



In academic
affiliation with



GULF COLLEGE – MUSCAT – SULTANATE OF OMAN

UNDERGRADUATE BUSINESS PROGRAMME

ACADEMIC YEAR: 2016-2017

First Semester

ASSIGNMENT

Module Title: Business Skills 2	
Module Code: BLB10115 – 4	
Method of Assessment : Business Maths Assignment	
Weighting: 50%	Module Credits: 15
Level: 4	Semester/Teaching block: 2
Morning/Evening Session: Both	Examiner: Mrs Mradula Binu
Additional Information (if any):	

4. Al Safa purchased 500 packs of instant noodles for OMR0.150 each. They price their products with a profit of 65% on cost. When 55% of the products were sold, the company reduced the selling price by 25%. After the discount period, 50% of the unsold instant noodles were subsequently sold.

a) Calculate the original selling price.

$\frac{1}{2}$

b) Determine the reduced selling price.

$\frac{1}{2}$

c) Determine the aggregate sales on both prices.

$\frac{1}{2}$

d) Calculate the net profit expressed as a percentage of total cost.

$\frac{1}{2}$

c) Comment on the variability and consistency of the three call centre agents.

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2. A university research shows that a full time business student spends 6 hours on independent study and has an average mark of 52. The coefficient of correlation between the two items is 0.27 while their standard deviations were 6 and 9, respectively.

a) Determine the two regression equations

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Weighting: 50%

Submission Time and Date: January 1st to 3rd 2017

You should hand in **one** copy of your assignment by the time and date mentioned above to the appropriate 'hand-in location' at the Gulf College. Fill in the front cover (staple together with your assignment). **MAKE SURE** that you fill in all the relevant details on this form. An acknowledgement will be given to you upon receiving your assignment. This is your receipt, **keep it**. You can submit work by post, but you must send it recorded delivery, it must be postmarked two days before the deadline date and a copy must be kept by you in case it is lost in the post. Faxed assignments will **not** be accepted.

Assignments **must** be submitted by the due date. The only circumstance in which assignments can be submitted late is if an extenuating circumstances form is submitted at the same time. In these circumstances work may be submitted up to 5 days late only. If the extenuating circumstances are upheld, the assignment will be graded; otherwise a 0 will be awarded.

Note: The assignment should be written in pen only except for the graphs which are to be drawn in pencil.

This assignment will assess learning outcome:

LO2 CALCULATE AND APPLY A RANGE OF QUANTITATIVE TECHNIQUES TO SOLVE BUSINESS PROBLEMS

Method of Assessment: Business Maths Assignment	
Module Credits: 15	Weighting: 50%
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Business Skills – II (BLB10115-4)
Business Maths Assignment
2016 – 2017 (First Semester)

ANSWER THE FOLLOWING QUESTIONS IN PEN SHOWING ALL APPROPRIATE WORKINGS AND FORMULAS WHEREVER REQUIRED IN THE SPACES PROVIDED AND MAKING INDICATIONS ON GRAPHS WHERE READINGS HAVE BEEN TAKEN.

1. The post audit of call centre agents shows that three staff members were on top of the list, Ali, Hamed and Mustafa. Ali was able to receive an average of 50 calls within 10 hours. On the other hand, Hamed picked 70 calls within 12 hours. Lastly, Mustafa answered 65 calls within 9 hours. Their standard deviation is 4, 3, and 8, respectively.

a) What is the combined average of all the call centre agents?

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b) Find which employee has greater consistency.

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- b) Calculate the independent study hours if a business student wants to achieve 73 marks.

