

## LAMPIRAN 1

Data Penelitian Organoleptik dan Hasil Uji Statistik

Data Hedonik Berdasarkan Kriteria Warna Biskuit

Panelis	Perlakuan				
	A1	A2	A3	A4	A5
1	90	90	100	80	61
2	82	69	38	83	19
3	68	1	100	43	100
4	71	56	64	72	21
5	93	53	58	83	80
6	74	32	76	53	12
7	51	61	85	68	91
8	45	23	72	50	78
9	88	27	57	41	2
10	75	83	24	47	31
11	80	51	18	30	48
12	48	2	95	2	100
13	80	1	100	16	1
14	78	31	29	39	12
15	50	49	47	37	20
16	5	3	7	29	3
17	71	66	61	75	48
18	89	87	90	9	88
19	60	7	39	51	19
20	39	79	75	78	13
21	40	23	11	17	10
22	33	22	41	31	44
23	60	48	47	25	25
24	68	48	48	6	81
25	45	32	27	21	5
26	65	33	34	11	13
27	49	65	62	72	20
28	58	54	45	45	38
29	56	52	55	35	35
30	84	36	36	74	50

### Descriptives

warna

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
A1	30	70.23	21.038	3.841	62.38	78.09	25	97
A2	30	42.80	26.137	4.772	33.04	52.56	1	90
A3	30	54.70	26.882	4.908	44.66	64.74	7	100
A4	30	44.10	25.158	4.593	34.71	53.49	2	83
A5	30	38.93	31.810	5.808	27.06	50.81	1	100
Total	150	50.15	28.440	2.322	45.56	54.74	1	100

### ANOVA

warna

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	19214.440	4	4803.610	6.876	.000
Within Groups	101301.033	145	698.628		
Total	120515.473	149			

### Multiple Comparisons

Dependent Variable: warna

Bonferroni

(I) jenis perlakuan	(J) jenis perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
A1	A2	27.433*	6.825	.001	7.98	46.89
	A3	15.533	6.825	.243	-3.92	34.99
	A4	26.133*	6.825	.002	6.68	45.59
	A5	31.300*	6.825	.000	11.85	50.75
A2	A1	-27.433*	6.825	.001	-46.89	-7.98
	A3	-11.900	6.825	.833	-31.35	7.55
	A4	-1.300	6.825	1.000	-20.75	18.15
	A5	3.867	6.825	1.000	-15.59	23.32
A3	A1	-15.533	6.825	.243	-34.99	3.92
	A2	11.900	6.825	.833	-7.55	31.35
	A4	10.600	6.825	1.000	-8.85	30.05
	A5	15.767	6.825	.223	-3.69	35.22
A4	A1	-26.133*	6.825	.002	-45.59	-6.68
	A2	1.300	6.825	1.000	-18.15	20.75
	A3	-10.600	6.825	1.000	-30.05	8.85
	A5	5.167	6.825	1.000	-14.29	24.62
A5	A1	-31.300*	6.825	.000	-50.75	-11.85
	A2	-3.867	6.825	1.000	-23.32	15.59
	A3	-15.767	6.825	.223	-35.22	3.69
	A4	-5.167	6.825	1.000	-24.62	14.29

\*. The mean difference is significant at the 0.05 level.

Data Hedonik Berdasarkan Kriteria Rasa Biskuit

Panelis	Perlakuan				
	A1	A2	A3	A4	A5
1	90	80	80	88	83
2	59	29	85	23	45
3	21	63	100	60	89
4	93	49	78	59	72
5	87	84	94	79	77
6	76	29	71	39	13
7	64	60	24	15	91
8	83	63	87	49	77
9	93	43	90	4	22
10	100	99	90	70	55
11	77	69	92	38	39
12	3	2	95	72	96
13	63	90	100	1	1
14	77	61	59	68	62
15	70	27	63	42	29
16	48	24	56	4	33
17	63	75	70	74	23
18	96	89	88	10	7
19	44	44	82	41	7
20	81	81	65	71	13
21	81	78	16	15	12
22	81	13	23	17	6
23	49	38	65	29	28
24	59	46	71	30	45
25	12	64	83	64	61
26	22	66	71	30	7
27	81	48	34	89	75
28	59	61	56	61	39
29	91	58	42	32	20
30	85	68	81	69	50

