



# J.K.K.MUNIRAJAH MEDICAL RESEARCH FOUNDATION'S ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY

Ethirmedu, B.Komarapalayam – 638 183, Namakkal Dist. Tamilnadu. India  
Approved by : Pharmacy Council of India, New Delhi & The Tamilnadu Dr.M.G.R Medical University, Chennai.  
Website : [www.jkkmmrfpharmacy.edu.in](http://www.jkkmmrfpharmacy.edu.in) |E-Mail : [principal@jkkmmrfpharmacy.edu.in](mailto:principal@jkkmmrfpharmacy.edu.in)  
Contact No. : +919789456750, +919943069944, +919943066944

## REPORT SUMMARY

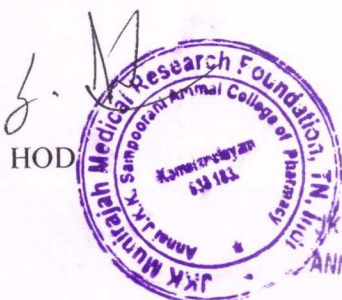
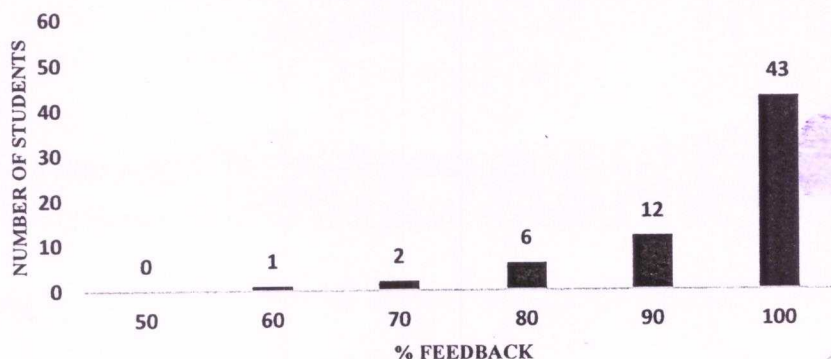
Date: 31/12/2020

Academic year	2020-2021
Date	15/12/2020 To 31/12/2020
Add-on course name	Optimal design
Duration of the Course	30 HOURS
Total participants Enrolled	66
Successfully Completed	64
Type of Assessment	Multiple Choice Questions (MCQ's)
Course Outcome	<ul style="list-style-type: none"><li>Students learned about optimal design concepts used in pharma industry able to understand guarantee the product quality through optimal design.</li><li>Updated statistical models for optimal design and principles of optimal design</li></ul>
Outcome Attainment	36 Students scored more than 80% of marks - Attainment level 3 Achieved

## Feedback Question Analysis – Question Asked-Feedback Rating

1.Satisfaction	6.Like to learn more about this topic
2.Clarity	7.Rate the content of the slides/virtual aid
3. Percentage of the information was new	8.Accuracy of the sessions
4.Informative	9.Session expectations
5.Technical issues	10.Rate the content of the seminar

## STUDENT FEEDBACK ANALYSIS



Dr. N. SENTHILKUMAR,  
PRINCIPAL,  
J.K.K. MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183,  
NAMAKKAL DISTRICT, TAMILNADU.

Dr. N. SENTHILKUMAR,  
PRINCIPAL,  
J.K.K. MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183,  
NAMAKKAL DISTRICT, TAMILNADU, INDIA.



# J.K.K.MUNIRAJAH MEDICAL RESEARCH FOUNDATION'S ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY

Ethirmedu, B.Komarapalayam – 638 183, Namakkal Dist. Tamilnadu. India  
Approved by : Pharmacy Council of India, New Delhi & The Tamilnadu Dr.M.G.R Medical University, Chennai.  
Website : [www.jkkmmrfpharmacy.edu.in](http://www.jkkmmrfpharmacy.edu.in) |E-Mail : [principal@jkkmmrfpharmacy.edu.in](mailto:principal@jkkmmrfpharmacy.edu.in)  
Contact No. : +919789456750, +919943069944, +919943066944

## REPORT

DATE:31/12/2020

ADD-ON COURSE TITLE- OPTIMAL DESIGN

VENUE-SEMINAR HALL

## RESOURCE PERSONS

**Dr.N.SENTHILKUMAR., M. PHARM, Ph.D.,**  
Professor, JKKMMRF'S Annai JKK sampoorani ammal  
College of pharmacy, komarapalayam.

**Dr.S. CHANDRA., M. PHARM, Ph.D.,**  
Professor, JKKMMRF'S Annai JKK sampoorani  
ammal College of pharmacy, komarapalayam.

**Dr. V.SURESH., M. PHARM, Ph.D.,**  
Professor, JKKMMRF'S Annai JKK sampoorani ammal  
College of pharmacy, komarapalayam.

**Mr. R. SURESH., M. PHARM,**  
Professor, JKKMMRF'S Annai JKK sampoorani  
ammal College of pharmacy, komarapalayam.

No. of students enrolled: 66

No. of students certified:64

## OBJECTIVE OF THE COURSE

The objective of this value-added course seminar on optimal design training program provides the theoretical knowledge on techniques. in this seminar program students acquire optimal design of complex systems knowledge to apply in pharmaceutical sciences.

## LEARNING OUTCOMES FROM THE COURSE

- optimal design concepts used in pharma industry.
- guarantee the product quality through optimal design.
- mathematical models for optimal design
- principles of optimal design
- decision-making and design optimization in pharma industry
- optimization methods
- robust optimal design and parameters
- design of complex systems through optimal design
- trial-and-error modeling making in pharma manufacturing.



**Dr. N.SENTHILKUMAR,**  
PRINCIPAL

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY

ETHIRMEDU, KOMARAPALAYAM - 638 183. JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
NAMAKKAL DISTRICT, TAMILNADU, INDIA. ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY

**Principal**  
**Dr. N.SENTHILKUMAR,**  
PRINCIPAL

ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT, TAMILNADU, INDIA.



# J.K.K.MUNIRAJAH MEDICAL RESEARCH FOUNDATION

## ANNAI J.K.K.SAMPOORANI AMMAL COLLEGE OF PHARMACY

Ethirmedu, B.Komarapalayam - 638 183. Namakkal Dist. Tamilnadu. India.

Approved by : Pharmacy Council of India, AICTE, New Delhi & The Tamilnadu Dr. M.G.R. Medical University, Chennai.

Website : [www.jkkm.info](http://www.jkkm.info) | E-mail : [senthilkumarjkkm@gmail.com](mailto:senthilkumarjkkm@gmail.com)

Ph : 0091 - 04288-260032, 260588, 266778

Rtn.MPHF. Dr. J.K.K. MUNIRAJAH M.Tech., (Bolton)  
Correspondent

Dr. N. SENTHIL KUMAR, M.Pharm., Ph.D.,  
Principal

REF.NO: JKKM/PHARM/CEU/REQ/2020/013

Date: 12/12/2020

From

Department of Pharmaceutics,  
JKKMMRF'S Annai JKK Sampoorni Ammal College of Pharmacy,  
Komarapalayam, Namakkal [Dist]  
Tamil Nadu, PIN:638183.

To

The Principal,  
JKKMMRF'S Annai JKK Sampoorni Ammal College of Pharmacy,  
Komarapalayam, Namakkal [Dist]  
Tamil Nadu, PIN:638183.

**Subject:** Letter for requesting Permission to Conduct an ADD ON COURSE regarding: -

Respected Sir,

We are writing this letter to request permission to conduct a add-on course in the SEMINAR HALL on 15/12/2020 to 31/12/2020 .We wish to conduct a add-on course regarding the title OPTIMAL DESIGN We request you to kindly permit to conduct add-on course program as this would be a great opportunity for Students to learn and that would help a great deal to shape the students.

Looking forward to hearing from you.

Thank you,

Yours sincerely,

Head Of the Department

Dr. N. SENTHILKUMAR,  
PRINCIPAL,

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT, TAMILNADU.





