University of Vavuniya

First Examination in Information Technology - 2022

First Semester - January/February 2024

IT1113 Fundamentals of Information Technology (Practical)

Answer All Questions

Time Allowed: Two hours

Instruction:

- Necessary resource for the Question 1. (b) is in the folder "IT1113P_Resource" on your desktop folder.
- Create a folder in the Desktop with your index number (E.g., IT10001), and save all files into that folder.

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1. Create two seperate Microsoft Word documents to answer Questions 1. (a) and 1. (b).

   (a) Create an MS Word document with the name "Q1a.docx" and type the following mathematical equations in it:

   i. Integral of Gaussian Distribution:

   $\int_0^\infty e^{-x^2} dx = \sqrt{\pi}$

   ii. Fourier Series Representation:

   $f(x) = a_0 + \sum_{n=1}^{\infty} \left(a_n \cos\left(\frac{n\pi x}{L}\right) + b_n \sin\left(\frac{n\pi x}{L}\right) \right)$

   iii. Quadratic Formula:

   $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

   [15%]

[This question continues on the next page.]

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(b) Create an MS Word document with the name "Q1b.docx" and reproduce the "Avacado.pdf" with the following settings:

i. Page size: Legal (8.5" x 14")

ii. Page orientation: Landscape

iii. page margins: Top: 0.75", Bottom: 0.75", Right: 1.25", Left: 1.25"

iv. Line spacing: 1.5"

v. Font: Arial

vi. Font size: 12

vii. Align: Justify

viii. Select the heading "Avocados" and format it as follows:
Style: Bold and underline, Font color: Green, Align: Center, Font size: 24,
Change the letters to UPPERCASE.

ix. Drop capital letter A into four lines.

x. Enter "Avocado Nutrients" text as the heading of the table and format using Font work. (Font: Impact, Align: Center, Color: Green)

xi. Format the table as follows:
Font: Times New Roman, Font size: 14

xii. Insert a footer with the following formatting options:
Caption:< *YourIndexNumber* >, Font: Times New Roman, Font size: 10

[35%]

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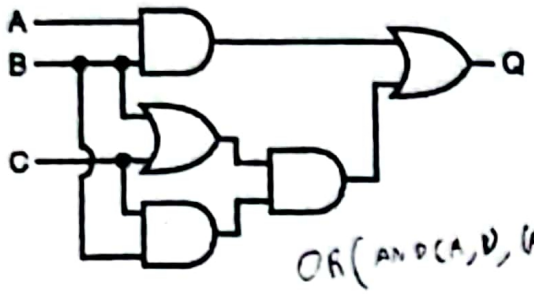
2. Create two seperate Microsoft Excel workbooks to answer Questions 2. (a) and 2. (b).

(a) Create an MS Excel workbook with the name "Q2a.xlsx" and create a truth table for the logic circuit diagram given in Figure 1.



OR(AND(A,B), AND(OR(B,C), AND(B,C)))

Figure 1: Logic Circuit

[15%]

(b) Create an MS Excel workbook with the name "Q2b.xlsx" to answer the following question:

The manager for a small store wants to keep track of how well their employees did with the sales; so that, he can reward them.

i. Rename Sheet 1 as "Reward" and enter data given below:

Employee Name	Months Employed	City	Books	Puzzles	Magazine
Jacey	35	Colombo	8	5	6
Matin	33	Jaffna	5	6	3
Roger	25	Kandy	6	3	5
Susan	15	Kandy	7	4	3
Sura	21	Badulla	2	6	2
Hank	17	Kandy	3	8	7
Fred	22	Colombo	5	7	8
Abed	18	Badulla	6	8	5
Rebeca	11	Kandy	8	6	6
Marge	23	Jaffna	7	4	4

[This question continues on the next page.]

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ii. Insert a new column "Total Sales per Person" next to column "Magazine" and find the total items (Books, Puzzles, Magazine) sold by each employee.

iii. Insert a new column "Experience" next to column "Total Sales per Person" and use *VLOOKUP* function to find the experience based on the table below:

Months Employed	Experience
1 - 10	Average
11 - 20	Good
above 20	Excellent

iv. Insert a new column "Reward" next to column "Experience" and populate the rows for each employee based on the condition below:
Reward "Yes", if "Total Sales per Person" is more than 10 and "Experience" is "Good" or "Excellent", else "No".

v. Rename Sheet 2 as "City_Wise_Sales" and populate the below table using the *SUMIF* and *COUNTIF* functions to find the number of books sold and employees in each city:

City	Number of Employees	Books	Puzzles	Magazine
Badulla				
Colombo				
Jaffna				
Kandy				

[35%]

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