

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 TamilnaduDr.M.G.R Medical University, Chennai. Website: www.jkkmmrfpharmacy.edu.in | E-Mail: principal@jkkmmrfpharmacy.edu.in

Contact No.: +919789456750, +919943069944, +919943066944

DEPARTMENT OF PHARMACEUTICS

ONE DAY WORKSHOP ON THE NOVEL UTILIZATION AND OPERATION ON DISSOLUTION APPARATUS

VENUE: SEMINAR HALL

Date:05.03.2021

RESOURCE PERSONS

1. Dr.S.CHANDRA., M. PHARM, Ph.D.,
PROFESSOR AND HOD,
JKKMMRF'S ANNAI JKK SAMPOORANIAMMAL
COLLEGE OF PHARMACY,
KOMARAPALAYAM.
2.Mr.R.SURESH., M.PHARM.,
ASSOCIATE PROFESSOR,
JKKMMRF'S ANNAI JKK SAMPOORANIAMMAL

COLLEGE OF PHARMACY,
KOMARAPALAYAM.

No. of students enrolled: 105

No. of students certified in our institution: 22

No. of students certified: 105



Dr. N. SENTHILKUMAR, PRINCIPAL,

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

ETHIRMEDU, KOMARAPALAYAM - 638 183. NAMAKKAL DISTRICT, TAMILNADU. OF N. SENTHICKUMAR,

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION

ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMALY

ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMALY

ETHIRMEDU, KOMARAPALAYAM - 638 183.

ETHIRMEDU, KOMARAPALAYAM - MAMAKKAL DISTRICT, TAMILNADU, INDIA.



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 TamilnaduDr. M.G.R Medical University, Chennai. Website: www.jkkmmrfpharmacy.edu.in[E-Mail: principal@jkkmmrfpharmacy.edu.in] Contact No.: +919789456750, +919943069944, +919943066944

REF.NO: JKKM/PHARM/CEU/REO/2021/005

Date: 04.03.2021

From

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

To

The Principal,

JKKMMRF'S Annai JKK SampooraniAmmal College of Pharmacy.

Komarapalayam, Namakkal [Dist]

Tamil Nadu, PIN:638183.

Subject: Letter for requesting Permission to Conduct an one day WORKSHOP regarding: -

Respected Sir,

We Are writing this letter to request permission to conduct an one dayworkshop in the SEMINAR HALL on 05.03.2021 . We wish to conduct workshop regarding THE NOVEL UTILIZATION AND OPERATION ON **DISSOLUTION APPARATUS**. We request you to kindly permit to conduct the workshop 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,

Dr. N SE NT HILKUMAR. PR INCIPAL,

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION ANNAIJKK SAMPOORAN! AMMAL COLLEGE OF PHARMACY. ETHIRMEDU KOMARAPALAYAM - 638 183.

NAMAKKAL DISTRICT, TAMILNADU.

Head of the Department

Yours sincerely,



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 TamilnaduDr.M.G.R Medical University, Chennai. Website: www.jkkmmrfpharmacy.edu.in | E-Mail: principal@jkkmmrfpharmacy.edu.in | Contact No.: +919789456750, +919943069944, +919943066944

DEPARTMENT OF PHARMACEUTICS

ONE DAY WORKSHOP ON THE NOVEL UTILIZATION AND OPERATION ON DISSOLUTION APPARATUS

VENUE: SEMINAR HALL

Date:05.03.2021

RESOURCE PERSONS

1. Dr.S.CHANDRA., M. PHARM, Ph.D.,

PROFESSOR AND HOD,

JKKMMRF'S ANNAI JKK SAMPOORANIAMMAL

COLLEGE OF PHARMACY,

KOMARAPALAYAM.

2.Mr.R.SURESH., M.PHARM.,

ASSOCIATE PROFESSOR,

JKKMMRF'S ANNALJKK SAMPOORANIAMMAL

COLLEGE OF PHARMACY.

KOMARAPALAYAM.

No. of students enrolled: 105

No. of students certified in our institution: 22

No. of students certified: 105

Kammisrdayan (Sa 183.