# J.K.K.MUNIRAJAH MEDICAL RESEARCH FOUNDATION'S ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY

Ethirmedu, B.Komarapalayam – 638 183, Namakkal Dist. Tamilnadu. India  
Approved by : Pharmacy Council of India, New Delhi & The Tamilnadu Dr.M.G.R Medical University, Chennai.  
Website : [www.jkkmmrfpharmacy.edu.in](http://www.jkkmmrfpharmacy.edu.in) |E-Mail : [principal@jkkmmrfpharmacy.edu.in](mailto:principal@jkkmmrfpharmacy.edu.in)  
Contact No. : +919789456750, +919943069944, +919943066944

DATE: 18/12/2020

## CIRCULAR

This is informed to the B. Pharm-I, II, III, IV Pharm.D - I, II, III, IV, V, VI Students that the following value-added course can be conducted by the Department of Pharmaceutics, JKKMMRF'S ANNAI JKK SAMPOORANIAMMAL COLLEGE OF PHARMACY, KOMARAPALAYAM and it will be commenced as per the schedule:

COURSE NAME	SCHEDULE	DURATION	VENUE	RESOURCE PERSON
OPTIMAL DESIGN	15/12/2020 To 31 /12/2020	30 HOURS	SEMINAR HALL	DR.N.SENTHILKUMAR DR.S.CHANDRA MR.R. SURESH DR.V.SURESH

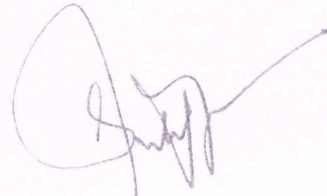
All the above-mentioned students must enroll and actively participate in the course without fail.

NOTE: Certificates should be issued to all the students after completion of the course and examination.



  
Dr. N. SENTHILKUMAR,  
PRINCIPAL,

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU KOMARAPALAYAM - 638 183,  
NAMAKKAL DISTRICT. TAMILNADU.



Dr. N. SENTHILKUMAR,  
PRINCIPAL

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT. TAMILNADU. INDIA.

Principal



# J.K.K.MUNIRAJAH MEDICAL RESEARCH FOUNDATION'S ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY

Ethirmedu, B.Komarapalayam – 638 183, Namakkal Dist. Tamilnadu. India  
Approved by : Pharmacy Council of India, New Delhi & The Tamilnadu Dr.M.G.R Medical University, Chennai.  
Website : [www.jkkmmrfpharmacy.edu.in](http://www.jkkmmrfpharmacy.edu.in) | E-Mail : [principal@jkkmmrfpharmacy.edu.in](mailto:principal@jkkmmrfpharmacy.edu.in)  
Contact No. : +919789456750, +919943069944, +919943066944

## SYLLABUS

DATE	HOURS	TOPIC	SUB TOPICS	RESOURCE PERSON
15/12/2020	6 HOURS	OPTIMAL DESIGN	Optimal design concepts used in pharma industry	Dr.S.Chandra
				Mr.R.Suresh
			Guarantee the product quality through Optimal design	Dr.N.Senthilkumar
				Dr.V.Suresh
16/12/2020	6 HOURS		Mathematical Models for Optimal design	Dr.S.Chandra
				Mr.R.Suresh
			Principles of Optimal Design	Dr.S.Chandra
				Mr.R.Suresh
17/12/2020	6 HOURS		Decision-Making and Design Optimization in pharma industry	Dr.S.Chandra
				Mr.R.Suresh
			Optimization Methods	Dr.V.Suresh
				Dr.N.Senthilkumar
29/12/2020	6 HOURS	Robust Optimal Design and parameters	Dr.S.Chandra	
			Mr.R.Suresh	
		Design of complex systems through Optimal Design	Dr.V.Suresh	
			Dr.N.Senthilkumar	
30/12/2020	6 HOURS	Trial-and-error modeling making in pharma manufacturing	Dr.S.Chandra	
			Mr.R.Suresh	
		Importance of optimal design in pharma industry	Dr.V.Suresh	
			Dr.N.Senthilkumar	

TOTAL: 30 HOURS

HOD

Dr. N. SENTHILKUMAR,  
PRINCIPAL,

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU KOMARAPALAYAM - 638 183,  
NAMAKKAL DISTRICT, TAMILNADU.

Dr. N. SENTHILKUMAR,  
PRINCIPAL

Principal  
JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY  
ETHIRMEDU, KOMARAPALAYAM - 638 183,  
NAMAKKAL DISTRICT, TAMILNADU, INDIA.



# JKKMMRF'S ANNAL JKK SAMPOORANIAMMAL COLLEGE OF PHARMACY, KOMARAPALAYAM



## Department of Pharmaceutics

COURSE TITLE

## OPTIMAL DESIGN

### TOPICS

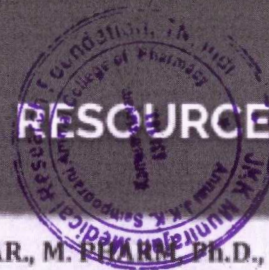
Optimal design concepts used in pharma industry  
Guarantee the product quality through Optimal design  
Mathematical Models for Optimal design  
Principles of Optimal Design  
Decision-Making and Design Optimization in pharma industry  
Optimization Methods  
Robust Optimal Design and parameters  
Design of complex systems through Optimal Design  
Trial-and-error modeling making in pharma manufacturing  
Importance of optimal design in pharma industry



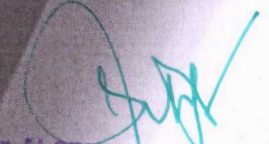
DATE:15/12/2020 To 31 /12/2020

VENUE:SEMINAR HALL

TIME:09.30 AM-04.30 PM



### RESOURCE PERSONS

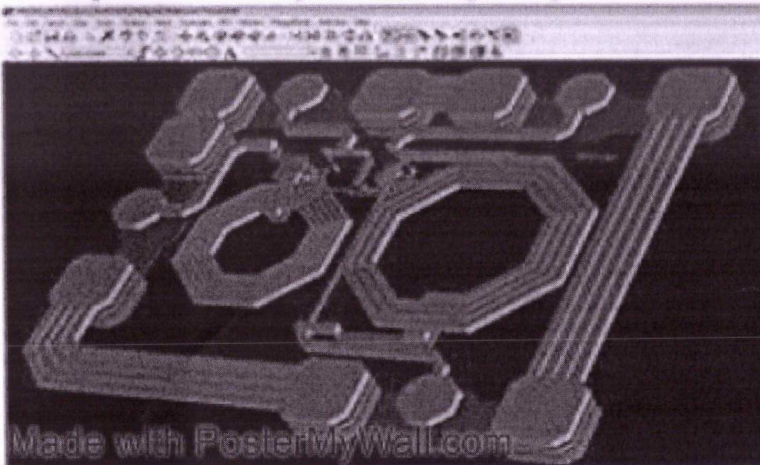
  
Dr. N. SENTHILKUMAR,  
PRINCIPAL  
JKKMUNIRAJAH MEDICAL RESEARCH FOUNDATION  
JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY  
ETHIRMEDU, KOMARAPALAYAM - 625 157  
NAMAKKAL DISTRICT, TAMILNADU, INDIA.

Dr.S. Dr.N.SENTHILKUMAR., M. PHARM, Ph.D.,  
Professor, JKKMMRF'S Annal JKK sampoorani  
ammal College of pharmacy, komarapalayam.

Dr.S. CHANDRA., M. PHARM, Ph.D.,  
Professor, JKKMMRF'S Annal JKK sampoorani  
ammal College of pharmacy, komarapalayam.

Dr. V. SURESH., M. PHARM, Ph.D.,  
Professor, JKKMMRF'S Annal JKK sampoorani  
ammal College of pharmacy, komarapalayam.

Mr. R. SURESH., M. PHARM,  
Professor, JKKMMRF'S Annal JKK sampoorani  
ammal College of pharmacy, komarapalayam.