### Descriptives

rasa

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
A1	30	66.93	25.697	4.692	57.34	76.53	3	100
A2	30	56.70	23.847	4.354	47.80	65.60	2	99
A3	30	70.37	23.233	4.242	61.69	79.04	16	100
A4	30	44.77	26.617	4.860	34.83	54.71	1	89
A5	30	42.57	29.706	5.424	31.47	53.66	1	96
Total	150	56.27	27.952	2.282	51.76	60.78	1	100

### ANOVA

rasa

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18981.467	4	4745.367	7.062	.000
Within Groups	97431.867	145	671.944		
Total	116413.333	149			

### Multiple Comparisons

Dependent Variable: rasa

Bonferroni

(I) jenis perlakuan	(J) jenis perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
A1	A2	10.233	6.693	1.000	-8.85	29.31
	A3	-3.433	6.693	1.000	-22.51	15.65
	A4	22.167 <sup>*</sup>	6.693	.012	3.09	41.25
	A5	24.367 <sup>*</sup>	6.693	.004	5.29	43.45
A2	A1	-10.233	6.693	1.000	-29.31	8.85
	A3	-13.667	6.693	.430	-32.75	5.41
	A4	11.933	6.693	.767	-7.15	31.01
	A5	14.133	6.693	.364	-4.95	33.21
A3	A1	3.433	6.693	1.000	-15.65	22.51
	A2	13.667	6.693	.430	-5.41	32.75
	A4	25.600 <sup>*</sup>	6.693	.002	6.52	44.68
	A5	27.800 <sup>*</sup>	6.693	.001	8.72	46.88
A4	A1	-22.167 <sup>*</sup>	6.693	.012	-41.25	-3.09
	A2	-11.933	6.693	.767	-31.01	7.15
	A3	-25.600 <sup>*</sup>	6.693	.002	-44.68	-6.52
	A5	2.200	6.693	1.000	-16.88	21.28
A5	A1	-24.367 <sup>*</sup>	6.693	.004	-43.45	-5.29
	A2	-14.133	6.693	.364	-33.21	4.95
	A3	-27.800 <sup>*</sup>	6.693	.001	-46.88	-8.72
	A4	-2.200	6.693	1.000	-21.28	16.88

\*. The mean difference is significant at the 0.05 level.

Data Hedonik Berdasarkan Kriteria Aroma Biskuit

Panelis	Perlakuan				
	A1	A2	A3	A4	A5
1	90	90	90	63	63
2	85	30	85	30	59
3	45	10	45	33	100
4	69	49	69	63	47
5	93	78	93	79	79
6	88	75	88	72	50
7	78	30	78	53	83
8	84	38	84	53	64
9	68	4	68	46	3
10	28	81	28	43	49
11	99	61	99	17	50
12	51	51	51	49	96
13	100	11	100	31	27
14	63	51	63	61	69
15	80	33	80	47	22
16	91	2	91	3	22
17	95	72	95	75	67
18	6	88	6	53	48
19	100	51	100	54	6
20	83	75	83	51	19
21	81	74	81	13	73
22	99	55	99	27	28
23	85	46	85	41	24
24	85	31	85	50	46
25	65	47	65	38	51
26	68	59	68	29	6
27	86	59	86	50	79
28	57	48	57	50	57
29	61	44	61	50	21
30	82	56	82	48	49

### Descriptives

aroma

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
A1	30	63.17	20.192	3.687	55.63	70.71	5	93
A2	30	49.97	23.959	4.374	41.02	58.91	2	90
A3	30	75.50	21.812	3.982	67.36	83.64	6	100
A4	30	45.73	17.516	3.198	39.19	52.27	3	79
A5	30	48.57	26.374	4.815	38.72	58.41	3	100
Total	150	56.59	24.597	2.008	52.62	60.56	2	100

### ANOVA

aroma

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18808.507	4	4702.127	9.557	.000
Within Groups	71337.867	145	491.985		
Total	90146.373	149			

