

## 7. LAMPIRAN

### Lampiran 1. Dokumentasi Hasil Penyangraian Biji Kopi

❖ Biji Kopi Sangrai Level 7 (170<sup>0</sup>C; 12 menit)



❖ Biji Kopi Sangrai Level 9 (170<sup>0</sup>C; 17 menit 30 detik)



❖ Biji Kopi Sangrai Level 11 (170<sup>0</sup>C; 23 menit 30 detik)



❖ Biji Kopi Sangrai Level 13 (170<sup>0</sup>C; 25 menit)



## Lampiran 2. Worksheet Uji Rating

Tanggal uji: Mei 2014

Jenis Sampel: Kopi Seduh Tanpa Ampas

### Identifikasi sampel

Kopi instant komersial “Nescafe”

Kopi Seduh Tanpa Ampas dengan perlakuan level 9 ayakan 40 *mesh*

Kopi Seduh Tanpa Ampas dengan perlakuan level 13 ayakan 20 *mesh*

### Kode

A

B

C

Jenis Sampel: Serbuk Kopi Tanpa Ampas

### Identifikasi sampel

Serbuk Kopi instant komersial “Nescafe”

Serbuk Tanpa Ampas dengan perlakuan level 9 ayakan 40 *mesh*

Serbuk Tanpa Ampas dengan perlakuan level 13 ayakan 20 *mesh*

### Kode

A

B

C

### Kode kombinasi urutan penyajian:

ABC = 1

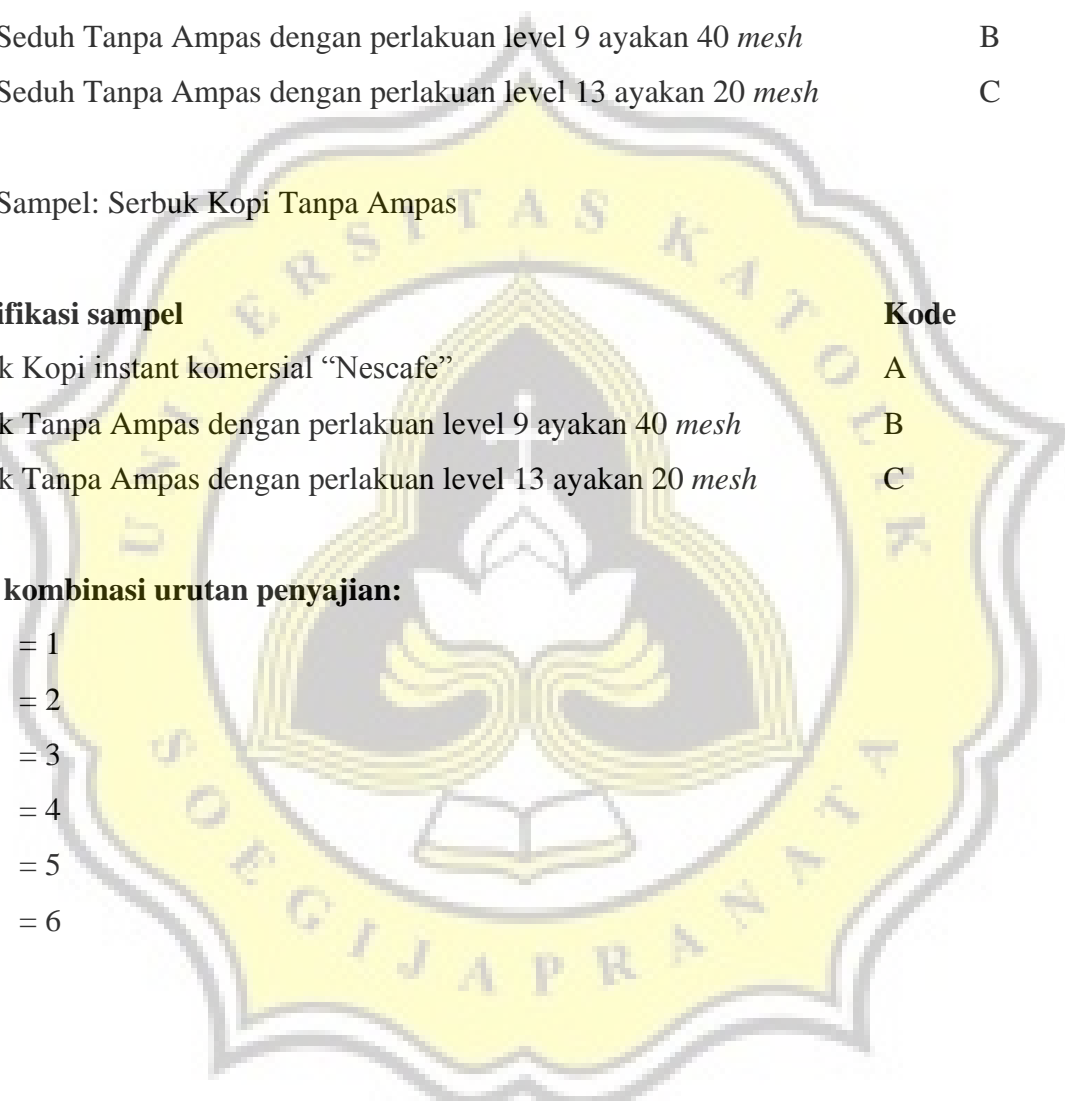
ACB = 2

BAC = 3

BCA = 4

CAB = 5

CBA = 6



**Penyajian:**

<i>Booth</i>	Panelis	Kode Sampel	Urutan Penyajian
I	#1	941 333 226	<sup>1</sup>
II	#2	933 286 612	<sup>2</sup>
III	#3	728 375 522	<sup>3</sup>
IV	#4	869 618 651	<sup>4</sup>
I	#5	471 414 487	<sup>5</sup>
II	#6	218 741 891	<sup>6</sup>
III	#7	129 259 397	<sup>7</sup>
IV	#8	938 745 476	<sup>8</sup>
I	#9	127 862 461	<sup>9</sup>
II	#10	286 477 572	<sup>10</sup>
III	#11	478 698 736	<sup>11</sup>
IV	#12	535 257 128	<sup>12</sup>
I	#13	363 168 957	<sup>13</sup>
II	#14	478 674 847	<sup>14</sup>
III	#15	316 214 132	<sup>15</sup>
IV	#16	969 228 841	<sup>16</sup>
I	#17	442 314 692	<sup>17</sup>
II	#18	225 786 437	<sup>18</sup>
III	#19	792 549 444	<sup>19</sup>
IV	#20	874 171 949	<sup>20</sup>
I	#21	559 926 151	<sup>21</sup>
II	#22	526 513 519	<sup>22</sup>
III	#23	948 626 847	<sup>23</sup>
IV	#24	586 196 323	<sup>24</sup>
I	#25	946 793 751	<sup>25</sup>
II	#26	582 637 161	<sup>26</sup>
III	#27	644 223 195	<sup>27</sup>
IV	#28	863 855 937	<sup>28</sup>
I	#29	883 533 124	<sup>29</sup>
II	#30	176 747 685	<sup>30</sup>

**Rekap Kode Sampel:**

Sampel A	941 933 375 651 414 891 129 938 862 572 698 128 363 478 214 841 314 437 792 874 926 519 626 323 946 582 223 937 533 685
Sampel B	333 612 728 869 487 741 259 476 127 286 736 257 168 847 316 969 692 786 549 949 559 526 847 196 793 161 644 863 123 747
Sampel C	226 286 522 618 471 218 397 745 461 477 478 535 957 674 132 228 442 225 444 171 151 513 948 586 751 637 195 855 883 176

