

LAMPIRAN

Lampiran 1 Ekstrak



Lampiran 2 CoA Ekstrak herba pegagan (*Centella asiatica L.*) dan Ekstrak rosemary (*Rosmarinus officinalis*)



PROSEDUR EKSTRAKSI DAN KOMPILASI DATA

UNIT PRODUKSI 'LANSIDA'

No. Sampel	2301233031
Nama Sampel	Rosemary, Pegagan
Order	Ekstraksi
Tanggal Disusun	23 januari 2023

Prosedur Ekstraksi Rosemary

1. Timbang bubuk simplisia rosemary
2. Masukkan ke dalam kontainer ekstraktor
3. Tambahkan solvent ethanol 70%
4. Putar dengan ultra turax pada kecepatan 1.000 rpm selama 2 jam
5. Maserasikan selama 24 jam
6. Filtrasi dengan corong buchner, sedot dengan mesin vakum
7. Residu diekstraksi ulang seperti diatas
8. Filtrat pertama dan kedua dievaporasi dengan vakum rotary evaporator pada suhu 50°C tekanan vakum
9. Tuang ekstrak ke dalam cawan porselin
10. Uapkan sisa solvent dengan penangas air waterbatch
11. Timbang ekstrak yang diperoleh.

Kompilasi Data

Berat serbuk	:	940	g
Volume solvent ethanol 70%	:	5	L
Berat ekstrak	:	118,36	g

Prosedur Ekstraksi Pegagan

1. Sortasi sampel herba
2. Cuci dalam air mengalir
3. Masukkan mesin spinner pada kecepatan 900 rpm
4. Potong/ iris daun dalam dimensi 2 cm
5. Keringkan dalam oven pada suhu 45°C
6. Giling simplisia kering menggunakan diskmill dengan ayakan 60 mesh
7. Masukkan ke dalam kontainer ekstraktor
8. Tambahkan solvent ethanol 70%
9. Putar dengan ultra turax pada kecepatan 1.000 rpm selama 2 jam
10. Maserasikan selama 24 jam
11. Filtrasi dengan corong buchner, sedot dengan mesin vakum
12. Residu diekstraksi ulang seperti diatas
13. Filtrat pertama dan kedua dievaporasi dengan vakum rotary evaporator pada suhu 50°C tekanan vakum
14. Tuang ekstrak ke dalam cawan porselin
15. Uapkan sisa solvent dengan penangas air waterbatch
16. Timbang ekstrak yang diperoleh.

Kompilasi Data

Berat herba segar	:	11	kg
Berat serbuk	:	2.700	g
Volume solvent ethanol 70%	:	16	L
Berat ekstrak	:	177,2	g

Penetapan Kadar Air Metode Gravimetri/Susut Pengeringan

1. Timbang dengan seksama serbuk sampel dalam cawan yang sebelumnya telah dipanaskan pada suhu penetapan selama 30 menit.
2. Masukkan kedalam oven, keringkan pada suhu pada 105°C selama 2 jam.
3. Masukkan sampel ke dalam eksikator dan biarkan mendingin didalam eksikator.
4. Ulangi pengeringan hingga mendapat bobot tetap.

Penetapan Kadar Abu Total

1. Timbang dengan seksama serbuk sampel.
2. Masukkan ke dalam krus silikat yang telah dipijar dan ditara, kemudian diratakan.
3. Masukkan krus ke dalam furnis, pijarkan pada suhu 600°C hingga membentuk abu.
4. Dinginkan krus dan timbang.
5. Kadar abu dihitung terhadap simplisia yang telah dikeringkan di udara.

Kadar Air

Sampel	Replikasi	Berat cawan kosong	Berat cawan+ Sampel	Berat Sampel	Berat cawan + Sampel Kering	Berat Sampel Kering	Kadar Air
		(g)	(g)	(g)	(g)	(g)	(% v/b)
Ekstrak Pegagan	1	29,0672	31,2613	2,1941	31,0801	28,8860	8,259
	2	29,8868	31,966	2,0792	31,7926	29,7134	8,340
						Rata-rata	8,30
Ekstrak Rosemary	1	31,8750	33,9604	2,0854	33,8048	1,9298	7,461
	2	32,0831	34,0995	2,0164	33,9505	1,8674	7,389
						Rata-rata	7,43

Kadar Abu Total

Sampel	Replikasi	Berat krus kosong	Berat krus + Sampel	Berat Sampel	Berat krus + Abu	Berat Abu	Kadar abu
		(g)	(g)	(g)	(g)	(g)	(% b/b)
Ekstrak Pegagan	1	32,4591	34,5609	2,1018	32,4779	0,1024	0,894
	2	31,9833	34,0805	2,0972	32,0018	0,1019	0,882
						Rata-rata	0,89
Ekstrak Rosemary	1	32,5586	34,6604	2,1018	32,5815	0,1024	1,090
	2	32,9401	35,0373	2,0972	32,9634	0,1019	1,111
						Rata-rata	1,10



SERTIFIKAT HASIL UJI

Nomor : 2301233031b
 Nama Sampel : Ekstrak Pegagan, Rosemary
 Uji : Kadar Air, Kadar Abu Total
 Metode : Gravimetri
 Tanggal : 23 Januari 2023
 Permintaan : Asri Puspitasari
 NIM : 191FF03110
 Institusi : Fakultas Farmasi Universitas Bhakti Kencana

Hasil Uji

Parameter Uji	Sampel Ekstrak		Satuan	Metode
	Pegagan	Rosemary		
Kadar Air	8,30	7,43	% v/b	Gravimetri
Kadar Abu Total	0,89	1,10	% b/b	Gravimetri

Divisi Teknis

 Pradekatiwi, S.Si.



Jl. Karanglo, Bumen KG 3 No.519 Yogyakarta 55173
Telp. 0851 0666 8808 e-mail: lansida@yahoo.com

SURAT KETERANGAN

No. 2304/LHT/038

Dengan ini menerangkan bahwa,

Nama : Asri Puspitasari
NIP : 191FF03110
Institusi : Fakultas Farmasi Universitas Bhakti Kencana

telah melakukan pemesanan Ekstrak Herba Pegagan (*Centella asiatica* L.) dan Ekstrak Daun Rosemary di Lansida untuk keperluan penelitian dengan judul :

Formulasi dan Evaluasi Gel Antijerawat dari kombinasi Ekstrak herba Pegagan (*Centella asiatica* L.) dan Ekstrak daun Rosemary (*Rosmarinus officinalis* L.) yang diuji terhadap bakteri *Propionibacterium acnes*

Demikian surat keterangan ini dibuat untuk digunakan sebagaimana mestinya.

