Question 2

Variable	Coefficient	Standard Error	T Statistic	p-Value
Intercept	11.4539	7.137899	1.6	0.112
Revenue	0.669152	0.321724	2.08	0.0403
Efficiency	0.845747	0.077671	10.89	<0.0001

X1 = Revenue
X2 = Efficiency

a. State the multiple regression equation.

$\hat{Y}_i = 11.45 + (0.67) X_{1i} + (0.85) X_{2i}$
(Round to two decimal places as needed.)

Question 3

Dependent

Quality	Alcohol_Cc	Chlorides
1	7.3	0.066
2	7.5	0.062
2	8.2	0.067
1	7.1	0.068
1	8.6	0.073
4	8.7	0.074
4	9.9	0.072
5	9.6	0.076
6	10.8	0.076
7	10.4	0.077
6	10.6	0.079
6	10.6	0.076
6	11.4	0.081
8	11.5	0.088
8	11.3	0.097
9	11.5	0.099
9	12.1	0.135
9	12.3	0.099
9	12.2	0.159
9	12.2	0.156

X1 = 0.09
Chlorides = 0.08

3.698805
3.6888

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.961158
R Square	0.923825
Adjusted R	0.914863
Standard E	0.864531
Observatio	20

PREDICTIO
ME =
LCL
UCL

ANOVA

	df	*SS*	*MS*
Regression	2	154.0939621	77.04698
Residual	17	12.70603793	0.747414
Total	19	166.8	

	Coefficients	*Standard Error*	*t Stat*
Intercept	-10.7857	1.223796304	-8.81331
Alcohol_Cc	1.53064	0.165575335	9.244373
Chlorides	8.85921	10.05817884	0.880797

RESIDUAL OUTPUT

Observation	*dicted Qua*	*Residuals*
1	0.972688	0.027311821
2	1.243379	0.756620633
3	2.359124	-0.359123512

4	0.684279	0.315721429
5	3.024535	-2.024534825
6	3.186458	0.813541951
7	5.005508	-1.005507793
8	4.581753	0.418247409
9	6.418521	-0.418520755
10	5.815124	1.18487609
11	6.13897	-0.138970357
12	6.112393	-0.112392728
13	7.381201	-1.381200886
14	7.596279	0.403720631
15	7.369884	0.63011577
16	7.693731	1.306269323
17	8.931046	0.068953686
18	8.918243	0.081757214
19	9.296731	-0.296731364
20	9.270154	-0.270153735
20	0.113511	0.042488822

Question 4

Standby_H	Total_Staff	Remote_Hours_(X2)
245	338	414
177	333	596
271	358	656
211	372	631
196	339	528
135	289	409
195	334	382
118	293	399
116	325	343
147	311	338
154	304	353
146	312	289
115	283	388
161	307	402
274	322	151
245	335	228
201	350	271
183	339	440
237	327	475
175	328	347
152	319	449
188	325	336
188	322	267

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.699956
R Square	0.489939
Adjusted R	0.445585
Standard E	35.38633
Observatio	26

ME
LCL
UCL

ANOVA

	df	*SS*	*MS*
Regression	2	27664.19008	13832.1
Residual	23	28800.4253	1252.192
Total	25	56464.61538	

	Coefficients	*Standard Error*	*t Stat*
Intercept	-330.679	116.476608	-2.83901
Total_Staff	1.76504	0.379046839	4.656522
Remote_H	-0.13914	0.058861064	-2.36382

RESIDUAL OUTPUT

197	317	235
261	315	164
232	331	270
	324.1538	375.4230769
187.3		

Observation	Standby_H	Residuals
1	208.3023	36.69768652
2	174.1542	2.845786717
3	209.932	61.06799727
4	238.121	-27.12098224
5	194.2058	1.794243609
6	122.511	12.48895931
7	205.6945	-10.69453185
8	130.9626	-12.96256859
9	195.2355	-79.23550825
10	171.2206	-24.22063322
11	156.7783	-2.778301429
12	179.8034	-33.80337715
13	114.8427	0.157325793
14	155.2557	5.744282748
15	216.6547	57.34534288
16	228.8866	16.11335854
17	249.3794	-48.37935741
18	206.4498	-23.4497962
19	180.3995	56.60047159
20	199.9741	-24.9740808
21	169.8968	-17.89676613
22	196.2095	-8.209465963
23	200.5148	-12.51478646
24	196.142	0.858035107
25	202.4906	58.50940104
26	215.9827	16.01726456

Question 5

Y	X1	X2
Appraised \	Property Si	Age
464.5	0.2205	48
366.1	0.2192	54
426.8	0.1632	28
541.4	0.4611	16
406.9	0.2526	47
370.1	0.2251	82
316.8	0.1827	43
743.3	0.5097	2
214.8	0.2241	56
633.7	0.1313	18
352.8	0.1798	57
353.2	0.4202	49
353.6	0.2527	48

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.742913
R Square	0.551919
Adjusted R	0.499204
Standard E	94.47391
Observatio	20

ANOVA

	df	SS	MS
Regression	2	186892.4373	93446.22
Residual	17	151730.4407	8925.32

276.4	0.1142	19
305.3	0.1678	70
283.2	0.1794	51
390.2	0.3877	40
612.3	0.6527	45
313.2	0.1764	60
365.2	0.1474	77