### Multiple Comparisons

Dependent Variable: aroma

Bonferroni

(I) jenis perlakuan	(J) jenis perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
A1	A2	13.200	5.727	.226	-3.13	29.53
	A3	-12.333	5.727	.329	-28.66	3.99
	A4	17.433 <sup>*</sup>	5.727	.028	1.11	33.76
	A5	14.600	5.727	.118	-1.73	30.93
A2	A1	-13.200	5.727	.226	-29.53	3.13
	A3	-25.533 <sup>*</sup>	5.727	.000	-41.86	-9.21
	A4	4.233	5.727	1.000	-12.09	20.56
	A5	1.400	5.727	1.000	-14.93	17.73
A3	A1	12.333	5.727	.329	-3.99	28.66
	A2	25.533 <sup>*</sup>	5.727	.000	9.21	41.86
	A4	29.767 <sup>*</sup>	5.727	.000	13.44	46.09
	A5	26.933 <sup>*</sup>	5.727	.000	10.61	43.26
A4	A1	-17.433 <sup>*</sup>	5.727	.028	-33.76	-1.11
	A2	-4.233	5.727	1.000	-20.56	12.09
	A3	-29.767 <sup>*</sup>	5.727	.000	-46.09	-13.44
	A5	-2.833	5.727	1.000	-19.16	13.49
A5	A1	-14.600	5.727	.118	-30.93	1.73
	A2	-1.400	5.727	1.000	-17.73	14.93
	A3	-26.933 <sup>*</sup>	5.727	.000	-43.26	-10.61
	A4	2.833	5.727	1.000	-13.49	19.16

\*. The mean difference is significant at the 0.05 level.

Data Hedonik Berdasarkan Kriteria Tekstur Biskuit

Panelis	Perlakuan				
	A1	A2	A3	A4	A5
1	90	90	90	75	46
2	56	64	78	71	78
3	54	6	77	100	64
4	93	42	68	69	33
5	91	79	81	81	77
6	82	19	74	71	13
7	69	19	72	83	90
8	79	40	89	61	68
9	52	41	87	29	2
10	100	95	100	27	13
11	98	39	47	91	21
12	27	2	20	52	20
13	85	84	100	82	1
14	73	57	73	66	24
15	50	44	48	47	34
16	22	18	37	44	2
17	68	46	86	56	16
18	7	49	47	53	7
19	59	31	93	52	5
20	78	33	71	90	18
21	84	21	12	15	10
22	53	38	61	18	3
23	70	38	54	33	16
24	27	29	10	78	46
25	69	48	84	48	40
26	29	28	59	25	7
27	68	54	61	44	10
28	39	46	56	39	39
29	41	41	36	27	16
30	79	51	63	46	47

### Descriptives

tekstur

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
A1	30	63.07	24.538	4.480	53.90	72.23	7	100
A2	30	43.07	22.630	4.132	34.62	51.52	2	95
A3	30	64.47	24.365	4.448	55.37	73.56	10	100
A4	30	55.77	23.359	4.265	47.04	64.49	15	100
A5	30	28.87	25.481	4.652	19.35	38.38	1	90
Total	150	51.05	27.326	2.231	46.64	55.46	1	100

### ANOVA

tekstur

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	27074.640	4	6768.660	11.659	.000
Within Groups	84182.033	145	580.566		
Total	111256.673	149			

### Multiple Comparisons

Dependent Variable: tekstur

Bonferroni

(I) jenis perlakuan	(J) jenis perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
A1	A2	20.000*	6.221	.016	2.27	37.73
	A3	-1.400	6.221	1.000	-19.13	16.33
	A4	7.300	6.221	1.000	-10.43	25.03
	A5	34.200*	6.221	.000	16.47	51.93
A2	A1	-20.000*	6.221	.016	-37.73	-2.27
	A3	-21.400*	6.221	.008	-39.13	-3.67
	A4	-12.700	6.221	.430	-30.43	5.03
	A5	14.200	6.221	.239	-3.53	31.93
A3	A1	1.400	6.221	1.000	-16.33	19.13
	A2	21.400*	6.221	.008	3.67	39.13
	A4	8.700	6.221	1.000	-9.03	26.43
	A5	35.600*	6.221	.000	17.87	53.33
A4	A1	-7.300	6.221	1.000	-25.03	10.43
	A2	12.700	6.221	.430	-5.03	30.43
	A3	-8.700	6.221	1.000	-26.43	9.03
	A5	26.900*	6.221	.000	9.17	44.63
A5	A1	-34.200*	6.221	.000	-51.93	-16.47
	A2	-14.200	6.221	.239	-31.93	3.53
	A3	-35.600*	6.221	.000	-53.33	-17.87
	A4	-26.900*	6.221	.000	-44.63	-9.17

\*. The mean difference is significant at the 0.05 level.



