



## Internal Assessment

<b>Sl. No.</b>	<b>Description</b>	<b>Page Number</b>
<b>1.</b>	<b>Mid Answer Script</b>	<b>2-9</b>
<b>2.</b>	<b>Assignment Copies</b>	<b>10-13</b>
<b>3.</b>	<b>Consolidated Internal Marks Sheet</b>	<b>14-22</b>
<b>4.</b>	<b>Lab Evaluation Scripts</b>	<b>23-27</b>
<b>5.</b>	<b>Lab Day to Day Assessment sheet</b>	<b>28</b>
<b>6.</b>	<b>Sample Laboratory Record</b>	<b>29-30</b>
<b>7.</b>	<b>PRC Rubrics</b>	<b>31-32</b>
<b>8.</b>	<b>PRC Reports</b>	<b>33-34</b>



HALL TICKET NO.

1	8	N	M	1	A	0	2	1	8
---	---	---	---	---	---	---	---	---	---

Year / Branch / Sem.: 2 / EEE / 2

Subject: SEM

Date: 27/11/21

Mid. Exam: I / II

Set No. 01

Signature of Student with date

Signature of invigilator with date

Total No. of Additions: 02

Signature		FINAL MARKS
Staff		<u>13</u>
Scrutinizer		15

MARKS STATEMENT				
Q.No.	a	b	c	Total
1.	<u>5</u>			<u>5</u>
2.	<u>4</u>			<u>4</u>
3.	<u>3 1/2</u>			<u>3 1/2</u>
TOTAL MARKS				<u>12 1/2</u>

A-1) Permanent Magnets material are classified into the following types for PMDC motor:-

(i) Alnicos:- these have very low flux density but high reluctance. These materials are used where very low currents are required, such as stepper motor etc. These motor materials have very low flux density thus have low current rating. These are used where the load operations are of very low rating.

(ii) Ferrites:- these are cost sensitive effective materials..



coolers etc. These materials have high flux density and low reluctance. This ~~is~~ makes them cost sensitive.

(iii) Rare Earth materials:- These magnetic materials are combination of rare earth materials, such as Samarium-Cobalt, Neodymium-Iron-Boron etc. Comparatively, Neodymium-Iron-Boron has more efficiency due to its magnetic property available for a long period of time. This makes them very expensive and thus are used in very high quality operations applications.

eg:- Serum industries, large industries etc.

### \* Advantages of PMDC:-

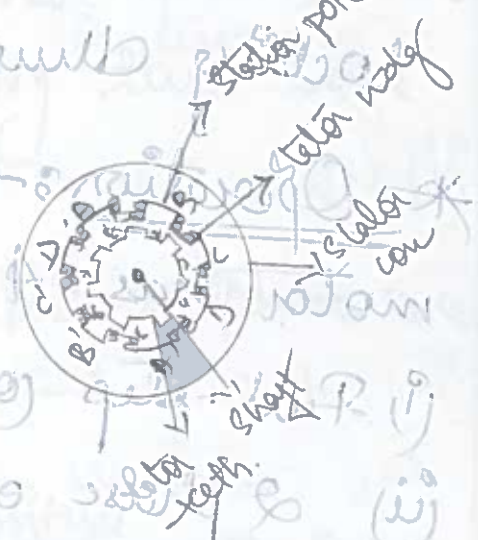
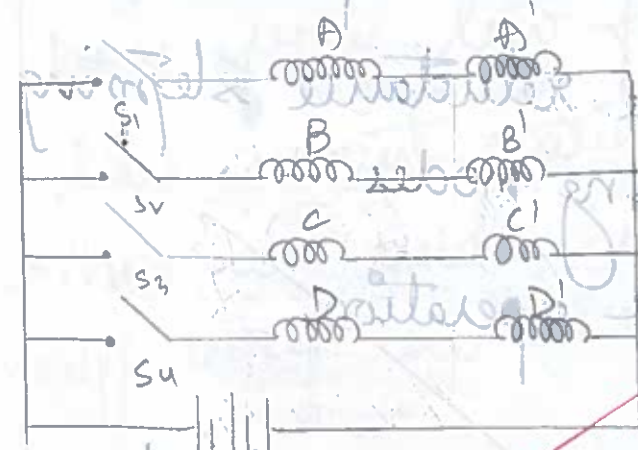
- (i) Continuous availability of flux in order to produce current at any time instant.
- (ii) These are economical as the construction is simple, compared to EMDC motor.
- (iii) These have high starting torques as their continuous availability of magnetising flux.
- small in size and are of less



\* Disadvantages of PMDC :-

- (i) Due to the presence of continuous magnetic flux, the magnet will lose its magnetising property after a period of time.
- (ii) This will result in iron losses as there is continuous ~~availability~~ presence of flux density.
- (iii) There will be demagnetisation and can't be counteracted to full extent due to the absence of stator windings.
- (iv) These can't be used for long run as, after a certain span of time, these magnets will lose their property.
- (v) In order to ~~use~~ run for longer duration, the magnets should be replaced accordingly to avoid disuptance in operation.

Variable Reluctance Stepping motor :-





Working Principle: - This motor works on the principle of alignment with minimum reluctance path. When stator pole magnets are placed in such a way that the force is experienced on the rotor is when these magnets are aligned in minimum reluctance path.

Construction: - A 4 phase, 8 pole motor is considered which is single stack. In this, the windings are single wound on each pole. The stator windings are wound on stator poles. The rotor teeth are projected upwards whereas the stator poles are projected downwards. There is a slight angle difference between stator poles and rotor teeth in order to avoid magnetic locking thus for smooth operation.

Operation: - Variable reluctance stepping motor has 4 operating modes -

- (i) Full-step (a) 1-phase operation.
- (ii) 2 phase operation

... .. 1-phase ON and 2-phase ON



(i) Full step operation :- in this mode, 1-phase is ON at a time. therefore the angular difference is,  $90^\circ$ . At a time, only one phase is energised and the rest are de energised.

Phase A	Phase B	Phase C	Operation
+	0	0	A
0	+	0	B
0	0	+	C
+	0	0	A

$$\Rightarrow \theta = \frac{360^\circ}{1 \times m \times N_r}$$

where  $m = \text{no. of phase}$   
 $N_r = \text{total teeth}$

here  $\theta = 90^\circ$

fig. truth table.

$\Rightarrow$  ABCA ...  $\rightarrow$  in clockwise  
 and CBAC ...  $\rightarrow$  in counter clockwise

(ii) 2-phase operation :- in this mode, only 2 phases are in operating (or) energised and the other two are deenergised.

A	B	C	Operation
+	+	0	AB
0	+	+	BC
+	0	+	CA
+	+	0	AB

here  $\theta = 15^\circ$

$$\Rightarrow \theta = \frac{360^\circ}{2 \times m \times N_r}$$



(iii) Half step mode :- it is similar to 2 phase mode but, in this, when one phase is energised, the other is slowly deenergised and when the other is fully energised, the other is deenergised to zero. This will result in less ~~small~~ stepping angles.

A Phase	Phase B	Phase C	operation
+	0	0	A
+	+	0	AB
0	+	0	B
0	+	+	BC
⋮	⋮	⋮	⋮

here,  $\theta = 15^\circ$

here sequence is -

A, AB, B, BC ---

Fig: truth table.

(iv) Microstepping :- in this method, very small steps are taking place. Also called low stepping. This will result in very slow operation speed with very less step angles.

Advantages :- (i) low step angles can be achieved  
 (ii) has variable operation speed.  
 (iii) can be operated for low or high stepping angles accordingly.