Dr. N. SENTHILKUMAR, PRINCIPAL



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 TamilnaduDr.M.G.R Medical University, Chennai. Website: www.jkkmmrfpharmacy.edu.in E-Mail: principal@jkkmmrfpharmacy.edu.in Contact No.: +919789456750, +919943069944, +919943066944

DATE:04.03.2021

CIRCULAR

This is informed to the B. Pharm-I, II, III, IV Students that the following workshopcan be conducted by the Department of Pharmaceutics, JKKMMRF'S ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY, KOMARAPALAYAM and it will be commenced as per the schedule:

WORKSHOP NAME	SCHEDULE	DURATION	VENUE	RESOURCE PERSON
THE NOVEL UTILIZATION AND OPERATION ON DISSOLUTION APPARATUS	05.03.2021	3 HOURS	SEMINAR HALL	Dr.S.CHANDRA Mr.R.SURESH

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

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

PRINCIPAL

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



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 TamilnaduDr.M.G.R Medical University, Chennai. Website: www.jkkmmrfpharmacy.edu.in | E-Mail: principal@jkkmmrfpharmacy.edu.in | Contact No.: +919789456750, +919943069944, +919943066944

SYLLABUS

DATE	HOURS	WORKSHOPTOPIC	SUB TOPICS	RESOURCE PERSON
05.03.2021 3		THE NOVEL	SIMULATION OF FASTED	Dr.S.CHANDRA
		UTILIZATION AND	AND FED STATES	DI.S.CHANDRA
	3 HOURS	OPERATION ON		*
		DISSOLUTION	DESCRIPTION OF	Mr.R.SURESH
		APPARATUS	CYLINDER APPARATUS	

TOTAL HOURS=3 hours

Head Of the Department

The season of th

Principal
Dr. N. SENTHILKUMAR,
PRINCIPAL.





JKKMMRF's-ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY

Komarapalayam, Nammakal Dt-638183

DEPARTMENT OF PHARMACEUTICS One day Workshop on

NOVEL UTILIZATION AND OPERATION ON DISSOLUTION APPARATUS

held on 05.03.2021



Venue: SEMINAR HALL

Dr. N. SENTHILKUMAR, PRINCIPAL,

ABOUT US

Dr.J.K.KMunirajah is a reputed industrialist technocrat and educational besides, being a social worker, a person imbibed in deep spiritual values and philanthropist. At Present Annai J.K.K Sampoorani Ammal Charitable Trust runs Paramedical Institutions offering Diploma, Graduate, Post Graduate &Ph.D, Courses and Research Scholarships in Pharmacy, Nursing, Physiotherapy and Occupational Therapy at Komarapalayam. The Trust has won many national and state awards. These renowned Educational Institutions spared education to promote knowledge, wisdom and service - Orientation.

RESOURCE PERSONS

Dr.S.CHANDRA., M.Pharm., Ph.D.,

PROFESSOR & HOD,

JKKMMRF'S College of Pharmacy,

Komarapalayam-638183

Mr.R.SURESH., M.Pharm.,

ASSOCIATE PROFESSOR,

JKKMMRF'S College of Pharmacy

Komarapalayam 638183

Dr. N. SENTHILKUMAR, PRINCIPAL,

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

NAMAKKAL DISTRICT, TAMILNADU.



NAME OF STUDENT:

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 TamilnaduDr.M.G.R Medical University, Chennai. Website: www.jkkmmrfpharmacy.edu.in E-Mail: principal@jkkmmrfpharmacy.edu.in Contact No.: +919789456750, +919943069944, +919943066944

REGISTRATION NO:

DEPARTMENT OF PHARMACEUTICS

STUDENT FEEDBACK FORM

COURSE	COURSE : YEAR & SEMEST		
SEMINA	R TOPIC :	DATE & TIME:	
1. Ov	verall, how satisfied were you with th	this seminar?	
2. Ho	Very satisfied Satisfied Neutral Dissatisfied Very dissatisfied ow clear were the ideas and concepts	we presented?	
0	Extremely clear Very clear Moderately clear Not very clear Not at all clear hat percentage of the information was 100% 75% 50%	Dr. N. SENTHILKUMAR, PRINCIPAL, K MUNIRAJAH MEDICAL RESEARCH FOUNDATION INAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY, ETHIRMEDU, KOMARAPALAYAM - 638 183. NAMAKKAL DISTRICT, TAMILNADU.	

4.	How informative did you find our seminar?
	Extremely Informative
	Very Informative
	Moderately Informative
	Not very informative
5.	Not informative at all Were there any technical issues that prevented you from seeing or hearing the seminar?
	Yes
	No No
6.	Would you like to learn more about this topic?
	Yes
	^C No
7.	Rate the content of the slides/virtual aid?
	Extremely clear
	C Very clear
	Moderately clear
	Not very clear
	Not at all clear
8.	How accurate was the session description?
	Extremely clear
	C Very clear
	Moderately clear
	Not very clear
	Not at all clear
9.	How did the session compare to your expectations?
	Excellent
	Good Dr. N. SENTHILKUMAR,
	DPINCIPAL DPINCIPAL
	JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,
	FTHIRMEDU KOMARAPALAYAM - 638 183.
	NAMAKKAL DISTRICT, TAMILNADU.