Yogyakarta, 23 Januari 2023

Divisi Teknik,



Apriyani Susilowati, S.Si.

Lampiran 3 CoA Aquadest

**COA CERTIFICATE****CERTIFICATE OF ANALYSIS**

Product Name : Aquadest
 Form : Liquid Product
 Clarity : Clear
 Colour : Colorless

Product Quality Control Specification**Table 1. Physical Properties**

PARAMETER	ACTUAL	RANGE
pH (as is)	5.75	5.0-7.5
Conductivity ($\mu S/cm$)	0	≤ 2.5
TDS (ppm)	0	≤ 1.5
Turbidity	0	0
Colour	0	0

Hormat kami,
PT. Solusi Tirta Optima

Pipit
(Chemical Analyst)

Lampiran 4 CoA Diethylamine



Certificate of Analysis

8.03010.1000

Diethylamine for synthesis

Batch

S707731

	Batch Values	
Assay (GC, area%)	100.0	% (a/a)
Density (d 20 °C/ 4 °C)	0.704	
Water (K. F.)	≤ 0.10	%
Identity (IR)	passes test	

Date of examination (DD.MM.YYYY) 24.06.2019

Minimum shelf life (DD.MM.YYYY) 30.06.2024

Dr. Oliver Schramel

Responsible laboratory manager quality control

This document has been produced electronically and is valid without a signature.

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SALSA Version 317831 / 0000002356214 Date: 24.06.2015

Page 1 of 1

Lampiran 5 CoA *Propionibacterium acnes*


LABORATORIUM MIKROBIOLOGI-BIOTEKNOLOGI FARMASI
FAKULTAS FARMASI
UNIVERSITAS PADJADJARAN
 Gedung Laboratorium 2, Lantai 2 Fakultas Farmasi UNPAD
 Jl. Raya Bandung - Sumedang KM 21, Jatinangor-Sumedang 45363



SERTIFIKAT UJI BAKTERI

PROPIONIBACTERIUM ACNES Atcc. 1223

+	-	+	-	-	-	-	-	-	+	-	+	-	-	-	-	-	+
1	2	4	1	2	4	1	2	4	1	2	4	1	2	4	1	2	4
IND	URE	GLU	MAN	LAC	SAC	MAL	SAL	XYL	ARA	GEL	ESC	GLY	CEL	MNE	MLZ	RAF	SOR
-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	2	4															

SPOR GRAM COCC

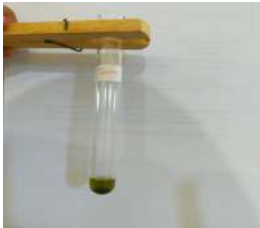
Significant taxa	% ID	T	Tests against			
<i>Propionibacterium acnes</i>	99.9	0.94				

Next taxon	% ID	T	Tests against			
<i>Propionibacterium granulosum</i>	0.1	0.34	IND	0%	SAC	82%

Mengetahui,
 Kepala Laboratorium Mikrobiologi-
 Bioteknologi Farmasi,

 Dr. Tana Rostinawati, M.Si., Apt.
 NPM. 197301032006042001

Lampiran 6 Skrining Fitokimia

Pengujian Skrining Fitokimia	Hasil	
	Ekstrak Herba Pegagan (<i>Centella asiatica</i> L)	Ekstrak Rosemary (<i>Rosmarinus officinalis</i> L)
Alkaloid		
Flavonoid		
Saponin		
Polifenol		
Terpenoid		

