



Complete, fold and seal
(see note 2 below)

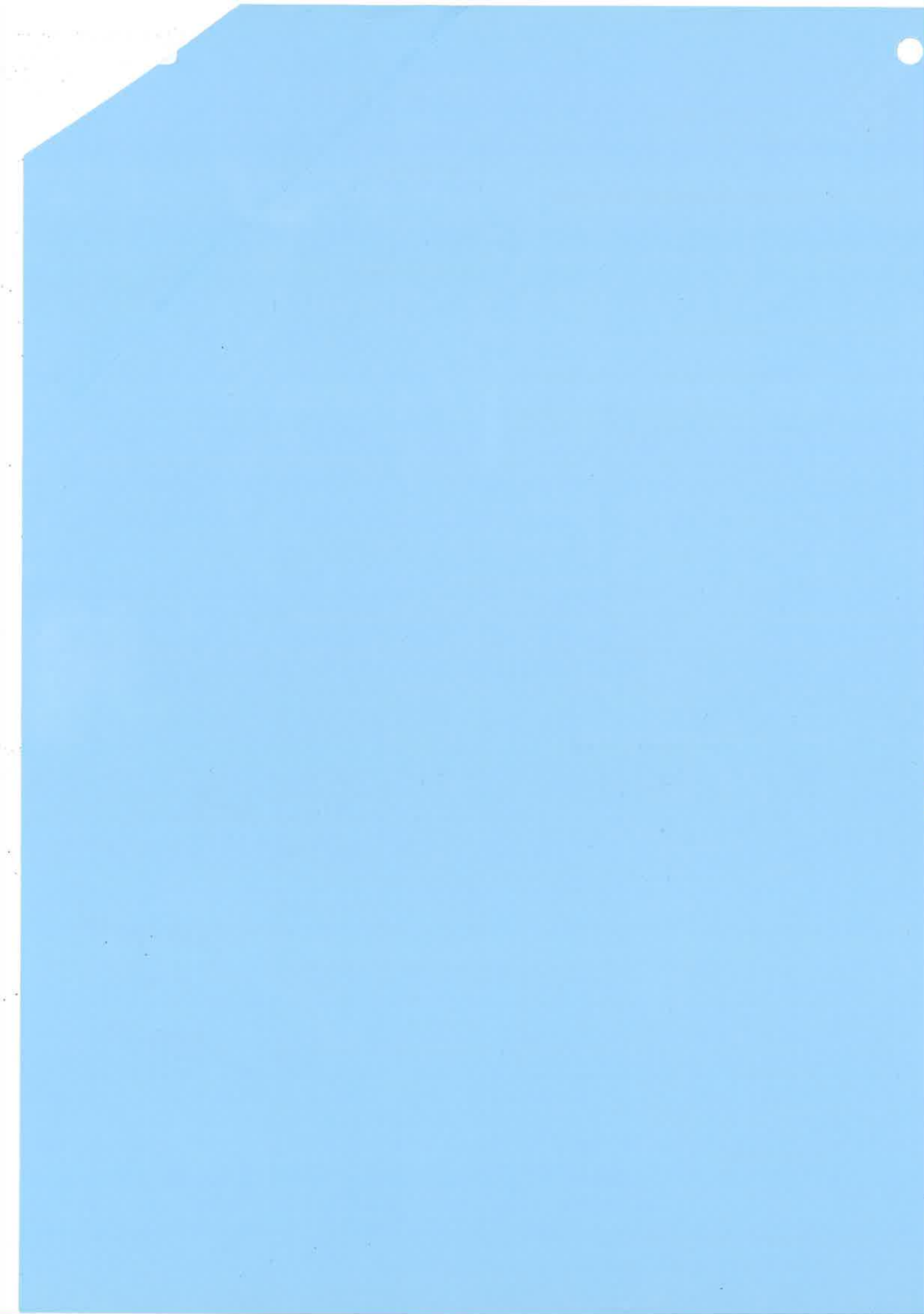
FORENAME(S): GEORGIANA
FLORINTE

Instructions to Candidates

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[illegible]

Mark agreed
CR
20/05/19



1

Question 1.

49.35	41.28	38.11	43.76	41.87	36.65
-------	-------	-------	-------	-------	-------

a) The median: $\frac{1}{2}(6)$ and $\frac{1}{2}(6)+1 \Rightarrow 3^{\text{rd}}$ and 4^{th} number

36.65	38.11	41.28	41.87	43.76	49.35
-------	-------	-------	-------	-------	-------

The Median: $\frac{41.28 + 41.87}{2} = 41.575$ ✓

b) $\bar{x} = \frac{\sum x}{n}$: Mean

$$\bar{x} = \frac{36.65 + 38.11 + 41.28 + 41.87 + 43.76 + 49.35}{6} = 41.8366$$

The mean is 41.8366.

c) The company should use the median as it is more representative for the middle value of the pre-tax profits. But the mean has an value which is almost as the value of the median, so is good to have both, the median and the mean.

Nice -

Question 3

Total no. of articulated LGV drivers = 760

* - Rigid LGV = 920
 - Non-LGV lorry = 710
 - Van = 600

Total number of drivers = 2990

$$a) P(\text{non-LGV or van driver}) = \frac{710}{2990} + \frac{600}{2990} = \frac{1310}{2990} = 0.4381$$

$\Rightarrow$ The probability that the driver is a non-LGV or a van driver is approximately 44%

$$b) P(\text{articulated LGV driver}) = \frac{760}{2990} = \frac{76}{299} = 0.2541$$

$\Rightarrow$ The probability that a driver is an articulated LGV driver is 25%

$$c) P(\text{articulated LGV driver or operates long haul}) = \frac{760}{2990} + \frac{841}{2990} - \frac{329}{2990} = \frac{1272}{2990} = 0.4254 \Rightarrow$$

$$P(\text{Long haul work}) = \frac{841}{2990}$$

$$P(\text{articulated LGV driver and long haul operator}) = \frac{329}{2990}$$

$\Rightarrow$ The probability that a driver is an articulated LGV driver or operates a long haul is approximately 43%

$$d) P(\text{van driver}) = \frac{380}{1059} = 0.3588 \sim 36\%$$

Total short haul operators = 1059

$\Rightarrow$ The probability that a driver is a van driver

given that the driver works on short haul is 36%

e)

- The classical approach to probability

Probability of an event = $\frac{\text{no. of ways the event can occur}}{\text{total no. of possible outcomes}}$
 $P(E)$

5

- The empirical approach to probability.