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

 $\frac{1}{2}$

C 3

C 4

C 5









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 TamilnaduDr.M.G.R Medical University, Chennai. Website: www.jkkmmrfpharmacy.edu.in [E-Mail: principal@jkkmmrfpharmacy.edu.in Contact No.: +919789456750, +919943069944, +919943066944

STUDENTS FEEDBACK ANALYSIS

DATE: 05.03.2021

3.NO	QUESTION DESCRIPTION	ANSWERS	MARKS	TOTAL MARKS
1 Satist		Verysatisfied	5	
		Satisfied	3	
	Satisfaction	Neutral	2	5
		Dissatisfied	1	
		Very dissatisfied	0	
		Extremely clear	5	
		Very clear	4	
2	Clarity	Moderately clear	2	5
		Not very clear	1	
		Not at all clear	0	
	Percentage of the information was new	100%	5	
		75%	4	
Percentage		50%	3	5
		25%	2	
		0%	1	
4 Info	Informative	ExtremelyInformative	5	
		Very Informative	3	
		Moderately Informative	2	5
		Not very informative	1	
		Not informative at all	0	
5	Technical issues	Yes /	5	_ 5
5	Technical issues	No	10	

Dr. N. SENTHILKUMAR, PRINCIPAL,

6 .	Like to learn more about this topic	Yes	5	-
		No	0	5
7 Rate		Extremely clear	5	Pr 450
		Very clear	3	
	Rate the content of the slides/virtual aid	Moderately clear	2	5
		Not very clear	1	
		Not at all clear	0	
		Extremely clear	5	
	Accuracy of the sessions	Very clear	3	
8		Moderately clear	2	5
		Not very clear	1	
		Not at all clear	0	
<i>(</i>)	Session expectations	Excellent	5	
		Good	3	
9		Fair	2	5
		Poor	1	
		Not at all clear	0	
10	Rate the content of the seminar	1	1	
		2	2	
		3	3	5
		4	4	
		5	5	

Total marks = 50

Head Of the Department

Dr. N. SENTHILKUMAR, PRINCIPAL,



J.K.K.MUNIRAJAH MEDICAL RESEARCH FOUNDATION'S ANNALJKK SAMPOORANI AMMAL COLLEGE OF PHARMACY

Ethirmedu, **B.Komarapalayam** – 638 183, Namakkal Dist. Tamilnadu. India Approved by: Pharmacy Council of India, New Delhi & The TamilnaduDr.M.G.R Medical University, Chennai. Website: www.jkkmmrfpharmacy.edu.in [E-Mail: principal@jkkmmrfpharmacy.edu.in

Contact No.: +919789456750, +919943069944, +919943066944

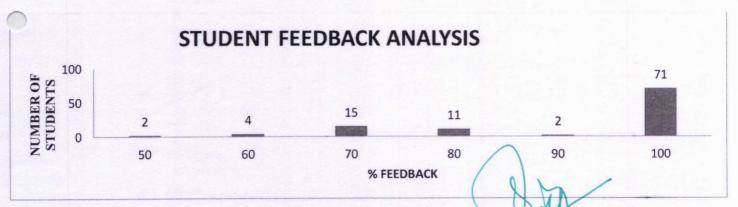
REPORT SUMMARY

DATE: 05.03.2021

Duration of the Course	3 HOURS
Total participants Enrolled	105
Successfully Completed	105
Type of Feedback Assessment	Multiple Choice Questions (MCQ's)
workshop Outcome	Students know about there are seven different types of dissolution apparatus defined in the United States Pharmacopeia (USP) working principel and uses of these apparatus like -basket type, paddle type, reciprocating cylinder, flow through cell, paddle over disc, rotating cylinder, and reciprocating disc

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





Dr. N. SENTHILKUMAR, 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 TamilnaduDr.M.G.R Medical University, Chennai. Website: www.jkkmmrfpharmacy.edu.in E-Mail: principal@jkkmmrfpharmacy.edu.in Contact No.: +919789456750, +919943069944, +919943066944

DEPARTMENT OF PHARMACEUTICS

ONE DAYWORKSHOPON THE NOVEL UTILIZATION AND OPERATION ON DISSOLUTION APPARATUS

ABOUT THEWORKSHOP

USP Apparatus 3 (reciprocating cylinder) is a very versatile device for the in vitro assessment of release characteristics of solid oral dosage forms, because it enables the product to be subjected to different dissolution media and agitation speeds in a single run. In this paper, a brief history and a description of this system are presented, along with its applications in the development of immediate and modified release products and in the simulation of fasted and fed states using biorelevant media. Furthermore, a comparison is made with the basket and paddle apparatus, especially highlighting the superior hydrodynamics of USP apparatus 3, since the results are not sensitive to factors such as the presence of sample collection probes or air bubbles in the dissolution medium.