Total	19	338622.878

	Coefficients	*Standard Error*	*t Stat*
Intercept	432.3581	78.09619961	5.536225
Property Si	413.6676	158.0895328	2.616666
Age	-3.00712	1.111332601	-2.70587

400.4546

RESIDUAL OUTPUT

Observation	*d Appraise*	*Residuals*
1	379.23	85.27000691
2	360.6495	5.450505049
3	415.6693	11.1307251
4	574.9863	-33.58630834
5	395.5158	11.38415579
6	278.8907	91.20927432
7	378.629	-61.82896704
8	637.1903	106.1097431
9	356.6622	-141.8622227
10	432.5445	201.1555038
11	335.3296	17.47037295
12	458.8323	-105.6322876
13	392.5501	-38.95008926
14	422.4637	-146.0636588
15	291.273	14.02696623
16	353.2069	-70.00689031
17	472.4522	-82.25218663
18	567.0385	45.26151255
19	324.9018	-11.70179213
20	261.7844	103.4156369

Appraised \ Property Si Age

466.1	0.2294	47
367.8	0.2123	50
427.5	0.1616	22
540.5	0.4683	15
407.7	0.2569	41
373.4	0.2219	81
318.8	0.1886	48
740.2	0.5043	9
214.5	0.2218	60
636.5	0.1313	19

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.735768
R Square	0.541355
Adjusted R	0.487397
Standard E	95.81694
Observatio	20

ANOVA

345.3	0.1753	55
352.9	0.4259	49
355.6	0.2581	50
270.7	0.1142	17
303.6	0.1687	67
283.7	0.1798	51
393.7	0.3857	40
613.4	0.6591	45
312.7	0.1765	59
362.4	0.1455	78

426.7318

	df	*SS*	*MS*
Regression	2	184221.1567	92110.58
Residual	17	156075.0733	9180.887
Total	19	340296.23	

	Coefficients	*Standard Error*	*t Stat*
Intercept	425.1760	77.71355096	5.471066
Property Si	429.2737	156.9566986	2.734982
Age	-2.97377	1.137568294	-2.61415

RESIDUAL OUTPUT

Observation	*d Appraise*	*Residuals*
1	383.884	82.21596086
2	367.6221	0.177860327
3	429.1236	-1.623613163
4	581.5983	-41.09826302
5	413.5317	-5.831704416
6	279.5562	93.8438016
7	363.3959	-44.59589982
8	614.8948	125.3052454
9	341.9625	-127.4625078
10	425.0379	211.4620598
11	336.8701	8.429852382
12	462.2888	-109.3887709
13	387.2829	-31.68287421
14	423.6449	-152.9449066
15	298.3517	5.248336835
16	350.697	-66.9969719
17	471.7959	-78.09592755
18	574.2905	39.1095143
19	325.4902	-12.79018331
20	255.681	106.7189912

Appraised \ Property Si Age

465.3	0.2205	41

Model	Unstandardized Coefficients	
	B	Std. Error

365.8	0.2117	54
427.3	0.1677	26
541.7	0.4672	12
402.4	0.2591	42
370.6	0.2237	86
315.4	0.1808	43
742.1	0.5074	6
219.6	0.2255	51
632.1	0.1308	15
353.6	0.1787	54
356.4	0.4289	50
350.9	0.2564	44
278.6	0.1193	13
304.3	0.1655	67
281.6	0.1784	55
392.3	0.3871	45
610.3	0.6573	44
316.2	0.1739	51
369.3	0.1465	80

1	(Constant)	405.7832	73.933
	Property Size	437.8503	157.000
	Age	-2.6559	1.076

a. Dependent Variable: Appraised Value

ɔN INTERVAL

1.824161
1.864639
5.512961

F	*ignificance F*
103.0847	3.13E-10

P-value	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*lpper 95.0%*
9.53E-08	-13.3677	-8.20371	-13.3677	-8.20371
4.84E-08	1.181307	1.879974	1.181307	1.879974
0.390711	-12.3617	30.08011	-12.3617	30.08011

2.109816

24.25047
163.0495
211.5505

F	*ignificance F*
11.0463	0.000434

P-value	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*Ipper 95.0%*
0.009296	-571.629	-89.7283	-571.629	-89.7283
0.00011	0.980922	2.549158	0.980922	2.549158
0.026912	-0.2609	-0.01737	-0.2609	-0.01737

0.685306

F	*ignificance F*
10.46979	0.001088

P-value	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*Ipper 95.0%*
3.63E-05	267.5896	597.1267	267.5896	597.1267
0.018047	80.12782	747.2073	80.12782	747.2073
0.01499	-5.35183	-0.66241	-5.35183	-0.66241

F	*ignificance F*
10.03286	0.001326

P-value	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*lpper 95.0%*
4.14E-05	261.2147	589.1373	261.2147	589.1373
0.014105	98.12399	760.4234	98.12399	760.4234
0.018141	-5.37383	-0.57371	-5.37383	-0.57371

Coefficients[a]

Standardized Coefficients			95.0% Confidence Interval for B		Collinearity Statistics		
Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF	MarErr

	5.488	0.000	249.797	561.769			155.985771309141
0.483	2.789	0.013	106.609	769.092	0.930	1.076	331.241606248997
-0.428	-2.468	0.024	-4.926	-0.386	0.930	1.076	2.270306973613