# J.K.K.MUNIRAJAH MEDICAL RESEARCH FOUNDATION'S ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY

Ethirmedu, B.Komarapalayam – 638 183, Namakkal Dist. Tamilnadu. India  
Approved by : Pharmacy Council of India, New Delhi & The Tamilnadu Dr.M.G.R Medical University, Chennai.  
Website : [www.jkkmmrfpharmacy.edu.in](http://www.jkkmmrfpharmacy.edu.in) |E-Mail : [principal@jkkmmrfpharmacy.edu.in](mailto:principal@jkkmmrfpharmacy.edu.in)  
Contact No. : +919789456750, +919943069944, +919943066944

## LIST OF STUDENTS ENROLLED FOR THE COURSE

DATE:31/12/2020.

S.NO	REG.NO	NAME OF THE STUDENT	COURSE	SIGNATURE
1	380020507519	RAGUL VIGNESHAA K	I-PHARM D	R. Ragul Vigneshaa K
2	380020507520	RAJASEKAR R	I-PHARM D	R. Rajasekar
3	380020507521	RAKSHANA B	I-PHARM D	B. Rakshana
4	380020507522	SABARINATHAN A	I-PHARM D	Sabar Nathan A
5	380020507523	SHEPHIA S S	I-PHARM D	Shephali S S
6	380020507524	SHYLA I	I-PHARM D	Shyla I
7	380020507525	SRINITHI C G	I-PHARM D	Srinithi C G
8	380020507526	SURYA R	I-PHARM D	Surya R
9	380020507527	SURYA S	I-PHARM D	Surya S
10	381910426	SURENDHARAN P	II-PHARM D	P. Surendharan
11	381910427	TAMILSELVAN S	II-PHARM D	S. Tamil Selvan
12	381910428	THOMAS JUDE RODRIGUES	II-PHARM D	Thomas Jude Rodrigues
13	381910429	VIGNESHWAR R	II-PHARM D	R. Vigneshwar
14	381910430	VIMALRAJ G	II-PHARM D	G. Vimalraj
15	381810403	ABDULVASEEM A	II-PHARM D	A. Abdulvaseem
16	381810410	DIVIKA S	III-PHARM D	Divika S
17	381810411	EZILKKAVIA S	III-PHARM D	S. Ezilkkavia
18	381810412	FELIC S	III-PHARM D	S. Felic
19	381810413	GNANAGURU C	III-PHARM D	C. Gnanaguru
20	381810414	GOPI B	III-PHARM D	B. Gopi
21	381810415	KARTHIKA SREEKUMAR J	III-PHARM D	J. Karthika Sreekumar
22	381710401	ANDLY CHEDRICK C	IV-PHARM D	C. Andly Chedrick
23	381710402	ASHA M	IV-PHARM D	M. Asha
24	381710403	ASHRITHA D N	IV-PHARM D	N. Ashritha D
25	381710404	DEEPIKA K	IV-PHARM D	K. Deepika
26	381710405	HARINI R	IV-PHARM D	R. Harini
27	381710406	JAYAPRAKASH U	IV-PHARM D	U. Jayaprakash
28	381710407	JEBISH G S	IV-PHARM D	S. Jebish G
29	381710408	JEMISHA J	IV-PHARM D	J. Jemisha
30	381610405	BALAMURUGAN V	V-PHARM D	V. Balamurugan
31	381610406	BHARATH K	V-PHARM D	K. Bharath
32	381610407	BITTY R	V-PHARM D	R. Bitty
33	381610408	DEEPAK K	V-PHARM D	K. Deepak
34	381510419	SANKARRAJA.A	VI-PHARM D	A. Sankarraj
35	381510420	SARATHYVARMAN.A	VI-PHARM D	A. Sarathyvarman
36	381510421	SARUKHAN.M	VI-PHARM D	M. Sarukhan
37	381510423	SHERIN ELZA JOHN	VI-PHARM D	John Sherin Elza
38	560020507508	ASHOKKUMAR P	B.PHARM-SEM-I	P. Ashokkumar
39	560020507509	AYYASAMY A	B.PHARM-SEM-I	A. Ayyasamy
40	560020507510	BALA S	B.PHARM-SEM-I	S. Bala
41	560020507511	BALAJI B	B.PHARM-SEM-I	B. Balaji
42	560020507512	BERGIN G	B.PHARM-SEM-I	G. Bergin
43	560020507513	BHARANIDHARAN S	B.PHARM-SEM-I	S. Bharanidharan

HOD



Dr. N. SENTHILKUMAR,  
PRINCIPAL,  
J.K.K. MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183,  
NAMAKKAL DISTRICT, TAMILNADU.

Principal

Dr. N.SENTHILKUMAR,  
PRINCIPAL

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY  
ETHIRMEDU, KOMARAPALAYAM - 638 183,  
NAMAKKAL DISTRICT, TAMILNADU, INDIA.

44	560020507514	BHARATHVAAJ S	B.PHARM-SEM-I	Bharathvaj S
45	560020507515	BHUVANESHWARAN R	B.PHARM-SEM-I	Bhuvaneshwar R
46	560020507516	BOOPALAN S	B.PHARM-SEM-I	S. Boopalan
47	560020507517	CHANDEESH S	B.PHARM-SEM-I	S. Chandeesh
48	560020507518	DEVANDHIRAN K	B.PHARM-SEM-I	K. Devandhiran
49	560020507519	DHANASEKAR U	B.PHARM-SEM-I	U. DhanaSekar
50	560020507520	DHANUSH S	B.PHARM-SEM-I	Dhanush S
51	560020507521	DHAYANANTHAN V	B.PHARM-SEM-I	V. Dhayanathan
52	560020507522	DINESH K	B.PHARM-SEM-I	K. Dinesh
53	560020507523	DINESH M	B.PHARM-SEM-I	M. Dinesh
54	560020507524	DINESHKUMAR P	B.PHARM-SEM-I	P. Dinesh Kumar
55	561958010	ASLIN VENISKA V	B.PHARM-SEM-III	V. Aslin Veniska
56	561958011	AVINKUMAR A	B.PHARM-SEM-III	A. Avinkumar
57	561958012	BALAGANAPATHI V	B.PHARM-SEM-III	V. Balaganathan
58	561958013	BALAJI J	B.PHARM-SEM-III	J. Balaji
59	561958014	BHARANIDHARAN M	B.PHARM-SEM-III	M. Bharanidharan
60	561958015	CHITRA S	B.PHARM-SEM-III	S. Chitra
61	561758033	JEEVA P	B.PHARM-SEM-V	P. Jeeva
62	561758062	MOULEESHWARAN M	B.PHARM-SEM-V	M. Mouleeshwaran
63	561758063	NAVEENKUMAR P	B.PHARM-SEM-V	P. Naveenkumar
64	561758007	ANBUDURAI S	B.PHARM-SEM-VII	S. Anbudurai
65	561758008	ARJUNAN K	B.PHARM-SEM-VII	K. Arjunan
66	561758009	ARUN KUMAR R	B.PHARM-SEM-VII	R. Arunkumar

HOD



Dr. N. SENTHILKUMAR,  
PRINCIPAL,

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT, TAMILNADU.

Dr. N.S. Principal UMAR,  
PRINCIPAL

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183  
NAMAKKAL DISTRICT, TAMILNADU, INDIA.