Probability of an event = $\frac{\text{no. of times the event is observed}}{\text{total no. of observations}}$
 $f P(E)$

lovely.

$$A: s = 6.398 \text{ cm}$$

$$B: s = 8.971 \text{ l}$$

a) ~~Yes~~ No

b) The ~~data~~ values in the data set B show more variability than those in data set A because there are different units of measurement cm and l. To calculate adequately the variability we use the coefficient of variation, which represents the percentage of the standard deviation reported to the mean (CV)

c) |45|64|66|69|72|73|77|78|83|85|

Arrange the values in numerical ascending order

b) The median of the data values is the average between the 5th and 6th values.

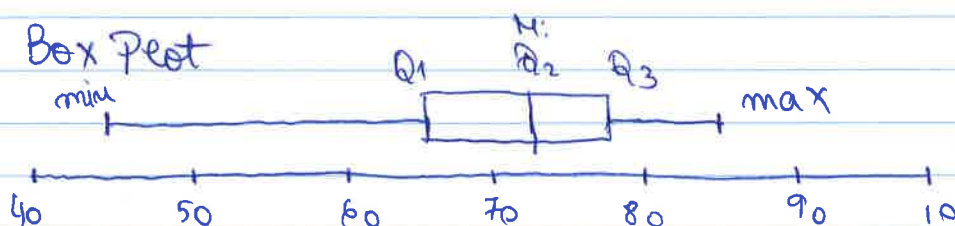
$$\text{Median} = \frac{72 + 73}{2} = 72.5$$

$Q_1 = 66$ (lower quartile)

$Q_3 = 78$ (upper quartile)

• The five number summary

minimum	Q_1	Median	Q_3	maximum
45	66	72.5	78	85



Brilliant!

4

Question 4

a) The Population is a collection of individuals in whom we are interested.

Sample is the group of people (from the population) from whom we gather information.

Sampling methods:

- simple random
- convenience
- quota
- cluster
- systematic
- stratified

12

Example (scenario):

We want to investigate the mode of transport used by the 20,000 employees of a large company with 30 offices ~~around~~ in different countries around the world.

We want to determine if the employees walk or cycle, take the bus or train, or use the car to get to work.

In this case, ^{the} population is all the employees of the company. The sample is, for example, the employees from the offices in UK; the employees that are males; the employees within different groups of age.

b) Primary data is the data that you collect by yourself, using interviews and/or questionnaires. Secondary data is the ~~the~~ data that has already been collected by someone else and is typically found in business reports, newspapers or governmental reports.

Primary data is up-to-date, ^{while} the secondary data may have been collected long time ago.

3

- c) Advantages of conducting interviews:
- The interviewee can consider the questions, expressing his/her own opinion.
 - The data collected is usually very rich

10

Disadvantages of conducting interviews.

- Sometimes the participant may exaggerate facts, just to present himself more favourably
- The participant may feel pressurised by the interviewer and can ~~answer~~^{give} the answer that is expected, rather than truly express his/her own opinion.
- interviews can take long time and can be expensive to conduct.

Great!

Question No.

Examiner Only

Question No.

Examiner Or

Arholwr yn unig

f y Cwestiwn

Question No.

Examiner Of

Question No.

