	S2028455
22	AMBIKA SHIVAPPA MIRAGI	B Sc VI	S2028459

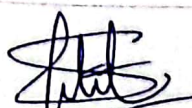
23	AMRUTA S TALAKADE	B Sc VI	S2028462
24	ANAND AMASIDDA SHAHAPUR	B Sc VI	S2028463
25	ANAND BIRADAR	B Sc VI	S2028464
26	ANJALI BASALINGAYYA KALLIMATH	B Sc VI	S2028471
27	ANUSHA BASAPPA BAGEWADI	B Sc VI	S2028475
28	ANUSHRI M JOSHI	B Sc VI	S2028476
29	APOORVA BASAVARAJ REBINAL	B Sc VI	S2028477
30	APPAJI BALUNDAGI	B Sc VI	S2028479
31	APARNA VINAYAK BILAGI	B Sc VI	S2028480
32	ARCHANA MARUTI DAPTARADAR	B Sc VI	S2028486
33	ARPITA ARAVIND KORI	B Sc VI	S2028487
34	ASHWINI DONI	B Sc VI	S2028494
35	ASHWINI HOKKUNDI	B Sc VI	S2028495
36	ASHWINI NAIKODI	B Sc VI	S2028496
37	AYYAMMA DYAPUR	B Sc VI	S2028499
38	BHAGYA H BIRADAR	B Sc VI	S2028507
39	BHAGYASHREE	B Sc VI	S2028509
40	BHAGYASHREE DOULATARAY BIRADAR	B Sc VI	S2028514
41	BHAGYASHREE RAMESH MANUR	B Sc VI	S2028522
42	BHAGYASHRI ANIL TENIHALLI	B Sc VI	S2028524
43	BHAVANA BANDI	B Sc VI	S2028525
44	BHAVANI BASAYYA MUTTAGI	B Sc VI	S2028526
45	BHAVANI PRAKASH KULKARNI	B Sc VI	S2028527
46	BHUWANESHWARI KOTYAL	B Sc VI	S2028531
47	BORAMMA SURESH ANGADI	B Sc VI	S2028532
48	CHETAN VITTAL GHATAGE	B Sc VI	S2028541
49	DANAMMA K PATIL	B Sc VI	S2028543
50	DEEPIKA KENCHAPPANAVAR	B Sc VI	S2028546
51	GANESH KALLAPPA BADIGER	B Sc VI	S2028551
52	GANESH MALI	B Sc VI	S2028552
53	GANESH PAVADEPPA KURI	B Sc VI	S2028553
54	GURURAJ	B Sc VI	S2028560
55	HAIYALAPPA C NEGINAL	B Sc VI	S2028561
56	HULIGEPPA KORAVAR	B Sc VI	S2028565
57	JANGAMASHETTI KALMESH MALLAPPA	B Sc VI	S2028571
58	JYOTI S BHOSAGI	B Sc VI	S2028577
59	KAINATH MOSIMPEER MUJAWAR	B Sc VI	S2028579
60	KARKI PRIYANKA KUMAR	B Sc VI	S2028581
61	KARTIKGOUDA S PATIL	B Sc VI	S2028582
62	KARUNA REBINAL	B Sc VI	S2028583
63	KAVERI BIRADAR	B Sc VI	S2028585