Lampiran 7 Uji Organoleptik Metode *Cycling Test*

Siklus 1



Siklus 2



Siklus 3



Siklus 4



Siklus 5



Siklus 6

Lampiran 8 Uji Organoleptik Suhu Ruang



Hari ke-1



Hari ke-3



Hari ke-7



Hari ke-14

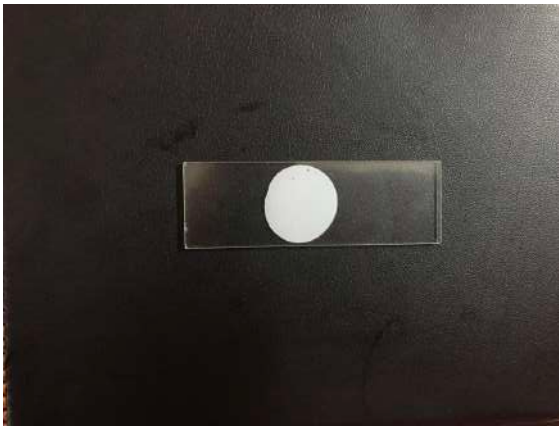


Hari ke-21



Hari ke- 28

Lampiran 9 Uji Homogenitas



F0



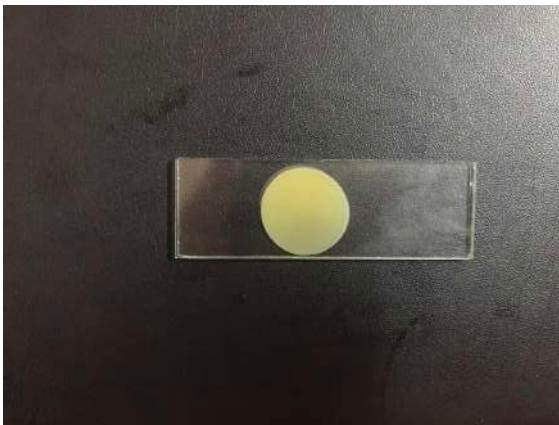
F1



F2



F3



F4



F5

Lampiran 10 Uji pH



F0



F1



F2



F3



F4



F5

Lampiran 11 Uji Daya Sebar



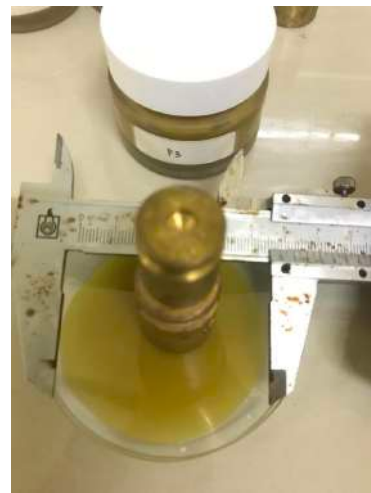
F0



F1



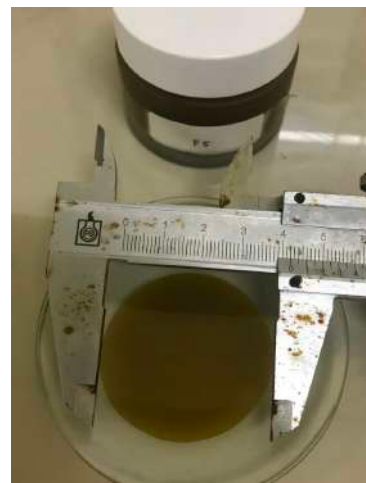
F2



F3



F4



F5

Lampiran 12 Uji Viskositas



F0



F1



F2



F3



F4



F5

Lampiran 13 Analisis Statistik

Analisis *ONE WAY* ANOVA Reprodusibilitas pH**Tests of Normality**

	Formula	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Uji pH	F0	.175	3	.	1.000	3	1.000
	F1	.253	3	.	.964	3	.637
	F2	.175	3	.	1.000	3	1.000
	F3	.253	3	.	.964	3	.637
	F4	.184	3	.	.999	3	.927
	F5	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

Tests of Normality

	Formula	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Uji pH	F0	.175	3	.	1.000	3	1.000
	F1	.253	3	.	.964	3	.637
	F2	.175	3	.	1.000	3	1.000
	F3	.253	3	.	.964	3	.637
	F4	.184	3	.	.999	3	.927
	F5	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

ANOVA

Uji pH

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.737	5	.147	32.147	<.001
Within Groups	.055	12	.005		
Total	.792	17			

Analisis *ONE WAY* ANOVA Reprodusibilitas Daya Sebar

Tests of Normality								
Kolmogorov-Smirnov ^a					Shapiro-Wilk			
	Formula	Statistic	df	Sig.		Statistic	df	Sig.
Uji Daya Sebar	F0	.253	3	.		.964	3	.637
	F1	.219	3	.		.987	3	.780
	F2	.175	3	.		1.000	3	1.000
	F3	.191	3	.		.997	3	.900
	F4	.357	3	.		.815	3	.150
	F5	.184	3	.		.999	3	.927

a. Lilliefors Significance Correction

Tests of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Uji Daya Sebar	Based on Mean	4.445	5	12	.016
	Based on Median	.796	5	12	.573
	Based on Median and with adjusted df	.796	5	3.024	.617
	Based on trimmed mean	4.016	5	12	.023

ANOVA

Uji Daya Sebar

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.176	5	1.235	286.507	<.001
Within Groups	.052	12	.004		
Total	6.228	17			

Analisis *ONE WAY* ANOVA Reprodusibilitas Daya Lekat

Tests of Normality

	Formula	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Uji Daya	F0	.175	3	.	1.000	3	1.000
Lekat	F1	.176	3	.	1.000	3	.984
	F2	.305	3	.	.905	3	.403
	F3	.252	3	.	.965	3	.640
	F4	.291	3	.	.925	3	.471
	F5	.293	3	.	.922	3	.459

a. Lilliefors Significance Correction

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Uji Daya	Based on Mean	2.889	5	12	.061
Lekat	Based on Median	.634	5	12	.678
	Based on Median and with adjusted df	.634	5	5.058	.685
	Based on trimmed mean	2.635	5	12	.079

ANOVA

Uji Daya Lekat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	206159499.111	5	41231899.822	5255.298	<.001
Within Groups	94149.333	12	7845.778		
Total	206253648.444	17			

Analisis *ONE WAY* ANOVA Reprodusibilitas Viskositas

Tests of Normality

	Formula	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Uji Viskositas	F0	.175	3	.	1.000	3	1.000
	F1	.176	3	.	1.000	3	.984
	F2	.305	3	.	.905	3	.403
	F3	.252	3	.	.965	3	.640
	F4	.291	3	.	.925	3	.471
	F5	.293	3	.	.922	3	.459

a. Lilliefors Significance Correction

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Uji Viskositas	Based on Mean	2.889	5	12	.061
	Based on Median	.634	5	12	.678
	Based on Median and with adjusted df	.634	5	5.058	.685
	Based on trimmed mean	2.635	5	12	.079

ANOVA

Uji Viskositas

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	206159499.111	5	41231899.822	5255.298	<.001
Within Groups	94149.333	12	7845.778		
Total	206253648.444	17			

Analisis *ONE WAY* ANOVA Uji Stabilitas pH dalam Suhu Ruang

Hari ke	Formula	Replikasi			Rata-rata	Standar Deviasi
		1	2	3		
Hari ke 1	F0	5,2	5,36	4,98	5,18	$\pm 0,19$
	F1	5,21	5,17	5,13	5,17	$\pm 0,04$
	F2	5,48	5,42	5,18	5,36	$\pm 0,16$
	F3	5,22	5,53	5,36	5,37	$\pm 0,16$
	F4	5,21	5,53	5,4	5,38	$\pm 0,16$
	F5	5,7	5,5	5,75	5,65	$\pm 0,13$
Hari ke 3	F0	5,01	5,15	5,14	5,1	$\pm 0,08$
	F1	5,34	5	5,17	5,17	$\pm 0,17$
	F2	5,18	5,2	5,22	5,2	$\pm 0,02$
	F3	5,6	5,49	4,9	5,33	$\pm 0,38$
	F4	5,18	5,33	5,39	5,3	$\pm 0,11$
	F5	5,37	5,34	5,88	5,53	$\pm 0,30$
Hari ke 5	F0	5,1	5,18	4,96	5,08	$\pm 0,11$
	F1	5,34	5,1	5,16	5,2	$\pm 0,12$
	F2	5,32	4,81	5,2	5,11	$\pm 0,27$
	F3	5,21	5,11	5,34	5,22	$\pm 0,12$
	F4	5,2	5,31	5,3	5,27	$\pm 0,06$
	F5	5,37	5,69	5,44	5,5	$\pm 0,17$
Hari ke 7	F0	5,21	4,87	5,1	5,06	$\pm 0,17$
	F1	5,3	5,28	4,87	5,15	$\pm 0,24$
	F2	5,11	4,75	5,23	5,03	$\pm 0,25$
	F3	5,26	5,32	5,02	5,2	$\pm 0,16$
	F4	5,02	5,26	5,32	5,2	$\pm 0,16$
	F5	5,37	5,21	5,83	5,47	$\pm 0,32$
Hari ke 14	F0	4,9	5,18	4,92	5	$\pm 0,16$
	F1	5,08	5,16	5,18	5,14	$\pm 0,05$
	F2	4,9	5,1	4,97	4,99	$\pm 0,10$
	F3	5,3	4,94	5,18	5,14	$\pm 0,18$
	F4	5,22	5,42	4,9	5,18	$\pm 0,26$