Disadvantages :- (i) Due to irregular operation, motor will wear out.  
 (ii) It is not economical due to high establi



A-3) Switched Reluctance Motor :-

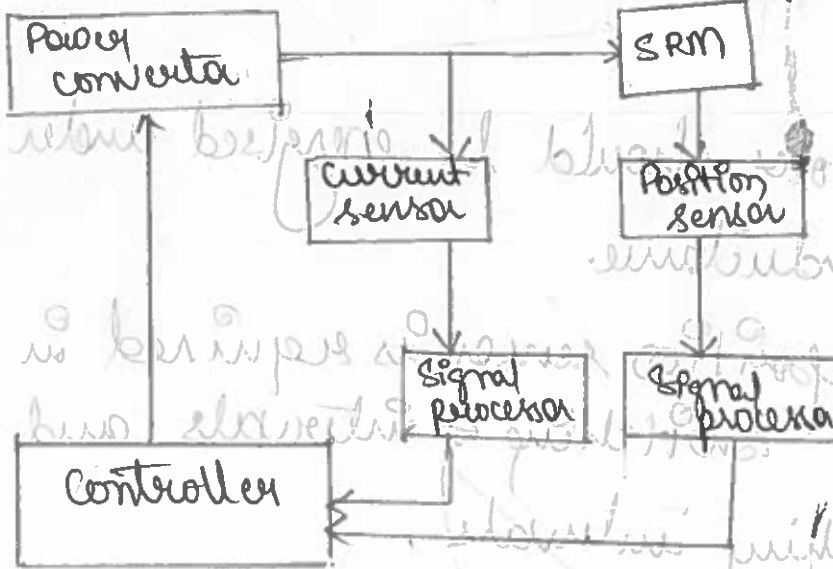


fig. Block Diagram



fig. Circuit diagram

\* Principle:- It's working is similar to variable reluctance motor but the only difference is it's rotor position sensor. It is a closed loop operation.

\* Construction:- It consists of a power converter which converts DC supply to AC supply. This supply is then fed to SRM as well as current sensor. It also has position sensor to observe the switched positions. This signal processor receives feedback from the sensors and then gives it to



\* Working:- In order to have smooth working, there should be position sensor to detect the switching conditions.

(i) The stator poles and rotor teeth should be unequal.

(ii) The stator poles should be energised under low inductance.

(iii) The rotor position sensor is required in order to tune the switching intervals and to operate switching intervals.

(iv) There will be continuous presence of flux density, iron losses will be present all the time. In order to reduce them, core windings must be laminated.

∴ This motor will help us to achieve switching instances due to the presence of rotor position sensor.

\* Advantages :- (i) Can be operated at switching conditions.

(ii) has closed loop operation.

(iii) Due to this, desired  $\theta_f$  can be achieved.

\* Disadvantages :- (i) high establishing cost

(ii) should be used in large industries.

∴ oriented under heavy loads, motor

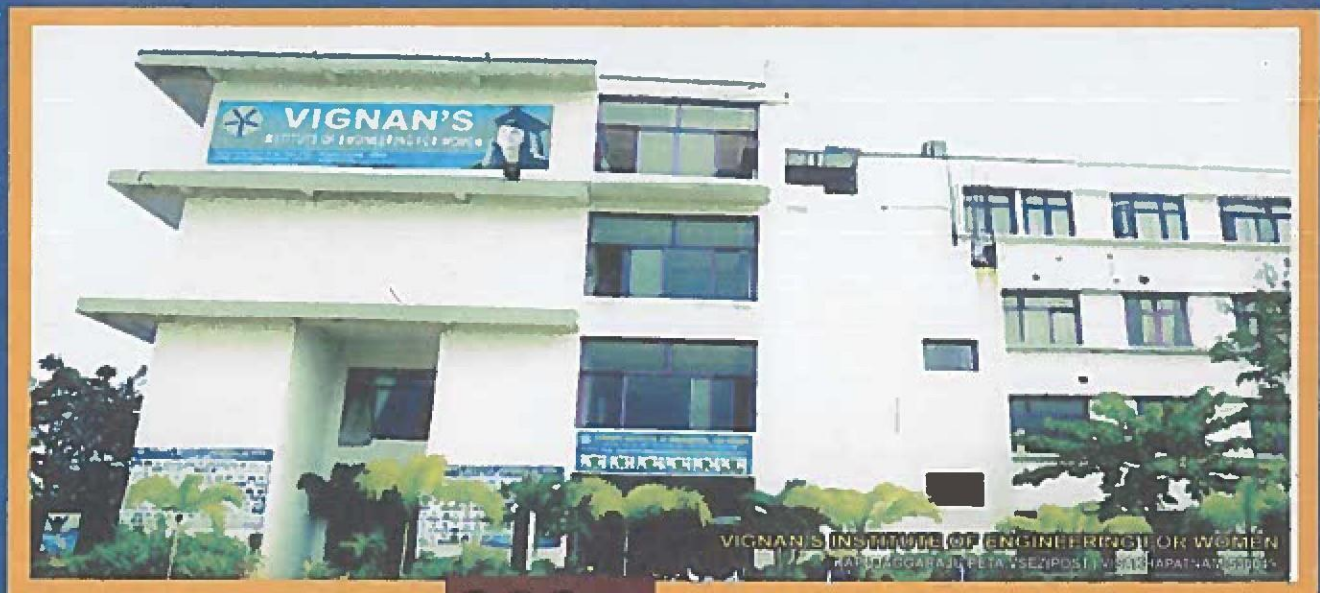




# VIGNAN'S

## INSTITUTE OF ENGINEERING FOR WOMEN (VIEW)

Approved by AICTE & Affiliated to JNTUK



**We** LIVING A DREAM  
BUILDING A FUTURE

## Assignment Book

Theory, Design, Analysis, Simulation / Algorithms  
Regulation \_\_\_\_\_ A.Y. \_\_\_\_\_

### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Name of the Student D. Amrutha

Regd. No. 18NM1A0216 Year/Sem/Section 2nd/2nd/A

Subject STLO Admitted Batch 2018



PRINCIPAL  
Vignan's Institute of  
Engineering for Women







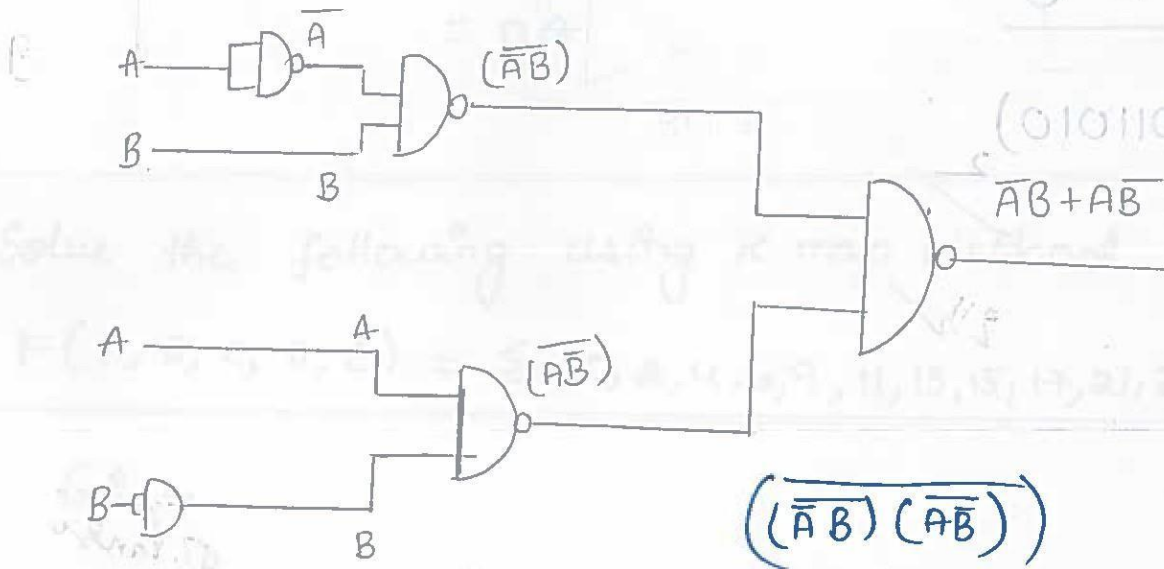
# Assignment-1

1. Construct an 2 input ex-OR gate using minimum number of 2 input NAND gates

Exc-OR Gate



$$A \oplus B = \overline{A}B + A\overline{B}$$



$$\Rightarrow (\overline{A}B) + (\overline{\overline{A}B})$$

$$\Rightarrow \overline{A}B + A\overline{B}$$

$$= A \oplus B$$

2/11



300



2. Convert a decimal number 90 in to binary

$$(90)_{10} \rightarrow (?)_2 \rightarrow (?)_8 \rightarrow (?)_{16}$$

2	90	
2	45	-0
2	22	-1
2	11	-0
2	5	-1
2	2	-1
	1	-0

8	90
8	11-2
	1-3

16	90
	5-10

$(132)_8$

$(510)_{16}$

$(1011010)_2$

21/2 ✓

*D. Panshi*



**PRINCIPAL**  
Vignan's Institute of  
Engineering for Women

**VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN**  
**IV B.TECH II SEM (ACADEMIC YEAR 2020-21) INTERNAL MARKS STATEMENT**

