

## Exercise 1

| Country | Population under 65<br>years (%) | Poor under 65<br>years (%) | Population above 65<br>years (%) | Poor above 65<br>years (%) |
|---------|----------------------------------|----------------------------|----------------------------------|----------------------------|
| A       | 75                               | 35                         | 25                               | 65                         |
| B       | 50                               | 80                         | 50                               | 20                         |
| C       | 60                               | 45                         | 40                               | 55                         |
| D       | 63                               | 76                         | 37                               | 24                         |
| E       | 80                               | 70                         | 20                               | 30                         |
| F       | 72                               | 95                         | 28                               | 5                          |
| G       | 58                               | 15                         | 42                               | 85                         |
| H       | 65                               | 30                         | 35                               | 70                         |
| I       | 40                               | 43                         | 60                               | 57                         |
| J       | 50                               | 27                         | 50                               | 73                         |

Plot all four variables into a single plot with the index for countries as the x-axis and the percentages as the y-axis. Each variable have a different point style and colour. Connect the four points of each country by lines. Hence you will get 10 lines for 10 countries. You do not have to connect the points across countries. Provide the legend for the plot and add the name of the countries to the point with the highest percentage for the country.

## Exercise 2

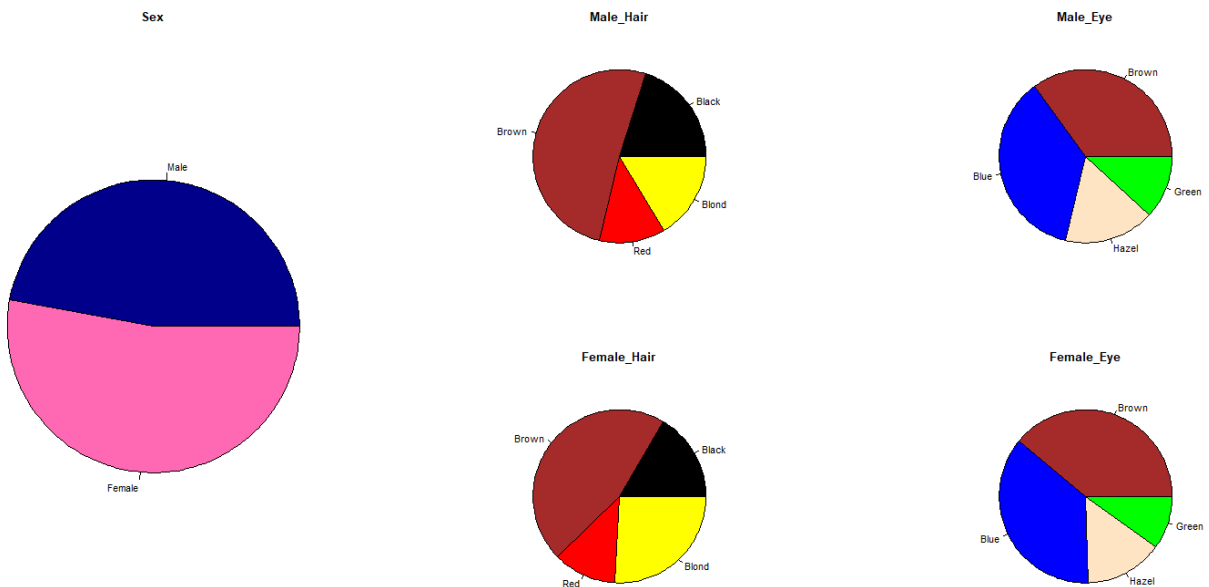
### Male Statistics Students

| Hair/Eye | Brown | Blue | Hazel | Green |
|----------|-------|------|-------|-------|
| Black    | 32    | 11   | 10    | 3     |
| Brown    | 53    | 50   | 25    | 15    |
| Red      | 10    | 10   | 7     | 7     |
| Blond    | 3     | 30   | 5     | 8     |

### Female Statistics Students

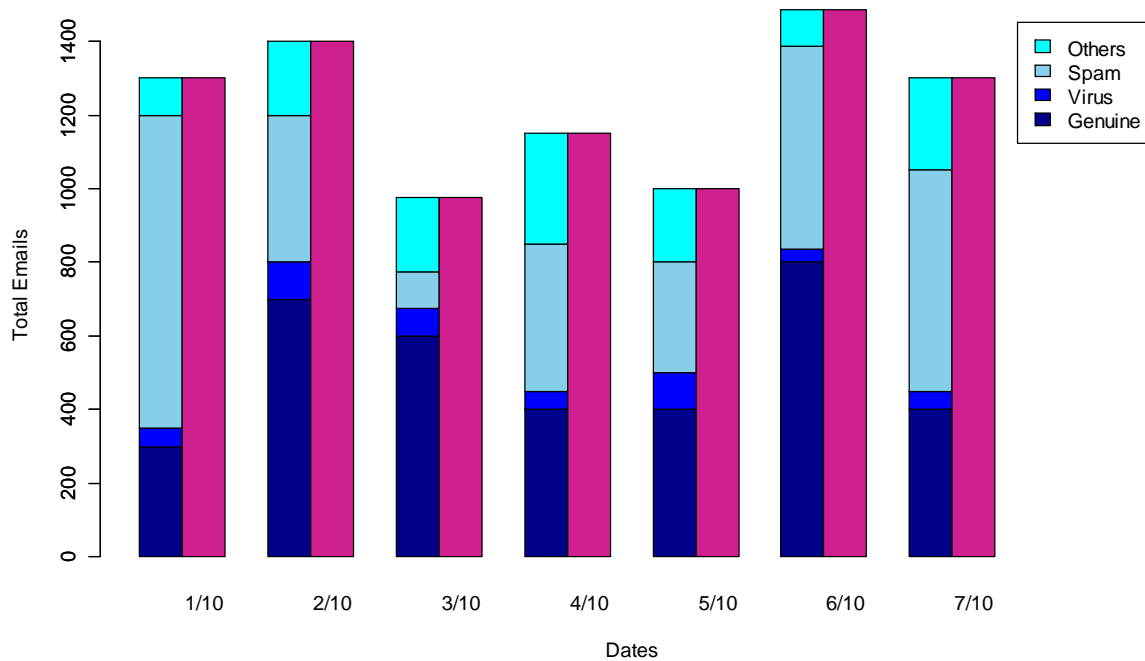
| Hair/Eye | Brown | Blue | Hazel | Green |
|----------|-------|------|-------|-------|
| Black    | 36    | 9    | 5     | 2     |
| Brown    | 66    | 34   | 29    | 14    |
| Red      | 16    | 7    | 7     | 7     |
| Blond    | 4     | 64   | 5     | 8     |

Based on the two tables above, plot the following 5 pie charts in a single window:



### Exercise 3

| Date/ Emails | Genuine emails | Contains Virus | Spam emails | Others |
|--------------|----------------|----------------|-------------|--------|
| 1/10         | 300            | 50             | 850         | 100    |
| 2/10         | 700            | 100            | 400         | 200    |
| 3/10         | 600            | 75             | 100         | 200    |
| 4/10         | 400            | 50             | 400         | 300    |
| 5/10         | 400            | 100            | 300         | 200    |
| 6/10         | 800            | 35             | 550         | 100    |
| 7/10         | 400            | 50             | 600         | 250    |



Based on the table and the barplot shown above, write the codings for the R programme to obtain the graph. The colour used are darkblue, blue, skyblue and cyan for genuine, virus, spam and others respectively while the colour violetred is used for the total.