Data Mutu Hedonik Berdasarkan Kriteria Warna Biskuit

Panelis	Perlakuan				
	A1	A2	A3	A4	A5
1	10	35	59	73	88
2	25	60	30	83	73
3	1	100	57	77	77
4	13	59	41	28	22
5	20	53	63	78	72
6	33	59	58	55	78
7	3	56	68	47	66
8	22	25	73	59	77
9	13	70	68	43	36
10	5	83	22	41	30
11	42	45	21	57	69
12	3	100	47	23	83
13	1	96	72	96	22
14	1	65	81	76	82
15	5	81	47	67	84
16	6	92	84	73	95
17	2	44	33	5	68
18	7	49	11	88	50
19	3	63	62	68	81
20	27	62	61	82	89
21	18	75	84	88	82
22	37	18	63	72	43
23	22	64	59	71	29
24	3	47	64	74	22
25	38	76	61	73	62
26	10	8	22	70	84
27	45	61	61	70	49
28	37	54	64	62	58
29	30	53	44	51	56
30	4	35	63	62	76

### Descriptives

warna

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
A1	30	16.20	14.221	2.596	10.89	21.51	1	45
A2	30	59.60	22.733	4.151	51.11	68.09	8	100
A3	30	54.77	19.197	3.505	47.60	61.93	11	84
A4	30	63.73	20.316	3.709	56.15	71.32	5	96
A5	30	63.43	22.393	4.088	55.07	71.79	22	95
Total	150	51.55	26.733	2.183	47.23	55.86	1	100

### ANOVA

warna

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	48432.573	4	12108.143	30.244	.000
Within Groups	58050.600	145	400.349		
Total	106483.173	149			

### Multiple Comparisons

Dependent Variable: warna

Bonferroni

(I) jenis perlakuan	(J) jenis perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
A1	A2	-43.400 <sup>*</sup>	5.166	.000	-58.13	-28.67
	A3	-38.567 <sup>*</sup>	5.166	.000	-53.29	-23.84
	A4	-47.533 <sup>*</sup>	5.166	.000	-62.26	-32.81
	A5	-47.233 <sup>*</sup>	5.166	.000	-61.96	-32.51
A2	A1	43.400 <sup>*</sup>	5.166	.000	28.67	58.13
	A3	4.833	5.166	1.000	-9.89	19.56
	A4	-4.133	5.166	1.000	-18.86	10.59
	A5	-3.833	5.166	1.000	-18.56	10.89
A3	A1	38.567 <sup>*</sup>	5.166	.000	23.84	53.29
	A2	-4.833	5.166	1.000	-19.56	9.89
	A4	-8.967	5.166	.848	-23.69	5.76
	A5	-8.667	5.166	.956	-23.39	6.06
A4	A1	47.533 <sup>*</sup>	5.166	.000	32.81	62.26
	A2	4.133	5.166	1.000	-10.59	18.86
	A3	8.967	5.166	.848	-5.76	23.69
	A5	.300	5.166	1.000	-14.43	15.03
A5	A1	47.233 <sup>*</sup>	5.166	.000	32.51	61.96
	A2	3.833	5.166	1.000	-10.89	18.56
	A3	8.667	5.166	.956	-6.06	23.39
	A4	-.300	5.166	1.000	-15.03	14.43

\*. The mean difference is significant at the 0.05 level.

Data Mutu Hedonik Berdasarkan Kriteria Rasa Biskuit

Panelis	Perlakuan				
	A1	A2	A3	A4	A5
1	66	67	70	64	49
2	40	34	86	23	39
3	1	60	83	61	65
4	59	58	70	37	39
5	25	78	93	74	38
6	8	64	51	30	16
7	27	63	68	71	71
8	18	62	88	56	78
9	65	89	23	49	89
10	81	95	89	77	61
11	61	62	55	57	79
12	100	48	95	48	48
13	69	96	96	15	73
14	19	29	65	73	71
15	31	2	18	29	51
16	3	2	50	48	28
17	45	49	79	63	23
18	50	88	86	7	7
19	11	29	42	21	4
20	52	79	50	68	22
21	27	60	23	15	22
22	45	9	20	22	34
23	36	47	57	30	35
24	27	40	69	49	17
25	52	59	77	69	79
26	59	60	73	6	11
27	54	83	84	76	71
28	63	63	77	47	38
29	31	61	53	49	29
30	76	35	37	40	50

### Descriptives

rasa

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
A1	30	43.37	24.421	4.459	34.25	52.49	1	100
A2	30	55.70	25.112	4.585	46.32	65.08	2	96
A3	30	64.23	23.453	4.282	55.48	72.99	18	96
A4	30	45.80	21.812	3.982	37.66	53.94	6	77
A5	30	44.57	24.403	4.455	35.45	53.68	4	89
Total	150	50.73	24.890	2.032	46.72	54.75	1	100