BRANCH: ECE B

SUBJECT CODE: R1642043

SUBJECT: SC

FACULTY: Sk Ahmed Ali

S.No	Regd. No	DESC-1	QUIZ-1		ASGN 1	DESC-2	QUIZ-2		ASGN 2	MID 1	MID 2	80% of BEST OF 2 MIDS + 20% of OTHER MID
		15	20	10	5	15	20	10	5	30	30	
1.	17NM1A0464	13	20	10	5	8	17	9	5	28	22	27
2.	17NM1A0465	14	13	7	5	14	17	9	5	26	28	28
3.	17NM1A0466	14	19	10	5	15	18	9	5	29	29	29
4.	17NM1A0468	15	19	10	5	12	18	9	5	30	26	30
5.	17NM1A0469	14	13	7	5	9	11	6	5	26	20	25
6.	17NM1A0470	12	17	9	5	7	16	8	5	26	20	25
7.	17NM1A0471	6	15	8	5	01	6	3	5	19	9	17
8.	17NM1A0472	15	18	9	5	15	15	8	5	29	28	29
9.	17NM1A0473	15	19	10	5	15	17	9	5	30	29	30
10.	17NM1A0475	14	19	10	5	12	14	7	5	29	24	28
11.	17NM1A0476	9	19	10	5	09	15	8	5	24	22	24
12.	17NM1A0477	15	20	10	5	15	18	9	5	30	29	30
13.	17NM1A0478	12	19	10	5	11	14	7	5	27	23	27
14.	17NM1A0479	14	19	10	5	14	18	9	5	29	28	29
15.	17NM1A0481	14	17	9	5	13	16	8	5	28	26	28
16.	17NM1A0482	13	20	10	5	12	15	8	5	28	25	28
17.	17NM1A0483	14	20	10	5	9	14	7	5	29	21	28
18.	17NM1A0485	13	18	9	5	8	11	6	5	27	19	26
19.	17NM1A0486	14	17	9	5	12	18	9	5	28	26	28
20.	17NM1A0487	15	19	10	5	15	18	9	5	30	29	30
21.	17NM1A0488	15	20	10	5	11	14	7	5	30	23	29
22.	17NM1A0489	15	19	10	5	12	12	6	5	30	23	29
23.	17NM1A0490	14	19	10	5	10	16	8	5	29	23	28



310  
**PRINCIPAL**  
 Vignan's Institute of  
 Engineering for Women  
 K.J.Peta, VSEZ (P.O.)  
 Hyderabad - 500 080





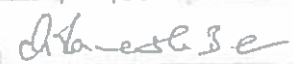
S.No	Regd. No	DESC-1	QUIZ-1		ASGN 1	DESC-2	QUIZ-2		ASGN 2	MID 1	MID 2	80% of BEST OF 2 MIDS + 20% of OTHER MID
		15	20	10	5	15	20	10	5	30	30	
24.	17NM1A0491	14	20	10	5	9	14	7	5	29	21	28
25.	17NM1A0492	13	19	10	5	12	12	6	5	28	23	27
26.	17NM1A0493	13	16	8	5	12	17	9	5	26	26	26
27.	17NM1A0494	14	17	9	5	11	18	9	5	28	25	28
28.	17NM1A0495	14	18	9	5	14	17	9	5	28	28	28
29.	17NM1A0496	14	19	10	5	11	17	9	5	29	25	29
30.	17NM1A0497	13	18	9	5	11	15	8	5	27	24	27
31.	17NM1A0498	14	20	10	5	14	12	6	5	29	25	29
32.	17NM1A0499	13	20	10	5	10	19	10	5	28	25	28
33.	17NM1A04A0	15	20	10	5	15	15	8	5	30	28	30
34.	17NM1A04A1	14	20	10	5	13	17	9	5	29	27	29
35.	17NM1A04A2	15	20	10	5	11	16	8	5	30	24	29
36.	17NM1A04A3	12	17	9	5	13	14	7	5	26	25	26
37.	17NM1A04A4	15	18	9	5	13	13	7	5	29	25	29
38.	17NM1A04A5	12	17	9	5	02	17	9	5	26	16	24
39.	17NM1A04A6	15	19	10	5	12	17	9	5	30	26	30
40.	17NM1A04A7	11	20	10	5	9	16	8	5	26	22	26
41.	17NM1A04A8	11	20	10	5	7	16	8	5	26	20	25
42.	17NM1A04A9	14	19	10	5	14	18	9	5	29	28	29
43.	17NM1A04B0	14	18	9	5	14	17	9	5	28	28	28
44.	17NM1A04B1	15	19	10	5	15	17	9	5	30	29	30
45.	17NM1A04B2	15	19	10	5	10	15	8	5	30	23	29
46.	17NM1A04B3	14	20	10	5	14	17	9	5	29	28	29
47.	17NM1A04B4	14	19	10	5	10	17	9	5	29	24	28
48.	17NM1A04B5	5	17	9	5	02	17	9	5	19	16	19
49.	17NM1A04B6	13	20	10	5	11	16	8	5	28	24	28
50.	17NM1A04B8	14	16	8	5	10	15	8	5	27	23	27
51.	17NM1A04B9	14	18	9	5	12	14	7	5	28	24	28



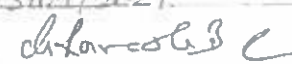


PRINCIPAL  
Vignan's Institute of  
Engineering for Women  
K.J.Peta, VSEZ (P.O.),  
Visakhapatnam-49.

S.No	Regd. No	DESC-1		QUIZ-1		ASGN 1	DESC-2		QUIZ-2		ASGN 2	MID 1	MID 2	80% of BEST OF 2 MIDS + 20% of OTHER MID
		15	20	10	5	15	20	10	5	30	30			
52.	17NM1A04C0	15	17	9	5	13	16	8	5	29	26	29		
53.	17NM1A04C1	14	20	10	5	8	16	8	5	29	21	28		
54.	17NM1A04C2	13	16	8	5	8	8	4	5	26	17	25		
55.	17NM1A04C3	15	19	10	5	12	15	8	5	30	25	29		
56.	18NM5A0407	14	19	10	5	14	16	8	5	29	27	29		
57.	18NM5A0408	12	19	10	5	9	16	8	5	27	22	26		
58.	18NM5A0409													
59.	18NM5A0410	13	20	10	5	12	14	7	5	28	24	28		
60.	18NM5A0412	13	18	9	5	12	15	8	5	27	25	27		
61.	18NM5A0413	15	19	10	5	15	16	8	5	30	28	30		
62.	18NM5A0414	13	19	10	5	11	16	8	5	28	24	28		
63.	18NM5A0415	15	19	10	5	12	15	8	5	30	25	29		
64.	17A61A0450	11	19	10	5	10	18	9	5	26	24	26		

Note: Avoid overwriting. Mark absent with A using RED pen. Enter marks in attendance register before submission.