Examiner Only

Arholwr yn un

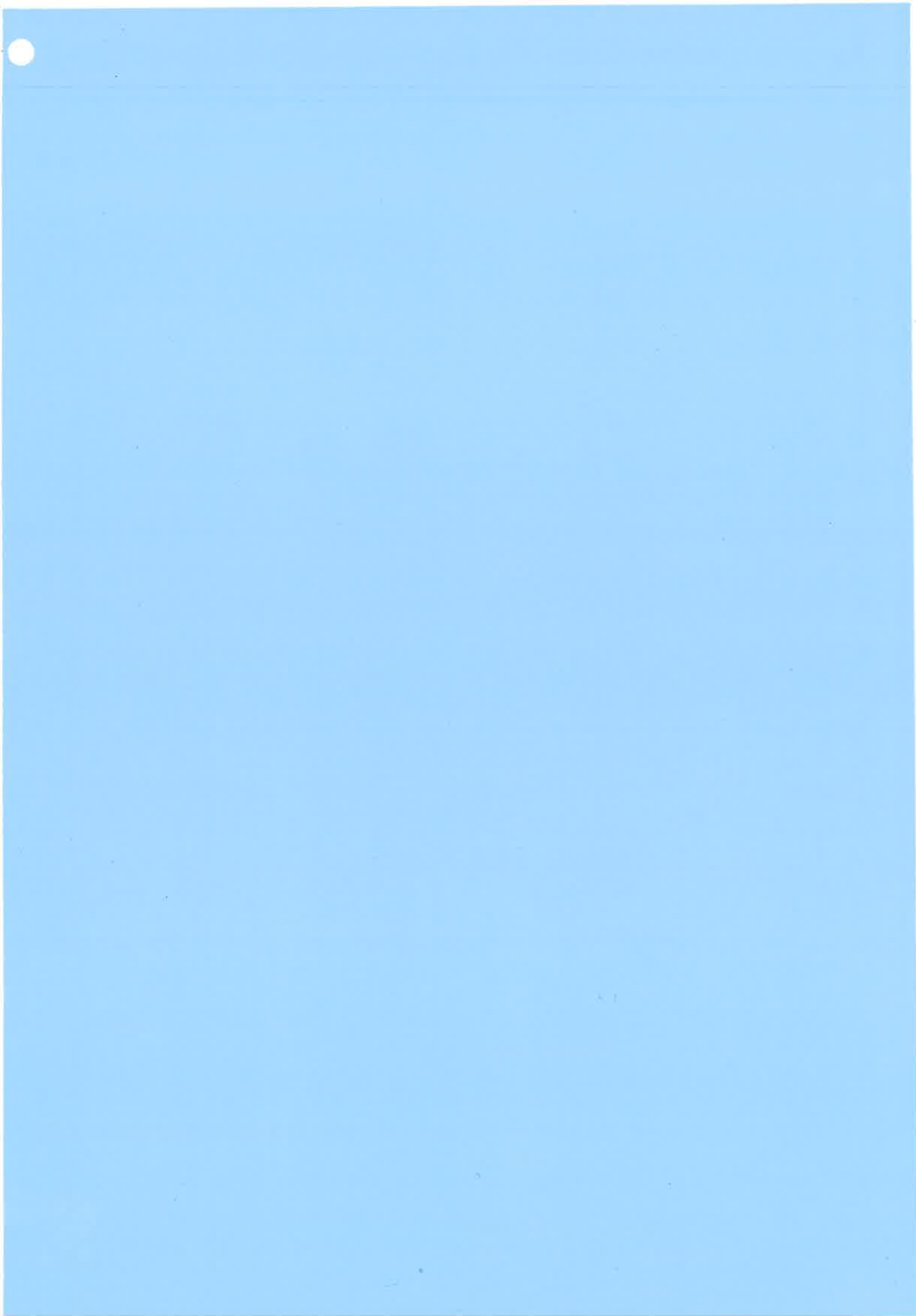
Rhif y Cwestiwn

Question No.

Examiner O

Arholwr yn unig

Y Cwestiwn



8. Rhaid dychwelyd pob llyfr. Ni chaniateir mynd â llyfrau atebion, wedi eu defnyddio neu heb eu defnyddio, allan o'r lleoliad arholi o dan unrhyw amgylchiadau.

7	Nifer y Llyfrau Atebion a gyflwynwyd	
6	Rhif Sedd	
5	Lleoliad yr Arholiad	
4	Dyddiad ac Amser yr Arholiad	
3	Cod y Modwl	
2	Teitl y Papur Arholiad	
1	Rhif Myfyrwr	

[illegible]

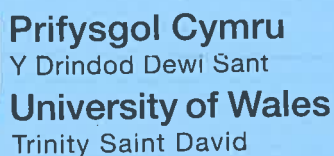
(See the other side for English version)

Llenwch, plynwch a selwch
(gweler nodyn 2 isod)

CYFENN:

ENW(AU) CYNTAF:

ENW(AU) CYNTAF:



Complete, fold and seal
(see note 2 below)

THOMAS

FORENAME(S):

WAYNE CHRISTOPHER

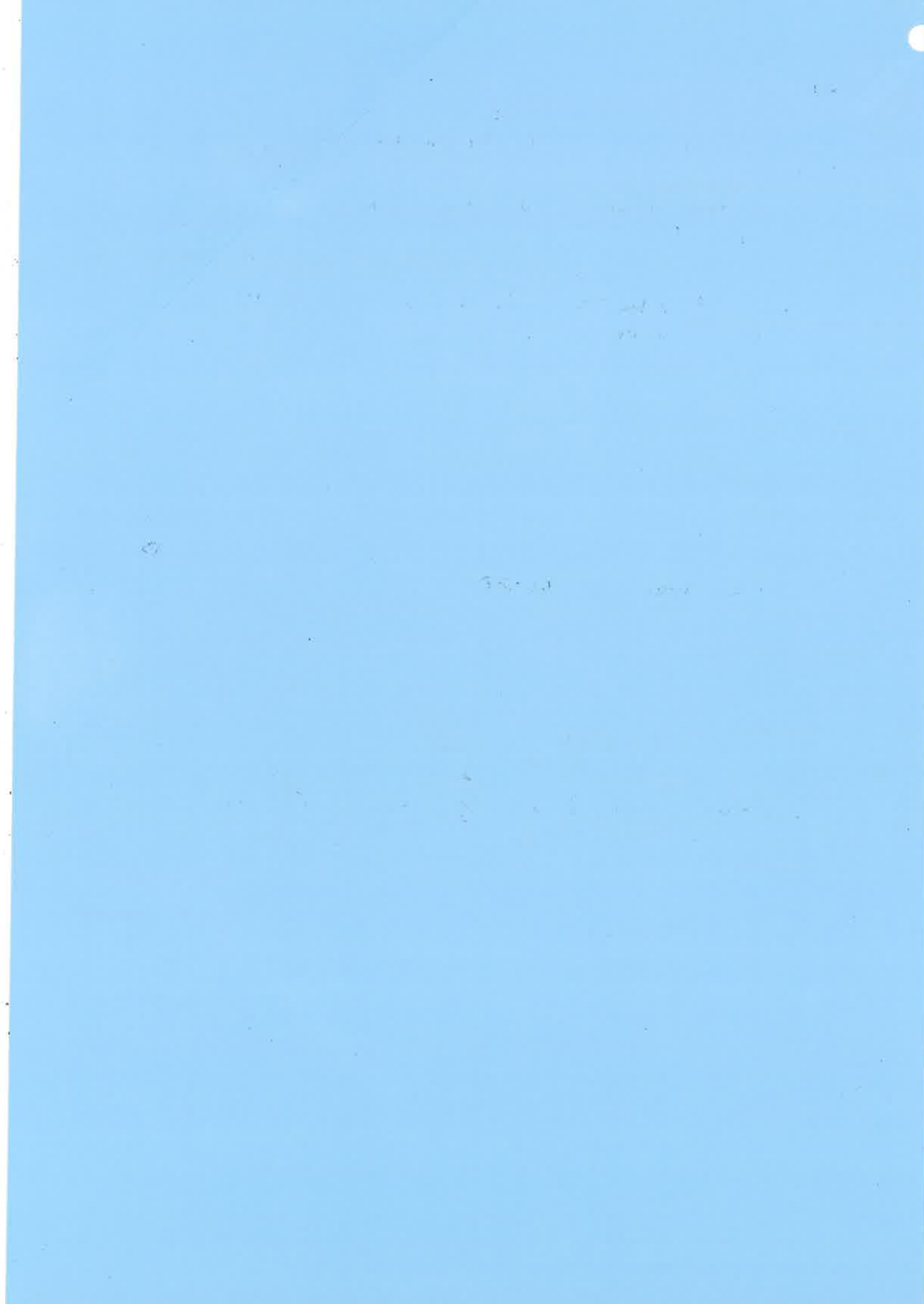
12 Pages

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1	Student Number	1704626
2	Title of Examination Paper	Statistics for Logistics
3	Module Code	M4X01277
4	Date and Time of Examination	9 am 10/05/2019
5	Examination Venue	Rm 112
6	Seat Number	/
7	Number of Answer Books handed in	1

[illegible]

Mark agreed.