64	KAVERI BHEERAPPA KOLI	B Sc VI	S2028586
65	KAVERI GURUDEV AKKALAKOT	B Sc VI	S2028587
66	KAVERI SHRISHAIL KIRANAGI	B Sc VI	S2028589
67	KAVITA METI	B Sc VI	S2028591
68	KUMARGOUDA S PATIL	B Sc VI	S2028604
69	LATARANI NINGONDA MASALI	B Sc VI	S2028606
70	LAXMI GOLAPPA JALAWADI	B Sc VI	S2028610
71	LAXMI HANAMANTHA KANNAL	B Sc VI	S2028611
72	LAXMI HANJI	B Sc VI	S2028612
73	LAXMI PARASHURAM MUNJANE	B Sc VI	S2028614
74	LAXMI PATIL	B Sc VI	S2028615
75	MADAN CHANDARGI	B Sc VI	S2028618
76	MADHAVI B KULKARNI	B Sc VI	S2028619
77	MADHUSHREE VEERANNA HANCHINAL	B Sc VI	S2028621
78	MAHANTESH SIDDAPPA KOKATANUR	B Sc VI	S2028624
79	MAMATA S BIRADAR	B Sc VI	S2028633
80	MANGALA GURUPADAPPA HADAPAD	B Sc VI	S2028635
81	NEELAMMAGOUDATI NAGAPPAGOUDA PATIL	B Sc VI	S2028646
82	NEHA GIDDE	B Sc VI	S2028647
83	NIKHITA GANGADHAR BIRADAR	B Sc VI	S2028651
84	NIKITA YADAWAD	B Sc VI	S2028652
85	NILOFAR M GIRAGAON	B Sc VI	S2028655
86	NIMESH S KABADE	B Sc VI	S2028656
87	NISARGA SHRISHAIL IRAGOND	B Sc VI	S2028659
88	PARVATI VISHWANATH JANGAMASHETTI	B Sc VI	S2028667
89	AMBIKA PATIL	B Sc VI	S2028668
90	PATIL LAXMI RAMANAGOUDA	B Sc VI	S2028669
91	PAVITRA DHARMARAJ BIRADAR	B Sc VI	S2028673
92	PAVITRA MALLESHAPPA GOTHED	B Sc VI	S2028674
93	PAVITRA NAGAPPA KARANDE	B Sc VI	S2028675
94	POOJA A PATTAR	B Sc VI	S2028678
95	POOJA RAMESH BIRADAR	B Sc VI	S2028683
96	POOJA SHIVAJI KARPE	B Sc VI	S2028684
97	POOJA TUKARAM RATHOD	B Sc VI	S2028686
98	POORNIMA HALLI	B Sc VI	S2028687
99	PRADEEP KANTI	B Sc VI	S2028688
100	PRAMOD ASHOK INDI	B Sc VI	S2028697
101	PRAMOD HUGAR	B Sc VI	S2028698
102	PRATEEK KULKARNI	B Sc VI	S2028704
103	PRATEEKA REVANASIDDA BHUSHETTI	B Sc VI	S2028705
104	PRATIKSHA PRAKASH MASABINAL	B Sc VI	S2028707

