

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:

Private Sub IstModel_DblClick(ByVal Cancel As MSForms.ReturnBoolean) –

'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 = IstModel.Text

Set shtComputers = Application.Workbooks("sampleVBA.xlsm").Worksheets("models")

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

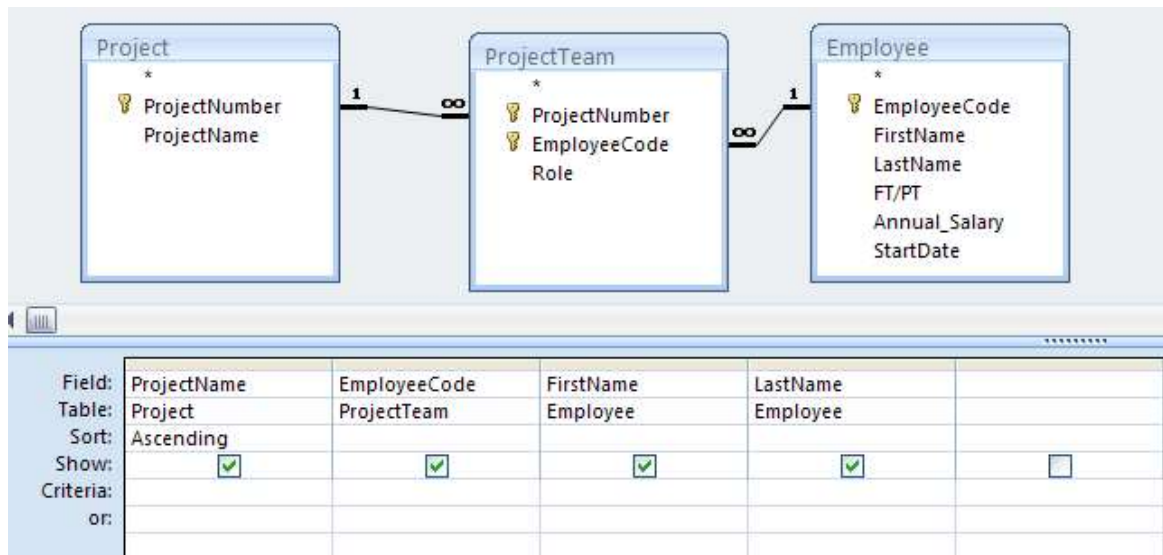
End Sub

ANS:

<div>Employee</div> <div>*</div> <div>EmployeeCode</div> <div>FirstName</div> <div>LastName</div> <div>FT/PT</div> <div>Annual_Salary</div> <div>StartDate</div>				
Field:	FT/PT	StartDate	FirstName	LastName
Table:	Employee	Employee	Employee	Employee
Total:	Group By	Group By	Group By	Group By
Sort:				
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:		Between [first date] And [last date]		
or:				

4. Query 2:

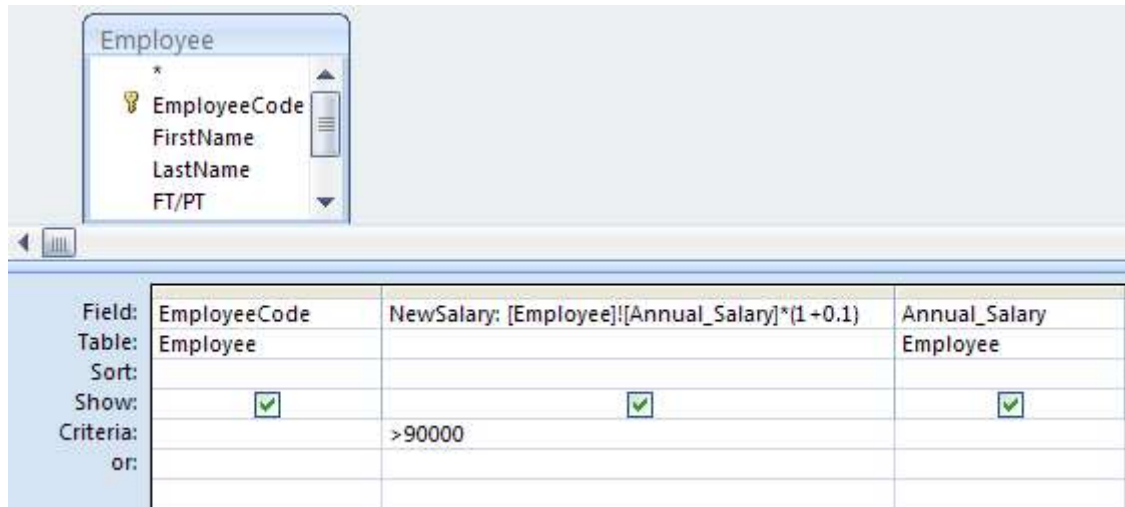
ANS:



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

5. Query 3:

ANS:



The screenshot shows the Microsoft Access Query Design view. At the top, a box labeled 'Employee' contains a list of fields: EmployeeCode (marked with a key icon), FirstName, LastName, and FT/PT. Below this is a table with four columns. The first column is labeled 'Field:' and contains 'EmployeeCode', 'Employee', and 'Annual_Salary'. The second column is labeled 'Table:' and contains 'Employee', 'Employee', and 'Employee'. The third column is labeled 'Criteria:' and contains '>90000'. The fourth column is labeled 'or:' and is empty. The 'Show:' row has checkmarks in the second, third, and fourth columns. The 'Sort:' row is empty.

Field:	EmployeeCode	NewSalary: [Employee].[Annual_Salary]*(1+0.1)	Annual_Salary
Table:	Employee		Employee
Sort:			
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:		>90000	
or:			

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