Q.11

$$\begin{array}{cccccc}
 6 & 3 & 2 & 5 & 4 & 1 \\
 49.35 & 41.28 & 38.11 & 43.76 & 41.87 & 36.65 \\
 \hline
 36.65 & 38.11 & 41.28 & 41.87 & 43.76 & 49.35
 \end{array}$$

9

a) The median for the data is 41.57
 $41.28 + 41.87 = \div 2 =$

✓

b) The mean for the data is 41.83
 add all values up + divide by no of values (6)

$$36.65 + 38.11 + 41.28 + 41.87 + 43.76 + 49.35 \div 6 = 41.83$$

The mean is 41.83

(251.02)

✓

c)

MEAN

The Reason that the MEAN figure will have been used is to give a better view of the company profitability by being the highest figure and giving a healthier and positive picture to the investors.

7

✓

Qu 3

2990 total of possible outcomes

(0 = No probability)
(1 = full probability)

a) 0.43

Van	97 + 123 + 380 = 600	$\left. \begin{array}{l} \times 1310 \\ \times 2990 \end{array} \right\} = \frac{131}{299}$
Non LEV	120 + 282 + 303 = 710	
Rigid LEV	295 + 380 + 245 = 920	
Articulated LEV	321 + 300 + 131 = 760	

0.43 ✓

b/

Articulated LEV DRIVER $\frac{760}{2990} = \frac{76}{299} = \underline{0.25}$ ✓

c/

articulated LEV DRIVER $760 + 841 = \frac{1601}{2990} = \underline{0.53}$

long haul $321 + 295 + 120 + 97 = 841$

d/

short haul work $131 + 245 + 303 + 380 = 1059$
Van on short haul 380

$$\frac{380}{1059} = \underline{0.35}$$

e/

closed approach to probability is highly formula

empirical approach to probability is with two use of data collected

Qn 4

a)

sampling methods. Can be conducted by asking a small section of the study subjects to give a more detailed answer than the use of Survey, Questionnaire, data analysis.

5

b) primary data is data collected directly from the subjects and is more accurate secondary data is collected from secondary source like newspaper or articles and it means you are assuming that it is correct

}

c) Advantages of conducting interviews to collect data are

① Knowing it is directly from your subjects
 ② being in control of the questions and allowing no variation of the questions to ensure that the answers given are related to the questions.

}

Disadvantages of conducting interviews to collect data are.

① allowing variation to creep into the questions or being asked by people's views of the subject.
 ② No variation in the people being asked i.e. all from the same company if they are asked about a competitor, the answers given are biased or skewed because of loyalty to their own company

OK

Qu 5

a) The principles for designing interview Questions are

- a) Question must not be ambiguous
- b) Question must be about a specific subject
- c) Question must be framed correctly for the information being sourced to be relevant to ~~the~~ the subject being researched

b)

- c/
- 1/ cluster sampling is when data is collected from small cluster of subjects from different location to give a balanced view i.e. taking surveys from a railway station thought out a network but only from a few Traveller at each station.
 - 2/ stratified sampling is done by using a layered approach to the sample selection i.e.

Doing a survey thought a Companies staff from the Manager level through to the shop floor.

Question No.

Examiner's

Arholwr yn unig

y Cwestiwn

Question No.

Examiner O

Question No.