MID-I EXAM DATE	14/07/2021
NAME OF VALUER	St. Ahmed Ali
SIGNATURE OF VALUER	
NAME OF SCRUTINER	P Ashok Kumar
SIGNATURE OF SCRUTINER	
DATE OF SUBMISSION	23/07/2021
SIGNATURE OF HOD	
MARKS ENTERED & VERIFIED	

MID-II EXAM DATE	14/07/2021
NAME OF VALUER	St. Ahmed Ali
SIGNATURE OF VALUER	
NAME OF SCRUTINER	D.A. Rajasee
SIGNATURE OF SCRUTINER	
DATE OF SUBMISSION	23/07/2021
SIGNATURE OF HOD	
MARKS ENTERED & VERIFIED	



320  
**PRINCIPAL**  
 Vignan's Institute of  
 Engineering for Women  
 K.J.Peta, VSEZ (P.O.),  
 Visakhapatnam 40



## VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN

Kapu Jaggaraju Peta, Vadlapudi Post, Gajuwaka, VISAKHAPATNAM-530 046. A.P

### I B.TECH II SEM (ACADEMIC YEAR 2017-18) - DISPLAY MARKS

BRANCH: CSE

S.No	Regd No	E-II	M-III	AC	ES	OOPS	EM	ECS LAB-II	ENG AC LAB	OOPS LAB
1	17NM1A0501	20	26	25	23	25	19	22	23	22
2	17NM1A0502	25	25	27	28	25	17	20	21	20
3	17NM1A0503	24	23	24	23	25	21	23	21	21
4	17NM1A0504	27	30	29	28	26	22	24	21	22
5	17NM1A0505	22	20	22	22	24	15	22	21	20
6	17NM1A0506	18	12	12	20	17	10	24	21	21
7	17NM1A0507	26	29	29	28	29	18	23	23	23
8	17NM1A0508	25	21	20	22	24	11	23	21	20
9	17NM1A0509	28	28	28	29	28	23	24	21	23
10	17NM1A0510	24	29	29	29	24	25	21	21	17
11	17NM1A0511	25	27	27	27	26	21	20	21	19
12	17NM1A0512	25	29	29	28	27	22	21	20	22
13	17NM1A0513	23	28	25	23	24	17	23	23	23
14	17NM1A0514	19	16	20	26	20	11	24	23	23
15	17NM1A0515	27	24	26	29	25	16	21	25	20
16	17NM1A0516	24	29	24	26	25	19	25	21	23
17	17NM1A0517	26	23	24	27	25	20	25	23	25
18	17NM1A0518	24	24	27	27	23	20	21	25	24
19	17NM1A0519	21	20	19	23	25	11	23	25	23
20	17NM1A0520	25	27	29	27	26	16	23	22	22
21	17NM1A0521	24	26	28	28	27	19	24	23	21
22	17NM1A0522	22	27	27	29	24	17	22	20	23
23	17NM1A0523	22	16	18	20	24	10	24	23	24
24	17NM1A0524	24	24	27	26	24	15	24	25	25
25	17NM1A0525	21	28	27	25	25	21	21	25	24
26	17NM1A0526	22	28	19	24	22	17	22	23	23
27	17NM1A0527	22	22	18	22	20	12	22	21	23
28	17NM1A0528	19	26	25	27	24	16	19	21	19
29	17NM1A0529	21	21	21	24	14	13	24	20	22
30	17NM1A0530	24	27	23	24	26	14	24	23	23
31	17NM1A0531	24	25	23	25	27	16	22	23	19
32	17NM1A0532	26	27	26	28	26	25	22	21	23



360  
**PRINCIPAL**  
 Vignan's Institute of  
 Engineering for Women  
 K.J.Peta, VSEZ (P.O.),  
 Visakhapatnam-49.

**VIGNAN'S INSTITUTE  
 ENGINEERING FOR WOMEN**

Date of Display : 21/04/2018  
 Date of Removal 25/04/2018

A. Ganapathi Rao  
 VICE PRINCIPAL

## VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN

Kapu Jaggaraju Peta, Vadlapudi Post, Gajuwaka, VISAKHAPATNAM-530 046. A.P

### I.B.TECH II SEM (ACADEMIC YEAR 2017-18) - DISPLAY MARKS

BRANCH: CSE

S.No	Regd No	E-II	M-III	AC	ES	OOPS	EM	ECS LAB-II	ENG AC LAB	OOPS LAB
33	17NM1A0533	28	27	30	29	28	19	19	23	19
34	17NM1A0534	24	19	18	21	22	12	25	23	25
35	17NM1A0535	23	25	27	27	23	13	22	25	22
36	17NM1A0536	22	13	15	21	20	12	23	25	23
37	17NM1A0537	23	26	25	26	27	22	23	23	20
38	17NM1A0538	21	17	19	24	15	12	23	22	23
39	17NM1A0539	24	26	23	23	24	14	21	23	24
40	17NM1A0540	24	27	22	23	18	21	22	21	23
41	17NM1A0541	21	16	19	23	21	14	20	21	21
42	17NM1A0542	25	24	22	28	26	16	23	21	20
43	17NM1A0543	20	24	21	22	23	17	22	21	19
44	17NM1A0544	22	22	20	24	22	13	22	21	22
45	17NM1A0545	25	27	28	26	26	22	24	22	23
46	17NM1A0546	23	28	29	28	25	24	24	23	21
47	17NM1A0548	27	29	29	29	28	22	23	22	22
48	17NM1A0549	24	25	27	27	26	19	24	21	21
49	17NM1A0550	25	23	26	25	25	14	24	20	20
50	17NM1A0551	22	25	28	29	25	19	23	23	21
51	17NM1A0552	22	16	16	20	17	9	24	23	22
52	17NM1A0553	25	27	27	28	27	17	21	23	23
53	17NM1A0554	27	25	27	27	27	20	23	22	23
54	17NM1A0555	22	23	21	25	23	18	18	21	22
55	17NM1A0556	27	29	30	30	27	20	19	21	21
56	17NM1A0557	26	27	30	29	28	22	24	22	19
57	17NM1A0558	19	13	18	16	14	9	22	20	23
58	17NM1A0559	22	28	26	27	26	19	22	23	22
59	17NM1A0560	18	16	17	19	12	12	24	21	21
60	17NM1A0561	24	28	28	30	28	25	25	23	23
61	17NM1A0562	24	28	28	22	28	19	21	23	24
62	17NM1A0563	21	22	23	25	20	18	23	23	22
63	17NM1A0564	26	29	28	30	29	26	23	23	23
64	17NM1A0565	23	23	22	22	20	14	18	22	21
65	17NM1A0566	24	19	30	22	2				



PRINCIPAL  
Vignan's Institute of  
Engineering for Women  
K.J.Peta, VSEZ (P.O.),  
Visakhapatnam-49

VIGNAN'S INSTITUTE OF  
ENGINEERING FOR WOMEN

Date of Display : 21/04/2018  
Date of Removal : 25/04/2018

A. Ganapathi Rao



## VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN

Kapu Jaggaraju Peta, Vadlapudi Post, Gajuwaka, VISAKHAPATNAM-530 046. A.P

### I.B.TECH II SEM (ACADEMIC YEAR 2017-18) - DISPLAY MARKS

BRANCH: CSE

S.No	Regd No	E-II	M-III	AC	ES	OOPS	EM	ECS LAB-II	ENG AC LAB	OOPS LAB
66	17NM1A0567	25	26	29	27	29	22	24	20	23
67	17NM1A0568	27	28	23	27	26	21	22	21	21
68	17NM1A0569	22	18	24	21	23	18	24	23	21
69	17NM1A0570	23	17	18	19	17	15	21	21	20
70	17NM1A0571	23	26	25	23	25	22	22	22	19
71	17NM1A0572	26	29	24	26	26	25	24	22	24
72	17NM1A0573	23	24	19	25	26	23	24	21	24
73	17NM1A0574	21	20	17	19	19	17	20	21	17
74	17NM1A0576	19	20	17	20	24	20	21	21	19
75	17NM1A0577	16	12	14	18	16	11	24	25	23
76	17NM1A0578	19	22	21	22	19	17	24	25	25
77	17NM1A0579	21	24	20	21	19	18	23	25	23
78	17NM1A0580	23	16	21	19	18	16	23	18	22
79	17NM1A0581	27	27	28	27	27	25	22	22	24
80	17NM1A0582	25	29	30	29	28	26	20	25	21
81	17NM1A0583	12	10	18	18	12	14	23	22	25
82	17NM1A0584	21	22	20	23	22	19	21	18	25
83	17NM1A0585	17	19	14	17	16	15	19	21	22
84	17NM1A0586	22	27	19	20	19	19	22	25	22
85	17NM1A0587	16	19	17	18	19	16	22	22	25
86	17NM1A0588	23	18	22	23	20	17	24	21	25
87	17NM1A0589	23	25	20	27	26	27	24	20	20
88	17NM1A0590	26	29	26	24	26	24	21	22	22
89	17NM1A0591	23	25	19	22	17	22	23	25	22
90	17NM1A0592	23	26	24	19	25	24	22	20	25
91	17NM1A0593	20	19	19	19	22	21	22	21	21
92	17NM1A0594	29	27	25	29	28	25	21	18	23
93	17NM1A0595	26	27	23	23	26	24	20	22	23
94	17NM1A0596	27	24	26	28	28	21	22	18	25
95	17NM1A0597	18	24	23	21	19	18	24	23	23
96	17NM1A0598	25	27	25	28	27	25	23	25	22
97	17NM1A0599	25	16	21	22	20	16	21	24	21
98	17NM1A05A0	19	24	22	23	26	22	25	23	22