### ANOVA

rasa

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9706.533	4	2426.633	4.260	.003
Within Groups	82600.800	145	569.661		
Total	92307.333	149			

### Multiple Comparisons

Dependent Variable: rasa

Bonferroni

(I) jenis perlakuan	(J) jenis perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
A1	A2	-12.333	6.163	.472	-29.90	5.23
	A3	-20.867*	6.163	.009	-38.43	-3.30
	A4	-2.433	6.163	1.000	-20.00	15.13
	A5	-1.200	6.163	1.000	-18.77	16.37
A2	A1	12.333	6.163	.472	-5.23	29.90
	A3	-8.533	6.163	1.000	-26.10	9.03
	A4	9.900	6.163	1.000	-7.67	27.47
	A5	11.133	6.163	.729	-6.43	28.70
A3	A1	20.867*	6.163	.009	3.30	38.43
	A2	8.533	6.163	1.000	-9.03	26.10
	A4	18.433*	6.163	.033	.87	36.00
	A5	19.667*	6.163	.017	2.10	37.23
A4	A1	2.433	6.163	1.000	-15.13	20.00
	A2	-9.900	6.163	1.000	-27.47	7.67
	A3	-18.433*	6.163	.033	-36.00	-.87
	A5	1.233	6.163	1.000	-16.33	18.80
A5	A1	1.200	6.163	1.000	-16.37	18.77
	A2	-11.133	6.163	.729	-28.70	6.43
	A3	-19.667*	6.163	.017	-37.23	-2.10
	A4	-1.233	6.163	1.000	-18.80	16.33

\*. The mean difference is significant at the 0.05 level.

Data Mutu Hedonik Berdasarkan Kriteria Aroma Biskuit

Panelis	Perlakuan				
	A1	A2	A3	A4	A5
1	10	10	20	20	36
2	22	33	81	29	67
3	1	13	100	52	91
4	9	53	12	6	3
5	55	72	92	76	71
6	16	27	22	70	48
7	13	19	12	13	9
8	10	44	48	61	72
9	9	5	4	4	4
10	4	80	71	45	60
11	61	55	7	42	77
12	10	48	95	85	95
13	1	70	90	1	82
14	3	52	53	54	20
15	4	3	49	35	5
16	3	2	2	2	2
17	7	3	10	5	8
18	7	48	8	7	86
19	7	22	87	19	12
20	60	72	36	68	17
21	13	15	27	68	23
22	10	20	33	65	72
23	47	62	33	45	58
24	14	41	22	49	6
25	2	63	37	69	51
26	31	41	52	18	10
27	11	52	51	17	64
28	61	33	41	43	47
29	7	71	64	59	29
30	89	89	72	54	60

### Descriptives

aroma

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
A1	30	19.90	23.109	4.219	11.27	28.53	1	89
A2	30	40.60	25.484	4.653	31.08	50.12	2	89
A3	30	44.37	30.484	5.566	32.98	55.75	2	100
A4	30	39.37	25.721	4.696	29.76	48.97	1	85
A5	30	42.83	30.973	5.655	31.27	54.40	2	95
Total	150	37.41	28.406	2.319	32.83	42.00	1	100

### ANOVA

aroma

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11952.373	4	2988.093	4.002	.004
Within Groups	108274.000	145	746.717		
Total	120226.373	149			

### Multiple Comparisons

Dependent Variable: aroma

Bonferroni

(I) jenis perlakuan	(J) jenis perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
A1	A2	-20.700 <sup>*</sup>	7.056	.039	-40.81	-.59
	A3	-24.467 <sup>*</sup>	7.056	.007	-44.58	-4.35
	A4	-19.467	7.056	.065	-39.58	.65
	A5	-22.933 <sup>*</sup>	7.056	.014	-43.05	-2.82
A2	A1	20.700 <sup>*</sup>	7.056	.039	.59	40.81
	A3	-3.767	7.056	1.000	-23.88	16.35
	A4	1.233	7.056	1.000	-18.88	21.35
	A5	-2.233	7.056	1.000	-22.35	17.88
A3	A1	24.467 <sup>*</sup>	7.056	.007	4.35	44.58
	A2	3.767	7.056	1.000	-16.35	23.88
	A4	5.000	7.056	1.000	-15.11	25.11
	A5	1.533	7.056	1.000	-18.58	21.65
A4	A1	19.467	7.056	.065	-.65	39.58
	A2	-1.233	7.056	1.000	-21.35	18.88
	A3	-5.000	7.056	1.000	-25.11	15.11
	A5	-3.467	7.056	1.000	-23.58	16.65
A5	A1	22.933 <sup>*</sup>	7.056	.014	2.82	43.05
	A2	2.233	7.056	1.000	-17.88	22.35
	A3	-1.533	7.056	1.000	-21.65	18.58
	A4	3.467	7.056	1.000	-16.65	23.58

