Question Number : 207 Question Id : 640653587118 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2

Question Label : Short Answer Question

Calculate the market share of the top four firms. Round off to a whole number between 0 and 100

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

90

Question Number : 208 Question Id : 640653587119 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2

Question Label : Short Answer Question

Calculate the Herfindahl index. Round off to the nearest integer value between 0 and 10000

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

2500

Business Analytics

Section Id : 64065339720

Section Number :	14
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	11
Number of Questions to be attempted :	11
Section Marks :	20
Display Number Panel :	Yes
Group All Questions :	No
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	64065384421
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Number : 209 Question Id : 640653587121 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0

Question Label : Multiple Choice Question

THIS IS QUESTION PAPER FOR THE SUBJECT "DIPLOMA LEVEL : BUSINESS ANALYTICS (COMPUTER BASED EXAM)"

ARE YOU SURE YOU HAVE TO WRITE EXAM FOR THIS SUBJECT?

CROSS CHECK YOUR HALL TICKET TO CONFIRM THE SUBJECTS TO BE WRITTEN.

(IF IT IS NOT THE CORRECT SUBJECT, PLS CHECK THE SECTION AT THE TOP FOR THE SUBJECTS REGISTERED BY YOU)

Options :

6406531959036. ✔ YES

6406531959037. ✖ NO

Sub-Section Number : 2

Sub-Section Id : 64065384422

Question Shuffling Allowed : Yes

Is Section Default? : null

Question Number : 210 Question Id : 640653587122 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0.5

Question Label : Multiple Choice Question

Latent demand in a demand-response curve is the area obtained when

Options :

6406531959038. ✔ Price is reduced below the identified optimal price

6406531959039. ✖ Price is increased beyond the identified optimal price

6406531959040. ✖ The optimal price is increased beyond the maximum available price

6406531959041. ✖ Quantity is reduced below the identified optimal quantity

Question Number : 211 Question Id : 640653587132 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0.5

Question Label : Multiple Choice Question

What is the objective function of logistic regression?

Options :

6406531959058. ✖ Minimization of squared errors

6406531959059. ✔ Maximization of log-likelihood

6406531959060. ✖ Minimization of residuals

6406531959061. ✖ None of these

Sub-Section Number : 3

Sub-Section Id : 64065384423

Question Shuffling Allowed : No

Is Section Default? : null

Question Id : 640653587123 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (212 to 214)

Question Label : Comprehension

A multiple linear regression model, as specified below, is fit on a dataset with 250 data points. Then answer the given subquestions (*Note: If your answer is in decimal, enter it rounded to two decimal places. For example, if your answer is "10.256", enter it as "10.26"*)

$$\text{MLR Model: } Y = 2.1 + 1.4 * X_1 - 4.2 * X_2 + 0.5 * X_3 + 7 * X_4 + \varepsilon$$

Sub questions

Question Number : 212 Question Id : 640653587124 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Short Answer Question

How many degrees of freedom are present for the "Residuals" in the ANOVA Table?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

245

Question Number : 213 Question Id : 640653587125 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Short Answer Question

How many total degrees of freedom are present for the fitted model in the ANOVA Table?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

249

Question Number : 214 Question Id : 640653587126 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Short Answer Question

If no feature engineering was performed, then how many features were present in the dataset?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

4

Sub-Section Number :	4
Sub-Section Id :	64065384424
Question Shuffling Allowed :	Yes

Is Section Default? : null

Question Number : 215 Question Id : 640653587127 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2

Question Label : Short Answer Question

The relationship between Demand “D” and Selling Price “P” is given by the equation D(p) = 180 – 6*P. If the intention is to maximize the profit, then what is the optimal selling price if the item is going to be made at Rs. 20 per unit?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

25

Question Number : 216 Question Id : 640653587130 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2

Question Label : Short Answer Question

Say a demand response curve is modelled as a constant elasticity curve. If Q1 is 2400 units, Q2 is 1500 units, P1 is Rs. 100 and P2 is Rs. 200, then what is the elasticity of the curve? (*Note: If your answer is in decimal, enter it rounded to two decimal places. For example, if your answer is “10.256”, enter it as “10.26”*)

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

0.65 to 0.70

Sub-Section Number : 5

Sub-Section Id : 64065384425

Question Shuffling Allowed : Yes

Is Section Default? : null

Question Number : 217 Question Id : 640653587128 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

You are solving a regression problem with 8 explanatory variables. The data has 150 observations, and the R-square value was found to be 0.75. You are adding one more explanatory variable to the dataset (a total of 9 explanatory variables). The new R-square value is 0.8, and the new adjusted R-square value is 0.92. What does this imply?