### Lampiran 3. *Scoresheet Uji Rating Kopi Seduh Tanpa Ampas*

#### UJI RATING

Nama : Tanggal:

Produk :Kopi Seduh Tanpa Ampas

Atribut : Warna

Instruksi :

Di hadapan Anda terdapat 3 jenis sampel kopi seduh tanpa ampas. Amati sampel secara berurutan dari **kiri** ke **kanan**, lihatsatu persatu. Setelah mengamati semua sampel, anda boleh mengulang sesering yang Anda perlukan. Beri penilaian pada sampel sesuai pilihan berikut : (1) Coklat Muda; (2) Coklat; (3) Coklat Tua; (4) Coklat Kehitaman; (5) Hitam.

**Kode Sampel**

**Rating (boleh ada yang sama)**

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**Terima kasih**

**UJI RATING**

Nama : Tanggal:

Produk :Kopi Seduh Tanpa Ampas

Atribut :Aroma

Instruksi :

Di hadapan Anda terdapat 3 jenis sampel kopi seduh tanpa ampas.Bau sampel secara berurutan dari **kiri** ke **kanan**, bau satu persatu. Setelah membau semua sampel, anda boleh mengulang sesering yang Anda perlukan. Beri penilaian pada sampel sesuai pilihan berikut : (1) Tidak ada aroma kopi; (2) aroma kopi tidak kuat; (3) aroma kopi agak kuat; (4) aroma kopi kuat; (5) aroma kopi sangat kuat.

**Kode Sampel**

**Rating (boleh ada yang sama)**

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**Terima kasih**

### UJI RATING

Nama : Tanggal:

Produk :Kopi Seduh Tanpa Ampas

Atribut : Rasa

Instruksi :Di hadapan Anda terdapat 3 jenis sampel kopi seduh tanpa ampas. Cicipi sampel secara berurutan dari **kiri** ke **kanan**, rasakan masing-masing. Setiap pergantian sampel, minumlah terlebih dahulu. Setelah merasakan semua sampel, anda boleh mengulang sesering yang Anda perlukan. Beri penilaian pada sampel sesuai pilihan berikut : (1) Tidak ada rasa kopi; (2) rasa kopi tidak pahit; (3) rasa kopi agak pahit; (4) rasa kopi pahit; (5) rasa kopi sangat pahit.

**Kode Sampel**

**Rating (boleh ada yang sama)**

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**Terima kasih**

**UJI RATING**

Nama : Tanggal:

Produk :Kopi Seduh Tanpa Ampas

Atribut :*Overall*

Instruksi :

Di hadapan Anda terdapat 3 jenis sampel kopi seduh tanpa ampas. Setelah memberi penilaian *rating* dari segi warna, aroma, dan rasa, anda diminta untuk mengurutkan sampel dari segi keseluruhan/*overall* (warna, aroma, rasa). Setelah mengamati semua sampel, anda boleh mengulang sesering yang Anda perlukan. Beri penilaian pada sampel sesuai pilihan berikut : (1) tidak ada karakter kopi; (2) karakter kopi tidak kuat; (3) karakter kopi agak kuat; (4) karakter kopi kuat; (5) karakter kopi sangat kuat.