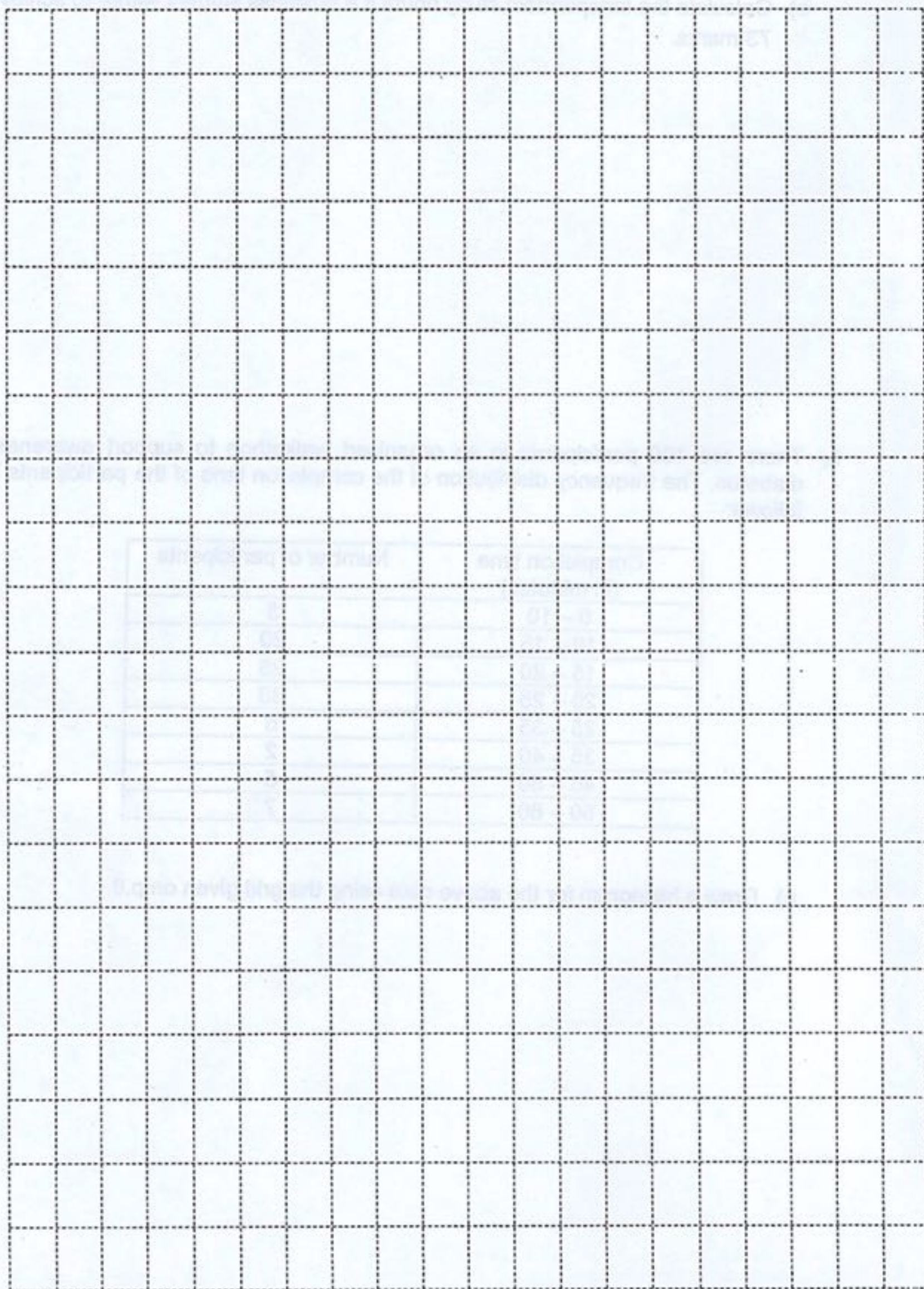
2

3. There are 100 participants in an organised walkathon to support awareness of diabetes. The frequency distribution of the completion time of the participants is as follows:

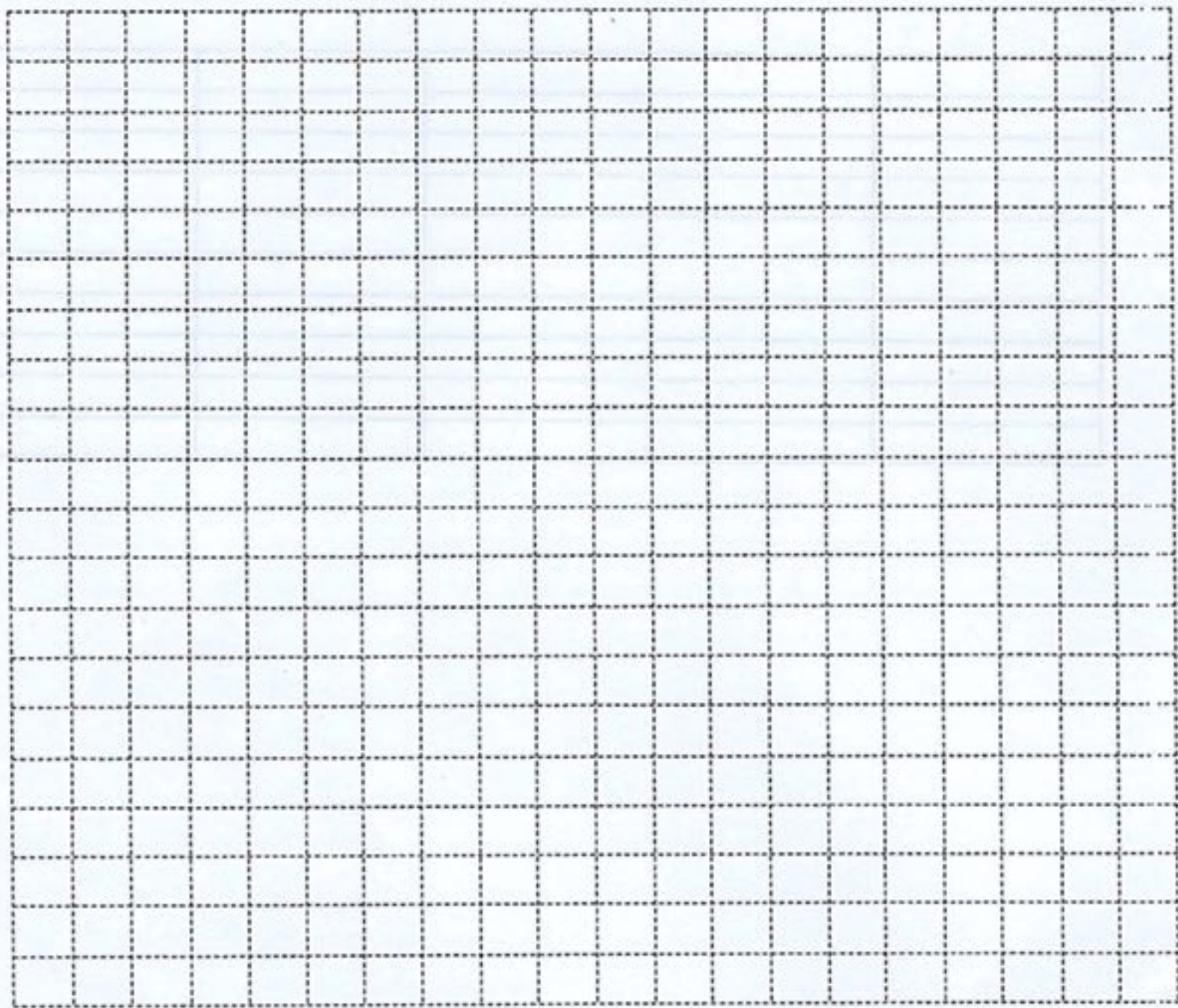
Completion time (in minutes)	Number of participants
0 – 10	5
10 – 15	20
15 – 20	25
20 – 25	30
25 – 35	6
35 – 40	2
40 – 50	5
50 – 60	7

- a) Draw a histogram for the above data using the grid given on p.6.

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b) Draw less than cumulative frequency curves for the data in question no. 3 using the grid below



Use the cumulative frequency graph to estimate the following measures.

- Lower Quartile _____
- Upper Quartile _____
- Median _____
- 60th Percentile _____
- Inter Quartile Range _____

Number of participants who completed the walkathon in less than 30 minutes _____

5.

a) Both the husband and wife applied for a managerial position. The probability that the husband will get the job is 0.75 and that a wife will get the post is 0.56. What is the probability that at least one of them will get the managerial position?

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b) Give an example of the following

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- i) Marginal probability
- ii) Joint probability
- iii) Conditional probability

C) Estimate the mean and standard deviation from the above frequency table (data in question 3) showing all workings.

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