**PRINCIPAL**  
 Vignan's Institute of  
 Engineering for Women  
 K.J.Peta, VSEZ (P.O.),  
 Visakhapatnam-49:

Date of Display : 21/04/2018  
 Date of Removal 25/04/2018

A. Ganavathi Reddy



## VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN

Kapu Jaggaraju Peta, Vadlapudi Post, Gajuwaka, VISAKHAPATNAM-530 046. A.P

### I B.TECH II SEM (ACADEMIC YEAR 2017-18) - DISPLAY MARKS

BRANCH: CSE

S.No	Regd No	E-II	M-III	AC	ES	OOPS	EM	ECS LAB-II	ENG AC LAB	OOPS LAB
99	17NM1A05A1	26	23	18	20	26	21	24	23	23
100	17NM1A05A2	26	25	27	27	26	23	24	23	21
101	17NM1A05A3	20	20	21	21	19	16	19	21	21
102	17NM1A05A5	19	16	16	19	17	18	24	22	20
103	17NM1A05A6	18	18	16	19	19	11	25	22	24
104	17NM1A05A7	25	26	29	28	28	25	24	21	23
105	17NM1A05A8	26	23	21	23	22	18	23	23	22
106	17NM1A05A9	22	23	25	26	26	24	24	25	23
107	17NM1A05B0	21	12	17	21	18	14	24	22	25
108	17NM1A05B1	15	16	13	19	12	14	22	24	23
109	17NM1A05B2	19	14	22	19	21	13	20	24	25
110	17NM1A05B3	24	25	24	19	24	21	25	21	22
111	17NM1A05B4	25	19	27	22	21	16	20	21	20
112	17NM1A05B5	14	12	13	19	16	12	22	21	23
113	17NM1A05B6	27	28	24	26	27	22	24	23	21
114	17NM1A05B7	23	28	29	29	26	25	22	22	25
115	17NM1A05B8	27	24	27	24	18	18	24	22	21
116	17NM1A05B9	26	28	29	29	27	25	23	22	20
117	17NM1A05C0	22	16	16	22	19	15	25	22	21
118	17NM1A05C1	25	24	25	25	20	20	23	24	21
119	17NM1A05C2	23	23	24	22	21	18	22	23	25
120	17NM1A05C3	20	21	20	23	16	12	22	23	25
121	17NM1A05C4	20	16	13	19	19	15	21	22	21
122	17NM1A05C5	25	25	26	26	27	22	21	22	21
123	17NM1A05C6	25	22	26	26	23	16	22	23	25
124	17NM1A05C7	25	26	26	27	21	21	24	25	25
125	17NM1A05C8	25	28	28	23	27	22	21	25	25
126	17NM1A05C9	25	29	25	27	25	25	22	22	22
127	17NM1A05D0	25	27	26	27	26	17	23	22	22
128	17NM1A05D1	24	25	22	26	21	19	24	22	21
129	17NM1A05D2	25	26	23	27	24	21	23	22	23
130	17NM1A05D3	25	29	23	26	27	26	21	22	23
131	17NM1A05D4	23	25	20	24	23	20	24	23	24



310  
**PRINCIPAL**  
 Vignan's Institute of  
 Engineering for Women  
 K.J.Peta, VSEZ (P.O.),  
 Visakhapatnam-49

VIGNAN'S INSTITUTE OF  
 ENGINEERING FOR WOMEN

Date of Display : 21/04/2018  
 Date of Removal 25/04/2018

A. Ganapathi Rao



## VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN

Kapu Jaggaraju Peta, Vadlapudi Post, Gajuwaka, VISAKHAPATNAM-530 046. A.P

### I B.TECH II SEM (ACADEMIC YEAR 2017-18) - DISPLAY MARKS

BRANCH: CSE

S.No	Regd No	E-II	M-III	AC	ES	OOPS	EM	ECS LAB-II	ENG AC LAB	OOPS LAB
132	17NM1A05D5	13	14	10	15	8	9	25	23	23
133	17NM1A05D6	25	16	13	22	19	13	22	22	21
134	17NM1A05D7	28	25	24	25	22	21	23	22	21
135	17NM1A05D8	26	22	22	24	25	17	24	25	23
136	17NM1A05D9	26	28	28	27	28	24	24	23	23
137	17NM1A05E0	26	29	27	26	28	25	24	20	23
138	17NM1A05E1	24	27	24	28	27	24	25	25	25
139	17NM1A05E2	26	22	23	24	23	20	21	25	23
140	17NM1A05E3	24	28	22	22	22	23	21	20	21
141	17NM1A05E4	25	18	22	25	20	18	24	23	23
142	17NM1A05E5	27	24	22	24	23	20	25	22	22
143	17NM1A05E6	23	25	25	24	26	20	21	21	19
144	17NM1A05E7	20	21	19	22	20	17	23	25	22
145	17NM1A05E8	25	23	24	23	23	19	23	22	23
146	17NM1A05E9	21	16	16	20	20	18	21	23	22
147	17NM1A05F0	18	16	19	19	16	11	21	21	25
148	17NM1A05F1	26	28	24	27	27	24	25	22	24
149	17NM1A05F2	23	21	21	22	21	16	24	22	21
150	17NM1A05F3	23	23	22	23	22	23	22	25	19
151	17NM1A05F4	17	17	12	18	16	14	23	23	22
152	17NM1A05F5	27	27	24	28	26	24	20	23	24
153	17NM1A05F6	25	22	22	25	22	22	23	25	23
154	17NM1A05F7	22	24	17	20	19	15	25	22	23
155	17NM1A05F8	23	27	22	23	21	21	23	22	20
156	17NM1A05F9	25	23	17	20	20	21	22	23	20
157	17NM1A05G0	26	27	27	27	27	22	22	20	23
158	17NM1A05G1	18	17	12	16	19	14	20	23	22
159	17NM1A05G2	25	28	26	25	28	25	21	20	20
160	17NM1A05G3	24	28	24	26	27	22	25	20	20
161	17NM1A05G4	26	24	24	22	24	20	20	25	23
162	17NM1A05G5	22	27	23	24	24	23	21	21	20
163	17NM1A05G6	25	19	22	23	20	19	25	20	22
164	17NM1A05G7	26	21	21	25	19	19	23	23	23



**PRINCIPAL**  
Vignan's Institute of  
Engineering for Women  
K.J.Peta, VSEZ (P.O.),  
Visakhapatnam-49.

VIGNAN'S INSTITUTE  
ENGINEERING FOR WOMEN

Date of Display : 21/04/2018  
Date of Removal : 25/04/2018

A. Ganapathi Rao

## VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN

Kapu Jaggaraju Peta, Vadlapudi Post, Gajuwaka, VISAKHAPATNAM-530 046. A.P

### I B.TECH II SEM (ACADEMIC YEAR 2017-18) - DISPLAY MARKS

BRANCH: CSE

S.No	Regd No	E-II	M-III	AC	ES	OOPS	EM	ECS LAB-II	ENG AC LAB	OOPS LAB
165	17NM1A05G8	23	19	22	23	20	14	21	22	20
166	17NM1A05G9	21	19	16	21	16	17	24	20	21
167	17NM1A05H0	23	18	21	23	21	19	23	23	22
168	17NM1A05H1	21	25	22	25	24	26	23	22	21
169	17NM1A05H2	20	16	18	21	22	19	21	20	20
170	17NM1A05H3	26	25	24	28	23	21	21	21	19
171	17NM1A05H4	27	26	25	28	26	20	22	20	20
172	17NM1A05H5	21	17	18	23	16	20	23	20	20
173	17NM1A05H6	25	18	20	23	23	19	24	19	24
174	17NM1A05H7	20	15	16	23	17	19	25	19	25



*310*  
PRINCIPAL  
Vignan's Institute of  
Engineering for Women  
Kapu Peta, VSEZ (P.O.),  
Visakhapatnam-49.