**Kode Sampel**

**Rating (boleh ada yang sama)**

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**Terima kasih**

**Lampiran 4. Scoresheet Uji Rating Serbuk Kopi Tanpa Ampas**

**UJI RATING**

Nama : Tanggal:

Produk :Serbuk Kopi Tanpa Ampas

Atribut : Warna

Instruksi :

Di hadapan Anda terdapat 3 jenis sampel serbuk kopi tanpa ampas. Amati sampel secara berurutan dari **kiri** ke **kanan**, lihatsatu persatu. Setelah mengamati semua sampel, anda boleh mengulang sesering yang Anda perlukan. Beri penilaian pada sampel sesuai pilihan berikut : (1) Coklat Muda; (2) Coklat; (3) Coklat Tua; (4) Coklat Kehitaman; (5) Hitam.

**Kode Sampel**

**Rating (boleh ada yang sama)**

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**Terima kasih**

**UJI RATING**

Nama : Tanggal:

Produk :Serbuk Kopi Tanpa Ampas

Atribut :Aroma

Instruksi :

Di hadapan Anda terdapat 3 jenis sampel serbuk kopi tanpa ampas.Hirup sampel secara berurutan dari **kiri** ke **kanan**, hirup satu persatu. Setelah menghirup semua sampel, anda boleh mengulang sesering yang Anda perlukan. Beri penilaian pada sampel sesuai pilihan berikut : (1) Tidak ada aroma kopi; (2) aroma kopi tidak kuat; (3) aroma kopi agak kuat; (4) aroma kopi kuat; (5) aroma kopi sangat kuat.

**Kode Sampel**

**Rating (boleh ada yang sama)**

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\_\_\_\_\_  
\_\_\_\_\_

**Terima kasih**

**UJI RATING**

Nama : Tanggal:

Produk :Serbuk Kopi Tanpa Ampas

Atribut :*Overall*

Instruksi :

Di hadapan Anda terdapat 3 jenis sampel serbuk kopi tanpa ampas. Setelah memberi penilaian *rating* dari segi warna dan aroma, anda diminta untuk mengurutkan sampel dari segi keseluruhan/*overall* (warna dan aroma). Setelah mengamati semua sampel, anda boleh mengulang sesering yang Anda perlukan. Beri penilaian pada sampel sesuai pilihan berikut : (1) tidak ada karakter kopi; (2) karakter kopi tidak kuat; (3) karakter kopi agak kuat; (4)karakter kopi kuat; (5) karakter kopi sangat kuat.

