FINAL
ALTERNATIVE ASSESSMENT
Examination Paper

(COVER PAGE)

Session	:	**January 2022**
Programme	:	Diploma In Business Management (DBM/DBMS)
Course	:	**WBUS1105: Business Analytics**
Date of Examination	:	March 12, 2022 (Saturday)
Time	:	8.00am – 10.30am Reading Time : Nil
Duration	:	2 Hours : 30 Minutes

Note: 30 minutes is added into the duration of the examination to factor in any connectivity matters and for you to scan and upload your scripts.

Special Instructions :

This paper consists of **FIVE (4)** structured-type questions. Answer **ALL** the questions hand written in either **BLUE/BLACK** ink on foolscap papers. Hence, upload the answers **(PDF FORMAT)** in Blackboard by using **TINY SCANNER/CAM SCANNER**

Materials permitted :
Non-Programmable Calculator

Materials provided :
Nil

Examiner(s)	:	**Dinesh Kumar Govindasamy** & Josh Si Chong En
Moderator	:	Hatin Fatihah Hasan

*This paper consists of **3** printed pages, including the cover page*

DIPLOMA IN BUSINESS MANAGEMENT PROGRAMME (DBM/DBMS)
WBUS1105: BUSINESS ANALYTICS
FINAL ALTERNATIVE ASSESSMENT: JANUARY 2022 SESSION

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Question 1

(a) Define qualitative data, quantitative data and quantitative continuous data, with examples. (6 marks)

(b) Indicate the following statements as qualitative, quantitative discrete or quantitative continuous variable.

(i) Volume of water used to produce a cup of café latte. (1 mark)

(ii) Number of student admissions in INTI International College Subang. (1 mark)

(iii) Types of under-graduate programs available a university. (1 mark)

(iv) Income tax paid by Malaysians. (1 mark)

(c) Interpret the term ‘descriptive statistics’ and ‘inferential statistics’. (2 marks)

(d) Indicate the following statements as population or sample.

(i) Average age of all voters in Melaka, Malaysia. (1 mark)

(ii) KLSE (Kuala Lumpur Stock Exchange) monthly share prices from 2010 to 2020. (1 mark)

(iii) 30 lecturers from INTI International College were selected to attend an education seminar in Hong Kong. (1 mark)

(e) The following data shows the annual starting salary of selected 50 Bachelors of Business Administration graduates:

Annual Salary (USD ‘000)	**Number of graduates**
$20 - 24$	1
$25 - 29$	7
$30 - 34$	13
$35 - 39$	15
$40 - 44$	9
$45 - 49$	3
$50 - 54$	2

(i) Construct a table to clearly show your class boundaries and cumulative frequency. (2 marks)

(ii) Construct a histogram to illustrate the above information. (4 marks)

(iii) Construct a cumulative frequency polygon to illustrate the above information. (4 marks)

[TOTAL: 25 MARKS]

Question 2

(a) In a box, there are 80 balls which contains 22 red balls, 26 blue balls, green balls are 50% lesser than the blue balls and the rest are purple balls. If a ball is to be picked at random, find the probability that,

(i) the ball is not a yellow ball. (1 mark)

(ii) the ball is a green ball. (3 marks)

(iii) the ball is a purple ball. (3 marks)

(b) A baker keeps count of the number of doughnuts sold each day for consecutive selected 15 days. The numbers are

135	**147**	**134**	**146**	**155**
155	**141**	**135**	**147**	**151**
147	**175**	**151**	**156**	**147**

(i) Find the mode. (1 mark)
(ii) Find the mean. (3 marks)
(iii) Find the median. (3 marks)
(iv) Find the standard deviation. (4 marks)

(c) At a political rally, there are 20 republicans, 13 democrats and 6 independents. If a person is selected at random, find the probability of the following.

(i) That the person is an independent. (2 marks)
(ii) That the person is not a republican. (2 marks)
(iii) That the person is a democrat or a republican. (3 marks)

[TOTAL: 25 MARKS]

Question 3

(a) The mass of a small loaf of bread is normally distributed with a mean of 500g and a standard deviation of 20g.

(i) Find the probability that a randomly chosen loaf has a mass of more than 510g. (4 marks)

(ii) Find the probability that a randomly chosen loaf has a mass in between 450g to 520g. (5 marks)

If 16 loafs of bread were selected.

(iii) Find the probability that a randomly chosen loaf has a mass of less than 498g. (4 marks)

(iv) Find the probability that a randomly chosen loaf has a mass in between 492g to 497g. (5 marks)

(b) In a class of 15 students, the coursework marks for all the students are as follows:

15	**47**	**34**	**46**	**50**
55	**21**	**35**	**48**	**51**
33	**57**	**44**	**56**	**59**

(i) Calculate the mean coursework for all 15 students. (3 marks)

(ii) 10 students are selected, which their coursework is 57, 55, 21, 46, 50, 34, 15, 33, 59, 47. Calculate the sample mean and sampling error for the selected students. (4 marks)

[TOTAL: 25 MARKS]

Question 4

(a) A random sample of 50 four-year-old attending day care centres provided a yearly tuition average of RM 6000 and the population standard deviation of RM 400. Find the 95% confidence interval of the true mean. (6 marks)

(b) The data below represents the monthly share price of Hong Leong Bank Bhd (HLBB) from August 2020 to Mar 2021.

Price (RM/share)
14.00
15.04
14.80
17.18
18.20
17.26
18.00
18.70

(i) Find the mean for the above data. (2 marks)

(ii) Construct a 99% confidence interval for the true population mean value of Hong Leong Bank Bhd (HLBB) share price if the population standard deviation is given as RM 2.00. (6 marks)

(iii) Construct a 90% confidence interval for the true population mean value of Hong Leong Bank Bhd (HLBB) share price if the population standard deviation is given as RM 1.50. (6 marks)

(c) List 3 types of chart that are suitable for each categorical data and numerical data. (5 marks)

~THE END~