VIGNAN'S INSTITUTE  
ENGINEERING FOR WOMEN

Date of Display : 21/04/2018

Date of Removal 25/04/2018

A. Ganapathi Rao  
i/c Exam Cell





HALL TICKET NO.							
1	8	N	M	I	A	0	4
4	7						

Name of the Laboratory : MWE lab

Branch : ECE

Year / Sem. / Reg. : IV - I - R-16

Date of Exam : 12-1-22

D. Bhavya  
Signature of Student with date 12-01-2022

No. of Additions  
0

Signature of Lab Examiner with Date  
12/1/22

LAB INTERNAL ASSESSMENT

Name of the Content	Max. Marks	Marks obtained
Internal Test	10	8
Day to day assessment	10	9
Record	05	5
Total Marks (in figures)		22

(WRITE YOUR ANSWERS BELOW THIS LINE ONLY)

11. Determine the intensity modulation in optical fiber cable

Aim :- To determine the intensity modulation in optical fiber

Apparatus Required :-

- (i) Fiber link - Kit
- (ii) Glass fiber cable
- (iii) Voltmeter
- (iv) Ammeter
- (v) power supply
- (vi) patch chords

Theory :-

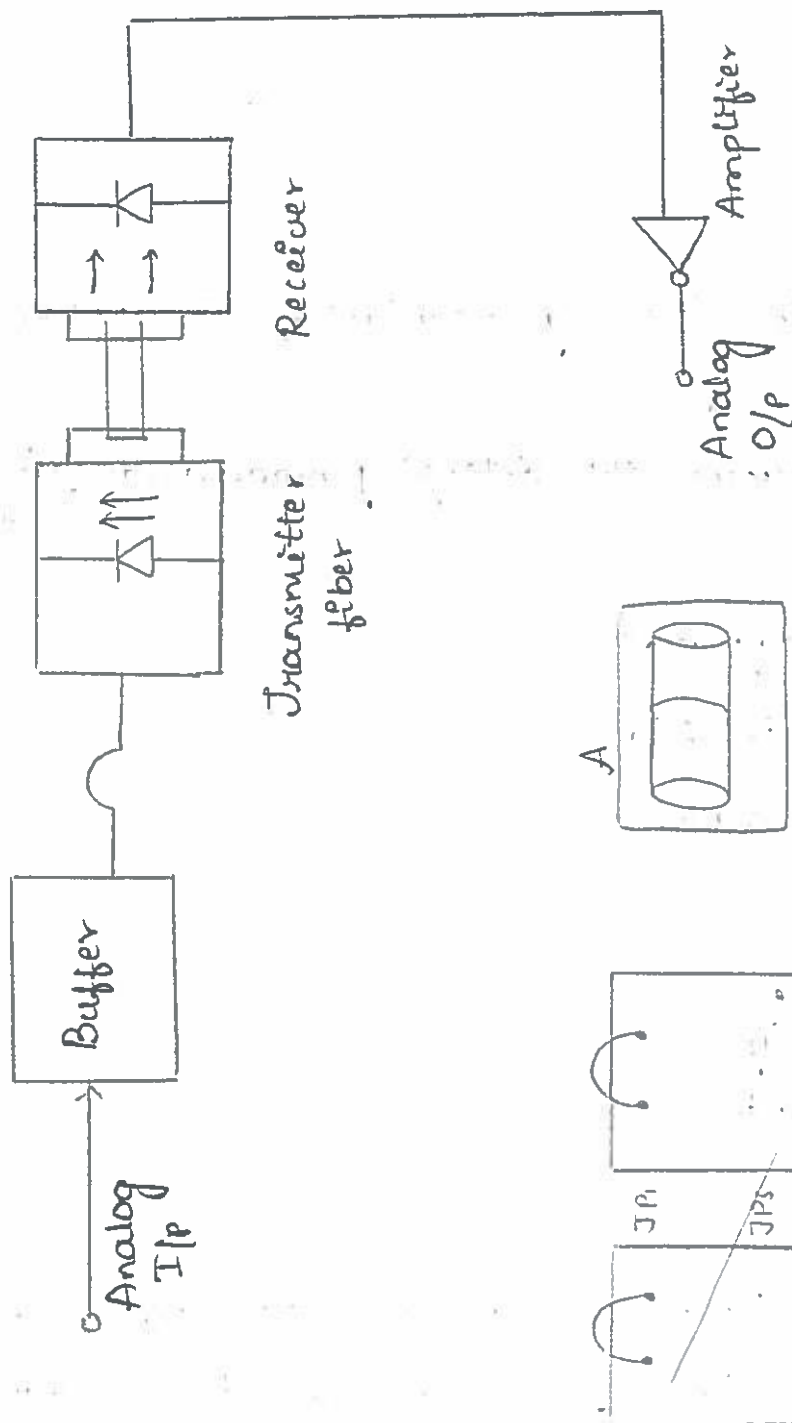
The optical fiber is used to transmit in communication of electrical signal. The electrical beam light is transmitted in fiber. Laser has specific quali-

PRINCIPAL  
Vignan's Institute of  
Engineering for Women  
K.J.Peta, VSEZ (P.O.),  
Visakhapatnam-49.



The signal is converted to electric form and then it is sent to the transmitter and while receiving it in the fiber again it changes to light form. It is very easy and useful in communication.

Block Diagram:-



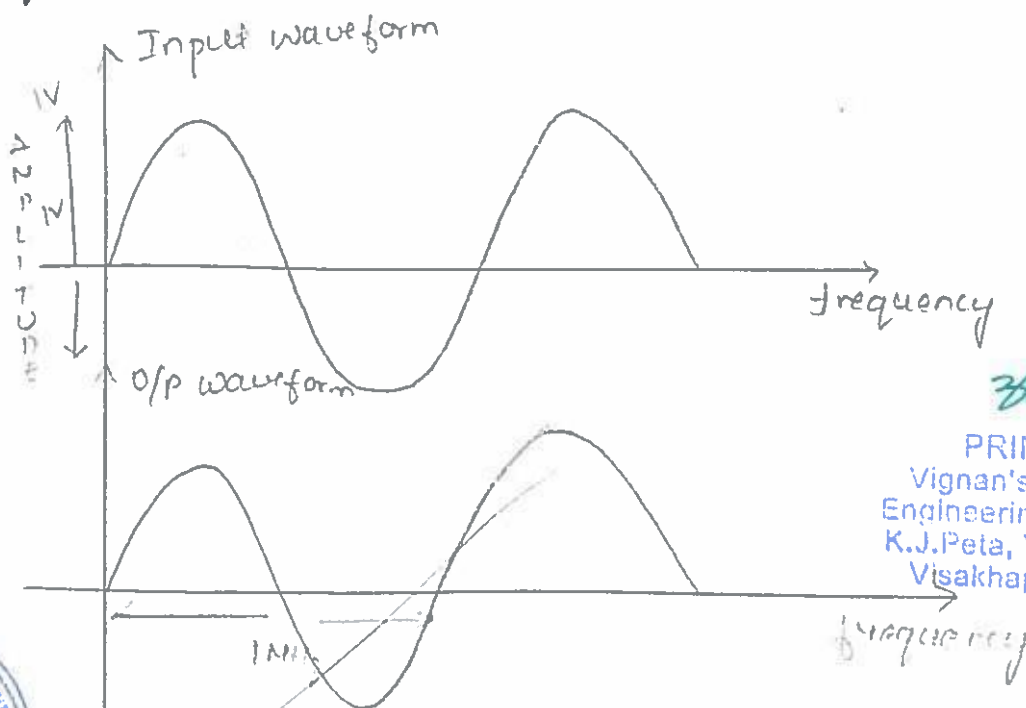
310  
 PRINCIPAL  
 Vignan's Institute of  
 Engineering for Women  
 K.J. Soma, VSEZ (P.O.),  
 Visakhapatnam-49