# J.K.K.MUNIRAJAH MEDICAL RESEARCH FOUNDATION'S ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY

Ethirmediu, B.Komarapalayam – 638 183, Namakkal Dist. Tamilnadu. India  
Approved by : Pharmacy Council of India, New Delhi & The Tamilnadu Dr.M.G.R Medical University, Chennai.  
Website : [www.jkkmmrfpharmacy.edu.in](http://www.jkkmmrfpharmacy.edu.in) |E-Mail : [principal@jkkmmrfpharmacy.edu.in](mailto:principal@jkkmmrfpharmacy.edu.in)  
Contact No. : +919789456750, +919943069944, +919943066944

## STUDENTS ATTENDANCE

DATE:31/12/2020

S.NO	REG.NO	NAME OF THE STUDENT	COURSE	15/12	16/12	17/12	29/12	30/12
1	380020507519	RAGUL VIGNESHAA K	I-PHARM D	✓	✓	✓	✓	✓
2	380020507520	RAJASEKAR R	I-PHARM D	A	✓	✓	✓	A
3	380020507521	RAKSHANA B	I-PHARM D	✓	✓	✓	✓	✓
4	380020507522	SABARINATHAN A	I-PHARM D	✓	✓	A	✓	✓
5	380020507523	SHEPHIA S S	I-PHARM D	✓	✓	✓	✓	✓
6	380020507524	SHYLA I	I-PHARM D	A	✓	✓	A	✓
7	380020507525	SRINITHI C G	I-PHARM D	✓	✓	✓	✓	✓
8	380020507526	SURYA R	I-PHARM D	✓	A	✓	✓	✓
9	380020507527	SURYA S	I-PHARM D	✓	✓	✓	✓	✓
10	381910426	SURENDHARAN P	II-PHARM D	✓	✓	✓	A	✓
11	381910427	TAMILSELVAN S	II-PHARM D	✓	✓	✓	✓	✓
12	381910428	THOMAS JUDE RODRIGUES	II-PHARM D	✓	✓	✓	✓	✓
13	381910429	VIGNESHWAR R	II-PHARM D	✓	A	✓	A	✓
14	381910430	VIMALRAJ G	II-PHARM D	✓	✓	✓	✓	✓
15	381810403	ABDULVASEEM A	II-PHARM D	✓	✓	✓	✓	✓
16	381810410	DIVIKA S	III-PHARM D	✓	✓	A	✓	A
17	381810411	EZILKKAVIA S	III-PHARM D	✓	✓	✓	✓	✓
18	381810412	FELIC S	III-PHARM D	✓	✓	✓	✓	✓
19	381810413	GNANAGURU C	III-PHARM D	✓	A	✓	A	✓
20	381810414	GOPI B	III-PHARM D	✓	✓	✓	✓	✓
21	381810415	KARTHIKA SREEKUMAR J	III-PHARM D	✓	✓	A	✓	✓
22	381710401	ANDLY CHEDRICK C	IV-PHARM D	A	✓	✓	✓	✓
23	381710402	ASHA M	IV-PHARM D	✓	✓	✓	✓	✓
24	381710403	ASHRITHA D N	IV-PHARM D	✓	✓	A	✓	✓
25	381710404	DEEPIKA K	IV-PHARM D	✓	✓	✓	✓	✓
26	381710405	HARINI R	IV-PHARM D	✓	✓	✓	✓	✓
27	381710406	JAYAPRAKASH U	IV-PHARM D	✓	A	✓	✓	✓
28	381710407	JEBISH G S	IV-PHARM D	✓	✓	✓	✓	✓
29	381710408	JEMISHA J	IV-PHARM D	✓	✓	✓	✓	✓
30	381610405	BALAMURUGAN V	V-PHARM D	✓	✓	✓	✓	✓
31	381610406	BHARATH K	V-PHARM D	✓	✓	A	✓	✓
32	381610407	BITTY R	V-PHARM D	✓	✓	✓	✓	✓
33	381610408	DEEPAK K	V-PHARM D	✓	✓	✓	✓	✓
34	381510419	SANKARRAJA.A	VI-PHARM D	✓	✓	✓	✓	✓
35	381510420	SARATHYVARMAN.A	VI-PHARM D	A	✓	✓	✓	✓
36	381510421	SARUKHAN.M	VI-PHARM D	✓	✓	✓	✓	✓
37	381510423	SHERIN ELZA JOHN	VI-PHARM D	✓	✓	✓	✓	✓
38	560020507508	ASHOKKUMAR P	B.PHARM-SEM-I	✓	✓	✓	✓	✓
39	560020507509	AYYASAMY A	B.PHARM-SEM-I	A	✓	✓	A	✓
40	560020507510	BALA S	B.PHARM-SEM-I	✓	✓	✓	✓	✓
41	560020507511	BALAJI B	B.PHARM-SEM-I	✓	✓	✓	✓	✓
42	560020507512	BERGIN G	B.PHARM-SEM-I	✓	A	✓	✓	✓
43	560020507513	BHARANIDHARAN S	B.PHARM-SEM-I	✓	✓	✓	✓	✓

HOD

Dr. N. Senthilkumar,  
Principal,

Principal  
Dr. N. Senthilkumar,  
Principal

J.K.K. MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT, TAMILNADU.

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT, TAMILNADU, INDIA.



44	560020507514	BHARATHVAJ S	B.PHARM-SEM-I	✓	✓	A	✓	✓
45	560020507515	BHUVANESHWARAN R	B.PHARM-SEM-I	✓	✓	✓	✓	✓
46	560020507516	BOOPALAN S	B.PHARM-SEM-I	A	✓	✓	✓	✓
47	560020507517	CHANDEESH S	B.PHARM-SEM-I	✓	✓	✓	✓	✓
48	560020507518	DEVANDHIRAN K	B.PHARM-SEM-I	✓	✓	✓	✓	✓
49	560020507519	DHANASEKAR U	B.PHARM-SEM-I	A	✓	✓	A	✓
50	560020507520	DHANUSH S	B.PHARM-SEM-I	✓	✓	✓	✓	✓
51	560020507521	DHAYANANTHAN V	B.PHARM-SEM-I	✓	A	✓	✓	✓
52	560020507522	DINESH K	B.PHARM-SEM-I	✓	✓	✓	✓	✓
53	560020507523	DINESH M	B.PHARM-SEM-I	✓	✓	✓	A	✓
54	560020507524	DINESHKUMAR P	B.PHARM-SEM-I	✓	✓	✓	✓	✓
55	561958010	ASLIN VENISKA V	B.PHARM-SEM-III	✓	✓	✓	✓	✓
56	561958011	AVINKUMAR A	B.PHARM-SEM-III	✓	✓	A	✓	✓
57	561958012	BALAGANAPATHI V	B.PHARM-SEM-III	✓	✓	✓	✓	A
58	561958013	BALAJI J	B.PHARM-SEM-III	A	✓	✓	✓	✓
59	561958014	BHARANIDHARAN M	B.PHARM-SEM-III	✓	A	✓	✓	✓
60	561958015	CHITRA S	B.PHARM-SEM-III	✓	✓	✓	✓	✓
61	561758033	JEEVA P	B.PHARM-SEM-V	✓	✓	A	✓	✓
62	561758062	MOULEESHWARAN M	B.PHARM-SEM-V	✓	✓	✓	✓	✓
63	561758063	NAVEENKUMAR P	B.PHARM-SEM-V	✓	✓	✓	✓	✓
64	561758007	ANBUDURAI S	B.PHARM-SEM-VII	✓	✓	✓	✓	✓

No. Of students Enrolled = 66

No. Of students Present = 64

No. Of students Absent = 02

SIGNATURE OF STAFF

*[Handwritten Signature]*

*[Handwritten Signature]*

HOD



*[Handwritten Signature]*

Dr. N. SENTHILKUMAR,  
PRINCIPAL,

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNA JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT, TAMILNADU.

*[Handwritten Signature]*

Dr. N. SENTHILKUMAR  
PRINCIPAL

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNA JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT, TAMILNADU, INDIA.



# J.K.K.MUNIRAJAH MEDICAL RESEARCH FOUNDATION'S ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY

Ethirmedu, B.Komarapalayam – 638 183, Namakkal Dist. Tamilnadu. India  
Approved by : Pharmacy Council of India, New Delhi & The Tamilnadu Dr.M.G.R Medical University, Chennai.  
Website : [www.jkkmmrfpharmacy.edu.in](http://www.jkkmmrfpharmacy.edu.in) | E-Mail : [principal@jkkmmrfpharmacy.edu.in](mailto:principal@jkkmmrfpharmacy.edu.in)  
Contact No. : +919789456750, +919943069944, +919943066944

## ADD-ON COURSE-STUDENT ANSWER SHEET

ADD-ON COURSE TITLE	OPTIMAL DESIGN	
NAME OF THE STUDENT	Bergin . G	
DATE	31/12/2020	
REGISTER NO	560020507512	
COURSE/YEAR/SEM	I . B . Pharm	MARKS OBTAINED: (48)
SIGNATURE	STUDENT: Bergin	STAFF: Katesan

Duration: 01:00 Hour

Maximum Marks:50

01) If the  $k$ th constraint of the primal problem is equality, then the corresponding dual variable  $y_k$  is \_\_\_\_\_ 2

- (a) unrestricted in sign
- (b) restricted in sign
- (c) nothing can be said
- (d) none of the above.

