

**UNIVERSITI KUALA LUMPUR
MALAYSIAN INSTITUTE OF INDUSTRIAL TECHNOLOGY**

**FINAL EXAMINATION
JANUARY 2016 SEMESTER**

COURSE CODE : JGB 11303
COURSE TITLE : ENGINEERING COMPUTER PROGRAMMING
PROGRAMME LEVEL : BACHELOR
DATE : 31 MAY 2016
TIME : 9.00 AM – 12.00 PM
DURATION : 3 HOURS

INSTRUCTIONS TO CANDIDATES

1. Please read the instructions given in the question paper **CAREFULLY**.
2. This question paper is printed on both sides of the paper.
3. This question paper consists of **TWO (2)** sections.
4. Answer **ALL** questions in Section A. Choose **THREE (3)** questions in section B.
5. Please write your answers on the answer booklet provided.
6. Please answer all questions in English only.

THERE ARE 4 PAGES OF QUESTIONS EXCLUDING THIS PAGE.

SECTION A (TOTAL: 40 marks)**INSTRUCTION: Answer ALL questions****Please use the answer booklet provided.****Question 1**

Briefly explain the function of syntax in Microsoft Excel 2010 environment as below:

- (a) COUNT
- (b) IF
- (c) PEARSON
- (d) SUMIF
- (e) EXP

(10 marks)

Question 2

Briefly explain function of each Visual Basic (VB) statement as follow:

- (a) CoffeeTypeListBox.SelectedIndex = 3
- (b) MsgBox("Welcome to myc1n1 coffee house")
- (c) Do...Loop
- (d) Dim Int SelectA = 0
- (e) colorListBox.Items.RemoveAt (colorListBox.SelectedIndex)

(10 marks)

Question 3

Design a flow chart according to the following problem.

Ask the user to enter two numbers.
The program should tell the user which is the greater number or same.

(10 marks)

Question 4

Design a flow chart that calculates the tuition fees for the SPM examination of a Cemerlang Tutor company. The fee varies depending on the number of subject taken as shown in the following table. The algorithm inputs the number of subjects taken. It then determines the total fees and the discount offer. Finally it displays the fees that the student needs to pay. Provide the analysis of IPO as well. Refer to Figure 1.

Fees	Number of subjects	Discount rate
RM50 for each subject	Less than or equal 3	No discount
	4 to 6	5% discount
	More than 6	10% discount

Figure 1: Cemerlang Tutor fee for SPM

(10 marks)

SECTION B (Total: 60 marks)

INSTRUCTION: Answer THREE (3) questions only

Please use the answer booklet provided.

Question 1

For every instruction, a data repeats a set of four basic operations, which comprise a machine/software cycle. By the data given as follows, explain the steps of how the data transform to information. Your answer must also show the input (data) which entered by user and the output/information that might be displayed as the result of the calculation. Draw the cycle.

Data input = 20 and 5

Process = calculate (division)

Output = the result of the calculation

(20 marks)

Question 2

- (a) List out **FIVE (5)** controls with their **THREE (3)** properties setting that might be used in Microsoft Visual Basic 2010.

(10 marks)

- (b) Write a declaration of Visual Basic using Dim Statement for the following situations (make up appropriate variable identifier).

- I. Number of hours which can hold a decimal value
- II. Employee's name
- III. Department number (not to use in calculation)
- IV. Quantity out
- V. Quantity in
- VI. Status to reorder (yes or no)
- VII. Description of item
- VIII. Part number
- IX. Costs
- X. Selling price

(10 marks)

Question 3

Write the Visual Basic (VB) code and draw a flow chart according to the following Graphical User Interface (GUI) as Figure 2.

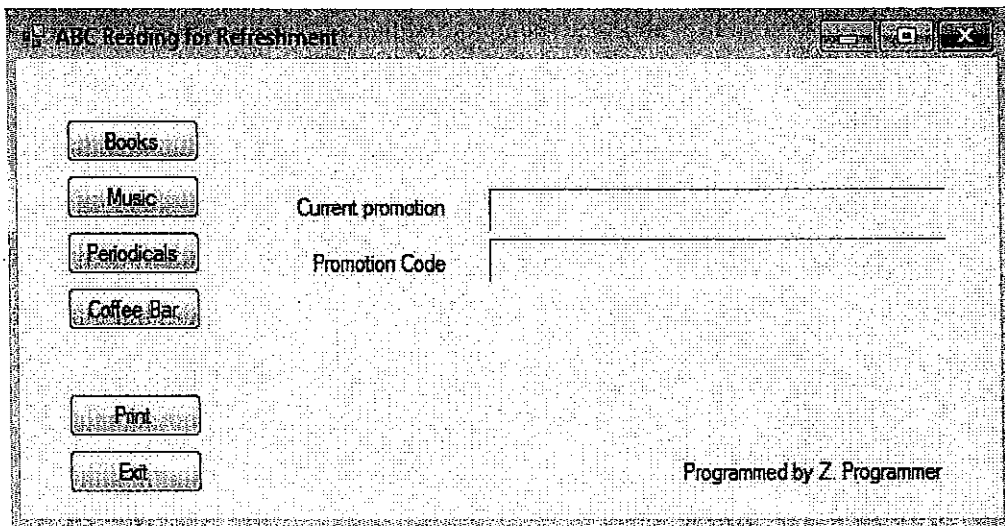


Figure 2: GUI of ABC Reading

(20 marks)

Question 4

Identify the formula given as VALID or NOT VALID and state the reason if the answer is NOT VALID.

FORMULA	ANSWER	REASON / DESCRIPTION
= ((A2+B5)*5%		
= AVE (B3:C8)		
= D5;D8		
=ADD(D5:D7)		
= IF (D5<100.23,"YES")		
= IF (D4=< 100," Y", "N")		
= IF (D5<100.23,1,2		
= COUNTIF (D5:H12,"2")		
= SQRT(F8,3)		
=TODAY()		

(20 marks)

END OF EXAMINATION PAPER