	F5	5,42	5,22	5,56	5,4	±0,17
Hari ke 21	F0	5,06	5,1	4,87	5,01	±0,12
	F1	5,36	5,29	4,83	5,16	±0,29
	F2	5,31	5,32	5,39	5,34	±0,04
	F3	5,6	5,4	4,63	5,21	±0,51
	F4	5,14	5,26	5,2	5,2	±0,06
	F5	5,1	5,24	5,44	5,26	±0,17
Hari ke 28	F0	5,15	5,27	5,21	5,21	±0,06
	F1	5,1	5,33	5,53	5,32	±0,22
	F2	5,27	5,4	5,5	5,39	±0,12
	F3	5,6	5,49	4,9	5,33	±0,38
	F4	5,26	5,96	5,34	5,52	±0,38
	F5	5,7	5,25	5,55	5,5	±0,23

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Uji pH SR	Statistic	df	Sig.	Statistic	df	Sig.
F0	Hari ke-1	.208	3	.	.992	3	.826
	Hari ke-3	.362	3	.	.803	3	.122
	Hari ke-5	.238	3	.	.976	3	.702
	Hari ke-7	.258	3	.	.960	3	.616
	Hari ke-14	.362	3	.	.803	3	.122
	Hari ke-21	.325	3	.	.876	3	.312
	Hari ke-28	.175	3	.	1.000	3	1.000
F1	Hari ke-1	.175	3	.	1.000	3	1.000
	Hari ke-3	.175	3	.	1.000	3	1.000
	Hari ke-5	.292	3	.	.923	3	.463
	Hari ke-7	.371	3	.	.785	3	.079
	Hari ke-14	.314	3	.	.893	3	.363
	Hari ke-21	.341	3	.	.847	3	.233
	Hari ke-28	.185	3	.	.998	3	.923

F3	Hari ke-1	.192	3	.	.997	3	.893
	Hari ke-3	.331	3	.	.865	3	.280
	Hari ke-5	.201	3	.	.994	3	.856
	Hari ke-7	.314	3	.	.893	3	.363
	Hari ke-14	.253	3	.	.964	3	.637
	Hari ke-21	.311	3	.	.897	3	.375
	Hari ke-28	.331	3	.	.865	3	.280
F2	Hari ke-1	.314	3	.	.893	3	.363
	Hari ke-3	.175	3	.	1.000	3	1.000
	Hari ke-5	.299	3	.	.915	3	.433
	Hari ke-7	.292	3	.	.923	3	.463
	Hari ke-14	.245	3	.	.971	3	.672
	Hari ke-21	.343	3	.	.842	3	.220
	Hari ke-28	.201	3	.	.994	3	.856
F5	Hari ke-1	.314	3	.	.893	3	.363
	Hari ke-3	.368	3	.	.792	3	.094
	Hari ke-5	.306	3	.	.905	3	.400
	Hari ke-7	.289	3	.	.928	3	.480
	Hari ke-14	.213	3	.	.990	3	.806
	Hari ke-21	.213	3	.	.990	3	.806
	Hari ke-28	.253	3	.	.964	3	.637
F4	Hari ke-1	.216	3	.	.988	3	.794
	Hari ke-3	.276	3	.	.942	3	.537
	Hari ke-5	.356	3	.	.818	3	.157
	Hari ke-7	.314	3	.	.893	3	.363
	Hari ke-14	.227	3	.	.983	3	.747
	Hari ke-21	.175	3	.	1.000	3	1.000
	Hari ke-28	.347	3	.	.834	3	.200

a. Lilliefors Significance Correction

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
F0	Based on Mean	1.045	6	14	.438

F1	Based on Median	.318	6	14	.917
	Based on Median and with adjusted df	.318	6	10.043	.913
	Based on trimmed mean	.974	6	14	.478
	Based on Mean	2.462	6	14	.077
F2	Based on Median	.464	6	14	.824
	Based on Median and with adjusted df	.464	6	6.460	.815
	Based on trimmed mean	2.231	6	14	.101
	Based on Mean	3.482	6	14	.026
F3	Based on Median	.773	6	14	.604
	Based on Median and with adjusted df	.773	6	6.592	.617
	Based on trimmed mean	3.169	6	14	.035
	Based on Mean	3.051	6	14	.040
F4	Based on Median	.457	6	14	.829
	Based on Median and with adjusted df	.457	6	7.026	.821
	Based on trimmed mean	2.689	6	14	.060
	Based on Mean	3.460	6	14	.026
F5	Based on Median	.625	6	14	.708
	Based on Median and with adjusted df	.625	6	4.369	.711
	Based on trimmed mean	3.111	6	14	.038
	Based on Mean	1.142	6	14	.389
F5	Based on Median	.199	6	14	.972
	Based on Median and with adjusted df	.199	6	7.968	.968
	Based on trimmed mean	1.026	6	14	.448
	Based on Mean	1.142	6	14	.389