02) The method used to solve LPP without artificial variables is called the \_ method. 2

- (a) Simplex method
- (b) Dual Simplex method
- (c) artificial variable method.
- (d) none of the above

03). An assignment problem represents a transportation problem with all demands and supplies equal to \_\_\_\_\_ 2

- (a) 1
- (b) greater than 1



Dr. N. SENTHILKUMAR,  
PRINCIPAL,

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT, TAMILNADU.

- (c) some values greater than 1  
 (d) all of the above.

04) Degeneracy in a  $m \times n$  transportation problem occurs when the number of occupied cells is less than \_\_\_\_\_ 2

- (a)  $m+n$   
 (b)  $m+n+1$   
 (c)  $m+n-1$   
 (d)  $m-n+1$

05) The formula for calculating expected time in PERT is \_\_\_\_\_ 2

- (a)  $(t_0 + 4t_m - t_p)/6$       (b)  $(t_0 + 4t_m + t_p)/6$   
 (c)  $(t_0 + 4t_m - 2t_p)/6$       (d) none of the above.

06). The total float of an activity 3-4 is 18 and the latest and earliest occurrences of the events 3 and 4 are 15, 12 and 22, 10 respectively, what is the free float of 3-4. 2

- (a) 4  
 (b) 7  
 (c) 6  
 (d) 10

07) The formula for free float is \_\_\_\_\_ 2

- (a) Total float – slack of tail event  
 (b) Total float – LFT of head event  
 (c) Total float – EFT of head event  
 (d) Total float – Slack of head event.

08) If all paths of a network are critical paths then the project duration cannot be reduced further. 2


- (a) true  
 (b) false  
 (c) nothing can be said  
 (d) none of the above

09) In pure integer programming problems, the optimum values are \_\_\_\_\_ 2

- (a) all values are integers  
 (b) All values are either zero or one  
 (c) Some are non integer values  
 (d) all are not integers.

10) In mixed integer programming problems, the optimum values are \_\_\_\_\_ 2



  
**Dr. N. SENTHILKUMAR,**  
**PRINCIPAL,**  
 JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
 ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
 ETHIRMEDU, KOMARAPALAYAM - 638 183.  
 NAMAKKAL DISTRICT, TAMILNADU.

- (a) all values are integers
- (b) All values are either zero or one
- (c) Some are non integer values
- (d) all are not integers.

11) Geometrically the branching process in branch and bound technique 2

- (a) eliminates that portion of the non-feasible region.
- (b) does not eliminate that portion of the feasible region that contains no feasible Integer solution.
- (c) eliminate that portion of the feasible region that contains no feasible integer solution.
- (d) none of the above

12) Economic order quantity results in 2

- (a) Reduced stock outs
- (b) equalization of carrying cost and procurement cost
- (c) favourable procurement price
- (d) none of the above.

13) The formula for EOQ under purchasing model without shortages is 2

(a)  $\sqrt{\frac{2C_2D}{C_3}}$  (b)  $\sqrt{\frac{2C_2D}{C_1}}$  (c)  $\sqrt{\frac{2C_3D}{C_1}}$  (d)  $\sqrt{\frac{2C_1D}{C_3}}$

14) For an item with storage cost of each item Rs.1, set up cost Rs.25, demand 200 unit per month Cmin is 2

- (a) Rs.100
- (b) Rs.400
- (c) Rs.500
- (d) Rs.300

15). A company uses 10,000 units per year of an item. The purchase price is one rupee per item. Ordering cost=Rs.25 per order. Carrying cost 12% of the inventory value. The EOQ is 2

- (a) 2086 units
- (b) 2085 units
- (c) 2083 units
- (d) 2084 units

16) Minimum inventory equals 2

- (a) EOQ
- (b) Reorder level
- (c) Safety stock
- (d) Excess stock

17) (M/M/1) model is known as 2





**Dr. N. SENTHILKUMAR,**  
**PRINCIPAL,**  
 JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
 ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
 ETHIRMEDU, KOMARAPALAYAM - 638 183.  
 NAMAKKAL DISTRICT, TAMILNADU.

- (a) Poisson model
- (b) Birth death model
- (c) Exponential model
- (d) multiserver model.

18) The time interval between consecutive arrivals generally follows \_\_\_ distribution. 2

- (a) Normal distribution
- (b) Poisson distribution
- (c) Exponential Distribution
- (d) Rectangular distribution

19) The utilization factor under the multi-server model is 2

- (a)  $\frac{\lambda}{c\mu}$
- (b)  $\frac{\lambda}{\mu}$
- (c)  $\frac{\lambda}{\mu^c}$
- (d)  $\frac{\lambda^c}{\mu}$

20) The formula for the length of the system under (M/M/1):(N/FIFO) 2

- (a)  $\frac{\rho}{1-\rho}$
- (b)  $\frac{\rho^2}{1-\rho}$
- (c)  $\frac{\rho^2}{(1-\rho)^2}$
- (d)  $\frac{1-\rho}{\rho}$

21) Which is not a mechanism for pharmacokinetic analysis 2

- a) Compartment analysis
- b) Non compartment
- (c) Physiological modeling
- d) Human model

22) . The process by which molecules diffuse from a region of high to low concentration and no external energy expended is called 2

- a) Active transport
- b) Passive transport
- (c) Passive diffusion
- d) Pore

23) 8. Which law states about concentration difference and is inversely proportional to membrane? 2

- (a) Fick's law
- b) Avogadro's law
- c) Hook's law
- d) Pascal's law

24) 14. The delivery of drug through skin is known as 2

- a) Sublingual
- (b) Transdermal
- c) inhalation
- d) Buccal.

25) 15. Rate of absorption of drug by passive diffusion is maximum in 2

- (a) small intestine
- b) Stomach
- c) esophagus
- d) Large intestine

\*\*\* ALL THE BEST \*\*\*



*(Handwritten Signature)*

**Dr. N. SENTHILKUMAR,**  
**PRINCIPAL,**

**JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION**  
**ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,**  
**ETHIRMEDU, KOMARAPALAYAM - 638 183.**  
**NAMAKKAL DISTRICT, TAMILNADU.**



# J.K.K.MUNIRAJAH MEDICAL RESEARCH FOUNDATION'S ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY

Ethirmedu, **B.Komarapalayam** – 638 183, Namakkal Dist. Tamilnadu. India  
Approved by : Pharmacy Council of India, New Delhi & The Tamilnadu Dr.M.G.R Medical University, Chennai.  
Website : [www.jkkmmrfpharmacy.edu.in](http://www.jkkmmrfpharmacy.edu.in) | E-Mail : [principal@jkkmmrfpharmacy.edu.in](mailto:principal@jkkmmrfpharmacy.edu.in)  
Contact No. : +919789456750, +919943069944, +919943066944

## ADD-ON COURSE-QUESTION PAPER

PROGRAMME NAME

OPTIMAL DESIGN

DATE

31/12/2020

**Duration: 01:00 Hour**

**Maximum Marks:50**

01) If the  $k$ th constraint of the primal problem is equality, then the corresponding dual variable  $y_k$  is \_\_\_\_\_ 2

- (a) unrestricted in sign
- (b) restricted in sign
- (c) nothing can be said
- (d) none of the above.

ANSWER: A

02) The method used to solve LPP without artificial variables is called the \_ method. 2

- (a) Simplex method
- (b) Dual Simplex method
- (c) artificial variable method.
- (d) none of the above

ANSWER: B

03). An assignment problem represents a transportation problem with all demands and supplies equal to \_\_\_\_\_ 2

- (a) 1
- (b) greater than 1
- (c) some values greater than 1
- (d) all of the above.