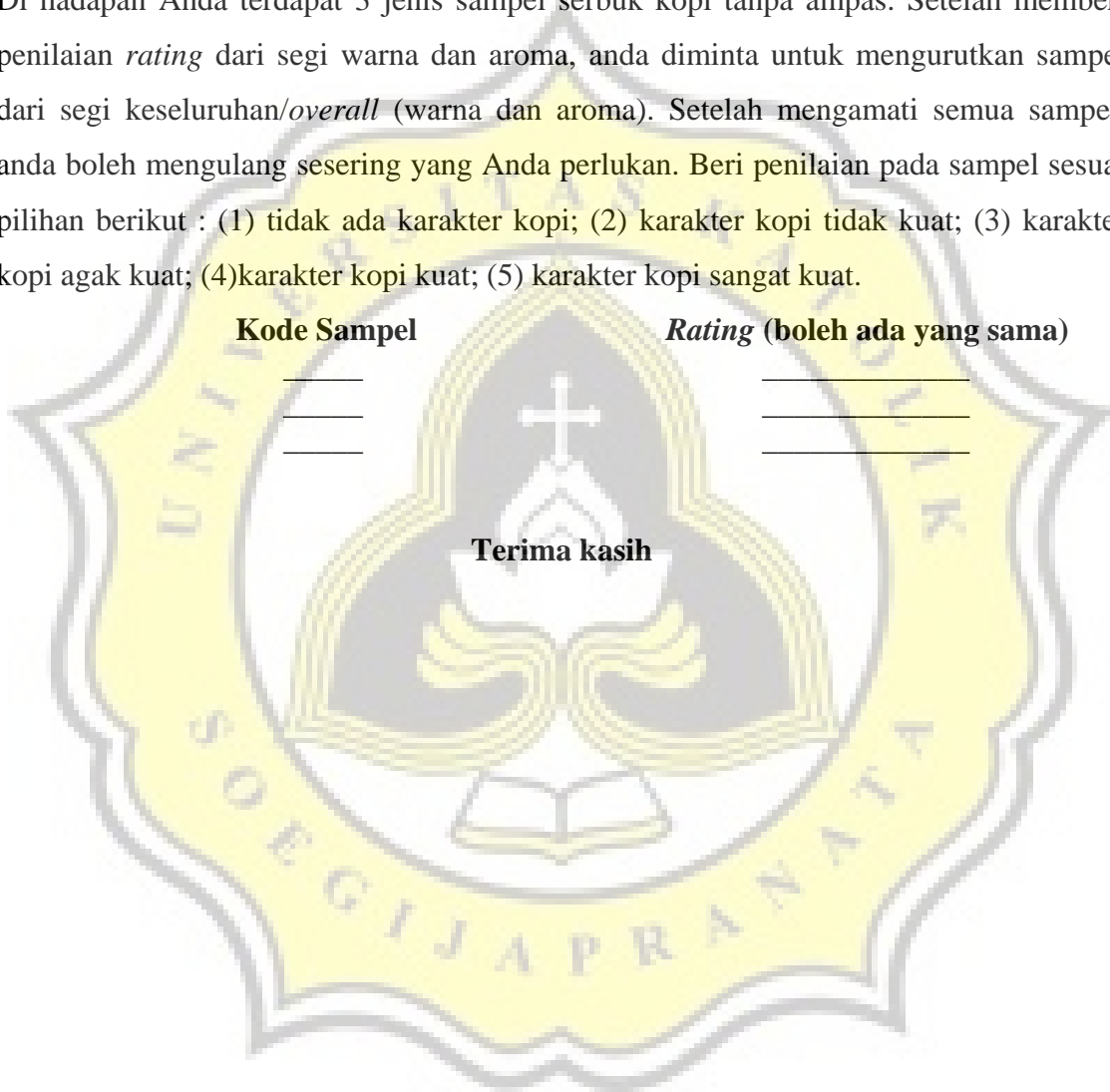
**Kode Sampel**

**Rating (boleh ada yang sama)**

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**Terima kasih**



## Lampiran 5.Data Hasil Penelitian

### ❖ Rendemen

Waktu Sangrai	Ukuran Ayakan	Rendemen (%)
12 menit	40 <i>mesh</i>	17,129
	30 <i>mesh</i>	17,483
	20 <i>mesh</i>	16,361
17 menit 30 detik	40 <i>mesh</i>	17,041
	30 <i>mesh</i>	16,142
	20 <i>mesh</i>	16,203
23 menit 30 detik	40 <i>mesh</i>	17,119
	30 <i>mesh</i>	18,213
	20 <i>mesh</i>	18,320
25 menit	40 <i>mesh</i>	19,300
	30 <i>mesh</i>	18,442
	20 <i>mesh</i>	18,230

### ❖ Kadar Air

Waktu Sangrai	Ukuran Ayakan	Kadar Air (%)
12 menit	40 <i>mesh</i>	1,790
	30 <i>mesh</i>	1,543
	20 <i>mesh</i>	1,358
17 menit 30 detik	40 <i>mesh</i>	1,383
	30 <i>mesh</i>	1,310
	20 <i>mesh</i>	1,198
23 menit 30 detik	40 <i>mesh</i>	1,186
	30 <i>mesh</i>	1,171
	20 <i>mesh</i>	0,947
25 menit	40 <i>mesh</i>	0,798
	30 <i>mesh</i>	0,784
	20 <i>mesh</i>	0,748



❖ **Kadar Abu**

Waktu Sangrai	Ukuran Ayakan	Kadar Abu (%)
12 menit	40 <i>mesh</i>	12,811
	30 <i>mesh</i>	12,345
	20 <i>mesh</i>	12,150
17 menit 30 detik	40 <i>mesh</i>	13,353
	30 <i>mesh</i>	13,121
	20 <i>mesh</i>	13,063
23 menit 30 detik	40 <i>mesh</i>	14,051
	30 <i>mesh</i>	13,993
	20 <i>mesh</i>	13,621
25 menit	40 <i>mesh</i>	15,365
	30 <i>mesh</i>	14,192
	20 <i>mesh</i>	14,013

❖ **Kealkalian Abu**

Waktu Sangrai	Ukuran Ayakan	Kealkalian Abu (ml N NaOH/100 g)
12 menit	40 <i>mesh</i>	96,514
	30 <i>mesh</i>	93,717
	20 <i>mesh</i>	89,745
17 menit 30 detik	40 <i>mesh</i>	97,801
	30 <i>mesh</i>	94,447
	20 <i>mesh</i>	93,927
23 menit 30 detik	40 <i>mesh</i>	109,594
	30 <i>mesh</i>	100,659
	20 <i>mesh</i>	95,981
25 menit	40 <i>mesh</i>	110,500
	30 <i>mesh</i>	99,647
	20 <i>mesh</i>	102,897

## Lampiran 6. Analisa Data Uji Normalitas

### ❖ Waktu Sangrai

Tests of Normality

waktu	Kolmogorov -Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
rendemen	12 menit	,278	9	,044	9	,002
	17 menit 30 detik	,160	9	,200*	9	,330
	23 menit 30 detik	,130	9	,200*	9	,992
	25 menit	,155	9	,200*	9	,432
abu	12 menit	,140	9	,200*	9	,689
	17 menit 30 detik	,259	9	,082	9	,064
	23 menit 30 detik	,224	9	,200*	9	,421
	25 menit	,195	9	,200*	9	,440
alk_abu	12 menit	,157	9	,200*	9	,908
	17 menit 30 detik	,195	9	,200*	9	,420
	23 menit 30 detik	,179	9	,200*	9	,525
	25 menit	,157	9	,200*	9	,795
air	12 menit	,123	9	,200*	9	,887
	17 menit 30 detik	,198	9	,200*	9	,322
	23 menit 30 detik	,101	9	,200*	9	,979
	25 menit	,160	9	,200*	9	,751

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

### ❖ Ukuran Ayakan

Tests of Normality

ayakan	Kolmogorov -Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
rendemen	40 mesh	,199	12	,876	12	,078
	30 mesh	,168	12	,955	12	,704
	20 mesh	,144	12	,937	12	,466
abu	40 mesh	,113	12	,988	12	,999
	30 mesh	,123	12	,974	12	,948
	20 mesh	,187	12	,955	12	,704
alk_abu	40 mesh	,213	12	,940	12	,500
	30 mesh	,231	12	,842	12	,029
	20 mesh	,188	12	,925	12	,326
air	40 mesh	,124	12	,953	12	,680
	30 mesh	,121	12	,975	12	,956
	20 mesh	,118	12	,961	12	,803