Examiner

Arholwr yn unig

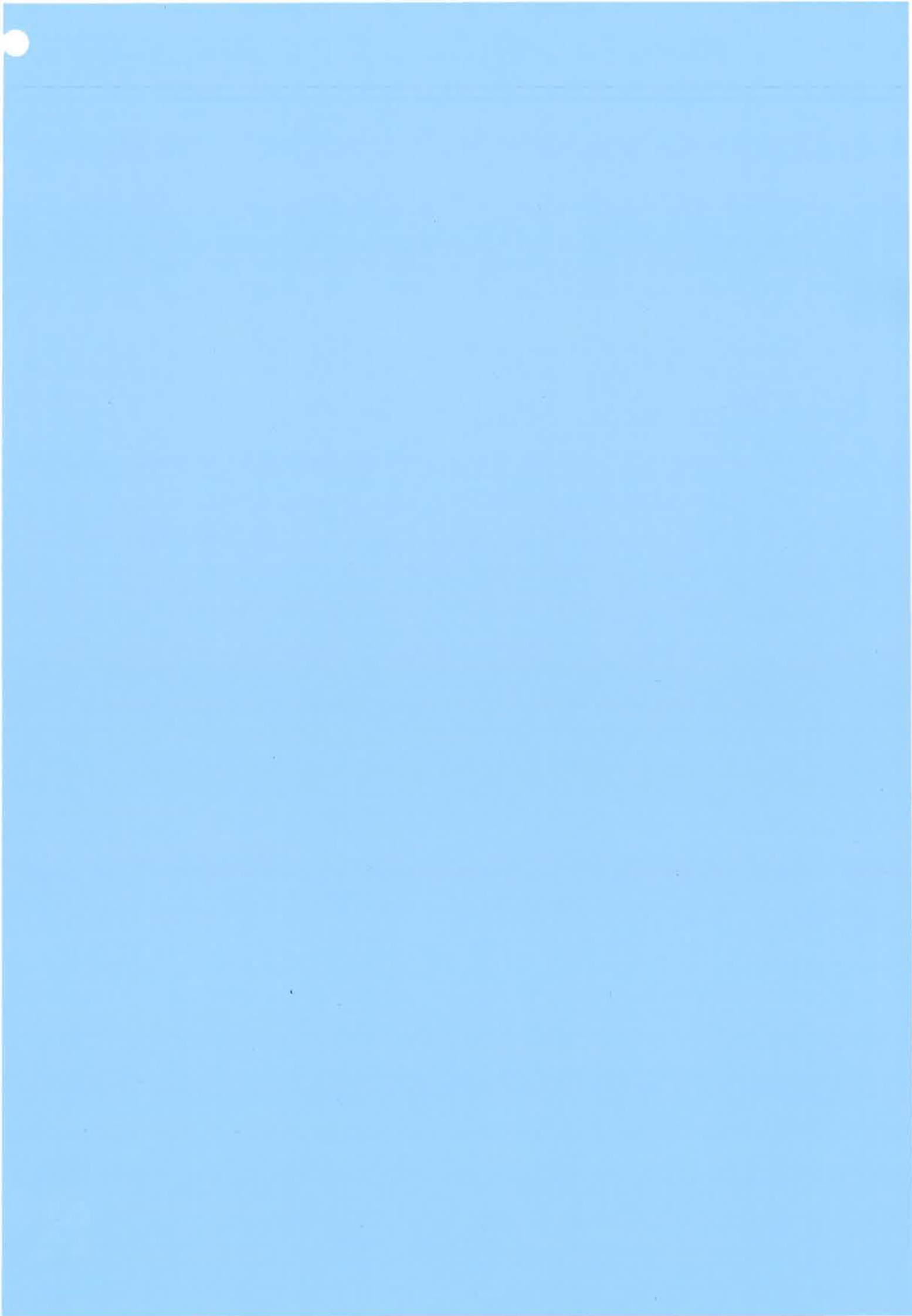
f y Cwestiwn

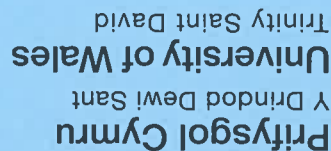
Question No.

Examiner

Arholwr yn unig

y Cwestiwn





Cyfarwyddiadau i Ymgeiswyr

1. Rhwch yr holl wybodaeth y gofynnir armdani yn y blychau isod.
2. Rhwch eich enw yn y lle a ddarparwyd ar y dde, plygwch et a'i selio i lawr (gan ddefnyddio'r label a ddarparwyd) i guddio'ch enw.

3. Rhaid i'r atebion fod mewn llawysgriften ddarllenadwy. Gall yr Arholwyr naili at anwybyddu sgript annarllenedadwy, neu drehu iddi! gael ei theipio a chael yr ymgeisydd i dalu.

4. Ysgrifennwch eich atebion mew'n inc.
5. Dechreuwch bob ateb ar dudalen newydd. Gwnewch unrhyw fras nodiadau yn y llyfr atebion a thynnu llinell drwyddynt.
6. Ni ddylid rhwygo unrhyw ran o'r llyfr hwn; rhaid ei gyflwyno yn gyfan.
7. Os defnyddir mwy nag un llyfr, rhwymwch hwy gyda'i gilydd gan ddefnyddio'r tagiau sydd ar gael oddi wrth y gwyllyw'r/gwyllyr.

8. Rhaid dychwelyd pob llyfr. Ni chaniateir mynd â llyfrau atebion, wedi eu defnyddio neu heb eu defnyddio, allan o'r lleoliad arholi o dan unrhyw amgylchiadau.

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2	Teitl y Papur Arholiad	
1	Rhif Myfyrwr	

[illegible]

(See the other side for English version)

Llenwch, plygwch a seliwch
(gweler nodyn 2 isod)

CYFENW:

ENW(AU) CYNTAF:

ENW(AU) CYNTAF:



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

Examination Answer Books

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1	Student Number	1703128
2	Title of Examination Paper	M4xø1277 STATISTICS FOR LOGISTICS
3	Module Code	M4xø1277
4	Date and Time of Examination	10/5/19 09.00
5	Examination Venue	1Q310
6	Seat Number	Gø44
7	Number of Answer Books handed in	

List the numbers of the questions you have attempted	Office Use
1	25 ✓
3	12 ✓
4	20 ✓
5	7 ✓
Total	64%

Mark agreed.
Ad.
20/05/19.

Complete, fold and seal
(see note 2 below)

SURNAME: NEWBERRY

FORENAME(S): IAN JOHN



1

$$A) \text{ Median} = \frac{36.65}{36.65} / \frac{38.11}{38.11} / \frac{41.28}{41.28} / \frac{41.87}{41.87} / \frac{43.76}{43.76} / \frac{49.35}{49.35}$$

$$\frac{41.28 + 41.87}{2} = 41.575$$

$$= \underline{41.58} \quad \checkmark$$

$$\text{Median} = 41.58$$

$$B) \text{ Mean} = \frac{36.65 + 38.11 + 41.28 + 41.87 + 43.76 + 49.35}{6}$$

$$= \frac{251.02}{6} = 41.836$$

$$\text{mean} = 41.84 \quad \checkmark$$

C) The company should use the Mean average as this is a more accurate representation of overall figures & shows the business to be slightly more profitable. ✓

(9)

(9)

(7)

3 Total no. of drivers = 2990

A)

$$\text{non-LGV} = 120 + 287 + 303 = 710$$

$$\text{Van} = 97 + 123 + 380 = 600$$

$$\text{Probability} = \frac{710 + 600}{2990} = \frac{1310}{2990} = 0.438$$

$$\text{Probability} = 0.44 \\ = 44\%$$

5

B) Artic-LGV = $\frac{329 + 300 + 131}{2990}$

$$= \frac{760}{2990} = 0.254$$

$$= 0.25$$

$$= 25\%$$

5

C) Artic-LGV = 760

$$\text{Long haul} = \frac{295 \quad 120}{329 + 300 + 131 + 97} \\ 2990$$

$$= \frac{841 + 760}{2990} = 0.535$$

$$= \frac{1601}{2990} = 0.535$$

$$= 0.54$$

$$= 54\%$$

2

Shame!

4)

- A) The population is the group of people or items that the study is about.

The sample is taking a portion of that population to use in the study.

Sampling methods are how the info is gathered.

(12)

eg. If you wanted to find how many Welsh people follow rugby, you could randomly select 500 Welsh people & ask via questionnaire how many follow rugby, Age group & Sex. This would give you a sample of how many follow rugby & you could dig down deeper using age & sex categories as well.