ANSWER: A



**Dr. N.SENTHILKUMAR,**  
PRINCIPAL

**JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT. TAMILNADU. INDIA.**

04) Degeneracy in a  $m \times n$  transportation problem occurs when the number of occupied cells is less than \_\_\_\_\_ 2

- (a)  $m+n$
- (b)  $m+n+1$
- (c)  $m+n-1$
- (d)  $m-n+1$

ANSWER:C

05) The formula for calculating expected time in PERT is \_\_\_\_\_. 2

- (a)  $(t_0 + 4t_m - t_p)/6$
- (b)  $(t_0 + 4t_m + t_p)/6$
- (c)  $(t_0 + 4t_m - 2t_p)/6$
- (d) none of the above.

ANSWER:C

06). The total float of an activity 3-4 is 18 and the latest and earliest occurrences of the events 3 and 4 are 15, 12 and 22, 10 respectively, what is the free float of 3-4. 2

- (a) 4
- (b) 7
- (c) 6
- (d) 10

ANSWER:C

07) The formula for free float is \_\_\_\_\_. 2

- (a) Total float – slack of tail event
- (b) Total float – LFT of head event
- (c) Total float – EFT of head event
- (d) Total float – Slack of head event.

ANSWER:D


08) If all paths of a network are critical paths then the project duration cannot be reduced further. 2

- (a) true
- (b) false
- (c) nothing can be said
- (d) none of the above

ANSWER:B

09) In pure integer programming problems, the optimum values are \_\_\_\_\_ 2



  
Dr. N.SENTHILKUMAR,  
PRINCIPAL  
JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT. TAMILNADU. INDIA.



- (a) all values are integers
- (b) All values are either zero or one
- (c) Some are non integer values
- (d) all are not integers.

ANSWER:A

10) In mixed integer programming problems, the optimum values are \_\_\_\_\_ 2

- (a) all values are integers
- (b) All values are either zero or one
- (c) Some are non integer values
- (d) all are not integers.

ANSWER:C

11) Geometrically the branching process in branch and bound technique 2

- (a) eliminates that portion of the non-feasible region.
- (b) does not eliminate that portion of the feasible region that contains no feasible Integer solution.
- (c) eliminate that portion of the feasible region that contains no feasible integer solution.
- (d) none of the above

ANSWER:C

12) Economic order quantity results in 2

- (a) Reduced stock outs
- (b) equalization of carrying cost and procurement cost
- (c) favourable procurement price
- (d) none of the above.

ANSWER:B

13) The formula for EOQ under purchasing model without shortages is 2

(a)  $\sqrt{\frac{2C_2D}{C_3}}$  (b)  $\sqrt{\frac{2C_2D}{C_1}}$  (c)  $\sqrt{\frac{2C_3D}{C_1}}$  (d)  $\sqrt{\frac{2C_1D}{C_3}}$

ANSWER:C

14) For an item with storage cost of each item Rs.1, set up cost Rs.25, demand 200 unit per month Cmin is 2

- (a) Rs.100
- (b) Rs.400
- (c) Rs.500
- (d) Rs.300

ANSWER:A



*(Handwritten Signature)*  
**Dr. N.SENTHILKUMAR,**  
**PRINCIPAL**

**JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION**  
**ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY**  
**ETHIRMEDU, KOMARAPALAYAM - 638 183.**  
**NAMAKKAL DISTRICT, TAMILNADU, INDIA.**

15). A company uses 10,000 units per year of an item. The purchase price is one rupee per item. Ordering cost=Rs.25 per order. Carrying cost 12% of the inventory value. The EOQ is

2

- (a) 2086 units
- (b) 2085 units
- (c) 2083 units
- (d) 2084 units

ANSWER:C

16) Minimum inventory equals

2

- (a) EOQ
- (b) Reorder level
- (c) Safety stock
- (d) Excess stock

ANSWER:A

17) (M/M/1) model is known as

2

- (a) Poisson model
- (b) Birth death model
- (c) Exponential model
- (d) multiserver model.

ANSWER:B

18) The time interval between consecutive arrivals generally follows \_\_\_ distribution.

2

- (a) Normal distribution
- (b) Poisson distribution
- (c) Exponential Distribution
- (d) Rectangular distribution

ANSWER:B

19) The utilization factor under the multi-server model is

2

- (a)  $\frac{\lambda}{c\mu}$       (b)  $\frac{\lambda}{\mu}$       (c)  $\frac{\lambda}{\mu^c}$       (d)  $\frac{\lambda^c}{\mu}$

ANSWER:C

20) The formula for the length of the system under (M/M/1):(N/FIFO)

2



  
Dr. N.SENTHILKUMAR,  
PRINCIPAL

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT. TAMILNADU. INDIA.

(a)  $\frac{\rho}{1-\rho}$       (b)  $\frac{\rho^2}{1-\rho}$       (c)  $\frac{\rho^2}{(1-\rho)^2}$       (d)  $\frac{1-\rho}{\rho}$

ANSWER:A

- 21) Which is not a mechanism for pharmacokinetic analysis 2  
a) Compartment analysis      b) Non compartment  
c) Physiological modeling      d) Human model

ANSWER:C

- 22) . The process by which molecules diffuse from a region of high to low concentration and no external energy expended is called 2  
a) Active transport    b) Passive transport    c) Passive diffusion    d) Pore

ANSWER:C

- 23) 8. Which law states about concentration difference and is inversely proportional to membrane?  
a) Fick's law    b) Avogadro's law    c) Hook's law    d) Pascal's law 2

ANSWER:A

- 24) 14. The delivery of drug through skin is known as 2  
a) Sublingual      b) Transdermal      c) inhalation      d) Buccal.

ANSWER:B

- 25) 15. Rate of absorption of drug by passive diffusion is maximum in 2  
a) small intestine    b) Stomach    c) esophagus    d) Large intestine

ANSWER:A

\*\*\*ALL THE BEST\*\*\*



Principal

**Dr. N.SENTHILKUMAR,**  
**PRINCIPAL**

**JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION**  
**ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY**  
**ETHIRMEDU, KOMARAPALAYAM - 638 183.**  
**NAMAKKAL DISTRICT, TAMILNADU, INDIA.**



# J.K.K.MUNIRAJAH MEDICAL RESEARCH FOUNDATION'S ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY

Ethirmedu, B.Komarapalayam – 638 183, Namakkal Dist. Tamilnadu. India  
Approved by : Pharmacy Council of India, New Delhi & The Tamilnadu Dr.M.G.R Medical University, Chennai.  
Website : [www.jkkmmrfpharmacy.edu.in](http://www.jkkmmrfpharmacy.edu.in) |E-Mail : [principal@jkkmmrfpharmacy.edu.in](mailto:principal@jkkmmrfpharmacy.edu.in)  
Contact No. : +919789456750, +919943069944, +919943066944

