Sample answers for FIT1013 Mock Exam

PART A: Multiple Choice Questions

1. You can avoid problems with inconsistent data in related tables by using _____.
   a. the Query Wizard
   b. referential integrity
   c. common fields
   d. joins

   ANS: B

2. The_____determines what type of values can be entered for a field.
   a. data element
   b. data type
   c. data integrity
   d. primary key

   ANS: B

3. A field defined in a table that is also defined as a primary key in a different table is a(n)____.
   a. invalid function
   b. primary key
   c. relational database
   d. foreign key

   ANS: D

4. A table's primary key is_____.
   a. always a composite key
   b. represented by the darkened triangle
   c. indicated by a key symbol in the row selector area
   d. also a foreign key

   ANS: C

5. Each object you place on a form is called a(n)_____.
   a. index
   b. icon
   c. label
   d. Control

   ANS: D

6. The object name_____refers to the cell from which a custom function is being run.
   a. ThisWorkbook
   b. CurrentCell
   c. ActiveCell
   d. FunctionCell

   ANS: C

7. The_____symbol is used to combine two text strings into a single text string.
   a. &
   b. ^
   c. %
   d. $

   ANS: A

8. Which of the following is a use of the make-table query?
   a. Creating customized tables for others to use
   b. Removing records permanently from a database
   c. Adding records from an existing table to the end of another table
   d. All of the above

   ANS: A

9. The object name_____refers to the workbook containing the macro code that is currently running.
   a. ThisCell
   b. CurrentWorkbook
   c. ActiveWindow
   d. ActiveWorkbook

   ANS: D

10. To test several conditions in a macro, using the VBA_____statement is recommended.
    a. For-Next
    b. Do-While
    c. If-Then-ElseIf
    d. Select Case

    ANS: D

PART B: Excel

1. You are required to provide formulas for the following cells:

   a) D7 should contain a formula which provides the average cost of a degree.

   ANS:
   =AVERAGE(D2:D6)

   b) E2 should contain a formula which provides the average yearly cost of each specific degree offered. This formula should be written in such a way that it is easily copied to cells E3:E6.

   ANS:
   =D2/C2 (must have relative or mixed references for full marks)

2. You are required to provide formulas for the following cells:

a) E1 should contain a count of the number of full time students enrolled.

ANS:
=COUNTIF(C6:C11,"=F")

b) The cell E5 should contain a formula which gives the number of full time years which a student has left to complete the degree (excluding the current year). The formula should be expressed in such a way that it is easily copied to cells E6:E11.
ANS:
=VLOOKUP(B5,degrees,3,0)-D5

The following information applies to d, e and f : the cell G14 is to be used as a data input cell for the user to enter a student ID number.

You are required to provide formulas for the following cells:

c) H14 should contain a formula which enters the words "current student" if the ID number entered in G14 appears somewhere in the first column of **database** and "ID unknown" if the ID number does not appear.

ANS:
=IF(ISNA(MATCH(G14,A5:A11,0)),"ID unknown","current student")

d) G15 should contain a formula which provides the degree code of the student whose ID number appears in G14.

ANS:
=IF(H14="current student",VLOOKUP(G14,Database,2,0),"")

e) G16 should contain a formula which provides the name of the degree whose degree code appears in G15.

ANS:
=IF(G15<>"",INDEX(degrees,MATCH(G15,A15:A19,0),2),"")

Part C: VBA Programming

1. Describe the outcome(s) ...

ANS:

- Declares 2 string variables and one worksheet object variable.
- Then assigns the address of the January worksheet in the Commission workbook to the object variable, shtJan.

2. Write a procedure …

ANS:

```
Public Sub AddOne()
Dim intNum As Integer
Do While intNum < 5
  MsgBox prompt:="intNum = " & intNum
  intNum = intNum + 1
Loop
End Sub
```

3. a) Write a procedure …
b) Write a procedure …

ANS: a)

```
Public Sub PrintWS()
Dim intCount As Integer
intCount = 1
Do While intCount <= Application.ActiveWorkbook.Worksheets.Count
  Application.ActiveWorkbook.Worksheets(intCount).PrintPreview
  intCount = intCount + 1
Loop
End Sub
```

ANS: b)

```
Public Sub PrintWS_b() Dim
intCount As Integer
intCount = 1
Do Until intCount > Application.ActiveWorkbook.Worksheets.Count
  Application.ActiveWorkbook.Worksheets(intCount).PrintPreview
  intCount = intCount + 1
Loop End
Sub
```

4. Write a procedure …

.