\*. The mean difference is significant at the 0.05 level.

Data Mutu Hedonik Berdasarkan Kriteria Tekstur Biskuit

Panelis	Perlakuan				
	A1	A2	A3	A4	A5
1	90	90	85	22	16
2	34	58	77	68	22
3	67	1	100	90	16
4	41	41	68	64	11
5	76	79	80	79	73
6	64	76	71	69	13
7	45	18	55	75	66
8	33	39	87	66	74
9	67	20	91	15	3
10	90	94	94	25	19
11	7	19	70	15	6
12	100	1	72	83	46
13	100	24	90	84	1
14	82	77	92	82	83
15	50	47	48	50	33
16	5	12	33	3	2
17	36	35	81	49	12
18	91	47	87	87	5
19	45	51	96	36	12
20	51	26	53	81	9
21	80	76	11	82	13
22	23	32	53	21	4
23	64	55	51	61	13
24	83	27	81	20	18
25	46	27	79	74	4
26	61	31	76	16	7
27	68	19	72	19	4
28	48	24	55	32	22
29	58	21	32	21	12
30	27	25	73	41	27

### Descriptives

tekstur

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
A1	30	57.73	25.784	4.708	48.11	67.36	5	100
A2	30	39.73	25.637	4.681	30.16	49.31	1	94
A3	30	70.43	21.149	3.861	62.54	78.33	11	100
A4	30	51.00	28.077	5.126	40.52	61.48	3	90
A5	30	21.53	23.157	4.228	12.89	30.18	1	83
Total	150	48.09	29.651	2.421	43.30	52.87	1	100

### ANOVA

tekstur

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	41273.307	4	10318.327	16.675	.000
Within Groups	89724.567	145	618.790		
Total	130997.873	149			

### Multiple Comparisons

Dependent Variable: tekstur

Bonferroni

(I) jenis perlakuan	(J) jenis perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
A1	A2	18.000	6.423	.058	-.31	36.31
	A3	-12.700	6.423	.499	-31.01	5.61
	A4	6.733	6.423	1.000	-11.58	25.04
	A5	36.200*	6.423	.000	17.89	54.51
A2	A1	-18.000	6.423	.058	-36.31	.31
	A3	-30.700*	6.423	.000	-49.01	-12.39
	A4	-11.267	6.423	.815	-29.58	7.04
	A5	18.200	6.423	.053	-.11	36.51
A3	A1	12.700	6.423	.499	-5.61	31.01
	A2	30.700*	6.423	.000	12.39	49.01
	A4	19.433*	6.423	.029	1.12	37.74
	A5	48.900*	6.423	.000	30.59	67.21
A4	A1	-6.733	6.423	1.000	-25.04	11.58
	A2	11.267	6.423	.815	-7.04	29.58
	A3	-19.433*	6.423	.029	-37.74	-1.12
	A5	29.467*	6.423	.000	11.16	47.78
A5	A1	-36.200*	6.423	.000	-54.51	-17.89
	A2	-18.200	6.423	.053	-36.51	.11
	A3	-48.900*	6.423	.000	-67.21	-30.59
	A4	-29.467*	6.423	.000	-47.78	-11.16

\*. The mean difference is significant at the 0.05 level.



## LAMPIRAN 2

### Formulir Penelitian Organoleptik



### LEMBAR PERSETUJUAN PANELIS

Saya adalah mahasiswa Program Studi Ilmu Gizi Fakultas Ilmu-Ilmu Kesehatan Universitas Esa Unggul yang saat ini sedang melakukan pengambilan data untuk uji hedonik dan mutu hedonik pada produk biskuit bebas gluten. Kegiatan ini dilakukan untuk melengkapi data skripsi yang mana menjadi salah satu syarat dalam memperoleh gelar sarjana gizi. Oleh karena itu, saya memohon kesediaan waktu saudara/i untuk menjadi panelis dalam produk makanan yang peneliti uji cobakan.

