Uva Wellassa University, Sri Lanka
Faculty of Science and Technology
First Semester Examination –March/April 2013
ESS103-2 Information Technology

Uva Wellassa University

Instructions to candidates:
Answer all questions.
Time allowed: Two (2) hours.

Create a folder with your examination number in your **Z: drive** and save all the answers in that folder. At the end of the examination compress that folder and upload to the CMS.

PART C - Practical Examination

1. Save the answer for question 1 in your Z drive as Question1.docx

Body Mass Index (BMI) is a way to estimate the amount of body fat in a person. Knowing the BMI value is important as it is an indication of one's health status. If the BMI is below the optimum range, a doctor might recommend that person gaining some weight. On the other hand, a person who is above the optimum range would be advised to lose weight in order to fend off any adverse effects of being overweight or obese.

BMI is calculated using the following equation.

$$\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height}^2\ (\text{m}^2)}$$

Following are the BMI Categories:

Underweight: ≤18.4

Normal weight: 18.5–24.9

Overweight: 25.0–29.9

Obesity: ≥30.0

Example: If someone's weight is 50 kg and height is 1.6 m, the BMI will be;

$$\text{BMI} = \frac{50\ (\text{kg})}{(1.6)^2\ (\text{m}^2)}$$

$$= 19.5$$

BMI Category: Normal weight

01

"Suwa Mithuro" Youth Association organized a health camp to assess the relationship between food habits and obesity among younger generation in Badulla town area. BMI is the most vital parameter considered. They have measured the height and the weight of the participants to calculate the BMI. After calculating the BMI, they are planning to send a letter to each and every participant indicating their BMI and the BMI category they have fallen into.

You are asked to prepare the letter to be sent to the health camp participants, by using the "mail merge" facility in Microsoft Office Word.

The letter should contain,

- Sender's Address: Mr. Prasad Rathnayake
  President
  Suwa Mithuro Youth Association
  Kings Street
  Badulla
- Receiver's Address
- BMI of that person
- BMI category of that person

The data collected by the Youth Association are given in the file **bmi-badulla.xlsx** in the Z: drive. You have to calculate the BMI and find the BMI category using those data.

2. Use Sales_Data.xlxs data set in the Z: drive and create pivot table reports for each question in separate worksheets.
   a. Create pivot table report to find the total sales amount of each Agent. Rename the worksheet as A.
   b. Find the total sales in each region for Binders and Pen Sets. Rename the worksheet as B.
   c. For each item find the maximum number of units sold by each Agent. Insert "NA" for the empty cells in your worksheet. Rename the worksheet as C.
   d. For each item find the average number of units sold by "Saman, Kamal, Ramidu and Tharidu". Rename the worksheet as D.
   e. Change the report layout of the pivot table report of **question 2 part d** to Tabular form and create a pivot chart to that pivot table report.

3.

Create the Database in Documents ("C:\Users\your_examination_no\Documents\")

e.g.: C:\Users\EX110001\Documents\

Once you have finished answering Question No. 3, copy the database into your Z: drive.

a. In Microsoft Access, create a new database called **"Employee_Management"**.

b. Create the following three (03) tables in design view and insert given records into each table.

Employee Table			
Field Name	**Data Type**	**Field Size**	**Other Information**
Emp_ID	Text	25	Input Mask A/99/999 Required
Emp_NID	Text	10	Primary Key Required
Emp _Name	Text	75	Required
Emp_DOB	Date/Time		Format: Short Date
Sex	Text	1	Default value: M Validation rule: M or F Validation text: Invalid sex
Emp _Address	Text	255	
Basic_Salary	Number		

Insert following data into the **Employee table.**

Emp_ID	Emp_NID	Emp_Name	Emp_DOB	Sex	Emp_Address	Basic_Salary
E/10/221	748212678V	Kumari	3/9/1974	F	Badulla	Rs10,000.00
E/10/222	776353728V	Saman	4/11/1977	M	Hali-ela	Rs20,000.00
E/10/223	715629383V	Ariyadasa	6/21/1971	M	Passara	Rs23,000.00
E/10/224	806374638V	Nishadi	7/28/1980	F	Bandarawela	Rs18,000.00

Project Table			
Field Name	**Data Type**	**Field Size**	**Other Information**
P_ID	Text	25	Primary Key Required
P_Name	Text	25	
Start_Date	Date/Time		Required Format – Medium Date
End_Date	Date/Time		Format – Medium Date
Cost	Currency		

Insert following data into the **Project table.**

P_ID	P_Name	Start_Date	End_Date	Cost
P001	Account System	01-Feb-09	31-Aug-09	Rs250,000.00
P002	MIS	20-Oct-09	31-Dec-10	Rs500,000.00
P003	DSS	25-Jan-11	30-Sep-11	Rs350,000.00

Working Table			
Field Name	**Data Type**	**Field Size**	**Other Information**
Emp _ID	Text	25	Input Mask A/99/999 Required
P_ID	Text	25	Required
Work_Hours	Number		
OT_Hours	Number		
Work_Date	Date/Time		

Insert following data into the **Working table.**

Emp_ID	P_ID	Work_Hours	OT_Hours	Work_Date
E/10/221	P001	8	4	2/2/2009
E/10/221	P001	8	1	2/3/2009
E/10/222	P001	8	0	2/2/2009
E/10/223	P001	8	2	2/2/2009

c. Create proper relationship among the three (03) tables.
d. Create a report to view Emp_ID, Emp_NID, Emp_Name, P_Name and Work_Hours.