ANS:

```
Public Sub Capital()
Dim strState As String
strState = InputBox("Enter State", "Capitals")
ActiveWorkbook.Worksheets("Sheet1").Range("A1").Select
If UCase(strState) = "VIC" Then
  ActiveCell.Value = "Melbourne"
ElseIf UCase(strState) = "NSW" Then
  ActiveCell.Value = "Sydney"
Else
  ActiveCell.Value = "Try again later!"
End If
End Sub
```

5. … performs the following functions …

ANS:

```
Private Sub lstModel_DblClick(ByVal Cancel As MSForms.ReturnBoolean) -
note, arguments not required
  'declare variables and assign address to object variable
  Dim intAvail As Integer
  Dim intResponse As Integer
  Dim curPrice As Currency, shtComputers As Worksheet
  Dim strModel As String

  strModel = lstModel.Text

  Set shtComputers =
Application.Workbooks("sampleVBA.xlsm").Worksheets("models")
   'unprotect worksheet shtComputers.Unprotect
   'search for model number and return price
   intAvail = Application.WorksheetFunction.VLookup(strModel,
     shtComputers.Range("ModelInfo"), 3, False)
   If intAvail = 0 Then
       shtComputers.Range("c6").Value = "Not currently a vailable"
    Else
       shtComputers.Range("c6").Value = "Yes"
       curPrice = Application.WorksheetFunction.VLookup(strModel,
 shtComputers.Range("ModelInfo"), 2,  False)
       shtComputers.Range("d6").Value = curPrice
       intResponse  = Msgbox("Purchase?",vbYesNo)
       If intResponse = vbYes Then
            shtComputers.Range("F3”).Select
            Do Until ActiveCell = strModel
                  ActiveCell.Offset(1,0).Select
            Loop
            ActiveCell.Offset(0,2).Value = ActiveCell.Offset(0,2).Value -
     1
       End If
   End If
   shtComputers.Protect
End Sub
```

PART D: MS Access

1. Name the primary keys for each table.

   ANS:
   Project table: ProjectNumber
   ProjectTeam table: ProjectNumber+EmployeeCode (a composite PK)
   Employee table: EmployeeCode

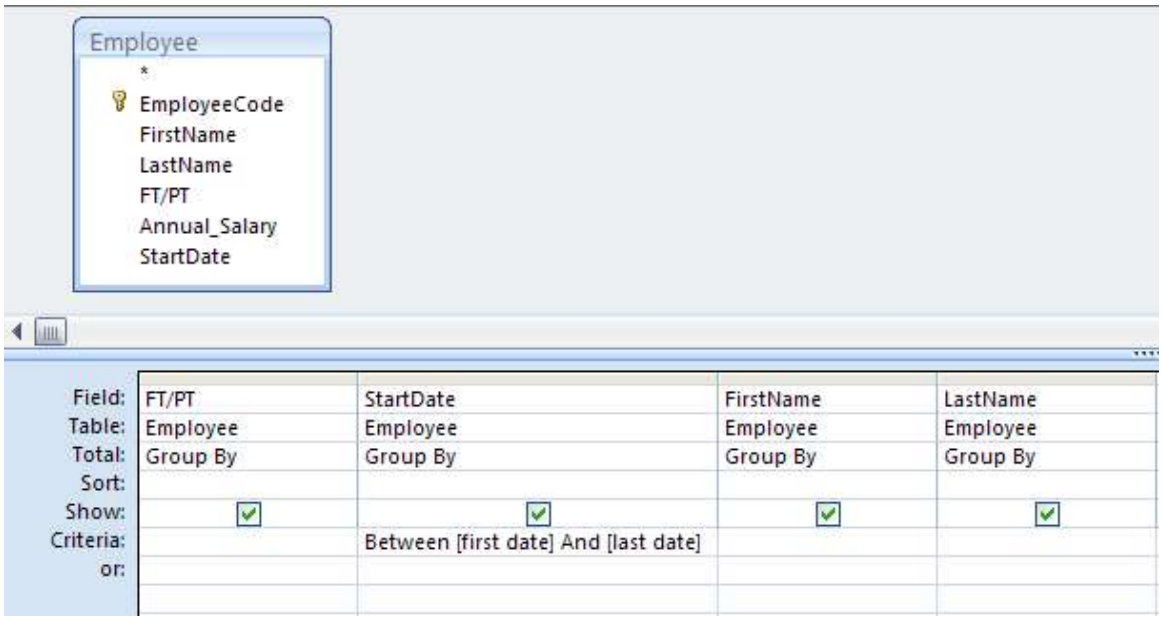
2. Explain the difference …

   ANS:

   - ***An inner join between 2 tables*** is a join in which the DBMS selects records from two tables only when the records have the same value in the common field that links the tables
   - ***An outer join between 2 tables*** selects **all** records from one table and only those records from a second table that have matching common field values
   - ***E.g****. we could use an outer join from the Employee table to the ProjectTeam table to find which project an employee is assigned to including those employees who are not assigned to any project.*

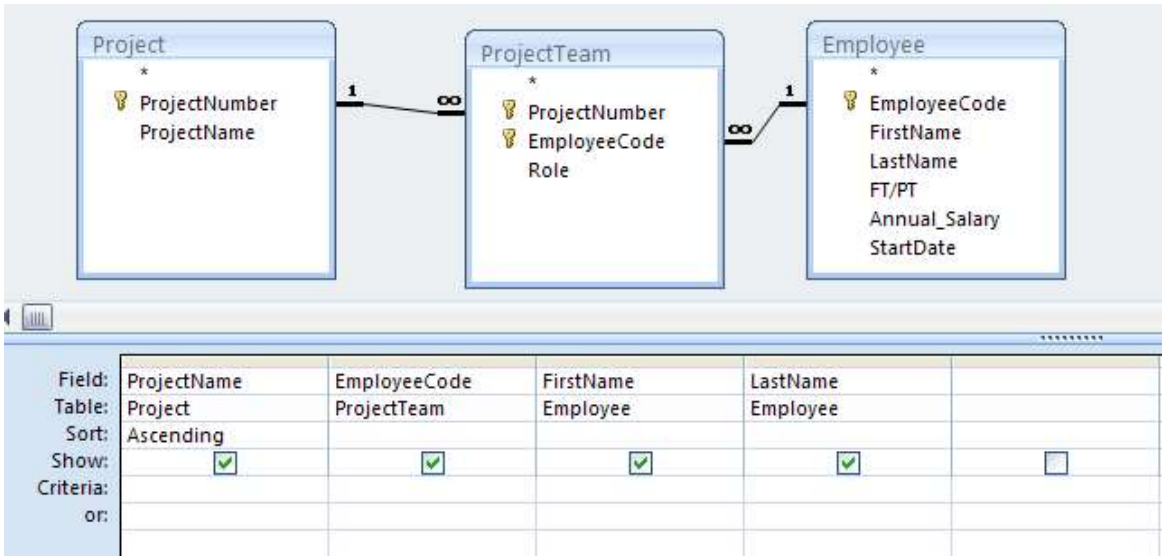
3. **Query 1**:

ANS:



4. **Query 2**:

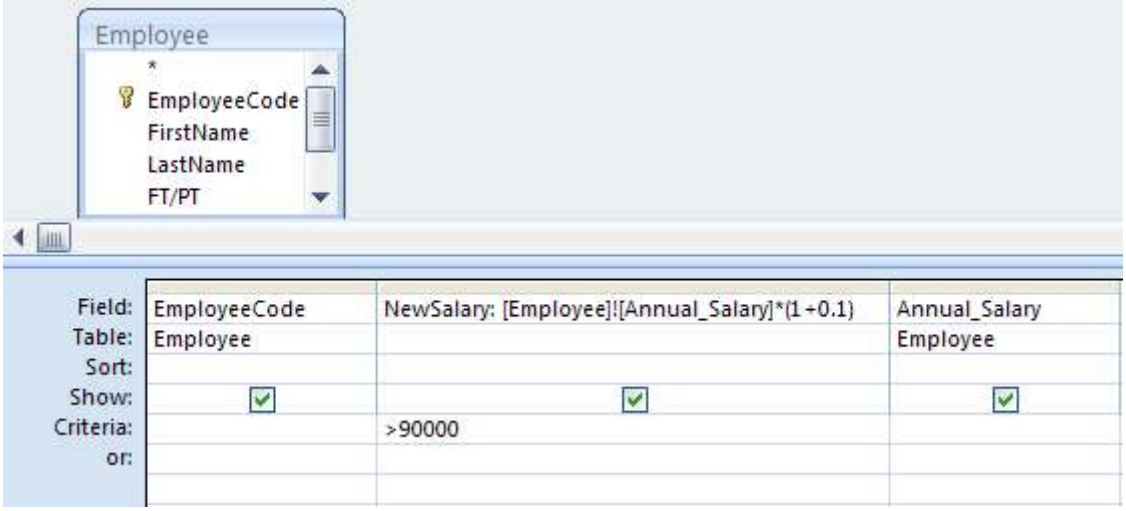
ANS:



Note that the answer should also include the "Role" field with Criteria "Project Manager"

5. **Query 3**:

ANS:



Note: FirstName and LastName may also be included in the Field.

6. How …

ANS:

Use Query 1, change the parameter criteria to <1/1/1990. Remove the FT/PT field from the query