procedure :-

- (1) Connect the circuit as per the circuit diagram.
- (2) The Analog input is given to the buffer, connect the jumper settings
- (3) Insert the jumper connecting wires @ JP<sub>2</sub> at its position
- (4) connect the jumper with ammeter as JP<sub>2</sub>
- (5) Keep the switch SW<sub>1</sub> in Analog.
- (6) Connect the potentiometer
- (7) Connect the signal generator as analog input and give us sine wave frequency of 1 MHz, 1V signal
- (8) The analog out. to analog buffer
- (9) Then switch on the power supply to get the characteristics of laser

Expected O/P :-



PRINCIPAL  
Vignan's Institute of  
Engineering for Women  
K.J.Peta, VSEZ (P.O.),  
Visakhapatnam-49.



precautions :-

- (1) Loose connections should be avoided
- (2) Input power supply must not be exceeded, 300v

Results :-

Then Observation :-

Amplitude = 2.06v

Frequency = 1MHz

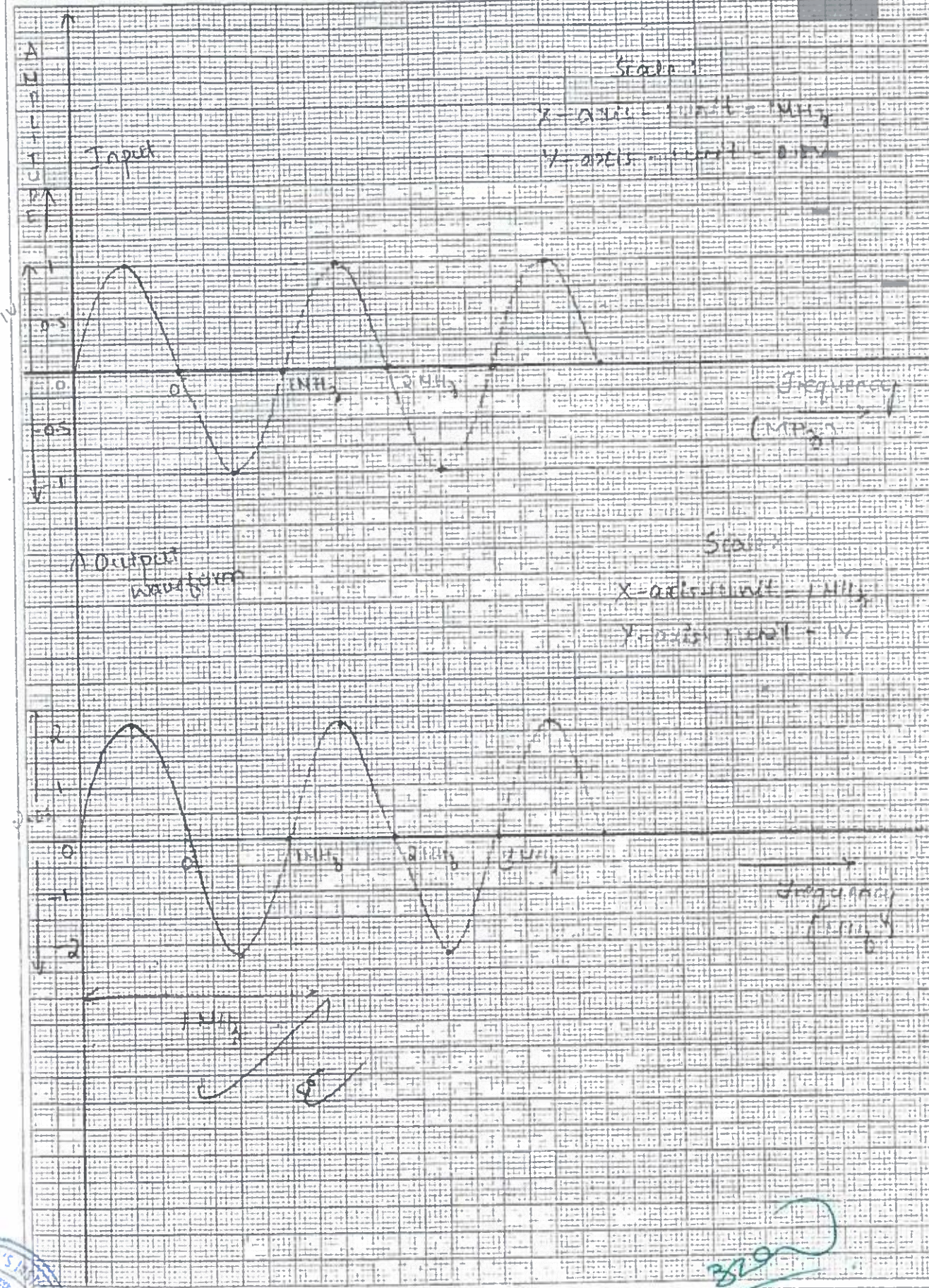
Result :-

Hence the output of ~~las~~ intensity modulation of the laser diode is observed



319  
PRINCIPAL  
Vignan's Institute of  
Engineering for Women  
K.J. Peta, VSEZ (P.O.),  
Visakhapatnam-49.





PRINCIPAL  
 Vignan's Institute of  
 Engineering for Women  
 K.J.Peta, VSEZ (P.O.),  
 Visakhapatnam





# VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

## DAY TO DAY LAB EVALUATION SHEET

Date: 16-9-21

Laboratory Name: MWE lab

Reg.No: 18NMIA0447


Experiment: Reflex Klystron characteristics

ASSESSMENT	MAXIMUM MARKS	AWARDED MARKS
Laboratory Skills	2	2
Pre-preparation	2	2
Experiment knowledge	2	2
Interpersonal Skills	2	2
Subsistence	2	1
<b>TOTAL</b>	<b>10</b>	<b>9</b>

  
Faculty Incharge

- *Laboratory Skills:* Student's lab performance during rotation in your lab.
- *Pre-preparation:* Student's prior preparation to the current experiment.
- *Experiment knowledge:* Student's appropriate amount of concept and understood the content enough.
- *Interpersonal Skills:* Team work and Communication skills
- *Subsistence:* Time management, Punctuality, Attendance.



  
PRINCIPAL  
Vignan's Institute of  
Engineering for Women  
K.J.Peta, VSEZ (P.O.),  
Vizakhapatnam-49.



VIGNAN'S  
INSTITUTE OF ENGINEERING FOR WOMEN  
VISA KHAPATNAM



CERTIFICATE

This is to certify that this is the bonafide record of the work done in ... Microwave Engineering ... lab ..... Laboratory by Mr. / Ms. D. Bhavya Satya Sai ..... bearing Reg No / Roll No. 18NMIA0447 of ... Electronics & Communication Engineering course during 2021-2022 .....

Total number of experiments held ..... 12 .....

Total number of experiments held ..... 12 .....



LAB-IN-CHARGE

SIGNATURE OF EXTERNAL EXAMINERS

PRINCIPAL  
Vignan's Institute of  
Engineering for Women  
K.J. Pets, VSEZ (P.O.),  
Visakhapatnam-49.