Tests of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
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F0	Based on Mean	1.045	6	14	.438
	Based on Median	.318	6	14	.917
	Based on Median and with adjusted df	.318	6	10.043	.913
	Based on trimmed mean	.974	6	14	.478
F1	Based on Mean	2.462	6	14	.077
	Based on Median	.464	6	14	.824
	Based on Median and with adjusted df	.464	6	6.460	.815
	Based on trimmed mean	2.231	6	14	.101
F2	Based on Mean	3.482	6	14	.026
	Based on Median	.773	6	14	.604
	Based on Median and with adjusted df	.773	6	6.592	.617
	Based on trimmed mean	3.169	6	14	.035
F3	Based on Mean	3.051	6	14	.040
	Based on Median	.457	6	14	.829
	Based on Median and with adjusted df	.457	6	7.026	.821
	Based on trimmed mean	2.689	6	14	.060
F4	Based on Mean	3.460	6	14	.026
	Based on Median	.625	6	14	.708
	Based on Median and with adjusted df	.625	6	4.369	.711
	Based on trimmed mean	3.111	6	14	.038
F5	Based on Mean	1.142	6	14	.389
	Based on Median	.199	6	14	.972
	Based on Median and with adjusted df	.199	6	7.968	.968
	Based on trimmed mean	1.026	6	14	.448

Analisis *ONE WAY* ANOVA Uji Stabilitas Viskositas dalam Suhu Ruang

Hari ke	Formula	Replikasi			Rata-rata	Standar Deviasi
		1	2	3		
Hari ke- 1	F0	18200	18000	18100	18100	±100,00
	F1	17200	17300	17400	17300	±100,00
	F2	17000	17100	17200	17100	±100,00
	F3	13200	13400	13500	13367	±152,75
	F4	11000	11600	11800	11467	±416,33
	F5	9400	9000	9200	9200	±200,00
Hari ke- 3	F0	17800	18000	18100	17967	±152,75
	F1	17400	17200	17300	17300	±100,00
	F2	17400	17100	17000	17167	±208,17
	F3	13200	13000	13100	13100	±100,00
	F4	11000	11100	11200	11100	±100,00
	F5	8800	9000	9100	8967	±152,75
Hari ke- 5	F0	18000	18200	18400	18200	±200,00
	F1	17000	17200	17300	17167	±152,75
	F2	17200	17300	17000	17167	±152,75
	F3	13000	13200	13300	13167	±152,75
	F4	11400	11200	11300	11300	±100,00
	F5	9200	9100	9000	9100	±100,00
Hari ke- 7	F0	18100	17800	17900	17933	±152,75
	F1	17400	17500	17200	17367	±152,75
	F2	17200	17100	17000	17100	±100,00
	F3	13400	13000	13100	13167	±208,17
	F4	11000	11200	11400	11200	±200,00
	F5	9000	9200	9300	9167	±152,75
Hari ke-14	F0	17800	18200	18300	18100	±264,58
	F1	17400	17200	17300	17300	±100,00
	F2	17000	17200	17400	17200	±200,00
	F3	13200	13100	13000	13100	±100,00
	F4	11400	11500	11000	11300	±264,58

	F5	9000	9100	9400	9167	±208,17
Hari ke-21	F0	18000	18100	18200	18100	±100,00
	F1	17000	17100	17400	17167	±208,17
	F2	17300	17000	17200	17167	±152,75
	F3	13000	13400	13600	13333	±305,51
	F4	11200	11000	11300	11167	±152,75
	F5	9200	9100	9000	9100	±100,00
Hari ke-28	F0	18000	18200	18300	18167	±152,75
	F1	17200	17100	17000	17100	±100,00
	F2	17000	17200	17400	17200	±200,00
	F3	13200	13100	13400	13233	±152,75
	F4	11200	11300	11400	11300	±100,00
	F5	9000	8800	9200	9000	±200,00

Tests of Normality

Uji Viskositas		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
SR		Statistic	df	Sig.	Statistic	df	Sig.
F0	Hari ke-1	.175	3	.	1.000	3	1.000
	Hari ke-3	.253	3	.	.964	3	.637
	Hari ke-5	.175	3	.	1.000	3	1.000
	Hari ke-7	.253	3	.	.964	3	.637
	Hari ke-14	.314	3	.	.893	3	.363
	Hari ke-21	.175	3	.	1.000	3	1.000
	Hari ke-28	.253	3	.	.964	3	.637
F1	Hari ke-1	.175	3	.	1.000	3	1.000
	Hari ke-3	.175	3	.	1.000	3	1.000
	Hari ke-5	.253	3	.	.964	3	.637
	Hari ke-7	.253	3	.	.964	3	.637
	Hari ke-14	.175	3	.	1.000	3	1.000
	Hari ke-21	.292	3	.	.923	3	.463
	Hari ke-28	.175	3	.	1.000	3	1.000

F3	Hari ke-1	.253	3	.	.964	3	.637
	Hari ke-3	.175	3	.	1.000	3	1.000
	Hari ke-5	.253	3	.	.964	3	.637
	Hari ke-7	.292	3	.	.923	3	.463
	Hari ke-14	.175	3	.	1.000	3	1.000
	Hari ke-21	.253	3	.	.964	3	.637
	Hari ke-28	.253	3	.	.964	3	.637
F2	Hari ke-1	.175	3	.	1.000	3	1.000
	Hari ke-3	.292	3	.	.923	3	.463
	Hari ke-5	.253	3	.	.964	3	.637
	Hari ke-7	.175	3	.	1.000	3	1.000
	Hari ke-14	.175	3	.	1.000	3	1.000
	Hari ke-21	.253	3	.	.964	3	.637
	Hari ke-28	.175	3	.	1.000	3	1.000
F5	Hari ke-1	.175	3	.	1.000	3	1.000
	Hari ke-3	.253	3	.	.964	3	.637
	Hari ke-5	.175	3	.	1.000	3	1.000
	Hari ke-7	.253	3	.	.964	3	.637
	Hari ke-14	.292	3	.	.923	3	.463
	Hari ke-21	.175	3	.	1.000	3	1.000
	Hari ke-28	.175	3	.	1.000	3	1.000
F4	Hari ke-1	.292	3	.	.923	3	.463
	Hari ke-3	.385	3	.	.750	3	<.001
	Hari ke-5	.175	3	.	1.000	3	1.000
	Hari ke-7	.175	3	.	1.000	3	1.000
	Hari ke-14	.314	3	.	.893	3	.363
	Hari ke-21	.253	3	.	.964	3	.637
	Hari ke-28	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
F0	Based on Mean	.967	6	14	.482
	Based on Median	.286	6	14	.934
	Based on Median and with adjusted df	.286	6	7.327	.927
	Based on trimmed mean	.906	6	14	.518
F1	Based on Mean	.856	6	14	.549
	Based on Median	.255	6	14	.949
	Based on Median and with adjusted df	.255	6	8.141	.944
	Based on trimmed mean	.805	6	14	.582
F2	Based on Mean	.484	6	14	.810
	Based on Median	.246	6	14	.953
	Based on Median and with adjusted df	.246	6	10.475	.950
	Based on trimmed mean	.467	6	14	.822
F3	Based on Mean	1.302	6	14	.319
	Based on Median	.444	6	14	.837
	Based on Median and with adjusted df	.444	6	8.108	.831
	Based on trimmed mean	1.226	6	14	.350
F4	Based on Mean	2.559	6	14	.069
	Based on Median	.636	6	14	.700
	Based on Median and with adjusted df	.636	6	5.855	.702
	Based on trimmed mean	2.361	6	14	.087
F5	Based on Mean	.484	6	14	.810
	Based on Median	.246	6	14	.953
	Based on Median and with adjusted df	.246	6	10.475	.950
	Based on trimmed mean	.467	6	14	.822

