

Semester: Jan – Mar 24		
Maximum Marks: 50	Examination: ETE Exam	Date: 04-04-24 Duration: 3 hrs
Programme code: 08 Programme: MBA EXE	Class: FY	Semester/Trimester: 2
College: K. J. Somaiya Institute of Management	Name of the department/Section/Center: Business Analytics	
Course Code: 217P08C209	Name of the Course: Demography and Business Statistics	
<b>Instructions:</b> <b>1. Attempt Any 5 questions.</b> <b>2. Answer the question in the excel by inserting a text box</b> <b>3. Upload Excel file in the link provided</b> <b>4. Rename your Excel by Name and Surname</b>		

Question No.	Refer to the Dataset Consumer Food and answer the following questions	Max. Marks
1.	1. Create a Data dictionary for the given data set And prepare a 5-point summary for Annual food spending	10
2.	Is there a correlation between Annual food spending and the Annual income of people? If so Determine the Prediction Equation, Is the slope significant?	10
3.	a. Describe the variable Annual food Spending of the consumers residing in southern region with a suitable summary stats. b. At 95% confidence level is the Annual Food spending greater than 7000\$	10
4.	Is the variable Non-mortgage household debt Normally distributed? If the past standard Deviation is 9000\$, Estimate the confidence interval at 98 %	10
5.	For the variable annual food spending answer the following questions, what is the probability that a. the AFS is would be more than 30000. b. the AFS is would be less than 10500. c. the AFS is would be between 7600 to 11000 . d. What AFS is exceeded by only 25% of the consumers?	10
6.	Refer to Dataset – Scores Is there a significant difference in the scores?	10

Annual Food Spending (\$)	Annual Household Income	Non mortgage (\$)	household debt (\$)
8909	56697.45	23179.88	
5684	35945.49	7051.88	
10706	52686.83	16148.84	
14112	74041.21	21839.16	
13855	63181.85	18865.96	
15619	79064.46	21899.12	
2694	25980.54	8773.50	
9127	57424.01	15766.16	
13514	72045.25	27685.43	
6314	38046.29	8544.84	
7622	52407.75	28057.20	
4322	41405.24	6997.67	
3805	29683.98	4805.52	
6674	49246.08	13591.61	
7347	41491.42	4088.01	
2911	26702.76	15876.07	
8026	48752.83	16713.59	
8567	55555.48	16783.26	
10345	71483.38	21407.25	
8694	50979.58	19113.82	
8821	46403.10	7816.69	
8678	51927.35	14414.57	
14331	84769.06	17295.47	
9619	59061.87	16686.94	
9286	57952.27	14161.10	
8206	58354.72	19538.04	
16408	81694.33	15186.94	
12757	69522.40	14651.12	
17740	96132.20	0.00	
7739	57796.03	22057.13	
15383	88276.01	1895.86	
4579	32263.63	7979.47	
11679	65928.43	0.00	
12877	69924.11	27329.74	
16232	91108.07	9875.77	
9621	54070.31	19907.52	
8171	47238.25	17818.88	
12128	77426.52	31339.80	
8642	59805.44	4962.58	
12400	60333.72	6632.49	
9185	54113.95	18592.82	
7862	40680.39	15201.74	
9775	58262.72	1485.63	
6771	52008.35	21713.26	
3059	39642.73	12179.36	
13211	70309.29	13220.75	
7408	46450.12	5602.46	
11581	76139.52	33874.28	

14233	80832.69	11477.91
3352	31898.75	2762.36
2630	21646.61	2663.44
9093	65924.37	11355.45
12652	65922.60	5132.34
9559	62810.62	12613.19
6112	42334.85	3149.19
10431	65133.83	15195.96
12630	64620.70	21433.20
4578	36553.16	5501.78
9551	62909.65	11375.76
10262	70726.88	13286.58
9551	57633.94	11856.51
10143	56549.00	16135.97
8955	59661.79	11627.34
10197	57349.57	18432.04
11234	56446.89	10870.62
9320	61135.77	0.00
9089	51525.86	4901.74
12300	79979.43	17269.85
11484	66733.31	15145.11
11215	75359.18	15610.72
7204	40794.63	8975.46
5579	39128.25	6575.76
11723	75482.08	12508.46
9353	63998.15	0.00
7761	45844.89	6670.60
4261	38223.08	8576.29
9830	66787.03	1177.77
12386	77852.19	935.70
8673	55824.57	14167.09
10944	57022.47	9017.56
9910	64262.57	12767.61
9928	75881.30	17423.20
4264	34342.94	21322.87
7971	41242.56	21008.91
8290	53021.46	20150.56
12669	66990.72	9250.05
7272	49719.34	20837.91
9784	58398.57	16064.53
9187	50477.13	9406.82
5866	39111.65	20409.28
9456	51886.47	11668.02
6270	34796.97	146.46
9518	62348.21	5201.08
10968	78703.76	17001.83
8865	53620.15	32003.75
9226	51576.66	15921.68
4913	34760.86	17704.16
6976	60967.59	17798.87
8152	51281.08	8167.33

