1. A declarative language is used to represent the following facts about birds:

```
01 species(eagle, raptor).
02 species(falcon, raptor).
03 species(penguin, flightless).
04 species(ostrich, flightless).
05 species(peacock, galliform).

06 habitat(eagle, mountains).
07 habitat(falcon, cliffs).
08 habitat(penguin, arctic).
09 habitat(ostrich, savanna).
10 habitat(peacock, forest).

11 diet(eagle, carnivore).
12 diet(falcon, carnivore).
13 diet(penguin, piscivore).
14 diet(ostrich, omnivore).
15 diet(peacock, omnivore).
```

(a) Add more facts to include a pigeon as a species of bird living in cities with an omnivore diet.

.....
.....
..... [2]

(b) Using the variable Bird, the goal:

```
habitat(Bird, arctic)
```

returns

```
Bird = penguin
```

Write the result returned by the goal:

```
habitat(Bird, forest)
```

Bird = ... [1]

(c) (i) Write the goal, using the variable `OmnivorousBird`, to find all the birds with an omnivore diet.

.....
..... [1]

(ii) Write the goal, using the variable `RaptorCarnivore`, to find all the raptor birds with a carnivore diet.

.....
.....
.....
..... [2]

2. A declarative language is used to represent the following facts about colors:

```
01 primary(red).
02 primary(blue).
03 primary(yellow).
04 secondary(orange, red, yellow).
05 secondary(green, blue, yellow).
06 secondary(purple, blue, red).
```

(a) Add more facts to include cyan as a tertiary color that combines blue and green.

.....
..... [2]

(b) Using the variable PrimaryColor, the goal:

```
primary(PrimaryColor)
```

returns

```
PrimaryColor = red, blue, yellow
```

Write the result returned by the goal:

```
secondary(SecondaryColor, _, _)
```

`SecondaryColor` = ... [1]

(c) (i) Write the goal, using the variable ColorA, to find all the secondary colors that include red as one of their components.

.....
..... [1]

(ii) Write the goal, using the variable ColorB, to find all the colors (primary or secondary) that include blue as one of their components.

.....
.....
.....
..... [2]