WORKBOOK OVERVIEW DIAGRAM

At a glance sheet

Summary of information eg
Section A = 26
Section B = 8
Pearsons = 0.56

Buttons to start macros
to perform calculations
(same as Marks sheet)

*Macros do same tasks
on both sheets*

Marks from exam sheet

Marks
from
exams
added by
teacher

Buttons to
start macros

Data inserted into sheet

Data inserted into sheet

Q5 analysis sheet

Info from
analysis
from
running
of macro

Buttons to start
macros to sort
data on this sheet
and view Q5
chart

Summary of
results

Q6 analysis sheet

Info from
analysis
from
running
of macro
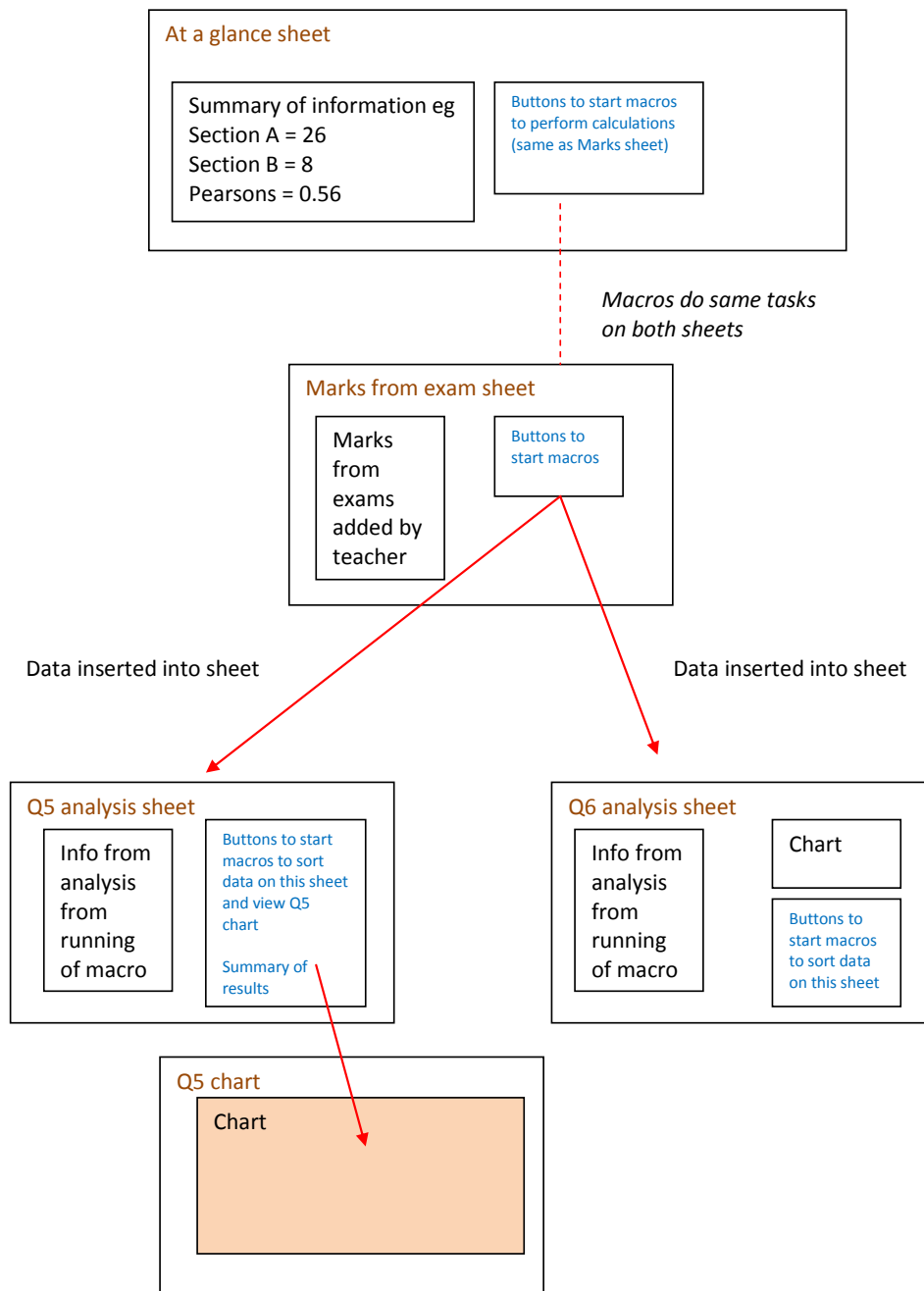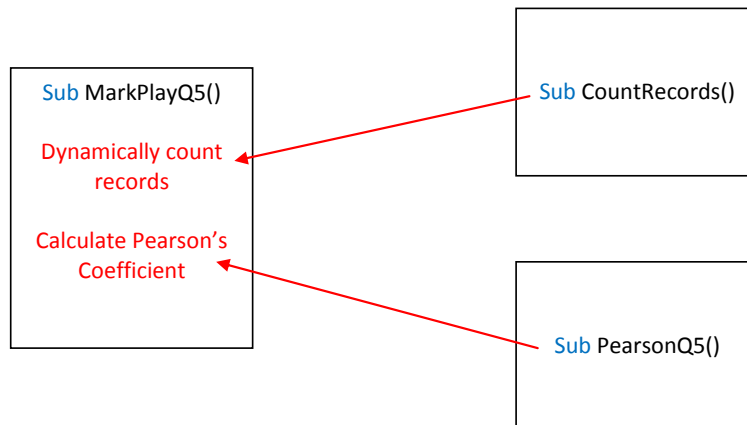
Chart