HEAD OF THE DEPARTMENT  
OF THE DEPARTMENT  
of Electronics & Communications Engineering  
VIGNAN'S INSTITUTE OF  
ENGINEERING FOR WOMEN  
Kulajaggaraipeta, Visakhapatnam-49



# INDEX

Sl. No.	Date	NAME OF EXPERIMENT	Page No.	Marks
	9-9-21	Introduction	1-5	5
1	16-9-21	Reflex klystron Characteristics	6-10	4
2	23-9-21	Gunn Diode characteristics	11-13	4
3	30-9-21	Radiation pattern of Horn Antenna	14-17	5
4	7-10-21	Scattering parameters of Circulator.	18-21	5
5	21-10-21	Frequency Measurement	22-26	4
6	28-10-21	Attenuation Measurement	27-29	4
7	11-11-21	Characteristics of LED	30-35	5
8	18-11-21	Characteristics of LASER diode	36-39	4
9	8-12-21	Intensity modulation of LASER diode	40-42	5
10	15-12-21	Measurement of Numerical Aperture	43-45	5
11	22-12-21	Measurement of losses in optical Transmission path	46-49	4
12	29-12-21	Synthesis of Microstrip	50-54	5

VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN : VISAKHAPATNAM



PRINCIPAL  
Vignan's Institute of  
Engineering for Women  
Vignan's Institute of Engineering for Women

Dec 4-22  
5





Vignan's Institute of Engineering for Women:: Visakhapatnam  
Department of ECE  
Project Evaluation Form (PRC-1)

Batch No.: A9

Date: 21-06-2021

Project Title: Design of Decagon Fractal Antenna for Wireless Applications

Regd.No.	Name of the student	Project Description (5M)	Technical Knowledge (5M)	Presentation Skills (5M)	Contribution (5M)	Quality of work (5M)	Total (25M)
17NM1A0404	Anisetti Sudheera	5	5	5	5	4	24
17NM1A0452	Karanam Lakshmi Durga	5	5	5	5	3	23
17NM1A0437	Ganala Gayatri Venkata Madhavi Parvathi	5	5	5	5	2	22
17NM1A0410	B Prashanti	5	5	4	5	3	21

Supporting Comments: Includes (a) overall strengths and weaknesses (b) areas of research or analysis that could be deleted (c) new areas or directions that could be added (d) changes that may have occurred in the research context that might alter the planned targets or goals.

*in sufficient literature survey  
figures & table description are not clear & in some slides description is  
missing*

*[Signature]*  
Name & Signature of Panel Member-1

*T. Sandya*  
Name & Signature of Panel Member-3

*[Signature]*  
Name & Signature of Panel Member-2

*[Signature]*  
Name & Signature of Panel Member-4

*[Signature]*  
Name & Signature of the Guide



*[Signature]*  
PRINCIPAL  
Vignan's Institute of  
Engineering for Women  
K.J.Peta, VSEZ (P.O.),  
Visakhapatnam-49.



Vignan's Institute of Engineering for Women:: Visakhapatnam  
Department of ECE  
Project Evaluation Form (PRC-2)

Batch No.:09

Date: 07-07-2021

Project Title: Design of Decagon Fractal Antenna for Wireless Applications

Results Verification: (5M)

Existing Technique Results (if any)	Proposed Project Results	Project Status	Remarks (if any)
-	Verified Proposed Results	Completed	-

No Comparison with existed Result

  
Signature of Faculty In-charge (Results)

PRC:

Regd.No.	Name of the student	PRC-1 Remarks Justification (10M)	Overall Presentation (10M)	Results (10M)	Total (30M)
17NM1A0404	Anisetti Sudheera	9	10	10	29
17NM1A0452	Karanam Lakshmi Durga	9	9	9	27
17NM1A0437	Ganala Gayatri Venkata Madhavi Parvathi	9	9	7	25
17NM1A0410	B Prashanti	8	8	7	23

Supporting Comments:

Need to improve PPT.

  
Signature of Panel Member-1


  
Signature of Panel Member-2

  
Signature of Panel Member-3

  
Signature of Panel Member-4

  
Signature of the Guide



  
PRINCIPAL  
Vignan's Institute of  
Engineering for Women  
K.J.Peta, VSEZ (P.O.),  
Visakhapatnam-49.





VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN :: VISAKHAPATNAM

INTERNAL PROJECT MARKS STATEMENT

IV B.TECH II SEMESTER REG R16

NAME OF THE PROJECT : PROJECT

LAB CODE : R1642046

BRANCH / SECTION : ECE A

DATE: 24-07-2021

S.No	Regd. No	PRC-1 (25M)	PRC-2 (30M)	RESULT VERIFICATION (5M)	Total (60)
1.	17NM1A0401	23	27	05	55
2.	17NM1A0402	20	21	03	44
3.	17NM1A0403	23	22	05	50
4.	17NM1A0404	24	29	05	58
5.	17NM1A0405	20	19	05	44
6.	17NM1A0406	21	25	05	51
7.	17NM1A0407	24	26	05	55
8.	17NM1A0408	22	26	04	52
9.	17NM1A0409	22	23	04	49
10.	17NM1A0410	21	23	05	49
11.	17NM1A0412	21	26	04	51
12.	17NM1A0413	24	29	05	58
13.	17NM1A0414	22	25	05	52
14.	17NM1A0415	21	22	05	48
15.	17NM1A0416	23	28	05	56
16.	17NM1A0417	23	28	04	55
17.	17NM1A0418	24	28	04	56
18.	17NM1A0419	22	29	04	55
19.	17NM1A0420	24	29	05	58
20.	17NM1A0421	22	24	04	50
21.	17NM1A0422	24	28	04	56
22.	17NM1A0423	23	27	04	54
23.	17NM1A0424	22	24	04	50
24.	17NM1A0425	23	28	05	56
25.	17NM1A0426	21	25	04	50
26.	17NM1A0427	22	27	03	52
27.	17NM1A0428	19	23	04	46
28.	17NM1A0429	23	28	05	56
29.	17NM1A0430	23	25	04	52
30.	17NM1A0431	21	23	05	49
31.	17NM1A0432	22	27	05	54
32.	17NM1A0433	19	26	05	50
33.	17NM1A0434	25	30	05	60
34.	17NM1A0435	24	29	05	58
35.	17NM1A0436	19	21	04	44
36.	17NM1A0437	22	25	05	52

PRINCIPAL

Vignani's Institute of  
Engineering for Women



S.No.	Regd. No	PRC-1 (25M)	PRC-2 (30M)	RESULT VERIFICATION(25M)	Total (60)
37.	17NM1A0438	25	30	05	60
38.	17NM1A0439	24	29	04	57
39.	17NM1A0440	22	24	05	51
40.	17NM1A0441	20	19	05	44
41.	17NM1A0442	23	28	05	56
42.	17NM1A0443	21	25	05	51
43.	17NM1A0444	22	23	05	50
44.	17NM1A0445	22	28	04	54
45.	17NM1A0446	19	21	05	45
46.	17NM1A0447	21	21	04	46
47.	17NM1A0448	20	26	04	50
48.	17NM1A0449	24	29	05	58
49.	17NM1A0450	22	27	05	54
50.	17NM1A0451	21	24	05	50
51.	17NM1A0452	23	27	05	55
52.	17NM1A0453	21	25	04	50
53.	17NM1A0454	20	25	04	49
54.	17NM1A0455	21	27	04	52
55.	17NM1A0456	19	20	04	43
56.	17NM1A0457	24	28	04	56
57.	17NM1A0458	23	26	05	54
58.	17NM1A0459	21	24	03	48
59.	17NM1A0460	22	26	05	53
60.	17NM1A0461	24	27	05	56
61.	17NM1A0462	24	28	05	57
62.	17NM1A0463	23	26	05	54
63.	18NM5A0402	21	22	05	48
64.	18NM5A0404	21	26	05	52
65.	18NM5A0405	20	20	04	44
66.	18NM5A0406	22	27	05	54
67.	16NM1A04G1	19	19	03	41
<b>Total Number of students Registered :</b>					67
<b>Number of students present :</b>					67
<b>Number of students absent :</b>					- NIL -

1. 

2. T. Sande 



Signature of the HOD

Signature of the Internal Examiner



  
**PRINCIPAL**  
Vignan's Institute of  
Engineering for Women