105	PRATIKSHA SIDDAPPA GOTYAL	B Sc VI	S2028708
106	PRAVEEN LINGADALLI	B Sc VI	S2028709
107	PRAVEEN MADEV BELLUNDAGI	B Sc VI	S2028710
108	PRAVEEN	B Sc VI	S2028712
109	PREMKUMAR ARJUN HAJERI	B Sc VI	S2028718
110	PRIYANKA PARAMESHWAR GUMATE	B Sc VI	S2028721
111	PRIYANKA RUPASING RATHOD	B Sc VI	S2028722
112	PRIYANKA SHREESHAIL KONADI	B Sc VI	S2028724
113	RAJASHREE APPARAY KARANAK	B Sc VI	S2028733
114	RANI REVANSIDDA MANE	B Sc VI	S2028741
115	RATNA GOLLALARAO KULKARNI	B Sc VI	S2028744
116	RATNA MADIWAL BHAVIKATTI	B Sc VI	S2028745
117	REKHA SURYAVANSHI	B Sc VI	S2028747
118	RUCHITA SHEDADALE	B Sc VI	S2028757
119	RUKMINEE BADIGER	B Sc VI	S2028758
120	SAHANA NAGAPPA MANGANAVAR	B Sc VI	S2028769
121	SAHANA	B Sc VI	S2028770
122	SAHANA YATANUR	B Sc VI	S2028771
123	SANGAMESH CHIMMALAGI	B Sc VI	S2028778
124	SAUNDARYA GANGADHAR KATAKAR	B Sc VI	S2028789
125	SAVITRI ADAKE	B Sc VI	S2028791
126	SAVITRI MATHAPATI	B Sc VI	S2028792
127	SHANTAVEER SIDARAYA SHIRAMAGOND	B Sc VI	S2028800
128	SHILPA MATHAPATI	B Sc VI	S2028806
129	SHILPA S B	B Sc VI	S2028807
130	SHIVAGANGA PRAKASH DEVARAMANI	B Sc VI	S2028808
131	SHIVANAND CHATTER	B Sc VI	S2028811
132	SHOBHA GEDI	B Sc VI	S2028816
133	SHRIDEVI MALLAPPA HALLI	B Sc VI	S2028819
134	SHRUSTI JAWAHAR NAIK	B Sc VI	S2028821
135	SHRUSTI SUNIL MATH	B Sc VI	S2028822
136	SHRUTI BENUR	B Sc VI	S2028823
137	SHRUTIKA SUHAS RUNWAL	B Sc VI	S2028825
138	SHWETA MALLAPPA NADAGERI	B Sc VI	S2028829
139	SHWETA UMESH ANANTAPUR	B Sc VI	S2028830
140	SIDDURAJA DODDAMANI	B Sc VI	S2028839
141	SINDHU GUTTANNA BASARAKOD	B Sc VI	S2028841
142	SNEHA MURALIDHAR BADIGER	B Sc VI	S2028844
143	SOUBHAGYA KANTIGOND	B Sc VI	S2028851
144	SOUMYA BASARAGI	B Sc VI	S2028855
145	SOUMYA GANGADHAR YALAMEI	B Sc VI	S2028856

146	SOUMYA MAHESH KAVERI	B Sc VI	S2028857
147	SOUMYA RAMAGOND KANNUR	B Sc VI	S2028858
148	SOUMYA SHASHIKANT ADAKI	B Sc VI	S2028859
149	SUCHITA HIREMATH	B Sc VI	S2028865
150	SUDHA SHANKARAGOUDA VAJJAL	B Sc VI	S2028868
151	SUDHARANI VASANT HEGADE	B Sc VI	S2028870
152	SUMANGALA MADIVALAPPA HIPPARAGI	B Sc VI	S2028878
153	SUSHMITA SAJJAN	B Sc VI	S2028893
154	SUSMITA KAMAGOUDA PATIL	B Sc VI	S2028895
155	SWATI DURG	B Sc VI	S2028901
156	SWATI NINGAPPA MAJAGI	B Sc VI	S2028902
157	SWATI PATIL	B Sc VI	S2028903
158	SWATI SIDDAPPA INGALESHWAR	B Sc VI	S2028906
159	TEJASHWINI DASHYAL	B Sc VI	S2028910
160	TIKOTI SUMAIYA MAULALI	B Sc VI	S2028911
161	TRIVENI	B Sc VI	S2028912
162	VADARE RAHIBAI BIRAPPA	B Sc VI	S2028915
163	VADIRAJ KULKARNI	B Sc VI	S2028916
164	VAIBHAVI RACHAPPA KARNI	B Sc VI	S2028917
165	VAISHNAVI B HADAPAD	B Sc VI	S2028918
166	VAISHNAVI BHEEMARAY JADHAV	B Sc VI	S2028919
167	VAISHNAVI BIRADAR	B Sc VI	S2028920
168	VAISHNAVI LAXMAN JADHAV	B Sc VI	S2028924
169	VAISHNAVI PRAKASH KULKARNI	B Sc VI	S2028926
170	VARSHA POOJARI	B Sc VI	S2028930
171	VARUN BANNUR	B Sc VI	S2028932
172	VASUKI VARADARAJ DESAI	B Sc VI	S2028934
173	VEENA GANGADHAR DALAL	B Sc VI	S2028935
174	VIDYASHREE PURUSHOTTAM KULKARNI	B Sc VI	S2028937
175	VIJAYALAXMI HATTI	B Sc VI	S2028939
176	VINAYAK MADAGOND NADAGERI	B Sc VI	S2028942
177	VINOD BASAVARAJ GUJJA	B Sc VI	S2028943
178	VISHALAKSHI RAJASHEKHAR GABBUR	B Sc VI	S2028949
179	YASHODHA PODDAR	B Sc VI	S2028954
180	SAKSHI SHIVANAND HALLI	B Sc VI	S2043187
181	RASHMI CHAVHAN	B Sc VI	S2044882
182	SHARAT JEVARAGI	B Sc VI	S2090073