USP apparatus 3 has important advantages over the basket and paddle apparatuses in the assessment of in vitro dissolution characteristics of modified-release dosage forms. As the apparatus is very versatile, its application is not restricted to extended-release products, and it may also be used for other solid oral dosage forms, such as immediate-release forms, and it is a useful tool in the simulation of fasted and fed states, using biorelevant media.

Bioavailability and, consequently, the therapeutic effects of orally-administered medicinal products depend on the dissolution of the active ingredient in gastrointestinal fluids, as well as its permeation through the membrane of the minal mucosa. Where the absorption process is rapid, dissolution may be the stage that controls the introduction of the drug into the bloodstream. This, in turn, led to universal recognition that the dissolution test is indispensable in the development, quality assurance and post-marketing authorization modifications of solid oral dosage forms

Furthermore, in the context of the Biopharmaceutics Classification System (BCS), proposed by the dissolution test, together with bioavailability studies, has become an essential tool for the establishment of an in vitro-in vivocorrelation (IVIVC) (FDA, 2000).

With regards to the apparatuses used in the dissolution test, the basket apparatus (USP apparatus 1) was the first to be adopted by the U.S. Pharmacopeia in 1970, while the paddle apparatus (USP apparatus 2) was recognized in 1978, as the result of ongoing developments in the area and a growing interest in matters related to dissolution

However, research in the field of modified release dosage forms has indicated that, in order to obtain a correlation between in vitro dissolution results and the bioavailability of these products (in vitro-in vivo correlation), it would be essential for the pH, composition, ionic strength, viscosity and agitation speed of the medium to be sequentially altered during the dissolution test, thus simulating passage of the product through the gastrointestinal tract





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 TamilnaduDr.M.G.R Medical University, Chennai. Website: www.jkkmmrfpharmacy.edu.in | E-Mail: principal@jkkmmrfpharmacy.edu.in | Contact No.: +919789456750, +919943069944, +919943066944

LIST OF PARTICIPANTS

381410407	BENYMARGRATCF	The Water Control
381410408	GEENA.K.REJI	W S
381410409	GEOLINRP	No.
381410411	JISAELIZABETHJOSEPH	Maria New York
381410412	JITTAMARYJOSE	N
381410413	MARIAJOY	A CONTRACTOR
381410414	MEGHAKBAIJU	N. E. S.
381410415	MOHAMEDADNANP.K	N N
381410416	MOHANK	MARINE IVERSE
381410417	NAVEENKUMARD	ada Naka Bara
381410419	REEMAKA	era IV
381410420	REENAK.A.	IV-
381410421	RIYAELIZABETHSUNNY	A PART NAME OF THE
381410422	SMINUSUNNY	N N
381410423	SMRITISURESHGEORGE	of the second
381410424	SONIYAVARGHESE	WE STATE
381410425	SOPHYS	IV Late Poli
381410427	VIDHYALAKSHMIKB	White State
381410428	VIJAYARANGANS	IV .
381410429	VIMMYANNATHOMAS	STATE OF INCIDENCE
381410430	VISHNUKUMARVA	IV IV
381310401	ABHIRAMIJAYACHANDRAN	V





JKKMMRF'S ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY



CERTIFICATE

one day workshop

DEPARTMENT OF PHARMACEUTICS

CONVENOR

11

CO-CONVENOR



Dr. N. SENTHILKUMAR, PRINCIPAL,

JKK 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 CERTIFICATE



one day workshop

DEPARTMENT OF PHARMACEUTICS

mr./ms. _____has participated in one day workshop about the novel utilization and operation on dissolution apparatus held on 05.03.2021

CONVENOR



CO-CONVENOR



Dr. N. SENTHILKUMAR, PRINCIPAL,



JKKMMRF'S ANNAI JKK SAMPOORANI



AMMAL COLLEGE OF PHARMACY CERTIFICATE

one day workshop

DEPARTMENT OF PHARMACEUTICS

mr./ms.....SOPHY.S......has participated in one day workshop about the novel utilization and operation on dissolution apparatus held on 05.03.2021

CONVENOR



CO-CONVENOR

Dr. N. SENTHILKUMAR, PRINCIPAL,