Part D [11 points]

Use only the data shown to answer the following questions.
All ranges have been named using the labels that appear in the worksheets.

1) Complete the last column according to this formula: [1]

=IF (AND (Score < 50, Science = "Complete"), "Y", "")

Score	Grade	Science	Complete but Score < 50
48	E	Complete	Y
35	F	Incomplete	
36	F	Incomplete	
73	B	Prerequisite	
59	D+	Complete	
76	B+	Prerequisite	
40	E	Complete	Y
49	E	Complete	Y
31	F	Incomplete	
37	F	Incomplete	
73	B	Prerequisite	
38	F	Incomplete	
62	C	Prerequisite	
57	D+	Complete	
59	D+	Complete	
41	E	Complete	Y
74	B	Prerequisite	
38	F	Incomplete	
67	C+	Prerequisite	
70	B	Prerequisite	

2) The **Science** column is calculated based on **Score**. A **Score** of at least 40 is required to Complete a course, and a **Score** of at least 60 is required for the course to serve as a Prerequisite. Write a single Excel formula to be used in the **Science** column [7]

=IF (Score >= 60, "Prerequisite", IF (Score >= 40, "Complete", "Incomplete"))
OR
=IF (Score < 40 , "Incomplete", IF (Score <60, "Complete", "Prerequisite "))

Other permutations are also possible, BUT > and <= need different values!

D-1

3) A column in an Excel worksheet named **Letter Grade** contains the formula

`=IF(Score<80,"B",IF(Score<70,"C",IF(Score<60,"D",IF(Score<50,"F","A"))))`

What will appear in **Letter Grade** when **Score** is 88?

A) A   B) B   C) C
D) D   E) F

4) Referring to the formula in the previous question, what will appear in **Letter Grade** when **Score** is 45?

A) A   B) B   C) C
D) D   E) F

A company decides to give some of its employees a holiday bonus. Those who have been employed at the company for at least 10 years get a bonus if their performance is considered either *good* or *excellent*. Those who have not been employed at the company that long get a bonus only if their performance is considered *excellent*. Assume the columns are named as shown.

Years	Rating	Bonus
3	excellent	YES
15	poor	NO
12	acceptable	NO
2	good	NO
10	good	YES

5) Which formula could have been used to calculate the values in the **Bonus** column.
   A) =IF(Rating="good" AND IF (Years>=10," YES "," NO"))
   B) =IF(OR(AND(Years<10, Rating="good"),Rating="excellent"),"YES","NO")
   C) =IF(Years>=10 AND (Rating>="good"),"Yes","No")
   D) =IF(Rating>="good",IF(Years>=10,"YES", "NO"),"NO"))
   E) =IF(OR(AND(Years>=10, Rating="good"),Rating="excellent"),"YES","NO")