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
F0	Between Groups	172380.952	6	28730.159	1.006	.460
	Within Groups	400000.000	14	28571.429		
	Total	572380.952	20			
F1	Between Groups	171428.571	6	28571.429	1.538	.237
	Within Groups	260000.000	14	18571.429		
	Total	431428.571	20			
F2	Between Groups	31428.571	6	5238.095	.193	.974
	Within Groups	380000.000	14	27142.857		
	Total	411428.571	20			
F3	Between Groups	204761.905	6	34126.984	1.054	.433
	Within Groups	453333.333	14	32380.952		
	Total	658095.238	20			
F4	Between Groups	291428.571	6	48571.429	1.000	.463
	Within Groups	680000.000	14	48571.429		
	Total	971428.571	20			
F5	Between Groups	140000.000	6	23333.333	.860	.547
	Within Groups	380000.000	14	27142.857		
	Total	520000.000	20			

Analisis *ONE WAY* ANOVA Uji Stabilitas pH dengan Metode *Cycling Test*

Siklus ke	Formula	Replikasi			Rata-rata	SD
		1	2	3		
Siklus 1	F0	5,22	5,01	5,31	5,18	±0,15
	F1	5,69	5,18	4,94	5,27	±0,38
	F2	5,28	5,4	5,1	5,26	±0,15
	F3	5,32	5,4	5,15	5,29	±0,13
	F4	5,55	5,71	5	5,42	±0,37
	F5	5,41	5,4	5	5,27	±0,23
Siklus 2	F0	5,21	5,11	5,16	5,16	±0,05
	F1	5,31	4,96	5,27	5,18	±0,19
	F2	5,27	4,93	5,52	5,24	±0,30
	F3	5,03	5,58	5,47	5,36	±0,29
	F4	5,33	5,38	5,79	5,5	±0,25
	F5	5,92	5,96	5,22	5,7	±0,42
Siklus 3	F0	5,14	5,1	5,06	5,1	±0,04
	F1	5,4	4,87	5,18	5,15	±0,27
	F2	5,27	5,2	5,07	5,18	±0,10
	F3	5,62	5,41	4,81	5,28	±0,42
	F4	5,8	5,12	5,52	5,48	±0,34
	F5	5,21	5,25	5,44	5,3	±0,12
Siklus 4	F0	5,38	5,3	5,31	5	±0,04
	F1	5,06	5,18	5	5,08	±0,09
	F2	5,2	5,18	5,13	5,17	±0,04
	F3	5,47	5,01	5,06	5,18	±0,25
	F4	5,17	5,03	5,1	5,1	±0,07
	F5	5,17	5,28	5,3	5,25	±0,07
Siklus 5	F0	5,16	5,08	5,12	5,12	±0,04
	F1	5,25	5,32	4,49	5,02	±0,46
	F2	5,27	5,32	5,07	5,22	±0,13
	F3	4,98	5,33	5,29	5,2	±0,19
	F4	5	5,3	4,73	5,01	±0,29

	F5	4,99	5,78	5,67	5,48	±0,43
Siklus 6	F0	5,11	5,21	5,52	5,28	±0,21
	F1	5,3	5,31	5,32	5,31	±0,01
	F2	5,18	5,5	5,34	5,34	±0,16
	F3	5,2	5,42	5,64	5,42	±0,22
	F4	5,37	5,7	6	5,69	±0,32
	F5	5,38	5,21	5,67	5,42	±0,23

Tests of Normality

Uji pH		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	<i>Cycling Test</i>	Statistic	df	Sig.	Statistic	df	Sig.
F0	Siklus 1	.269	3	.	.949	3	.567
	Siklus 2	.175	3	.	1.000	3	1.000
	Siklus 3	.175	3	.	1.000	3	1.000
	Siklus 4	.343	3	.	.842	3	.220
	Siklus 5	.175	3	.	1.000	3	1.000
	Siklus 6	.295	3	.	.920	3	.451
F1	Siklus 1	.260	3	.	.959	3	.609
	Siklus 2	.347	3	.	.834	3	.200
	Siklus 3	.212	3	.	.990	3	.813
	Siklus 4	.253	3	.	.964	3	.637
	Siklus 5	.358	3	.	.813	3	.145
	Siklus 6	.175	3	.	1.000	3	1.000
F2	Siklus 1	.219	3	.	.987	3	.780
	Siklus 2	.207	3	.	.992	3	.832
	Siklus 3	.245	3	.	.971	3	.672
	Siklus 4	.276	3	.	.942	3	.537
	Siklus 5	.314	3	.	.893	3	.363
	Siklus 6	.175	3	.	1.000	3	1.000
F3	Siklus 1	.260	3	.	.959	3	.609
	Siklus 2	.314	3	.	.893	3	.363
	Siklus 3	.288	3	.	.928	3	.482