2887	25013.02	18763.44
8062	59238.25	10814.52
8895	47343.72	11814.31
8444	52645.28	22469.20
6148	35308.65	17138.74
4563	34354.77	10612.39
8185	50629.70	21186.81
3391	29056.29	15734.82
7436	48721.01	18363.10
9522	50459.15	16477.91
11290	72805.41	21237.88
10403	56954.47	22217.56
4693	39342.52	24696.49
5626	38833.50	14370.63
11869	55020.58	35575.72
13055	77605.05	816.97
8783	57936.86	18591.28
13031	63343.06	25530.81
3681	36478.95	17950.37
5549	40381.20	14256.75
4108	26308.87	26580.50
6314	41421.02	22470.01
7700	54578.55	29064.88
7479	40551.45	31756.84
9093	50368.71	6403.63
9863	54422.02	24333.75
8043	51835.93	26212.70
9552	73599.96	36373.94
9286	51873.03	29631.33
7987	48003.49	17261.36
3875	36519.19	13578.50
10746	75151.57	10658.66
6888	44974.08	23710.91
5479	48922.53	4593.51
6949	43768.63	21221.37
10650	75947.42	33357.10
5188	41423.13	33641.32
5311	40189.05	17791.18
4691	36771.76	5828.67
8056	59689.98	19594.01
11304	53653.81	23066.12
8112	59066.58	240.39
8696	65961.53	0.00
5869	37254.18	10157.28
3776	33568.04	14143.12
11829	56933.54	0.00
13087	88822.24	17565.36
10986	59635.37	27863.48
5762	38406.79	18866.72
11617	78627.11	11893.73
9895	47709.70	22929.68

16293	64442.70	31687.22
8185	58870.93	35424.02
13972	87954.08	11549.26
11243	54778.17	12551.55
4635	39825.43	19494.35
10063	49536.07	12194.66
8426	60101.97	13787.12
7436	49138.52	22356.09
11747	51051.59	4552.95
15397	70500.43	12025.13
6842	54894.36	16217.10
9678	60570.24	4106.34
12852	57625.32	31227.79
10114	56955.56	25907.25
8496	61399.96	1092.55
6689	50531.57	17106.09
15696	72774.12	17793.49
9841	69981.13	21606.70
12529	66891.03	17688.76
10210	67431.13	19994.96
8868	64781.75	14488.97
6426	38987.00	17863.51
11096	64866.78	5839.45
10086	50421.10	8688.83
2587	27075.54	17534.48
12492	51784.27	20284.06
8456	54135.07	22037.04
6801	53291.11	23342.24
6339	49804.34	34943.08
7802	52205.49	28579.30
9717	72840.56	22348.78
6026	46237.91	20165.21
5618	45938.13	10537.74
10217	77715.90	18516.26
8338	59710.96	7980.38
9048	42105.99	19785.86
4017	36461.89	9935.38
10906	53403.28	18176.84
15148	71290.42	6695.56
8830	66758.86	20972.17
8481	57615.63	28766.77
11358	76220.62	1372.99
10553	78201.76	5919.81
6969	55163.63	24795.41
13219	61171.16	21482.33
3543	34092.76	25969.00
7326	50647.05	10749.64
8458	59897.97	22939.63
11766	52884.08	25969.98
9908	73628.50	7111.83











Candidate	Math Score	Writing Score
1	540	474
2	432	380
3	528	463
4	574	612
5	448	420
6	502	526
7	480	430
8	499	459
9	610	615
10	572	541
11	390	335
12	593	613
13	496	213
14	493	358
15	531	302
16	566	315
17	549	383
18	420	272
19	522	216
20	418	264
21	582	343
22	438	377
23	509	210
24	509	307
25	563	262
26	536	223
27	433	244
28	535	366
29	557	282
30	433	317