## MARK STATEMENT

DATE:31/12/2020

S.NO	REG.NO	NAME OF THE STUDENT	COURSE	MARKS SCORED	% MARKS
1	380020507519	RAGUL VIGNESHAA K	I-PHARM D	42	84
2	380020507520	RAJASEKAR R	I-PHARM D	44	88
3	380020507521	RAKSHANA B	I-PHARM D	42	84
4	380020507522	SABARINATHAN A	I-PHARM D	36	72
5	380020507523	SHEPHIA S S	I-PHARM D	46	92
6	380020507524	SHYLA I	I-PHARM D	38	76
7	380020507525	SRINITHI C G	I-PHARM D	46	92
8	380020507526	SURYA R	I-PHARM D	42	84
9	380020507527	SURYA S	I-PHARM D	48	96
10	381910426	SURENDHARAN P	II-PHARM D	42	84
11	381910427	TAMILSELVAN S	II-PHARM D	46	92
12	381910428	THOMAS JUDE RODRIGUES	II-PHARM D	34	68
13	381910429	VIGNESHWAR R	II-PHARM D	46	92
14	381910430	VIMALRAJ G	II-PHARM D	36	72
15	381810403	ABDULVASEEM A	II-PHARM D	48	96
16	381810410	DIVIKA S	III-PHARM D	42	84
17	381810411	EZILKKAVIA S	III-PHARM D	44	88
18	381810412	FELIC S	III-PHARM D	36	72
19	381810413	GNANAGURU C	III-PHARM D	32	64
20	381810414	GOPI B	III-PHARM D	42	84
21	381810415	KARTHIKA SREEKUMAR J	III-PHARM D	36	72
22	381710401	ANDLY CHEDRICK C	IV-PHARM D	36	72
23	381710402	ASHA M	IV-PHARM D	36	72
24	381710403	ASHRITHA D N	IV-PHARM D	38	76
25	381710404	DEEPIKA K	IV-PHARM D	38	76
26	381710405	HARINI R	IV-PHARM D	36	72
27	381710406	JAYAPRAKASH U	IV-PHARM D	32	64
28	381710407	JEBISH G S	IV-PHARM D	38	76
29	381710408	JEMISHA J	IV-PHARM D	44	88
30	381610405	BALAMURUGAN V	V-PHARM D	42	84
31	381610406	BHARATH K	V-PHARM D	46	92
32	381610407	BITTY R	V-PHARM D	48	96
33	381610408	DEEPAK K	V-PHARM D	42	84
34	381510419	SANKARRAJA.A	VI-PHARM D	48	96
35	381510420	SARATHYVARMAN.A	VI-PHARM D	44	88
36	381510421	SARUKHAN.M	VI-PHARM D	48	96
37	381510423	SHERIN ELZA JOHN	VI-PHARM D	46	92
38	560020507508	ASHOKKUMAR P	B.PHARM-SEM-I	42	84
39	560020507509	AYYASAMY A	B.PHARM-SEM-I	42	84
40	560020507510	BALA S	B.PHARM-SEM-I	42	84
41	560020507511	BALAJI B	B.PHARM-SEM-I	42	84
42	560020507512	BERGIN G	B.PHARM-SEM-I	48	96
43	560020507513	BHARANIDHARAN S	B.PHARM-SEM-I	42	84

HOD



Dr. N. SENTHILKUMAR,  
PRINCIPAL,

J.K.K. MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183,  
NAMAKKAL DISTRICT, TAMILNADU.

Dr. N. SENTHILKUMAR,  
PRINCIPAL

J.K.K. MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY  
ETHIRMEDU, KOMARAPALAYAM - 638 183,  
NAMAKKAL DISTRICT, TAMILNADU, INDIA.

44	560020507514	BHARATHVAAJ S	B.PHARM-SEM-I	42	84
45	560020507515	BHUVANESHWARAN R	B.PHARM-SEM-I	36	72
46	560020507516	BOOPALAN S	B.PHARM-SEM-I	48	96
47	560020507517	CHANDEESH S	B.PHARM-SEM-I	42	84
48	560020507518	DEVANDHIRAN K	B.PHARM-SEM-I	42	84
49	560020507519	DHANASEKAR U	B.PHARM-SEM-I	44	88
50	560020507520	DHANUSH S	B.PHARM-SEM-I	46	92
51	560020507521	DHAYANANTHAN V	B.PHARM-SEM-I	44	88
52	560020507522	DINESH K	B.PHARM-SEM-I	46	92
53	560020507523	DINESH M	B.PHARM-SEM-I	48	96
54	560020507524	DINESHKUMAR P	B.PHARM-SEM-I	42	84
55	561958010	ASLIN VENISKA V	B.PHARM-SEM-III	44	88
56	561958011	AVINKUMAR A	B.PHARM-SEM-III	32	64
57	561958012	BALAGANAPATHI V	B.PHARM-SEM-III	42	84
58	561958013	BALAJI J	B.PHARM-SEM-III	46	92
59	561958014	BHARANIDHARAN M	B.PHARM-SEM-III	32	64
60	561958015	CHITRA S	B.PHARM-SEM-III	38	76
61	561758033	JEEVA P	B.PHARM-SEM-V	32	64
62	561758062	MOULEESHWARAN M	B.PHARM-SEM-V	34	68
63	561758063	NAVEENKUMAR P	B.PHARM-SEM-V	44	88
64	561758007	ANBUDURAI S	B. PHARM-SEM-VII	34	68

60-70% Marks =06 student  
70-80% Marks =23 students  
More than 80% Marks =36 students

### Outcome Attainment Rubrics:

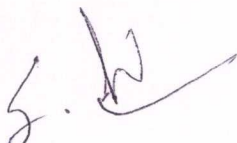
Attainment level 1-If students getting 60-70 % of marks

Attainment level 2-If students getting 70-80% of marks

Attainment level 3- If students getting more than 80% of marks

### Attainment level:

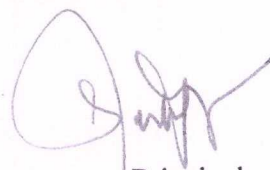
Since, 36 Students scored more than 80% of marks - Attainment level 3 Achieved

  
HOD



  
Dr. N. SENTHILKUMAR,  
PRINCIPAL,

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183,  
NAMAKKAL DISTRICT, TAMILNADU.

  
Dr. N.SENTHILKUMAR,  
PRINCIPAL

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY  
ETHIRMEDU, KOMARAPALAYAM - 638 183,  
NAMAKKAL DISTRICT, TAMILNADU, INDIA.



**JKKMMRF's ANNAI JKK SAMPOORANI AMMAL  
COLLEGE OF PHARMACY, KOMARAPALAYAM.**

**DEPARTMENT OF PHARMACEUTICS**

**STUDENT FEEDBACK FORM**

NAME OF STUDENT: Tamilselvan. S

REGISTRATION NO: 381910427

COURSE: Pharm.D

YEAR & SEMESTER: II

SEMINAR TOPIC: OPTIMAL DESIGN

DATE & TIME: 15.12.20 - 31.12.20

1. Overall, how satisfied were you with this seminar?

- Very satisfied
- Satisfied
- Neutral
- Dissatisfied
- Very dissatisfied

2. How clear were the ideas and concepts we presented?

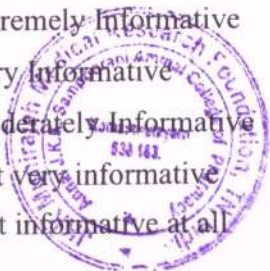
- Extremely clear
- Very clear
- Moderately clear
- Not very clear
- Not at all clear

3. What percentage of the information was new to you?

- 100%
- 75%
- 50%
- 25%
- 0%

4. How informative did you find our seminar?

- Extremely Informative
- Very Informative
- Moderately Informative
- Not very informative
- Not informative at all



**Dr. N. SENTHILKUMAR,  
PRINCIPAL,  
JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION,  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183,  
NAMAKKAL DISTRICT, TAMILNADU.**

5. Were there any technical issues that prevented you from seeing or hearing the seminar?

- Yes
- No

6. Would you like to learn more about this topic?

- Yes
- No

7. Rate the content of the slides/virtual aid?

- Extremely clear
- Very clear
- Moderately clear
- Not very clear
- Not at all clear

8. How accurate was the session description?

- Extremely clear
- Very clear
- Moderately clear
- Not very clear
- Not at all clear

9. How did the session compare to your expectations? Select: Excellent Good Fair Poor

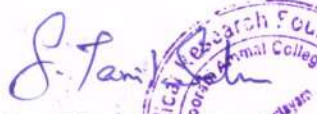

- Excellent
- Good
- Fair
- Poor
- Not at all clear

10. How Would you rate the content of the seminar?

- 1
- 2
- 3
- 4
- 5

  
Dr. N. SENTHILKUMAR,  
PRINCIPAL,

IKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT, TAMILNADU.