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

## Lampiran 7. Analisa Data Uji Beda

### ❖ Rendemen

#### Tests of Between-Subjects Effects

Dependent Variable: rendemen

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	33,479 <sup>a</sup>	11	3,044	2,410	,035
Intercept	11023,145	1	11023,145	8730,036	,000
waktu	25,421	3	8,474	6,711	,002
ay akan	,908	2	,454	,359	,702
waktu * ay akan	7,151	6	1,192	,944	,483
Error	30,304	24	1,263		
Total	11086,929	36			
Corrected Total	63,784	35			

a. R Squared = ,525 (Adjusted R Squared = ,307)

### ❖ Rendemen Terhadap Waktu Sangrai

rendemen

Duncan<sup>a,b</sup>

waktu	N	Subset		
		1	2	3
17 menit 30 detik	9	16,4622		
12 menit	9	16,9900	16,9900	
23 menit 30 detik	9		17,8844	17,8844
25 menit	9			18,6574
Sig.		,329	,104	,157

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 1,263.

a. Uses Harmonic Mean Sample Size = 9,000.

b. Alpha = ,05.

### ❖ Rendemen Terhadap Ukuran Ayakan

#### rendemen

Duncan<sup>a,b</sup>

ayakan	N	Subset
		1
20 mesh	12	17,2783
30 mesh	12	17,5705
40 mesh	12	17,6468
Sig.		,457

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 1,263.

a. Uses Harmonic Mean Sample Size = 12,000.

b. Alpha = ,05.

### ❖ Kadar Air

#### Tests of Between-Subjects Effects

Dependent Variable: air

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	3,408 <sup>a</sup>	11	,310	6,301	,000
Intercept	50,600	1	50,600	1029,143	,000
waktu	2,964	3	,988	20,098	,000
ayakan	,311	2	,156	3,164	,060
waktu * ay akan	,132	6	,022	,449	,839
Error	1,180	24	,049		
Total	55,187	36			
Corrected Total	4,588	35			

a. R Squared = ,743 (Adjusted R Squared = ,625)

❖ **Kadar Air Terhadap Waktu Sangrai**

air

Duncan<sup>a,b</sup>

waktu	N	Subset		
		1	2	3
25 menit	9	,7778		
23 menit 30 detik	9		1,1022	
17 menit 30 detik	9		1,2978	
12 menit 30 detik	9			1,5644
Sig.		1,000	,074	1,000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = ,049.

a. Uses Harmonic Mean Sample Size = 9,000.

b. Alpha = ,05.

❖ **Kadar Air Terhadap Ukuran Ayakan**

air

Duncan<sup>a,b</sup>

ayakan	N	Subset	
		1	2
20 mesh	12	1,0642	
30 mesh	12	1,2025	1,2025
40 mesh	12		1,2900
Sig.		,140	,343

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = ,049.

a. Uses Harmonic Mean Sample Size = 12,000.

b. Alpha = ,05.

❖ **Kadar Abu****Tests of Between-Subjects Effects**

Dependent Variable: abu

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	26,259 <sup>a</sup>	11	2,387	6,015	,000
Intercept	6567,752	1	6567,752	16547,739	,000
waktu	21,862	3	7,287	18,360	,000
ayakan	2,962	2	1,481	3,732	,039
waktu * ay akan	1,435	6	,239	,603	,726
Error	9,526	24	,397		
Total	6603,536	36			
Corrected Total	35,784	35			

a. R Squared = ,734 (Adjusted R Squared = ,612)

❖ **Kadar Abu Terhadap Waktu Sangrai**

abu

Duncan<sup>a,b</sup>

waktu	N	Subset			
		1	2	3	4
12 menit 30 detik	9	12,4367			
17 menit 30 detik	9		13,1800		
23 menit 30 detik	9			13,8889	
25 menit	9				14,5222
Sig.		1,000	1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = ,397.

a. Uses Harmonic Mean Sample Size = 9,000.

b. Alpha = ,05.

### ❖ Kadar Abu Terhadap Ukuran Ayakan

abu

Duncan<sup>a,b</sup>

ayakan	N	Subset	
		1	2
20 mesh	12	13,2125	
30 mesh	12	13,4125	13,4125
40 mesh	12		13,8958
Sig.		,444	,072

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = ,397.

a. Uses Harmonic Mean Sample Size = 12,000.

b. Alpha = ,05.

### ❖ Kealkalian Abu

#### Tests of Between-Subjects Effects

Dependent Variable: alk\_abu

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1317,208 <sup>a</sup>	11	119,746	3,038	,011
Intercept	351309,096	1	351309,096	8912,770	,000
waktu	748,173	3	249,391	6,327	,003
ayakan	430,651	2	215,326	5,463	,011
waktu * ayakan	138,384	6	23,064	,585	,739
Error	945,993	24	39,416		
Total	353572,297	36			
Corrected Total	2263,201	35			

a. R Squared = ,582 (Adjusted R Squared = ,390)

❖ Kealkalian Abu Terhadap Waktu Sangrai

alk\_abu

Duncan<sup>a,b</sup>

waktu	N	Subset	
		1	2
12 menit 30 detik	9	93,3244	
17 menit 30 detik	9	95,3911	
23 menit 30 detik	9		102,0789
25 menit	9		104,3478
Sig.		,492	,451

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 39,416.

a. Uses Harmonic Mean Sample Size = 9,000.

b. Alpha = ,05.

❖ Kealkalian Abu Terhadap Ukuran Ayakan

alk\_abu

Duncan<sup>a,b</sup>

ayakan	N	Subset	
		1	2
20 mesh	12	95,6375	
30 mesh	12	97,1175	
40 mesh	12		103,6017
Sig.		,569	1,000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 39,416.

a. Uses Harmonic Mean Sample Size = 12,000.

b. Alpha = ,05.