- B) Primary data is data you have gathered yourself & is usually very pertinent to your study.

(3)

Secondary data is data that has been gathered previously by another source & is usually not exactly pertinent to your study.

~~g/n~~

C) Advantages: Relevant data / own questions /
Can expand on answers /

Disadvantages Time consuming / have a lot
of prep work / scheduling / Logistics /
geography.

5

5)

A) They need to be relevant to the study,
need to be concise

2

B) open questions are structured so the
answer is expansive & detailed eg.
what / where / when / how / who

5

Closed questions usually result in
one word, yes or no answers e.g.
Did / Have / Is / Do

same!

Question No.

Examiner Only

Arholwr yn unig

Y Cwestiwn

Question No.

Examiner Only

Question No.

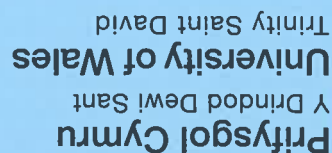
Examiner Only

Question No.

Examiner Only

Arholwr yn unig

Unig y Cwestiwn



12 Tudalen

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5. Dechreuwch bob ateb ar dudalen newydd. Gwnewch unrhyw fras nodiadau yn y lliffr atebion a thymnu llinell drwyddynt.

6. Ni ddylid rhwgo unrhyw ran o'r llyfr hwn; rhaid ei gyflwyno yn gyfan.
7. Os defnyddir mwy nag un llyfr, rhwymwch hwy gyda'i gilydd gan ddefnyddio'r tagiau sydd ar gael oddi wrth y gwylwlr/gwylwyr.
8. Rhaid dychwelyd pob llyfr. Ni chaniateir mynd â llyfrau atebion, wedi eu defnyddio neu heb eu defnyddio, allan o'r lleoliad arholi o dan unrhyw amgylchiadau.

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6	Rhif Sedd	
5	Lleoliad yr Arholiad	
4	Dyddiad ac Amser yr Arholiad	
3	Cod y Modwl	
2	Teitl y Papur Arholiad	
1	Rhif Myfyrwr	

Rhestrwch ffur'r cwestiynau a ymgeisiwyd gennyh	
At Dibenion y Syddfa	Cyfanswm

(See the other side for English version)

Llenwch, plygwh a seliwch
(gweler nodyn 2 isod)

CYFENW:

ENW(AU) CYNTAF:

ENW(AU) CYNTAF:



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1	Student Number	1706617
2	Title of Examination Paper	STATISTICS
3	Module Code	
4	Date and Time of Examination	10.5.19
5	Examination Venue	IQ 310
6	Seat Number	
7	Number of Answer Books handed in	

Complete, fold and seal
(see note 2 below)

SURNAME:

Birchmore

FORENAME(S):

Sebastian

List the numbers of the questions you have attempted	Office Use
Q1	19 ✓
Q2	15 ✓
Q4	11 ✓
Q5	11 ✓
Total	56 1/3

Mark Agreed.
XCP.
20/05/19.



Q1

a

36.65 38.11 41.28 41.87 43.76
49.35

~~41.87~~
~~41.28~~
~~40.59~~

$$\cancel{A = 40.59} \quad 41.87 + 41.28 = 83.15$$

$$83.15 \div 2 = 41.575$$

$$A = 41.575$$

B

$$36.65 + 38.11 + 41.28 + 41.87 + 43.76 + 49.35 = 285.67$$

$$285.67 \div 6 = 47.61$$

~~49.35 + 36.65 = 86~~ ~~49.35 + 36.65 = 86~~ ~~86 \div 2 = 43~~

~~150.35 \div 2 = 75.175~~ ~~150.35 \div 2 = 75.175~~

~~B = 43~~ $B = 47.61$

c

The company should use the mean data set. This is because it shows a better higher average profits for the six years.

Nice!

Q2/

a/

A

A = yes

B/

This is right this is ~~for~~ because the number is ~~the~~ the bigger of the two numbers.

c/

~~45~~ ~~66~~
 (45) 64 (66) 69 72 (73) 77 (78) 83 85
 72.5

$$73 + 72 = 145 \div 2 = 72.5$$

Good.

minimum	Q ₁	median	Q ₃	maximum
45	66	72.5	78	85

4/

A/

B

B primary data that has been collected the person that is doing the research.

secondary data is data that comes from an external source that is going to be used for the research.

3

C

Advantages of interviews are that you meet the person that you are wanting information from.

~~The disadvantages~~

The disadvantages are that people are less likely to want to talk to a strange person asking them questions about themselves. This could cause the information to be wrong because they might only get some of the answers or the information given might not be right.

8

Q5,

A, Interview questions need to be targeted at the people they are going to be asked at.

They need to be written in a way that they will get the information that is required.

(5)

✓

B, A open question allows any answer to be given.

A closed question expects an answer from a pre defined list & with the person answering it will choose from a given list.

(5)

✓

C

Question No.

Examiner Or

Arholwr yn unig

liff y Cwestiwn

Question No.

Examiner On

Arholwr yn unig

Arif y Cwestiwn

Question No.

Examiner On

Arholwr yn unig

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Question No.

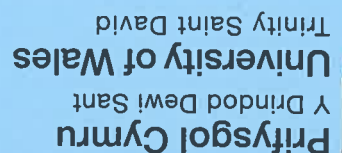
Examiner Only

Arholwr yn uni

Rhif y Cwestiwn

Question No.

Examiner On



12 Tüdalen

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3. Rhaid i'r atebion fod mewn llawysgrifen ddarlennadwy. Gall yr Arholwyr naill ai anwybyddu sgrïpt annarllennadwy, neu drefnu iddi gael ei theipio a chael yr ymgeisydd i dalu.

4. Ysgriennwch eich atebion mewn inc.

5. Dechreuwch bob ateb ar dudalen newydd. Gwnewch unrhyw fras nodiadau yn y llyfr atebion a thynnu llinell drwyddynt.

6. Ni ddylid rhwygo unrhyw ran o'r llyfr hwn; rhaid ei gyflwyno yn gyfan.

7. Os defnyddir mwy nag un llyfr, rhwymwch hwy gyda'i gilydd gan ddefnyddio'r tagiau sydd ar gael oddi wrth y gwylwlr/gwylwyr.