*Informed Consent :*

Setelah saya mendapat penjelasan mengenai tujuan dan manfaat pengambilan data tersebut, dengan ini saya :

Nama :

Alamat :

No.Hp :

Secara sukarela dan tanpa ada paksaan setuju untuk menjadi panelis dalam penelitian ini.

Jakarta, ....April 2016

Panelis

Peneliti

(.....)

(.....)

Contoh Formulir Uji Hedonik (Kesukaan)

FORMULIR UJI ORGANOLEPTIK

UJI HEDONIK/KESUKAAN

Nama Panelis :

Hari/Tanggal :

Kode Produk :

Dihadapan saudara disajikan sebuah produk biskuit bebas gluten. Anda diminta memberikan penilaian rasa terhadap produk makanan tersebut. Penilaiannya dengan memberikan sebuah tanda titik tebal (.) diantara garis VAS (*Visual Analog Scale*) yang tersedia sesuai dengan penilaian saudara.

**Rasa :**

Sangat tidak suka

Sangat suka

Contoh Formulir Uji Mutu Hedonik (Kesukaan)

FORMULIR UJI ORGANOLEPTIK

UJI MUTU HEDONIK

Nama Panelis :

Hari/Tanggal :

Kode Produk :

Dihadapan saudara disajikan sebuah produk biskuit bebas gluten. Anda diminta memberikan penilaian rasa terhadap produk makanan tersebut. Penilaiannya dengan memberikan sebuah tanda titik tebal (.) diantara garis VAS (*Visual Analog Scale*) yang tersedia sesuai dengan penilaian saudara.

**warna :**

putih kecoklatan

coklat kehitaman

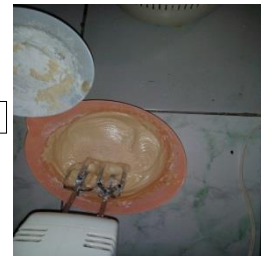
keterangan : karakteristik mulai dari warna, rasa, aroma dan tekstur di buat terpisah seperti contoh formulir yang tertera diatas.

### LAMPIRAN 3

Dokumentasi kegiatan pembuatan biskuit dan kegiatan organoleptik



Bahan terdiri dari :  
tepung ubi jalar  
oranye, tepung  
beras, tepung  
kedelai, telur, gula  
halus dan margarin





## LAMPIRAN 4

### Hasil Analisa Zat Gizi



BADAN PENELITIAN DAN PENGEMBANGAN INDUSTRI  
BALAI BESAR INDUSTRI AGRO  
Center for Agro-Based Industry  
AGRO BASED INDUSTRI CALIBRATION AND ANALYTICAL LABORATORIES  
(ABICAL)

Jalan Ir. H. Juanda No. 11, Bogor 16122 Telp. (0251) 8324068, 8323339 Fax. (0251) 83233



**Kepada :**

To FITRI ROFIQOH NURUL FAUZIAH  
Universitas Esa Unggul  
Jl. Kebon Raya No. 68 RT 01 RW 02  
Kelurahan Duri Kepa  
Jakarta Barat

### LAPORAN HASIL UJI TEST REPORT

Balasan surat/  
Permintaan tanggal : -  
Reply to your letter/  
request dated

Nomor / Number : 5461/LHU/Bd/ABICAL.1/V/2016

Nomor Analisis : 5398  
Analysis Number

Nomor Seri : 5461  
Serial Number

Halaman/ Page : 1 dari / of 2

Tanggal penerbitan : 31 Mei 2016  
date of issue

Yang bertanda tangan dibawah ini menerangkan, bahwa hasil pengujian  
The undersigned artis that the testing of

Contoh : Biskuit ( Sampel A3 )  
Sample (s)

Untuk analisis : Kimia  
for analysis

Keterangan contoh : Dikemas dalam plastik tidak berlabel  
Description of sample

Diambil dari : -  
Taken from


Oleh : -  
by

Tanggal penerimaan contoh : 21 April 2016  
Date of sample

Tanggal pelaksanaan analisis : 22 April 2016  
Date of analysis

Pengambilan contoh : -  
Sampling

adalah sebagai berikut :  
The result to as follows

HASIL PENGUJIAN INI TIDAK UNTUK DIGANDAKAN  
DAN HANYA BERLAKU UNTUK CONTOH-CONTOH  
TERSEBUT DIATAS.   
PENGAMBILAN CONTOH BERTANGGUNG JAWAB  
ATAS KEBENARAN TANDING BARANG.