## Lampiran 8. Analisa Data Kombinasi Waktu Sangrai dan Ukuran Ayakan

### ❖ Rendemen

#### ANOVA

rendemen

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	22,107	11	2,010	1,768	,118
Within Groups	27,274	24	1,136		
Total	49,381	35			

#### rendemen

Duncan<sup>a</sup>

komb	N	Subset for alpha = .05	
		1	2
17 menit 30 detik; 30 mesh	3	16,1433	
17 menit 30 detik; 20 mesh	3	16,2033	
12 menit; 20 mesh	3	16,3600	16,3600
17 menit 30 detik; 40 mesh	3	17,0400	17,0400
23 menit 30 detik; 40 mesh	3	17,1200	17,1200
25 menit; 40 mesh	3	17,1200	17,1200
12 menit; 40 mesh	3	17,1267	17,1267
12 menit; 30 mesh	3	17,4833	17,4833
23 menit 30 detik; 30 mesh	3	18,2133	18,2133
25 menit; 30 mesh	3	18,2133	18,2133
23 menit 30 detik; 20 mesh	3		18,3200
25 menit; 20 mesh	3		18,3200
Sig.		,052	,065

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

## ❖ Kadar Air

## ANOVA

air

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3,408	11	,310	6,301	,000
Within Groups	1,180	24	,049		
Total	4,588	35			

air

Duncan<sup>a</sup>

komb	N	Subset for alpha = .05				
		1	2	3	4	5
25 menit; 20 mesh	3	,7500				
25 menit; 30 mesh	3	,7833	,7833			
25 menit; 40 mesh	3	,8000	,8000			
23 menit 30 detik; 20 mesh	3	,9467	,9467	,9467		
23 menit 30 detik; 30 mesh	3		1,1733	1,1733	1,1733	
23 menit 30 detik; 40 mesh	3		1,1867	1,1867	1,1867	
17 menit 30 detik; 20 mesh	3		1,2000	1,2000	1,2000	
17 menit 30 detik; 30 mesh	3			1,3100	1,3100	
12 menit; 20 mesh	3			1,3600	1,3600	
17 menit 30 detik; 40 mesh	3				1,3833	
12 menit; 30 mesh	3				1,5433	1,5433
12 menit; 40 mesh	3					1,7900
Sig.		,331	,051	,053	,086	,186

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

## ❖ Kadar Abu

## ANOVA

abu

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	26,259	11	2,387	6,015	,000
Within Groups	9,526	24	,397		
Total	35,784	35			

abu

Duncan<sup>a</sup>

komb	N	Subset for alpha = .05				
		1	2	3	4	5
12 menit; 20 mesh	3	12,1500				
12 menit; 30 mesh	3	12,3467	12,3467			
12 menit; 40 mesh	3	12,8133	12,8133	12,8133		
17 menit 30 detik; 20 mesh	3	13,0667	13,0667	13,0667	13,0667	
17 menit 30 detik; 30 mesh	3	13,1200	13,1200	13,1200	13,1200	
17 menit 30 detik; 40 mesh	3		13,3533	13,3533	13,3533	
23 menit 30 detik; 20 mesh	3			13,6200	13,6200	
23 menit 30 detik; 30 mesh	3			13,9933	13,9933	
25 menit; 20 mesh	3			14,0133	14,0133	
23 menit 30 detik; 40 mesh	3				14,0533	
25 menit; 30 mesh	3				14,1900	
25 menit; 40 mesh	3					15,3633
Sig.		,103	,091	,051	,069	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

## ❖ Kealkalian Abu

## ANOVA

alk\_abu

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1317,208	11	119,746	3,038	,011
Within Groups	945,993	24	39,416		
Total	2263,201	35			

alk\_abu

Duncan<sup>a</sup>

komb	N	Subset for alpha = .05		
		1	2	3
12 menit; 20 mesh	3	89,7433		
12 menit; 30 mesh	3	93,7167	93,7167	
17 menit 30 detik; 20 mesh	3	93,9267	93,9267	
17 menit 30 detik; 30 mesh	3	94,4467	94,4467	
23 menit 30 detik; 20 mesh	3	95,9833	95,9833	
12 menit; 40 mesh	3	96,5133	96,5133	
17 menit 30 detik; 40 mesh	3	97,8000	97,8000	
25 menit; 30 mesh	3	99,6467	99,6467	99,6467
23 menit 30 detik; 30 mesh	3	100,6600	100,6600	100,6600
25 menit; 20 mesh	3		102,8967	102,8967
23 menit 30 detik; 40 mesh	3			109,5933
25 menit; 40 mesh	3			110,5000
Sig.		,078	,135	,068

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

## Lampiran 9. Analisa Data Uji Kafein

### ANOVA

kafein

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,446	5	,089	145,359	,000
Within Groups	,007	12	,001		
Total	,453	17			

kafein

Duncan<sup>a</sup>

komb	N	Subset for alpha = .05				
		1	2	3	4	5
25 menit; 20 mesh	3	7,4666				
25 menit; 40 mesh	3		7,5640			
23 menit 30 detik; 20 mesh	3			7,7410		
level 9; 20 mesh	3				7,8199	
23 menit 30 detik; 40 mesh	3				7,8239	
level 9; 40 mesh	3					7,9174
Sig.		1,000	1,000	1,000	,844	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

