26/12/23

**CTIS 186 Business Computer Applications**

**Final Exam**

1. Open ExcelExam and save it as **ExcelExamLastFirst** (i.e. with your surname and name) (**1** Point)
2. Name Sheet 1 as **AIStatistics**. (**1** Point)
3. Apply the following to the whole current sheet: Times New Roman, 12, column width 20, row height 22. Lastly, change the width of column B to 40. (**2** Points)
4. Create a copy of AIStatistics worksheet (Before Sheet3). Name it **Statistics**. (**2** Points)
5. Rename Sheet2 as **Graphs**. (**2** Points)

Go back to AIStatistics Worksheet:

1. Insert 4 rows above the first row. (**2** Points)
2. Label B2 as **AI adoption percentage in organizations worldwide 2022 (by Industry & Function)**. Merge and center B2 on B2:J2 range (Bold, 16, Light Green Fill). (**4** Points)
3. Label B4 as **Industry / Function**, C4 as **Human Resources**, D4 as **Manufacturing**, E4 as **Marketing**, F4 as **Product / Service Dev.**, G4 as **Risk**, H4 as **Service Op.**, I4 as **Finance** and J4 as **Supply Chain Mgt**. (Bold, Center, Light Blue Fill) (**5** Points)
4. Center C6:J11 range. (**1** Point)
5. Label B13 as **Average**, B14 as **Standard Deviation** and B15 as **Range** (i.e. difference between Maximum and Minimum values). Format B13:B15 as bold, italic and right aligned. (**2** Points)
6. Calculate the average, standard deviation and range for C6:J11 appropriately. Format the answers as bold centered. Format your answer as a number with 1 decimal. (**6** Points)
7. Zoom the worksheet at 85 %. (**1** Point)
8. Label B17 a **Number of industries where AI adoption is greater than 10 %** (underline, merge and center on B17:C17 range). (**2** Points)
9. Use an appropriate formula and apply it on C7:J11 range to calculate your answers in D17. Format D17 as Bold, Centered with purple color. (**4** Points)
10. Change Column K width to 10. Change Column L width to 30. (**2** Points)
11. Label L4 as **AI** **Adoption less than 20 %** (Bold, centered). Consider G6:G11 range. Apply an appropriate function that turns **YES** if the AI adoption is *less than 20 %* and **NO** *otherwise*. Fill appropriately L6:L11 range. Center the range and apply orange color fill to it. (**5** Points)
12. Format B6:J11 range with thin lines from the inside and a thicker line as a border. Do the same thing for B2:J2; B4:J4 as well as B13:J15 ranges. (**3** Points)
13. Consider B6:J11 range. Prepare a Stacked Bar chart showing the **AI Adoption %** in the x-axis and **Industry Type** in the y-axis. Label appropriately the x-axis, y-axis and prepare an *appropriate* title for the chart. Rename the legend series appropriately. Rescale chart so that x-axis displays values between 0 and 120. Finally, move the prepared chart to Graphs worksheet. Resize the line chart as to fit entirely B2:Q28 range. (**8** Points)
14. In K6 (AIStatistics worksheet), create a column sparkline for C6:J6 range. Do the same for each of C8:J8 and C10:J10 ranges. (**2** Points)

Now consider Statistics sheet.

1. Hide Column A. Label I1 as **Finance**. Insert a column to the right of I column. Label J1 as **Percentage**. Using appropriate function, fill J2:J7 as the percentage from the total of I column. Format the range as percentage with 2 decimals, centered, bold. (**3** Points)
2. Create a table for the range B2:K7. Change the table name to **AIiscoming…**. (**3** Points)
3. Change table style to Light Gray, Table Style Medium 11. (**2** Points)
4. Sort table by Column9 in a descending order. (**3** Points)
5. Consider Column7. By adding a Row Total, use an appropriate function to count how many cells are smaller than or equal to 20 %. (Verdana, Bold, centered, orange, 16). (**5** Points)
6. Apply conditional formatting on Column9 so that cells above average are marked with Red outline and Green Fill. (**4** Points)
7. Consider AIStatistics sheet. Select B2:L17 as your print area. Go to print preview, change the orientation to landscape. Decrease all margins to the extent possible and fit to 1 wide by 1 tall page. Center the range horizontally. Insert the header: **CTIS 186 Final Exam** and the footer: **Page 1** (Both Centered). (**3** Points)
8. Consider Graphs sheet. Select B2:Q28 as your print area. Go to print preview, change the orientation to landscape. Decrease all margins to the extent possible and fit to 1 wide by 1 tall page. Center the range horizontally and vertically. Insert the header: **CTIS 186 Final Exam** and the footer: **Page 2** (Both Right Aligned). (**3** Points)
9. Consider Statistics sheet. Select B1:K9 as your print area. Go to print preview. Change the orientation to landscape. Decrease all margins to the extent possible and fit to 1 wide by 1 tall page. Center the range vertically. Insert the header: **CTIS 186 Final Exam** and the footer: **Page 3** (Both Left aligned). (**3** Points)
10. Save your Excel file and submit it as indicated by your Senior Lecturer. (**1** Point)

**GOOD LUCK!**