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 VIJAYAPUR



Date: 05/08/2023

DEPARTMENT OF PHYSICS

Seminar Report

The Department of Physics conducted the seminars for Advanced Learners of B.Sc II, IV, and VI semesters. Students given seminars on the chapters covered in their syllabus, each student given 10 minutes for the topic which covers 8 minutes for seminar and 2 minutes for discussion.

The objective of conducting the seminars was to help the students that to improve their communication skills, knowledge and to reduce stage fear for the students.

HOD

Head

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IQAC Coordinator

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Principal

Principal,
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S'B Arts and
K.C.P Science College
Vijayapur

Name:- ABDUL YADAGIRI

Class:- B.Sc II Sem

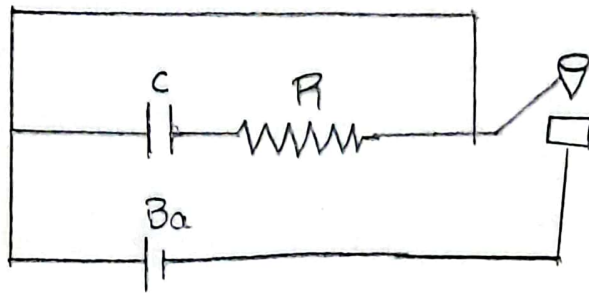
UUCMS No:- U15KM22S0221

Subject :- PHYSICS

Concept :- Charging of a Capacitor
in R.C Circuit



CHARGING OF A CAPACITOR IN R-C CIRCUIT



A condenser C and a resistance R are joined to a battery through a morse key as shown in fig. when the morse key is pressed the capacitor gets charged and when the key is released the condenser gets discharged.

Suppose the emf of the battery is E . when the morse key is pressed current flows through the circuit then certain potential difference is maintained across the capacitor and resistor. Therefore emf of the battery is.

$$E = V_C + V_R = \frac{Q}{C} + IR.$$

If the condenser is continuously getting the charge after a certain time condenser is charged to maximum value Q_0 . Then the pd across the capacitor is given by.

$$E = \frac{Q_0}{C}$$

Then equation (1) becomes.

$$\frac{Q_0}{C} = \frac{Q}{C} + \frac{dQ}{dt} R \quad (\because I = \frac{dQ}{dt})$$

$$\frac{Q_0}{C} - \frac{Q}{C} = R \frac{dQ}{dt}$$

$$(Q_0 - Q) = RC \frac{dQ}{dt}$$

$$\frac{dQ}{Q_0 - Q} = \frac{dt}{RC}$$

Integrating both sides of the Equation.

$$\int \frac{dQ}{Q_0 - Q} = \frac{1}{RC} \int dt$$

$$-\log_e (Q_0 - Q) = \frac{t}{RC} + K$$

$$\text{If } t=0 \text{ then } Q=0$$

$$-\log_e Q_0 = K$$

Substitute the value of K in Equation (2).

$$-\log_e (Q_0 - Q) = \frac{t}{RC} - \log_e Q_0$$

$$-\log_e (Q_0 - Q) + \log_e Q_0 = \frac{t}{RC}$$

$$\log (Q_0 - Q) - \log_e Q_0 = -\frac{t}{RC}$$

$$\log_e \frac{Q_0 - Q}{Q_0} = -\frac{t}{RC}$$

Remove Log,

$$\frac{Q_0 - Q}{Q_0} = e^{-t/RC}$$

$$1 - \frac{Q}{Q_0} = e^{-t/RC}$$

$$\frac{Q}{Q_0} = 1 - e^{-t/RC}$$

$$Q = Q_0 (1 - e^{-t/RC})$$

Dividing by C on both side.