Options :

6406531959046. ✖ The new variable does not improve the model

6406531959047. ✖ The new variable alone has high explanatory power

6406531959048. ✖ The data is too small for fitting a regression model with 9 variables

6406531959049. ✔ None of these

Sub-Section Number : 6

Sub-Section Id : 64065384426

Question Shuffling Allowed : Yes

Is Section Default? : null

Question Number : 218 Question Id : 640653587129 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Max. Selectable Options : 0

Question Label : Multiple Select Question

What does the term “Multicollinearity” refer to? (Select all that are applicable)

Options :

6406531959050. ✖ The dependent and independent variables are not-related

6406531959051. ✖ The dependent and independent variables are linearly related

6406531959052. ✖ The dependent variable is linearly related to another dependent variable

6406531959053. ✔ None of these

Question Number : 219 Question Id : 640653587131 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Max. Selectable Options : 0

Question Label : Multiple Select Question

What are the applications of logistic regression?

Options :

6406531959055. ✔ Predicting binary outcomes

6406531959056. ✔ Predicting the multi-class output

6406531959057. ✔ Predicting the odds of the occurrence of a specific event

Sub-Section Number :	7
Sub-Section Id :	64065384427
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Id : 640653587133 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (220 to 222)

Question Label : Comprehension

Based on the below confusion matrix, answer the given subquestions. (*Note: Give your answer in decimal (not in %) rounded to two decimal places. For example, if your answer is "10.256", enter it as "10.26"*)"

		Actual	
		Positive	Negative
Predicted	Positive	45	18
	Negative	12	25

Sub questions

Question Number : 220 Question Id : 640653587134 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2

Question Label : Short Answer Question

What is the accuracy of the model?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

0.7

Question Number : 221 Question Id : 640653587135 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2

Question Label : Short Answer Question

What is the precision of the model for predicting the positive class?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

0.71 to 0.72

Question Number : 222 Question Id : 640653587136 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2

Question Label : Short Answer Question

What is the recall of the model for predicting the positive class?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

0.79 to 0.80

Sub-Section Number :	8
Sub-Section Id :	64065384428
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Id : 640653587137 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (223 to 228)

Question Label : Comprehension

You are given the below regression output. Then answer the given subquestions (*Note: If your answer is in decimal, enter it rounded to two decimal places. For example if your answer is "10.256",*

enter it as "10.26")

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.442234909							
R Square	0.195571715							
Adjusted R Square	0.150881255							
Standard Error	27.32379716							
Observations	20							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	X1	X3	3267.182	X5	0.050888766			
Residual	X2	13438.61805	X4					
Total	19	16705.8						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	836.8263158	12.69276328	65.9294	6.41147E-23	810.1598097	863.4928219	810.1598097	863.4928219
X Variable 1	2.216541353	1.059571407	2.091923	0.050888766	-0.009535568	4.442618275	-0.009535568	4.442618275

Sub questions

Question Number : 223 Question Id : 640653587138 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0.5

Question Label : Short Answer Question

What is the value of X1?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

1

Question Number : 224 Question Id : 640653587139 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0.5

Question Label : Short Answer Question

What is the value of X2?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

18

Question Number : 225 Question Id : 640653587140 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0.5

Question Label : Short Answer Question

What is the value of X3?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

3267.10 to 3267.30

Question Number : 226 Question Id : 640653587141 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0.5

Question Label : Short Answer Question

What is the value of X4?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

746.40 to 746.65

Question Number : 227 Question Id : 640653587142 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0.5

Question Label : Short Answer Question

What is the value of X5?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

4.25 to 4.45

Question Number : 228 Question Id : 640653587143 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0.5

Question Label : Short Answer Question

What is the p-value for the regression model?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

0.05 to 0.06

System Commands

Section Id :	64065339721
Section Number :	15
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	14
Number of Questions to be attempted :	14
Section Marks :	100
Display Number Panel :	Yes
Group All Questions :	No
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	64065384429
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Number : 229 Question Id : 640653587144 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0

Question Label : Multiple Choice Question

THIS IS QUESTION PAPER FOR THE SUBJECT "DIPLOMA LEVEL : SYSTEM COMMANDS (COMPUTER BASED EXAM) "