BERJAYA
UNIVERSITY COLLEGE
OF HOSPITALITY

BERJAYA BUSINESS SCHOOL

FINAL EXAMINATION

Student ID (in Figures)   :

Student ID (in Words)   :

Subject Code & Name   :   **DBM 1401 ESSENTIAL MATHEMATICS FOR BUSINESS**
Semester & Year   :   May - August 2016
Lecturer/Examiner   :   Ms. Faridah Hanum Amran
Duration   :   2 Hours

_____

INSTRUCTIONS TO CANDIDATES

1. **This question paper consists of 2 parts:**
   PART A (40 marks) : **TWO (2) short answer questions. Answers are to be written in the Answer Booklet provided.**
   PART B (60 marks) : **THREE (3) structure type questions. Answers are to be written in the Answer Booklet provided.**
2. **Candidates are not allowed to bring any unauthorized materials except writing equipment into the Examination Hall. Electronic dictionaries are strictly prohibited.**
3. **This question paper must be submitted along with all used and/or unused rough papers and/or graph paper (if any). Candidates are NOT allowed to take any examination materials out of the examination hall.**
4. **Only ballpoint pens are allowed to be used in answering the questions, with the exception of multiple-choice questions, where 2B pencils are to be used.**

WARNING: The University Examination Board (UEB) of BERJAYA University College of Hospitality regards cheating as a most serious offence and will not hesitate to mete out the appropriate punitive actions according to the severity of the offence committed, and in accordance with the clauses stipulated in the Students' Handbook, up to and including expulsion from BERJAYA University College of Hospitality.

Total Number of pages = 8 (Including the cover page)

PART A : SHORT ANSWER QUESTIONS (40 MARKS)

INSTRUCTION : **TWO (2)** short answer questions. Answer **ALL** questions in the Answer Booklet(s) provided.

Question 1

a. Explain the cash discount terms 10/5, n/30

(3 marks)

b. The total of an invoice with cash discount terms 10/10, n/30 amounts to RM 5,000 which includes freight charge of RM 100.00. Find the amount that is needed to pay the invoice within the cash discount period.

(3 marks)

c. A computer is advertised for RM4,800 less 20% and 10%. Calculate the net price and the total discount

(2 marks)

d. An invoice of RM 5,500 dated 19 April 2012 is offered 13% trade discount and cash discount terms of 3/10, n/30. Find the net payment if the invoice is paid on 30 April 2012

(2 marks)

e. Pixel's photography pays RM 9 for a 5x7 photograph. If the photograph is sold for RM 15, calculate the percent of mark-up based on cost

(3 marks)

f. A DVD movie is marked up RM 7.80 which represents a 20% markup based on cost. Calculate the cost of the DVD.

(3 marks)

g. Find the final price for an item that cost RM 30, marked up by 20% and then, was marked down 33%, and subsequently marked up 10% and finally marked down by 50% for clearance.

(2 marks)

h. Haikal has an old motor vehicle. He wants to sell it for 70% off the current price. The market price is RM 5,000. Calculate the amount of money he would receive if he were able to sell it at that rate

(2 marks)

[Total: 20 marks]

Question 2

Determine the simple amount for transactions below:

a   RM 2,000 was invested in the bank for two years that pay interest 10%.yearly
                                                                                (4 marks)

b.   RM 5,000 was invested in the bank for 36 months that pay interest 5% yearly
                                                                                (4 marks)

c.   RM 7,500 was invested in the bank for 5 months that pay interest 12% yearly
                                                                                (4 marks)

d.   RM 12,500 was invested in the bank for 365 days that pay interest 10% yearly
                                                                                (4 marks)

e.   RM 1,000 was invested in the bank for seventeen months that pay interest 5%
            yearly.
                                                                                (4 marks)

[Total: 20 marks]

END OF PART A

PART B   **: STRUCTURE TYPE QUESTIONS (60 MARKS)**

INSTRUCTION(S)   **: THREE (3)** structure type questions. Answer **ALL** questions in the Answer Booklet(s) provided.

Question 1

a. EzY Enterprise has spent RM 14,500 to buy a latest edition of 84-inch class Ultra High Definition TV. The television was expected to have 10-year of useful life and a residual value of RM 500. EzY Enterprise will use reducing balance method for depreciation of it assets. The depreciation rate policy was 10% per annum. Calculate the total depreciation amount for five years.

(10 Marks)

b. Reena Enterprise has decided to revise its motor vehicle useful life. The motor vehicle originally cost RM 55,000, had an estimated useful life of 10 years, and had an estimated residual value of RM 1,000. After using the motor vehicle for three years, the asset accumulated depreciation balance was RM 6,000. At the beginning of year 4, the company estimates the motor vehicle will have a remaining useful life of only five more years and at the end of its useful life the motor vehicle can be sold for RM 0. The company uses the straight-line depreciation method. Calculate the company's new annual depreciation expense on the motor vehicle for its remaining 5-year useful life.

(10 Marks)
[Total: 20 marks]

Question 2

a. A factory produces two products, Ree and See. Each product is produced using two machines, machine A and machine B. The following table gives the information on the usage of the machines.

Product	Machine A (hours)	Machine B (hours)
Ree	9	6
See	6	12

Due to the cost and manpower relationship, machine A must be used for at least 180 hours while the maximum capacity for machine B is 240 hours. The profit obtained from each unit of Ree is RM 53 and from each unit of See is RM 62.

  i. Formulate the objective function and constrains.

(5 Marks)

  ii. Sketch the problem in the graph

(5 Marks)

  iii. Identify the corner points from the graph

(5 Marks)

  iv. If the company want to maximise its profit, how much it need to produce for Ree and See.

(5 Marks)

[Total: 20 marks]

Question 3

a. A debt of RM 25,000 mature at the end of the second year and another of RM 15,000 at the end of the fourth year. If the debtor wishes to pay his debt by making one single payment the end of the third year, find the amount he must pay if money is worth 10% compounded yearly.

      i.   The present as the focal date

(12 Marks)

     ii.   The end of the third year as the focal date

(8 Marks)

[Total: 20 marks]

END OF QUESTION PAPER