## H A S I L TEST RESULT

Nomor Seri : 5461  
Serial Number

Nomor / Number : 5461/LHU/Bd/ABICAL.1/V/2016

Nomor Analisis : 5398  
Analysis Number

Halaman / Page : 2 Dari / of 2

Parameter	Satuan	HASIL		Metoda Uji/Teknik
		Simplo	Duplo	
Air	%	2,66	2,66	SNI.01-2891-1992, butir 5.1
Abu	%	1,61	1,61	SNI.01-2891-1992, butir 6.1
Protein (N x 6,25)	%	6,21	6,36	SNI.01-2891-1992, butir 7.1
Lemak	%	23,3	23,3	SNI.01-2891-1992, butir 8.2
Karbohidrat	%	66,2	66,1	Pengurangan
$\beta$ -karoten	mg/kg	5,62	5,61	H P L C

ASLI  
ORIGINAL

Laboratorium Analisis dan Kalibrasi  
Balai Besar Industri Agro

Analytical and Calibration Laboratories  
Center for Agro-Based Industry

Manajer Teknis Pengujian



(Mohammad S, M.Si)

bs/hf

HASIL PENGUJIAN INI TIDAK UNTUK DIGANDAKAN  
DAN HANYA BERLAKU UNTUK CONTOH-CONTOH  
TERSEBUT DIATAS.  
PENGAMBILAN CONTOH BERTANGGUNG JAWAB  
ATAS KEBENARAN TANDING BARANG.

## LAMPIRAN 5

### Daftar Hadir Panelis Penelitian Organoleptik

form Fitri

lll

#### DAFTAR HADIR PANELIS UJI ORGANOLEPTIK

Hari/tanggal : Jum'at, 15 April 2016

Tempat : Laboratorium Kuliner Universitas Esa Unggul

No.	Nama	Email/No.Hp	Angkatan	TTD
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15	Yara Nuraini	yara-1208@yahoo.com	2013	[Signature]
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17	Savira Siti AS	syamarnaldi@gmail.com	2015	[Signature]
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22	Widya Nur Izzah	widyaurizzah@gmail.com	2015	[Signature]
23	Rui Rejita Cahyani	rejita.rejita@gmail.com	2015	[Signature]
24	Farras ashila N.I	farrasashila@gmail.com	2015	[Signature]
25	putri sekar Kinasih	sekarputri@gmail.com	2015	[Signature]
26	Sahmidatul K Anawati	sahmidatul@gmail.com	2015	[Signature]
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30	Dian dini Andriani	dianidiniwatsong@gmail.com	2014	[Signature]
31	Arlia Nisa Ulazizah	arliahulazizah23@gmail.com	2014	[Signature]
32	Ristyah R.	ristyahraha@gmail.com	2013	[Signature]
33				
34				
35				
36				
37				
38				
39				
40				

Atle

Mura

an

Peneliti

## LAMPIRAN 6

### Matriks Penelitian

Tahapan Penelitian	Rincian Kegiatan Penelitian	Waktu Penelitian
Perancangan Proposal	<ul style="list-style-type: none"><li>- Menyusun proposal</li><li>- Mencari referensi terkait penelitian</li></ul>	Oktober 2015
Membuat Biskuit Biskuit Bebas Gluten	<ul style="list-style-type: none"><li>- Mengujicobakan formula dan prosedur pembuatan biskuit bebas gluten.</li></ul>	12 April 2016
Uji Organoleptik	<ul style="list-style-type: none"><li>- Mengujicobakan produk biskuit bebas gluten kepada panelis semi terlatih, terdiri dari uji hedonik dan uji mutu hedonik.</li></ul>	15 April 2016
Analisis Zat Gizi	<ul style="list-style-type: none"><li>- Analisis Kadar Air</li><li>- Analisis Kadar Abu</li><li>- Analisis Kadar Lemak</li><li>- Analisis Kadar Protein</li><li>- Analisis Kadar Karbohidrat</li><li>- Analisis Kandungan Vitamin A</li></ul>	22 April 2016
Pengolahan dan Analisis Data	<ul style="list-style-type: none"><li>- Mengolah Data Uji Organoleptik.</li><li>- Mengolah Data Hasil Analisis Zat Gizi.</li></ul>	Juni