	Siklus 4	.349	3	.	.830	3	.189
	Siklus 5	.347	3	.	.834	3	.200
	Siklus 6	.175	3	.	1.000	3	1.000
F4	Siklus 1	.303	3	.	.909	3	.413
	Siklus 2	.349	3	.	.830	3	.189
	Siklus 3	.213	3	.	.990	3	.806
	Siklus 4	.175	3	.	1.000	3	1.000
	Siklus 5	.181	3	.	.999	3	.942
	Siklus 6	.179	3	.	.999	3	.948
F5	Siklus 1	.378	3	.	.768	3	.041
	Siklus 2	.368	3	.	.790	3	.092
	Siklus 3	.325	3	.	.876	3	.312
	Siklus 4	.333	3	.	.862	3	.274
	Siklus 5	.338	3	.	.852	3	.246
	Siklus 6	.235	3	.	.978	3	.714

a. Lilliefors Significance Correction

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
F0	Based on Mean	4.233	5	12	.019
	Based on Median	1.049	5	12	.434
	Based on Median and with adjusted df	1.049	5	4.136	.493
	Based on trimmed mean	3.894	5	12	.025
F1	Based on Mean	3.841	5	12	.026
	Based on Median	.680	5	12	.647
	Based on Median and with adjusted df	.680	5	4.855	.659
	Based on trimmed mean	3.441	5	12	.037
F2	Based on Mean	1.469	5	12	.270
	Based on Median	.937	5	12	.492
	Based on Median and with adjusted df	.937	5	6.527	.515

	Based on trimmed mean	1.435	5	12	.281
F3	Based on Mean	1.436	5	12	.281
	Based on Median	.300	5	12	.903
	Based on Median and with adjusted df	.300	5	8.150	.900
	Based on trimmed mean	1.302	5	12	.326
F4	Based on Mean	.972	5	12	.473
	Based on Median	.381	5	12	.852
	Based on Median and with adjusted df	.381	5	8.765	.849
	Based on trimmed mean	.924	5	12	.498
F5	Based on Mean	3.623	5	12	.031
	Based on Median	.376	5	12	.856
	Based on Median and with adjusted df	.376	5	6.247	.850
	Based on trimmed mean	3.062	5	12	.052

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
F0	Between Groups	.125	5	.025	1.943	.161
	Within Groups	.154	12	.013		
	Total	.279	17			
F1	Between Groups	.182	5	.036	.460	.798
	Within Groups	.949	12	.079		
	Total	1.131	17			
F2	Between Groups	.057	5	.011	.417	.828
	Within Groups	.330	12	.028		
	Total	.388	17			
F3	Between Groups	.126	5	.025	.355	.869
	Within Groups	.853	12	.071		
	Total	.979	17			
F4	Between Groups	1.009	5	.202	2.399	.099

F5	Within Groups	1.009	12	.084		
	Total	2.018	17			
	Between Groups	.438	5	.088	1.084	.417
	Within Groups	.970	12	.081		
	Total	1.409	17			

Analisis *ONE WAY* ANOVA Uji Stabilitas Viskositas dengan Metode *Cycling Test*

Siklus ke	Formula	Replikasi			Rata-rata	Standar Deviasi
		1	2	3		
Siklus 1	F0	18000	18100	18200	18100	±100,00
	F1	17000	17400	17.300	17233	±208,17
	F2	17200	17000	17.100	17100	±100,00
	F3	13200	13400	13.500	13367	±152,75
	F4	10800	10900	10400	10700	±264,58
	F5	9200	9000	8900	9033	±152,75
Siklus 2	F0	17800	17400	17700	17633	±208,17
	F1	16000	16.100	16200	16100	±100,00
	F2	15200	15300	15400	15300	±100,00
	F3	12000	12100	12.200	12100	±100,00
	F4	10200	10100	10.400	10233	±152,75
	F5	7600	7400	7500	7500	±100,00
Siklus 3	F0	17000	17200	17.100	17100	±100,00
	F1	15000	15600	15200	15267	±305,51
	F2	14400	14.500	14.600	14500	±100,00
	F3	11600	11.700	11800	11700	±100,00
	F4	9600	9400	9700	9567	±152,75
	F5	6400	6500	6600	6500	±100,00
Siklus 4	F0	16600	16800	17000	16800	±200,00
	F1	15000	15100	14800	14967	±152,75
	F2	13600	13700	13800	13700	±100,00
	F3	11000	11300	11.200	11167	±152,75
	F4	9000	9400	9200	9200	±200,00
	F5	5000	5100	5200	5100	±100,00
Siklus 5	F0	16000	16200	16400	16200	±200,00
	F1	14000	14200	14400	14200	±200,00
	F2	13000	13100	12800	12967	±152,75
	F3	10000	10100	10200	10100	±100,00
	F4	8400	8200	8300	8300	±100,00

	F5	4000	4200	4100	4100	±100,00
Siklus 6	F0	16200	16300	16000	16167	±152,75
	F1	14200	14300	14100	14200	±100,00
	F2	12900	12800	13000	12900	±100,00
	F3	9600	9700	9800	9700	±100,00
	F4	7200	7300	7100	7200	±100,00
	F5	4100	4000	4400	4167	±208,17

Tests of Normality

Uji Viskositas		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
<i>Cycling Test</i>		Statistic	df	Sig.	Statistic	df	Sig.
F0	Siklus 1	.175	3	.	1.000	3	1.000
	Siklus 2	.292	3	.	.923	3	.463
	Siklus 3	.175	3	.	1.000	3	1.000
	Siklus 4	.175	3	.	1.000	3	1.000
	Siklus 5	.175	3	.	1.000	3	1.000
	Siklus 6	.253	3	.	.964	3	.637
F1	Siklus 1	.292	3	.	.923	3	.463
	Siklus 2	.175	3	.	1.000	3	1.000
	Siklus 3	.253	3	.	.964	3	.637
	Siklus 4	.253	3	.	.964	3	.637
	Siklus 5	.175	3	.	1.000	3	1.000
	Siklus 6	.175	3	.	1.000	3	1.000
F2	Siklus 1	.175	3	.	1.000	3	1.000
	Siklus 2	.175	3	.	1.000	3	1.000
	Siklus 3	.175	3	.	1.000	3	1.000
	Siklus 4	.175	3	.	1.000	3	1.000
	Siklus 5	.253	3	.	.964	3	.637
	Siklus 6	.175	3	.	1.000	3	1.000
F3	Siklus 1	.253	3	.	.964	3	.637
	Siklus 2	.175	3	.	1.000	3	1.000
	Siklus 3	.175	3	.	1.000	3	1.000