$$\frac{Q}{C} = \frac{Q_0}{C} (1 - e^{-t/RC})$$

$$V = V_0 (1 - e^{-t/RC}) \quad \because V = Q/C$$

when $t = RC$ i.e time constant,

$$V = V_0 (1 - e^{-1})$$

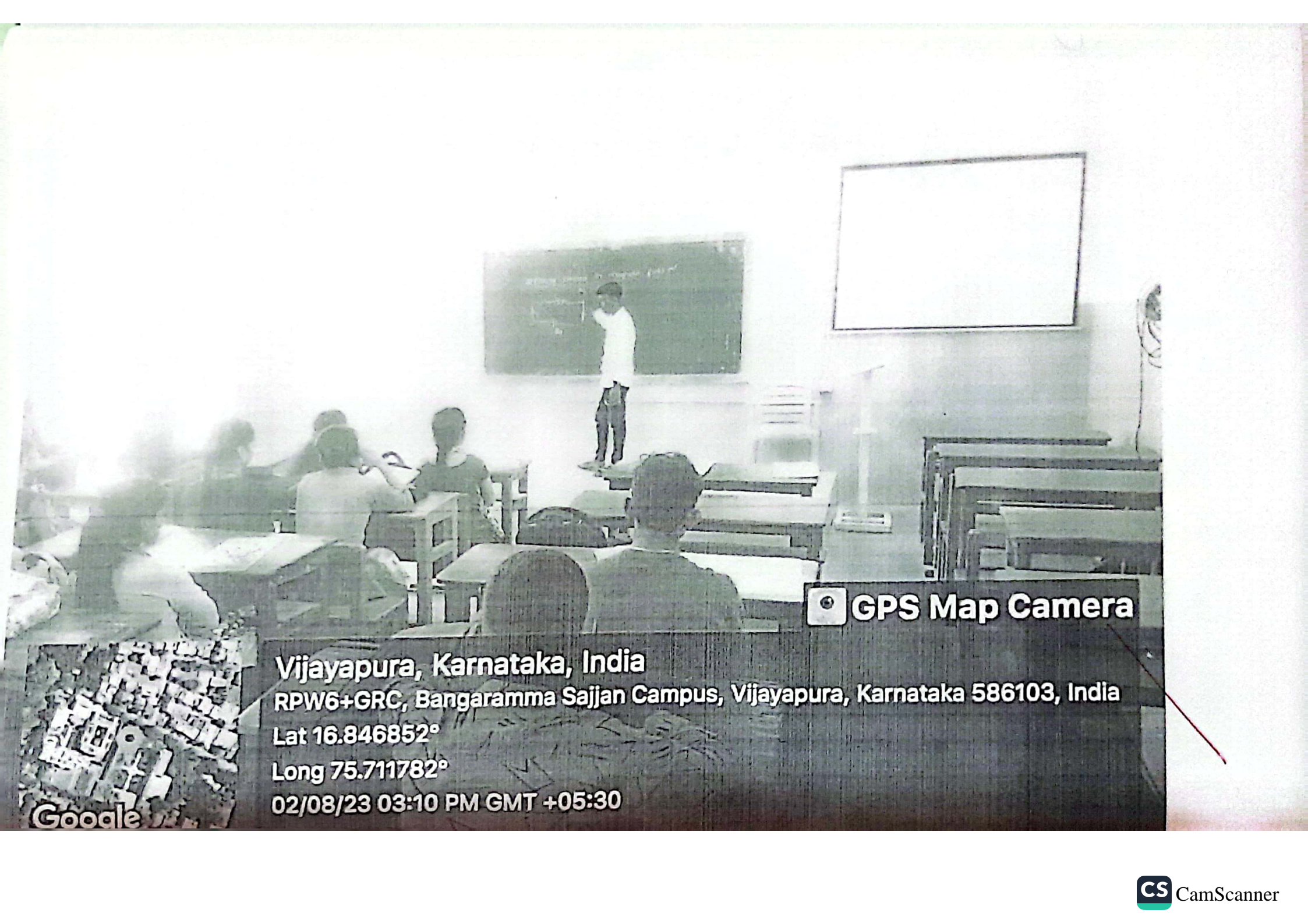
$$= V_0 (1 - 1/e) = V_0 \left(1 - \frac{1}{2.72}\right)$$