### Lampiran 10. Analisa Data Uji Sensori Kopi Seduh Tanpa Ampas

#### Ranks

sampel		N	Mean Rank
warna	nescafe	30	56,75
	17 menit 30 detik; 40 mesh	30	22,90
	25 menit; 20 mesh	30	56,85
	Total	90	
aroma	nescafe	30	72,17
	17 menit 30 detik; 40 mesh	30	22,33
	25 menit; 20 mesh	30	42,00
	Total	90	
rasa	nescafe	30	56,32
	17 menit 30 detik; 40 mesh	30	32,47
	25 menit; 20 mesh	30	47,72
	Total	90	
overall	nescafe	30	69,10
	17 menit 30 detik; 40 mesh	30	24,63
	25 menit; 20 mesh	30	42,77
	Total	90	

#### Test Statistics<sup>a,b</sup>

	warna	aroma	rasa	overall
Chi-Square	36,444	59,246	13,879	46,665
df	2	2	2	2
Asy mp. Sig.	,000	,000	,001	,000

a. Kruskal Wallis Test

b. Grouping Variable: sampel

❖ **Sampel Kontrol – Waktu Sangrai 17 menit 30 detik; Ayakan 40 mesh****Ranks**

sampel		N	Mean Rank	Sum of Ranks
warna	nescafe	30	41,35	1240,50
	17 menit 30 detik; 40 mesh	30	19,65	589,50
	Total	60		
aroma	nescafe	30	44,50	1335,00
	17 menit 30 detik; 40 mesh	30	16,50	495,00
	Total	60		
rasa	nescafe	30	38,37	1151,00
	17 menit 30 detik; 40 mesh	30	22,63	679,00
	Total	60		
overall	nescafe	30	43,58	1307,50
	17 menit 30 detik; 40 mesh	30	17,42	522,50
	Total	60		

**Test Statistics<sup>a</sup>**

	warna	aroma	rasa	overall
Mann-Whitney U	124,500	30,000	214,000	57,500
Wilcoxon W	589,500	495,000	679,000	522,500
Z	-4,960	-6,453	-3,618	-6,008
Asy mp. Sig. (2-tailed)	,000	,000	,000	,000

a. Grouping Variable: sampel

❖ **Sampel Kontrol – Waktu Sangrai 25 menit; Ayakan 20 mesh****Ranks**

sampel		N	Mean Rank	Sum of Ranks
warna	nescafe	30	30,90	927,00
	25 menit; 20 mesh	30	30,10	903,00
	Total	60		
aroma	nescafe	30	43,17	1295,00
	25 menit; 20 mesh	30	17,83	535,00
	Total	60		
rasa	nescafe	30	33,45	1003,50
	25 menit; 20 mesh	30	27,55	826,50
	Total	60		
overall	nescafe	30	41,02	1230,50
	25 menit; 20 mesh	30	19,98	599,50
	Total	60		

**Test Statistics<sup>a</sup>**

	warna	aroma	rasa	overall
Mann-Whitney U	438,000	70,000	361,500	134,500
Wilcoxon W	903,000	535,000	826,500	599,500
Z	-,193	-6,002	-1,385	-4,913
Asymp. Sig. (2-tailed)	,847	,000	,166	,000

a. Grouping Variable: sampel



- ❖ Waktu Sangrai 17 menit 30 detik; Ayakan 40 mesh – Waktu Sangrai 25 menit; Ayakan 20 mesh

Ranks

sampel		N	Mean Rank	Sum of Ranks
warna	17 menit 30 detik; 40 mesh	30	18,75	562,50
	25 menit; 20 mesh	30	42,25	1267,50
	Total	60		
aroma	17 menit 30 detik; 40 mesh	30	21,33	640,00
	25 menit; 20 mesh	30	39,67	1190,00
	Total	60		
rasa	17 menit 30 detik; 40 mesh	30	25,33	760,00
	25 menit; 20 mesh	30	35,67	1070,00
	Total	60		
overall	17 menit 30 detik; 40 mesh	30	22,72	681,50
	25 menit; 20 mesh	30	38,28	1148,50
	Total	60		

Test Statistics<sup>a</sup>

	warna	aroma	rasa	overall
Mann-Whitney U	97,500	175,000	295,000	216,500
Wilcoxon W	562,500	640,000	760,000	681,500
Z	-5,400	-4,308	-2,365	-3,616
Asymp. Sig. (2-tailed)	,000	,000	,018	,000

a. Grouping Variable: sampel

### Lampiran 11. Analisa Data Uji Sensori Serbuk Kopi Tanpa Ampas

#### Ranks

sampel		N	Mean Rank
warna	nescafe	30	22,43
	17 menit 30 detik; 40 mesh	30	52,02
	25 menit; 20 mesh	30	62,05
	Total	90	
aroma	nescafe	30	68,55
	17 menit 30 detik; 40 mesh	30	31,02
	25 menit; 20 mesh	30	36,93
	Total	90	
overall	nescafe	30	68,95
	17 menit 30 detik; 40 mesh	30	31,07
	25 menit; 20 mesh	30	36,48
	Total	90	

#### Test Statistics<sup>a,b</sup>

	warna	aroma	overall
Chi-Square	40,018	38,663	40,065
df	2	2	2
Asy mp. Sig.	,000	,000	,000

a. Kruskal Wallis Test

b. Grouping Variable: sampel

❖ **Sampel Kontrol – Waktu Sangrai 17 menit 30 detik; Ayakan 40 mesh****Ranks**

sampel		N	Mean Rank	Sum of Ranks
warna	nescafe	30	19,12	573,50
	17 menit 30 detik; 40 mesh	30	41,88	1256,50
	Total	60		
aroma	nescafe	30	42,85	1285,50
	17 menit 30 detik; 40 mesh	30	18,15	544,50
	Total	60		
overall	nescafe	30	42,68	1280,50
	17 menit 30 detik; 40 mesh	30	18,32	549,50
	Total	60		

