Code (XX and YY are equal to 0):

```
%Marks for Micah
M_aps111 = 62 %C-
M_civ100 = 50 %D-
M_aps164 = 71 %B-
M_mat186 = 80 %A-
M_mat186 = 83 %A-
M_aps100 = 'P'%Pass
M = [62 50 71 80 83]
%Marks for Chirag
C_aps111 = 92; %A+
C_civ100 = 55 %D
C_aps164 = 60 %C-
C_mat186 = 60 %C-
C_mat188 = 79 %B+
C_aps100 = 'H';%High Pass
C = [92 55 60 60 79]
M_letterCounter = 0
C_letterCounter = 0
%CGPA
%Micah
M_Avg = (62 + 50 + 71 + 80 + 83)/5
%Chirag
G_Avg = (92 + 55 + 60 + 60 + 79)/5
M_CGPA = 0
C_CGPA = 0
%Scholarships
%Orange and Blue
for a = 1:1
    if M_Avg>=0 &&  M_Avg <= 49
        M_CGPA = 0
    elseif M_Avg > 49 && M_Avg <= 52
        M_CGPA = 0.7
    elseif M_Avg > 52 && M_Avg <= 56
        M_CGPA = 1.0
    elseif M_Avg > 56 && M_Avg <= 59
        M_CGPA = 1.3
    elseif M_Avg > 59 && M_Avg <= 62
        M_CGPA = 1.7
    elseif M_Avg > 62 && M_Avg <= 66
        M_CGPA = 2.0
    elseif M_Avg > 66 && M_Avg <= 69
        M_CGPA = 2.3
    elseif M_Avg > 69 && M_Avg <= 72
        M_CGPA = 2.7
    elseif M_Avg > 72 && M_Avg <= 76
        M_CGPA = 3.0
    elseif M_Avg > 76 && M_Avg <= 79
        M_CGPA = 3.3
    elseif M_Avg > 79 && M_Avg <= 84
        M_CGPA = 3.7
    elseif M_Avg > 84 && M_Avg <= 89
        M_CGPA = 4.0
    elseif M_Avg > 89 && M_Avg <= 100
        M_CGPA = 4.0
    end
end
for a = 1:1
```

```
    if G_Avg>=0 &&  G_Avg <= 49
        G_CGPA = 0
    elseif G_Avg > 49 && G_Avg <= 52
        G_CGPA = 0.7
    elseif G_Avg > 52 && G_Avg <= 56
        G_CGPA = 1.0
    elseif G_Avg > 56 && G_Avg <= 59
        G_CGPA = 1.3
    elseif G_Avg > 59 && G_Avg <= 62
        G_CGPA = 1.7
    elseif G_Avg > 62 && G_Avg <= 66
        G_CGPA = 2.0
    elseif G_Avg > 66 && G_Avg <= 69
        G_CGPA = 2.3
    elseif G_Avg > 69 && G_Avg <= 72
        G_CGPA = 2.7
    elseif G_Avg > 72 && G_Avg <= 76
        G_CGPA = 3.0
    elseif G_Avg > 76 && G_Avg <= 79
        G_CGPA = 3.3
    elseif G_Avg > 79 && G_Avg <= 84
        G_CGPA = 3.7
    elseif G_Avg > 84 && G_Avg <= 89
        G_CGPA = 4.0
    elseif G_Avg > 89 && G_Avg <= 100
        G_CGPA = 4.0
    end
end
%Yellow
for p = 1:5
    if M(p) >= 66
        M_letterCounter = M_letterCounter + 1
    end
end
for q = 1:5
    if C(q) >= 66
        C_letterCounter = C_letterCounter + 1
    end
end
```

Questions:

Micah is eligible for the Yellow, Blue and Orange scholarships while Chirag is eligible for the Orange and Blue scholarships.

When writing the code, I first defined Micah and Chirag's given marks. I left out the APS100 mark knowing that it does not go towards their GPA, and ultimately the GPA and counted marks would account for the scholarships. I then found the average of their marks. Using the average, we can figure out their respective CGPA. I created a for loop for both Chirag and Micah that would show their CGPA with the given marks that I had already defined. Finally, I had to find out how many C+ grades each person had to see if they qualified for the yellow scholarship. I created two respective for loops for Chirag and Micah that would display how many 66% or higher grades each student had. I found out that Chirag did not have enough C+ grades to win the yellow scholarship (thus only received the blue and orange scholarships) but Micah had received all three scholarships.