	Siklus 4	.253	3	.	.964	3	.637
	Siklus 5	.175	3	.	1.000	3	1.000
	Siklus 6	.175	3	.	1.000	3	1.000
F4	Siklus 1	.314	3	.	.893	3	.363
	Siklus 2	.253	3	.	.964	3	.637
	Siklus 3	.253	3	.	.964	3	.637
	Siklus 4	.175	3	.	1.000	3	1.000
	Siklus 5	.175	3	.	1.000	3	1.000
	Siklus 6	.175	3	.	1.000	3	1.000
F5	Siklus 1	.253	3	.	.964	3	.637
	Siklus 2	.175	3	.	1.000	3	1.000
	Siklus 3	.175	3	.	1.000	3	1.000
	Siklus 4	.175	3	.	1.000	3	1.000
	Siklus 5	.175	3	.	1.000	3	1.000
	Siklus 6	.292	3	.	.923	3	.463

a. Lilliefors Significance Correction

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
F0	Based on Mean	.551	5	12	.735
	Based on Median	.290	5	12	.909
	Based on Median and with adjusted df	.290	5	8.696	.907
	Based on trimmed mean	.533	5	12	.748
F1	Based on Mean	1.229	5	12	.354
	Based on Median	.493	5	12	.776
	Based on Median and with adjusted df	.493	5	7.127	.773
	Based on trimmed mean	1.171	5	12	.378
F2	Based on Mean	.276	5	12	.918
	Based on Median	.125	5	12	.984
	Based on Median and with adjusted df	.125	5	9.143	.983

	Based on trimmed mean	.266	5	12	.923
F3	Based on Mean	.413	5	12	.831
	Based on Median	.160	5	12	.973
	Based on Median and with adjusted df	.160	5	9.091	.971
	Based on trimmed mean	.394	5	12	.843
F4	Based on Mean	1.114	5	12	.403
	Based on Median	.328	5	12	.887
	Based on Median and with adjusted df	.328	5	6.098	.879
	Based on trimmed mean	1.045	5	12	.436
F5	Based on Mean	.988	5	12	.464
	Based on Median	.300	5	12	.904
	Based on Median and with adjusted df	.300	5	6.323	.897
	Based on trimmed mean	.931	5	12	.495

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
F0	Between Groups	8986666.667	5	1797333.333	64.704	<.001
	Within Groups	333333.333	12	27777.778		
	Total	9320000.000	17			
F1	Between Groups	20716111.111	5	4143222.222	112.997	<.001
	Within Groups	440000.000	12	36666.667		
	Total	21156111.111	17			
F2	Between Groups	38711111.111	5	7742222.222	633.455	<.001
	Within Groups	146666.667	12	12222.222		
	Total	38857777.778	17			
F3	Between Groups	27211111.111	5	5442222.222	376.769	<.001
	Within Groups	173333.333	12	14444.444		
	Total	27384444.444	17			
F4	Between Groups	24786666.667	5	4957333.333	168.362	<.001

F5	Within Groups	353333.333	12	29444.444		
	Total	25140000.000	17			
	Between Groups	58366666.667	5	11673333.333	656.625	<.001
	Within Groups	213333.333	12	17777.778		
	Total	58580000.000	17			

Lampiran 14 Kartu Bimbingan



Fakultas Farmasi
Universitas
Bhakti Kencana

No. Dok. 02.64.00/FRM-03/AKD-SPMI



KARTU BIMBINGAN ~~TUGAS AKHIR I~~/TUGAS AKHIR II

Pembimbing Utama	: apt. Deny Puriyani Azhary, M.Si
Nama Mahasiswa	: Asri Puspitasari
NPM	: 191FF03110
Bidang Ilmu	: Farmasetika dan Teknologi Farmasi (FTF)

[illegible]

Catatan : Kartu ini harus dibawa setiap kali melakukan bimbingan dan harus diisi oleh dosen pembimbing.

**KARTU BIMBINGAN TUGAS AKHIR I/TUGAS AKHIR II**

Pembimbing Serta	: apt. Aris Suhardiman, M.Si				
Nama Mahasiswa	: Asri Puspitasari				
NPM	: 191FF03110				
Bidang Ilmu	: Farmasetika dan Teknologi Farmasi (FTF)				
1.	Jumat, 24 Maret 2023	08.00	WhatsApp	Kemajuan Tugas Akhir II	75
2.	Selasa, 18 April 2023	09.00	Zoom Meeting	Laporan Kemajuan I TA II	75
3.	Selasa, 9 Mei 2023	09.00	WhatsApp	Diskusi penambahan ekstrak dlm sedimen	75
4.	Senin, 15 Mei 2023	13.30	WhatsApp	Konfirmasi fase gerak	75
5.	Jumat, 26 Mei 2023	16.00	Kampus UBK	Bimbingan	75
6.	Senin, 29 Mei 2023	14.00	WhatsApp	Diskusi fase gerak	75
7.	Jumat, 2 Juni 2023	15.30	WhatsApp	Diskusi senyawa	75
8.	Selasa, 6 Juni 2023	12.30	UBK	Bimbingan	75
9.	Jumat, 23 Juni 2023	09.00	WhatsApp	Konfirmasi hasil	75
10.	Rabu, 11 Juli 2023	13.30	UBK	Laporan Tugas Akhir	75

Catatan : Kartu ini harus dibawa setiap kali melakukan bimbingan dan harus diisi oleh dosen pembimbing.

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Lampiran 15 Hasil Turnitin

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Lampiran 16 Daftar Riwayat Hidup



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PENDIDIKAN

S1 : Universitas Bhakti Kencana
SMK : SMK Bhakti Kencana Soreang
SMP : SMPN 1 Banjaran
SD : SDN IX Banjaran
TK : TK Bintang Nusantara