

## Solutions Lab-session 8

2) (a)

```
Function male(x As String) As String
Select Case x:
Case Is < 20: male = "underweight"
Case 20 To 24.9: male = "normal weight"
Case Is < 29.9, 29.9: male = "overweight"
Case Is < 39.9, 39.9: male = "obese"
Case Else: male = "extreme obese"
End Select
End Function
```

(b)

```
Function female(x As String) As String
Select Case x:
Case Is < 19: female = "underweight"
Case 19 To 23.9: female = "normal weight"
Case Is < 28.9, 28.9: female = "overweight"
Case Is < 38.9, 38.9: female = "obese"
Case Else: female = "extreme obese"
End Select
End Function
```

In (a) and (b) the variable  $x$  plays the role of the body mass index. Notice that the  $\geq$  or  $\leq$  symbols are not recognized by SELECT CASE structures so that for example the case  $x \leq 29.9$  needs to be split into the case  $x < 29.9$  and the case  $x = 29.9$ .

(c)

```
Function mafe(x As Single, g As String) As String
Select Case g:
Case "male":
Select Case x:
Case Is < 20: mafe = "underweight"
Case 20 To 24.9: mafe = "normal weight"
Case Is < 29.9, 29.9: mafe = "overweight"
Case Is < 39.9, 39.9: mafe = "obese"
Case Else: mafe = "extreme obese"
End Select
Case "female":
Select Case x:
Case Is < 19: mafe = "underweight"
Case 19 To 23.9: mafe = "normal weight"
Case Is < 28.9, 28.9: mafe = "overweight"
Case Is < 38.9, 38.9: mafe = "obese"
Case Else: mafe = "extreme obese"
End Select
Case Else: mafe = "sorry, I do not have information for this case"
End Select
End Function
```

3) (a)

```
Function hello1(da As Date) As String
Dim y As Integer
y = Hour(da)
Select Case y:
Case Is < 12: hello1 = "Good morning!"
Case Is < 18: hello1 = "Good afternoon!"
Case Is < 22: hello1 = "Good evening!"
Case Else: hello1 = "Good night!"
End Select
End Function
```

(b)

```
Function hello2(da As Date) As String
Dim y As Integer
y = Hour(da)
Select Case y:
Case Is < 12: hello2 = "Good morning!"
Case Is < 16: hello2 = "Good afternoon!"
Case Is < 21: hello2 = "Good evening!"
Case Else: hello2 = "Good night!"
End Select
End Function
```

(c)

```
Function hello(da As Date) As String
Dim y As Integer
y = Month(da)
Select Case y:
Case 5 To 10:
hello = hello1(da)
Case Else
hello = hello2(da)
End Select
End Function
```

4)

```
Function whichday(da As Date) As String
Dim y As Integer
y = Weekday(da)
Select Case y:
Case 2: whichday = "Monday"
Case 3: whichday = "Tuesday"
Case 4: whichday = "Wednesday"
Case 5: whichday = "Thursday"
Case 6: whichday = "Friday"
Case Else: whichday = "This date falls on a weekend"
End Select
End Function
```