$$= V_0 \left(\frac{2.72 - 1}{2.72}\right) = V_0 \left(\frac{1.72}{2.72}\right)$$

$$= V_0 \times 0.632$$

$$= 0.632 V_{max}.$$

Therefore time constant of a charged capacitor can be defined as the time during which 63.2% of the maximum voltage is reached by the capacitor.



 **GPS Map Camera**

Vijayapura, Karnataka, India

RPW6+GRC, Bangaramma Sajjan Campus, Vijayapura, Karnataka 586103, India

Lat 16.846852°

Long 75.711782°

02/08/23 03:10 PM GMT +05:30

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B.L.D.E.ASSOCIATION'S
S. B. ARTS AND K. C. P. SCIENCE COLLEGE VIJAYAPUR
DEPARTMENT OF PHYSICS & ELECTRONICS

Class: BSC
Sem: II semester

Date: 09/8/2023
Subject: Physics (Dsc)

Seminar Attendance Sheet

Roll No	UUCMS No	Sign	Roll No	UUCMS No	Sign
111	U15KM2250160	S. S. J. N	200	U15KM2250250	J. S. S.
91	U15KM2250136	Chaitanya	88	U15KM2250131	P. S. S.
84	U15KM2250179	Chaitanya	72	U15KM2250113	P. S. S.
207	U15KM2250257	P. S. S.	73	U15KM2250114	P. S. S.
2	U15KM2250002	P. S. S.	19	U15KM2250018	P. S. S.
82	U15KM2250125	P. S. S.	234	U15KM2250021	P. S. S.
128	U15KM2250180	P. S. S.	14	U15KM2250010	P. S. S.
133	U15KM2250184	P. S. S.	30	U15KM2250030	P. S. S.
209	U15KM2250259	P. S. S.	120	U15KM2250170	P. S. S.
193	U15KM2250177	P. S. S.	144	U15KM2250194	P. S. S.
171	U15KM2250223	P. S. S.	86	U15KM2250128	P. S. S.
225	U15KM2250275	P. S. S.	215	U15KM2250265	P. S. S.
66	U15KM2250101	P. S. S.	216	U15KM2250266	P. S. S.
110	U15KM2250158	P. S. S.	174	U15KM2250175	P. S. S.
189	U15KM2250239	P. S. S.	170	U15KM2250221	P. S. S.
123	U15KM2250174	P. S. S.	191	U15KM2250243	P. S. S.
56	U15KM2250074	P. S. S.	54	U15KM2250070	P. S. S.
44	U15KM2250051	P. S. S.	52	U15KM2250064	P. S. S.
53	U15KM2250068	P. S. S.	183	U15KM2250234	P. S. S.
41	U15KM2250040	P. S. S.	32	U15KM2250033	P. S. S.
20	U15KM2250024	P. S. S.	79	U15KM2250120	P. S. S.
937	U15KM2250094	P. S. S.	195	U15KM2250245	P. S. S.
245	U15KM2250305	P. S. S.	137	U15KM2250288	P. S. S.
116	U15KM2250165	P. S. S.	157	U15KM2250209	P. S. S.
108	U15KM2250154	P. S. S.	211	U15KM2250261	P. S. S.
107	U15KM2250153	P. S. S.	165	U15KM2250216	P. S. S.
175	U15KM2250226	P. S. S.	202	U15KM2250252	P. S. S.
223	U15KM2250274	P. S. S.	203	U15KM2250253	P. S. S.