  
Student Name  Signature





# J.K.K.MUNIRAJAH MEDICAL RESEARCH FOUNDATION'S ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY

Ethirmedi, B.Komarapalayam – 638 183, Namakkal Dist. Tamilnadu. India  
Approved by : Pharmacy Council of India, New Delhi & The Tamilnadu Dr.M.G.R Medical University, Chennai.  
Website : [www.jkkmmrfpharmacy.edu.in](http://www.jkkmmrfpharmacy.edu.in) |E-Mail : [principal@jkkmmrfpharmacy.edu.in](mailto:principal@jkkmmrfpharmacy.edu.in)  
Contact No. : +919789456750, +919943069944, +919943066944

## STUDENTS FEEDBACK -QUEIONS & MARKS

Date: 31/12/2020

S.NO	QUESTION DESCRIPTION	ANSWERS	MARKS	TOTAL MARKS
1	Satisfaction	Very satisfied	5	5
		Satisfied	3	
		Neutral	2	
		Dissatisfied	1	
		Very dissatisfied	0	
2	Clarity	Extremely clear	5	5
		Very clear	4	
		Moderately clear	2	
		Not very clear	1	
		Not at all clear	0	
3	Percentage of the information was new	100%	5	5
		75%	4	
		50%	3	
		25%	2	
		0%	1	
4	Informative	Extremely Informative	5	5
		Very Informative	3	
		Moderately Informative	2	
		Not very informative	1	
		Not informative at all	0	
5	Technical issues	Yes	5	5
		No	0	
6	Like to learn more about this topic	Yes	5	5
		No	0	
7	Rate the content of the slides/virtual aid	Extremely clear	5	5
		Very clear	3	
		Moderately clear	2	
		Not very clear	1	
		Not at all clear	0	
8	Accuracy of the sessions	Extremely clear	5	5
		Very clear	3	
		Moderately clear	2	
		Not very clear	1	
		Not at all clear	0	
9	Session expectations	Excellent	5	5

HOD



Dr. N. SENTHILKUMAR,  
PRINCIPAL,

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT, TAMILNADU.

Dr. N. SENTHILKUMAR,  
PRINCIPAL

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT, TAMILNADU, INDIA.




		Good	3	
		Fair	2	
		Poor	1	
		Not at all clear	0	
10	Rate the content of the seminar	1	1	5
		2	2	
		3	3	
		4	4	
		5	5	

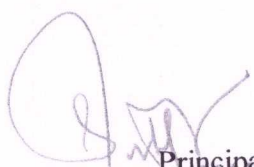
Total marks = 50

HOD

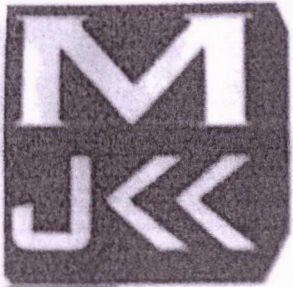


  
Dr. N. SENTHILKUMAR,  
PRINCIPAL,

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT, TAMILNADU.

  
Principal  
Dr. N. SENTHILKUMAR,  
PRINCIPAL

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT, TAMILNADU, INDIA.



JKKMMRF's ANNAI JKK SAMPOORANI AMMAL  
COLLEGE OF PHARMACY,  
KOMARAPALAYAM

VALUE ADDED COURSE

Organized by  
Department of Pharmaceutics



**Certificate of Participant**

Has appreciated for his/her participation in VALUE ADDED COURSE on  
**Optimal Design** 15/12/2020 to 31 /12/2020

Coordinator

Dr. N. SENTHILKUMAR,  
PRINCIPAL,

H.O.D

Dr. N. SENTHILKUMAR,  
PRINCIPAL

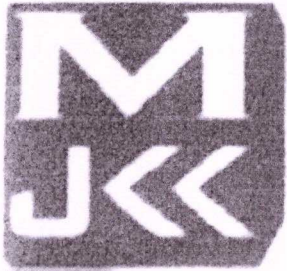
Principal



JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT TAMIL NADU

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT. TAMILNADU. INDIA.



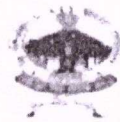


JKKMMRF's ANNAI JKK SAMPOORANI AMMAL  
COLLEGE OF PHARMACY,  
KOMARAPALAYAM



VALUE ADDED COURSE

Organized by  
Department of Pharmaceutics



*Certificate of Participant*

M. SARUKHAN

Has appreciated for his/her participation in VALUE ADDED COURSE on  
**Optimal Design** 15/12/2020 to 31 /12/2020

Coordinator

H.O.D

DR. N.SENTHILKUMAR,  
PRINCIPAL

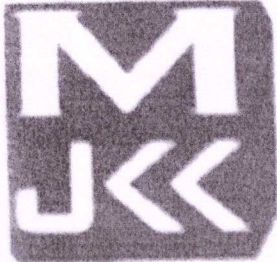
Principal

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT, TAMILNADU, INDIA.



Dr. N. SENTHILKUMAR,  
PRINCIPAL,

JKY MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT TAMILNADU



JKKMMRF's ANNAI JKK SAMPOORANI AMMAL  
COLLEGE OF PHARMACY,  
KOMARAPALAYAM

VALUE ADDED COURSE

Organized by  
Department of Pharmaceutics



**Certificate of Participant**

D.N. ASHRITHA

Has appreciated for his/her participation in VALUE ADDED COURSE on  
**Optimal Design** 15/12/2020 to 31 /12/2020

Coordinator

**Dr. N. SENTHILKUMAR,**  
PRINCIPAL,

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT. TAMILNADU.

H.O.D

**Dr. NISENTHILKUMAR,**  
PRINCIPAL

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT. TAMILNADU. INDIA.





JKKMMRF's ANNAI JKK SAMPOORANI AMMAL  
COLLEGE OF PHARMACY,  
KOMARAPALAYAM



VALUE ADDED COURSE

Organized by  
Department of Pharmaceutics



*Certificate of Participant*

A. ABDUL VASEEM

Has appreciated for his/her participation in VALUE ADDED COURSE on  
**Optimal Design** 15/12/2020 to 31 /12/2020

Coordinator

Dr. N. SENTHILKUMAR,  
PRINCIPAL,

H.O.D

Dr. N. SENTHILKUMAR,  
PRINCIPAL

Principal

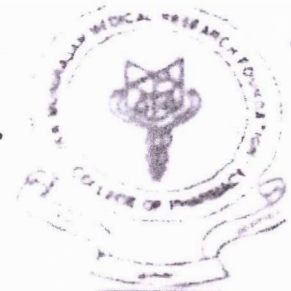


JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT, TAMILNADU.

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT, TAMILNADU, INDIA.



JKKMMRF's ANNAI JKK SAMPOORANI AMMAL  
COLLEGE OF PHARMACY,  
KOMARAPALAYAM



VALUE ADDED COURSE

Organized by  
Department of Pharmaceutics



Certificate of Participant

K. DEVANDHIRAN

Has appreciated for his/her participation in VALUE ADDED COURSE on  
**Optimal Design** 15/12/2020 to 31 /12/2020

Coordinator

H.O.D

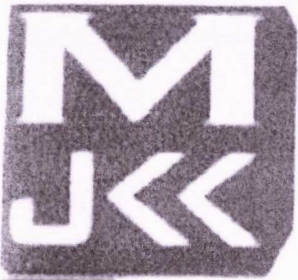
Dr. N. SENTHILKUMAR,  
PRINCIPAL

Principal



Dr. N. SENTHILKUMAR,  
PRINCIPAL,  
JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 636 183.  
NAMAKKAL DISTRICT, TAMILNADU.

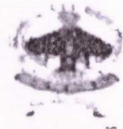
JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY  
ETHIRMEDU, KOMARAPALAYAM - 636 183  
NAMAKKAL DISTRICT, TAMILNADU, INDIA



JKKMMRF's ANNAI JKK SAMPOORANI AMMAL  
COLLEGE OF PHARMACY,  
KOMARAPALAYAM

VALUE ADDED COURSE

Organized by  
Department of Pharmaceutics



*Certificate of Participant*

R. RAJASEKAR

Has appreciated for his/her participation in VALUE ADDED COURSE on  
**Optimal Design** 15/12/2020 to 31 /12/2020

Coordinator

Dr. N. SENTHILKUMAR,  
PRINCIPAL,

H.O.D

Dr. N. SENTHILKUMAR  
PRINCIPAL

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT, TAMILNADU, INDIA



JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183.  
NAMAKKAL DISTRICT, TAMILNADU.