8. Rhaid dychwelyd pob llyfr. Ni chanafeir mynd â llyfrau atebion, wedi eu defnyddio neu heb eu defnyddio, allan o'r lleoliad arholi o dan unrhyw amgylchiadau.

7	Nifer y Llyfrau Atebion a gyflwynwyd	
6	Rhif Sedd	
5	Lleoliad yr Arholiad	
4	Dyddiad ac Amser yr Archoliad	
3	Cod y Modwl	
2	Teitl y Papur Arholiad	
1	Rhif Myfyriwr	

[illegible]

(See the other side for English version)

Llenwch, plygwch a seliwch
(gweler nodyn 2 isod)

CYFENN:

ENW(AU) CYNTAF:

ENW(AU) CYNTAF:



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

Examination Answer Books

12 Pages

Instructions to Candidates

1. Please give the information requested in the boxes below.
2. Enter your name in the space provided to the right, fold over and seal down (using the label provided) to hide your name.
3. The answers must be legibly written. The Examiners can either ignore illegible script or have it typed and the expense of typing charged to the candidate.
4. Write your answers in ink.
5. Begin each answer on a fresh page. Do all rough work in the answer book and cross it through.
6. No part of this book is to be torn out; it must be handed in complete.
7. If more books than one are used, fasten them together using the tags available from the invigilator(s).
8. Every book must be handed in. In no circumstances may answer books, used or unused, be taken out of the examination venue.

Complete, fold and seal
(see note 2 below)

SURNAME: SMITH

FORENAME(S):

JAMES ALEXANDER

1	Student Number	1802761
2	Title of Examination Paper	Statistics For Logistics
3	Module Code	M4X01277
4	Date and Time of Examination	10/05/2019 09.02
5	Examination Venue	IO310
6	Seat Number	G040
7	Number of Answer Books handed in	1

List the numbers of the questions you have attempted	Office Use
Q1	15 ✓
Q3	16 ✓
Q4	16 ✓
Q5	29 ✓
Total	66%

Mark Agreed.
20/05/19
[Signature]



1 ~~36.65 38.4 41.28 41.87 43.76 49.35~~ ⁸⁷
- 28

a) ~~41~~ The median is 41.87 / Not correct

Sham! 3

b) The mean is 41.834 U

9

	36	65
+	38	11
+	41	28
+	41	87
+	43	76
+	49	35
+		02
	323	3
	251.02	251.02
	6	6

c) The company would be better to use the mean value in the press release. Using the mean value gives ~~a more~~ a better view of the company over the past 6 years rather than the median which is just 1 year's figure.

3

.m.

2
3

a) ~~The Probability of a driver being a non LGV or van driver is $\frac{131}{2990}$~~

Articulated LGV

Total

760

Rigid LGV

920

Non LGV

710

Van

600

~~1310~~ 2990

Total 2990

a) The Probability of a driver being a non LGV or van driver is $\frac{131}{2990}$ or 0.43 2.02 0.43%

5

~~760~~ 2990

b) The Probability of a driver being a articulated LGV driver is $\frac{760}{2990}$ or 0.25 0.2541 3.93

5

c) The Probability of that a drivers is an articulated LGV Driver and operates on long haul work is $\frac{636}{1495}$ or ~~2.33~~ 0.425

5

329+900

+431

+295

636

+400

1495

+99

380/2990

d) ~~380~~ The probability is 0.127

e) ~~The classical approach is Set numbers the empirical is~~

e) The classical approach is Using Set formula empirical is more broad.

5

4

a) The population is for example people who buy white bread that is every person who buys white bread. A sample is a select few of the population who buy white bread. Sampling methods are used to determine why they buy white bread.

7

OK.

b) Primary data is data collected, Secondary data is used after data has been used.

2

c) The advantages of collecting data using interviews is the data can be more qualitative data and the data which is to be collected can be more targeted. The disadvantage is doing interviews can take time so the number of people asked could be fewer, which can make the data not as relevant. This could mean the data may not be as accurate.

7

✓

S

a) The Principles for designing an interview question is to make the question relevant to what you are collecting data for. Making the question quick or easy to answer. If the question is for qualitative data or quantitative data.

b) Close questions can be simple yes or no answers questions or a numerical value which limits the range of answers. Open questions can be for example what is your favorite colour and why or why did you chose a certain brand. These questions can be more qualitative.

(c)

c) Cluster sampling is for example asking a certain group of people i.e. Teenagers why they like a certain band and why and then can lead to different questions. Stratified is the asking a group of teenagers a set rigid structured set of questions

Question No.

Examiner Only

Question No.

Examiner O

Arholwr yn unig

llyf y Cwestiwn

Question No.

Examiner Only

Arholwr yn unig

Arholwr yn unig

Question No.

Examiner Only

Arholwr yn unig

Rhif y Cwestiwn

Question No.

Examiner On

Question No.

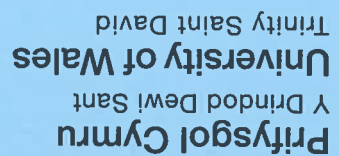
Examiner Only

Arholwr yn un

Rhif y Cwestiwn

Question No.

Examiner On



12 Tudalen

1. Rhwch yr holl wybodaeth y gofynnir amdani yn y blychau isod.
2. Rhwch eich enw yn y lle a ddarparwyd ar y dde, pigwch ef a'i selio i lawr (gan ddefnyddio'r label a ddarparwyd) i guddio'ch enw.

3. Rhaid i'r atebion fod mewn llawysgriften ddarllenadwy. Gall yr Arholwyr naill ai anwybyddu sgrïpt annarllenadwy, neu dreftnu iddi gael ei theipio a chael yr ymgeisydd i dalu.
4. Ysgrifennwch eich atebion mewn inc.
5. Dechreuwch bob ateb ar dudalen newydd. Gwnewch unrhyw fras nodiadau yn y llyfr atebion a thynnu llinell drwyddynt.
6. Ni ddylid rhwgo unrhyw ran o'r llyfr hwn; rhaid ei gyflwyno yn gyfan.
7. Os defnyddir mwy nag un llyfr, rhwymwch hwy gyda'i gilydd gan ddefnyddio'r tagiau sydd ar gael oddi wrth y gwyltiwr/gwylwyr.
8. Rhaid dychwelyd pob llyfr. Ni chaniateir mynd â llyfrau atebion, wedi eu defnyddio neu heb eu defnyddio, allan o'r lleoliad arholi o dan unrhyw amgylchïadau.