**Test Statistics<sup>a</sup>**

	warna	aroma	overall
Mann-Whitney U	108,500	79,500	84,500
Wilcoxon W	573,500	544,500	549,500
Z	-5,286	-5,668	-5,623
Asymp. Sig. (2-tailed)	,000	,000	,000

a. Grouping Variable: sampel

❖ **Sampel Kontrol – Waktu Sangrai 25 menit; Ayakan 20 mesh****Ranks**

sampel		N	Mean Rank	Sum of Ranks
warna	nescafe	30	18,82	564,50
	25 menit; 20 mesh	30	42,18	1265,50
	Total	60		
aroma	nescafe	30	41,20	1236,00
	25 menit; 20 mesh	30	19,80	594,00
	Total	60		
overall	nescafe	30	41,77	1253,00
	25 menit; 20 mesh	30	19,23	577,00
	Total	60		

**Test Statistics<sup>a</sup>**

	warna	aroma	overall
Mann-Whitney U	99,500	129,000	112,000
Wilcoxon W	564,500	594,000	577,000
Z	-5,400	-4,916	-5,245
Asymp. Sig. (2-tailed)	,000	,000	,000

a. Grouping Variable: sampel

❖ Waktu Sangrai 17 menit 30 detik; Ayakan 40 mesh – Waktu Sangrai 25 menit; Ayakan 20 mesh

**Ranks**

sampel	N	Mean Rank	Sum of Ranks
warna 17 menit 30 detik; 40 mesh	30	25,63	769,00
25 menit; 20 mesh	30	35,37	1061,00
Total	60		
aroma 17 menit 30 detik; 40 mesh	30	28,37	851,00
25 menit; 20 mesh	30	32,63	979,00
Total	60		
overall 17 menit 30 detik; 40 mesh	30	28,25	847,50
25 menit; 20 mesh	30	32,75	982,50
Total	60		

**Test Statistics<sup>a</sup>**

	warna	aroma	overall
Mann-Whitney U	304,000	386,000	382,500
Wilcoxon W	769,000	851,000	847,500
Z	-2,270	-1,020	-1,080
Asymp. Sig. (2-tailed)	,023	,308	,280

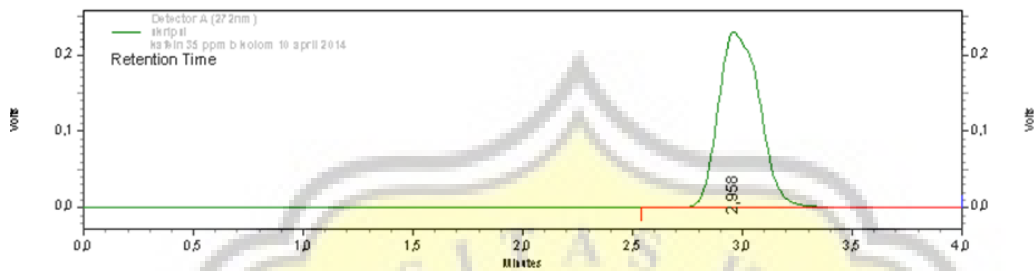
a. Grouping Variable: sampel

## Lampiran 12. Kurva Standar Kafein

Shimadzu CLASS-VP V6.14 SP1 Area % Report

Page 1 of 1

Method Name: C:\CLASS-VP\Methods\cafein.met  
 Data Name: C:\CLASS-VP\cafein\kafein 35 ppm b kolom 10 april 2014  
 User: System  
 Acquired: 01/01/2005 6:53:02  
 Printed: 01/01/2005 0:19:08



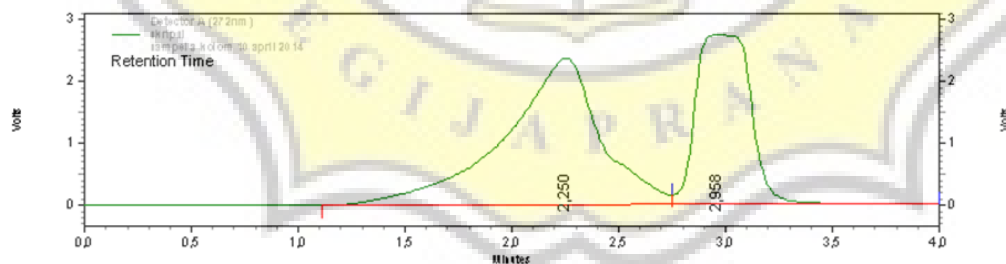
Detector A (272nm)	Pk#	Retention Time	Area	Area %	Height	Height %
	1	2,958	3018119	100,000	229859	100,000
Totals			3018119	100,000	229859	100,000

## Lampiran 13. Kurva Sampel Kafein

Shimadzu CLASS-VP V6.14 SP1 Area % Report

Page 1 of 1

Method Name: C:\CLASS-VP\Methods\cafein.met  
 Data Name: C:\CLASS-VP\cafein\sampel a kolom 10 april 2014  
 User: System  
 Acquired: 01/01/2005 6:58:36  
 Printed: 01/01/2005 0:16:59



Detector A (272nm)	Pk#	Retention Time	Area	Area %	Height	Height %
	1	2,250	74227431	60,147	2367575	46,269
	2	2,958	49181996	39,853	2749375	53,731
Totals			123409427	100,000	5116950	100,000