Buttons to
start macros
to sort data
on this sheet

Q5 chart

Chart

Information about the structure of the product is not clear.

VISUAL BASIC AND MACROS OVERVIEW DIAGRAM

All macros run as single events with the exception of those below:

Sub MarkPlayQ5()

Dynamically count records

Calculate Pearson's Coefficient

Sub CountRecords()

Sub PearsonQ5()

TABLES INDICATING DATA TYPES , FORMATTING and MACROS

Data types

Data type	Example of cell or variable	Description and/or other information
Percentage	"At a glance".B10	
Integer	"Marks".D2	To prevent fractions of marks being awarded
Text	"Marks.A2	For name of student
Number, no decimal places	"Q5".C2	To hide unnecessary information
Integer	Dim ActualQ5 As Integer	Sub PearsonQ5(), to hold actual score for student
Double	Dim ExpectQ5 As Double	Sub PearsonQ5(), to hold expected score for student (integer / 3, so double needed)

Formatting

Example of formatting	Cell	Description and/or other information
Conditional	"At a glance".B9	If value < 0 Then red font and background

Macro

Macro name	Details
Sub CountRecords()	Dynamically counts the number of records in Marks sheet
Sub MarkPlayQ5()	Calls CountRecords, inserts info about Q5 into Q5 sheet, performs calculations, calls PearsonQ5
Sub PearsonQ5()	Calculates Pearson Correlation Coefficient for Q5
Sub Sqroot()	Test square root calculations
Sub Q5_Sort()	Sorts Q5 results into ascending order (worst actual results first)
Sub ClearQ5sheet()	Clears the information from columns A-H on Q5 sheet

Information about the internal structure is clear.

TESTS REQUIRED

Test Type	Nature of test	Example
Cell formatting works as required	If value is negative, the background and text should change to red	"At a glance".B8
Derived (calculated) values from macros inserted into cell	Run macro to ensure value is inserted	"At a glance".B6
Simple calculation are correct	Use test values with known expected results	"At a glance".B8
Command button functions	Click to check correct macro runs	"At a glance" Run Q5 Correlation
Data validation for user input	Section A scores must be between 0 and 60	Add values such as -1, 0, 30, 60 and 61
VB code functions	Run macro, use MsgBox	Sub CountRecords() 'MsgBox "Total number of records = " & RecordCounter - 1 : testing information
Procedures call each other	Run procedure that calls second macro (procedure)	Sub MarkPlayQ5() Calling second procedure Call CountRecords 'calls the procedure to count the records
Variables inserted into cell ranges from Excel functions	Adapt initial range created by Excel	Sub Q5_Sort() Range(Cells(1, 1), Cells(SortRangeQ5, 8)).Select
Chart reflects the data correctly	Click macro button, test with data to produce expected results	
Show results to Margaret Smith		

The testing regime is appropriate.

Summary

This criterion was awarded 5 marks using best-fit.

Record of tasks was detailed and complete.

Design overview was not clear, particularly the top level diagram.

Note: Without viewing the supplementary information such as the video, activating the spreadsheet to view the chart, the overview was less clear and 4 marks would have been awarded.