Business Analytics

Section Id :	64065328988
Section Number :	14
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	10
Number of Questions to be attempted :	10
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 :	64065363369
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Number : 249 Question Id : 640653445697 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"

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 :

6406531485051. ✔ YES

6406531485052. ✖ NO

Sub-Section Number : 2

Sub-Section Id : 64065363370

Question Shuffling Allowed : No

Is Section Default? : null

Question Id : 640653445698 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 : (250 to 252)

Question Label : Comprehension

You are given the following contingency table based on sample data with people belonging to two cities (City A and City B) and their brand preferences. You perform a chi-squared test of independence to make inferences about the population from this sample.

	Brand A	Brand B	Brand C	Brand D
City A	155	145	234	126
City B	85	98	97	89

Based on the above data, answer the given subquestions.

Sub questions

Question Number : 250 Question Id : 640653445699 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1.5

Question Label : Short Answer Question

From the given contingency table, find the expected frequency of people belonging to City B preferring brand C?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

115 to 121

Question Number : 251 Question Id : 640653445700 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1.5

Question Label : Short Answer Question

What is the calculated value of chi-squared?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

8 to 14

Question Number : 252 Question Id : 640653445701 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1.5

Question Label : Multiple Choice Question

At the significance level of 0.05, the chi-squared tabular value is 7.814. What do you conclude?

Options :

6406531485055. ✔ Reject the null hypothesis and conclude that the categorical variables are not independent

6406531485056. ✖ Fail to reject the null hypothesis and conclude that the categorical variables are not independent

6406531485057. ✖ Fail to reject the null hypothesis and conclude that the categorical variables are independent

6406531485058. ✖ Reject the null hypothesis and conclude that the categorical variables are independent

Sub-Section Number :	3
Sub-Section Id :	64065363371
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Id : 640653445707 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 : (253 to 255)

Question Label : Comprehension

You are solving a regression problem with 4 explanatory variables. The data has 40 observations and the R-square value was found to be 0.74.

Based on the above data, answer the given subquestions.

Sub questions

Question Number : 253 Question Id : 640653445708 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 value of adjusted R-square (round off to two decimal values)?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

0.71

Question Number : 254 Question Id : 640653445709 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 adding a new explanatory variable to the dataset and the new adjusted R squared value is 0.745. Is the new variable significant?

Options :

6406531485077. ✖ Yes

6406531485078. ✖ No

6406531485079. ✔ Calculation error in Adjusted R Squared value

Question Number : 255 Question Id : 640653445710 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 removing a few explanatory variables from the dataset and the new adjusted R square value is -0.21. Is it possible?

Options :

6406531485080. ✔ Yes. Adjusted R squared value can be negative

6406531485081. ✖ No. Calculation error

6406531485082. ✖ None of these

Sub-Section Number :	4
Sub-Section Id :	64065363372
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Id : 640653445711 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 : (256 to 257)

Question Label : Comprehension

Using the confusion matrix, answer the given subquestions

n = 165	Predicted: No	Predicted: Yes
Actual: No	50	10
Actual: Yes	5	100

Sub questions

Question Number : 256 Question Id : 640653445712 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1.5

Question Label : Short Answer Question

Calculate the precision.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

0.90 to 0.92

Question Number : 257 Question Id : 640653445713 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1.5

Question Label : Short Answer Question

Calculate the recall.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

0.94 to 0.96

Sub-Section Number :	5
Sub-Section Id :	64065363373
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 258 Question Id : 640653445702 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1.5

Question Label : Short Answer Question

Suppose a factory manufactures products on three machines A, B and C. Suppose 25% of total output comes from machine A, 20% of total output comes from machine B and 55% of total output comes from machine C. From the past data, it is known that 8% of products by machine A are defectives, 15% of products by machine B are defectives and 5% of products by machine C are defectives. What is the probability that the product has come from machine C given that it is a defective?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

0.32 to 0.38

Sub-Section Number :	6
Sub-Section Id :	64065363374
Question Shuffling Allowed :	Yes

Is Section Default? : null

Question Number : 259 Question Id : 640653445703 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Selectable Option : 0

Question Label : Multiple Select Question

What is the meaning of an Elasticity of 2?

Options :

6406531485060. ✔ 10% reduction in price will yield a 20% increase in sales

6406531485061. ✖ 10% reduction in price will yield a 20% decrease in sales

6406531485062. ✖ 25% increase in price will yield 50% increase in sales

6406531485063. ✔ 25% increase in price will yield 50% decrease in sales

Question Number : 260 Question Id : 640653445705 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Selectable Option : 0

Question Label : Multiple Select Question

Select the correct option from below:

Options :

6406531485068. ✖ For inelastic product demand (ε<1) the revenue can be increased by setting price close to zero.

6406531485069. ✔ For elastic product demand (ε>1) the revenue can only be increased by setting price close to zero

6406531485070. ✔ For inelastic product demand (ε<1) the revenue can be increased by simply increasing the prices

6406531485071. ✖ For elastic product demand (ε>1) the revenue can only be increased by simply increasing the prices

Sub-Section Number : 7

Sub-Section Id : 64065363375

Question Shuffling Allowed : Yes

Is Section Default? : null

Question Number : 261 Question Id : 640653445704 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

Which of the following data will you use to calculate price elasticity?

Options :

6406531485064. ✖ Protein-powder sales increases by 10% when the national income grows by 15%.

6406531485065. ✖ Tea sales increases by 10% when daily average working hours of employees goes up by 2 hrs .

6406531485066. ✔ Paneer (Indian Cottage Cheese) sales go down by 10% when price goes up from Rs.100 to Rs.120 per 200 gram.

6406531485067. ✖ All of these

Question Number : 262 Question Id : 640653445706 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

In Multiple Linear Regression, if the explanatory variables are highly correlated, then that phenomenon is called

Options :

6406531485072. ✖ Normality

6406531485073. ✖ Singularity

6406531485074. ✔ Collinearity

6406531485075. ✖ Variation Inflation

Question Number : 263 Question Id : 640653445714 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

What is called as efficiency?

Options :

6406531485085. ✖ Output/(1-input)

6406531485086. ✖ 1 - (output/input)

6406531485087. ✔ Output/Input

6406531485088. ✖ None of these

System commands

Section Id :	64065328989
Section Number :	15
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	12
Number of Questions to be attempted :	12
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 :	64065363376
Question Shuffling Allowed :	No
Is Section Default? :	null