1	Rhif Myfyriwr	
2	Teitl y Papur Arholiad	
3	Cod y Modwl	
4	Dyddiad ac Amser yr Archoliad	
5	Lleoliad yr Arholiad	
6	Rhif Sedd	
7	Nifer y Llyfrau Atebion a gyflwynwyd	

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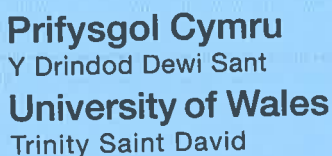
(See the other side for English version)

Llenwch, plygwch a seliwch
(gweler nodyn 2 isod)

CYFENN:

ENW(AU) CYNTAF:

ENW(AU) CYNTAF:



**Complete, fold and seal
(see note 2 below)**

SURNAME: Hayal

FORENAME(S): Llyr Owen

12 Pages

Instructions to Candidates

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8. **Every book must be handed in. In no circumstances may answer books, used or unused, be taken out of the examination venue.**

1	Student Number	1803229
2	Title of Examination Paper	Statistics For Logistics
3	Module Code	MAx01277
4	Date and Time of Examination	10/05/19 9.00-11.00
5	Examination Venue	
6	Seat Number	6046
7	Number of Answer Books handed in	

List the numbers of the questions you have attempted	Office Use
Q 1	8 ✓
Q 2	15 ✓
Q 3	10 ?
Q 5	5 ✓
Total	38%

Mark agreed.

Ref.

20/05/19.

(Gweler yr ochr arall am y fersiwn Cymraeg)

A) 36.65, 38.11, 41.28, 41.87, 43.86, 49.35

$$41.28 - 41.87$$

$$87 - 28 = 59$$

$$41.59 = \text{median}$$

4

B) 36.65, 38.11, 41.28, 41.87, 43.86, 49.35

$$49.35 - 36.65 = 12.70$$

2

C) To announce its average profit over this time period, the Company should use the median. Because it breaks down the figures and it gives you the total average of all the figures that are being shown. Using the median will make it a lot easier to explain the average profits as well. It can also give you the the highest and the lowest price of profit.

2

2.

A) This conclusion is ^{not} correct

5

B) This is ^{not} correct because B does not show more variability than those in data set A because data set A has more larger standard deviation due to the fact data set A is in Centimeters which can give a bigger volume than data set B as it is in Litres.

5

Nice.

C

45-64-66-69-72-73-77-78-83-85

5

- A) Probability of Non LGV or a Van driver. First of all they both are mostly unlikely to do long haul trips which in a way is a good thing due to the fact it can be less of a risk for them as the driver but they still have a lot of responsibilities especially if they're carrying goods. They are more expected to do more short haul than an LGV. Due to the fact that vans or any non-LGV lorry are much more suitable to do any short haul and even some medium haul. 2
- B) Probability of an articulated LGV driver might seem more than vans or non LGV lorry. Due to the fact they're much more suitable for long haul rather than short haul. Articulated LGV are made for long haul as they are made to carry bigger goods to further places. Their responsibility is just as important as doing a medium or a short haul. 2
- C) Doing long haul work has a lot of probability. Going longer distances is of course going to feel like more work and feel like you have much more responsibility than a short or medium haul but the job and responsibility doesn't change. 2
- D) Short haul might seem much easier work but in reality it's just as hard. It's important that they treat a short haul work just as important as a long haul work as responsibilities are just as hard and important. 2
- E) The approach too probability is pretty straight forward. The responsibilities doesn't change no matter the haul of the job. Drivers all have the same job to do, making sure the goods get from 1 side to the other. 2

Shame!

A) Designing interview questions can be important as the questions can make a big difference to the outcome of what people can do. The questions have to be designed in an effective way.

2

b) open questions is more about the person itself and getting to know them better. Close questions can be more towards the job itself.

3

c.

Question No.

Examiner O

Arholwr yn unig

y Cwestiwn

Question No.

Examiner Or

Arholwr yn unig

ty Cwestiwn

Question No.

Examiner Onl

Arholwr yn unig

hif y Cwestiwn

Question No.

Examiner On

Arholwr yn unig

hif y Cwestiwn

Question No.

Examiner Only

Arholwr yn un

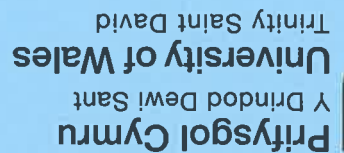
Rhif y Cwestiwn

Question No.

Examiner On

Arholwr yn unig

ty y Cwestiwn



12 Tüdalen

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2. Rhwch eich enw yn lle a ddarparwyd ar y dde, plygwch ef a'i selio i lawr (gan ddefnyddio'r label a ddarparwyd) i guddio'ch enw.

CYFENN:

ENW(AU) CYNTAF:

3. Rhaid i'r atebion fod mewn llawysgriften ddarlennadwy. Gall yr Arholwyr naill ai anwybyddu sgript annarllennadwy, neu drefnu iddi gael ei theipio a chael yr ymgeisydd i dalu.
4. Ysgrifennwch eich atebion mewn inc.
5. Dechreuwch bob ateb ar dudalen newydd. Gwnewch unrhyw fras nodiadau yn y llyfr atebion a thynnwch llinell drwyddynt.
6. Ni ddylid rhwgo unrhyw ran o'r llyfr hwn; rhaid ei gyflwyno yn gyfan.
7. Os defnyddir mwy nag un llyfr, rhwymwch hwy gyda'i gilydd gan ddefnyddio'r tagiau sydd ar gael oddi wrth y gwyllywrr/gwylwyr.
8. Rhaid dychwelyd pob llyfr. Ni chaniateir mynd â llyfrau atebion, wedi eu defnyddio neu heb eu defnyddio, allan o'r lleoliad arholi o dan unrhyw amgylchriad.

[illegible]

(See the other side for English version)