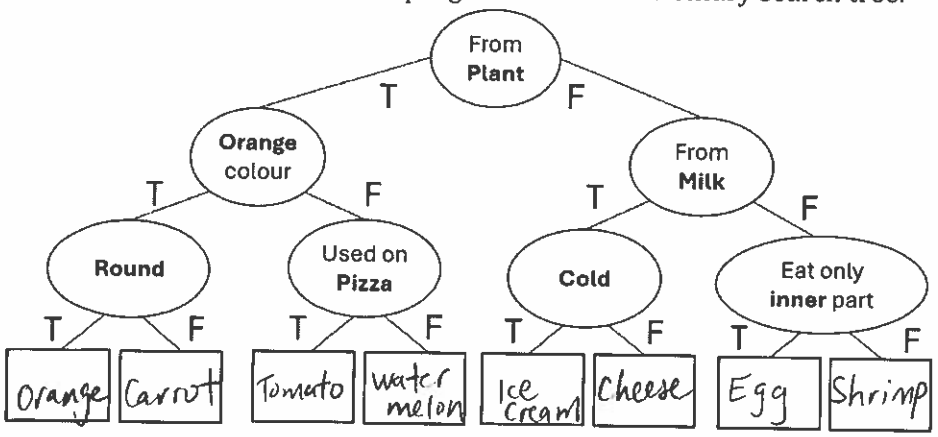
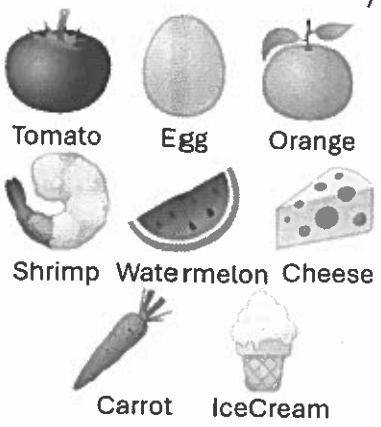
ICD2O – Exam Review – AI, Functions

Name: Gorski

/10

1. (a) Fill in the blanks to make the program to build the binary search tree.



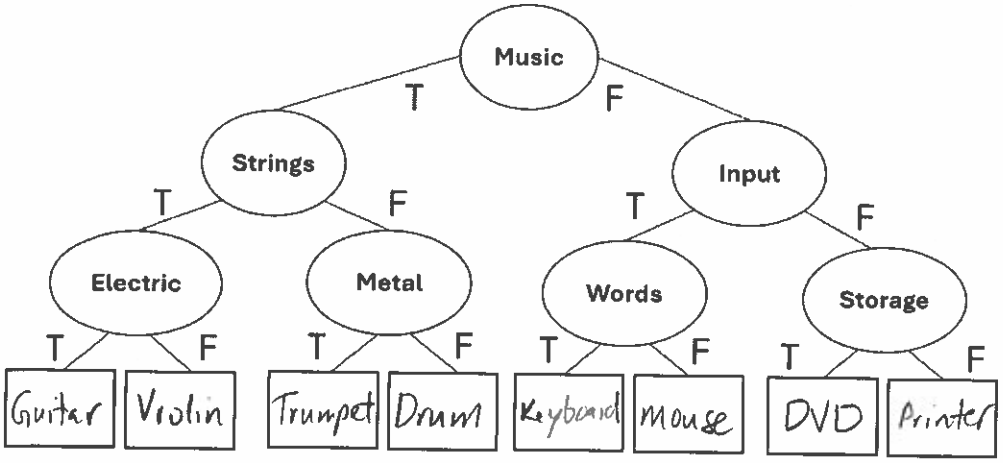


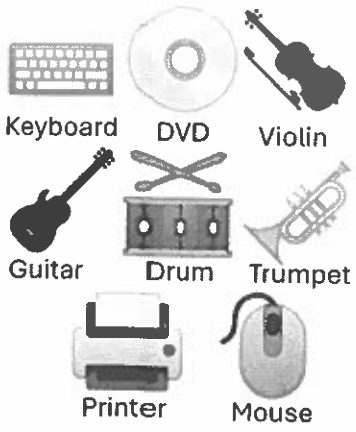
(b) Then, use your binary search tree to fill in the program.

```
onEvent("start", "click", function( ) {
  Plant();
});
//AI Question Functions ----------------
function Plant() {
  var ans = prompt("From a plant? (T/F)");
  if (ans == "T") {
    Orange();
  } else {
    Milk();
  }
}
function Orange() {
  var ans = prompt("Orange colour (T/F)");
  if (ans == "T") {
      Round();
  } else {
      Pizza();
  }
}
function Round() {
  var ans = prompt("Round? (T/F)");
  if (ans == "T") {
    Orange();
  } else {
    Carrot();
  }
}
function Pizza() {
  var ans = prompt("Used on pizza? (T/F)");
  if (ans == "T") {
    Tomato();
  } else {
    Watermelon();
  }
}
function Milk() {
  var ans = prompt("Made with milk? (T/F)");
  if (ans == "T") {
    Cold();
  } else {
    Inner();
  }
}
```

```
//Code Continued:
function Cold() {
  var ans = prompt("Very cold? (T/F)");
  if (ans == "T") {
    IceCream();
  } else {
    Cheese();
  }
}
function Inner() {
  var ans = prompt("Eat only inside? (T/F)");
  if (ans == "T") {
    Egg();
  } else {
    Shrimp();
  }
}
//Food Functions (Leaves) ------------
function Tomato() {
 setText("output", "Tomato");
}
function Egg() {
 setText("output", "Egg");
}
function Orange() {
 setText("output", "Orange");
}
function Shrimp() {
 setText("output", "Shrimp");
}
function Watermelon () {
 setText("output", "Watermelon");
}
function Chees() {
  setText("output", "Cheese");
}
function Carrot() {
 setText("output", "Carrot");
}
function IceCream() {
 setText("output", "Ice Cream");
}
```

2. (a) Fill in the blanks to make the program to build the binary search tree. /10



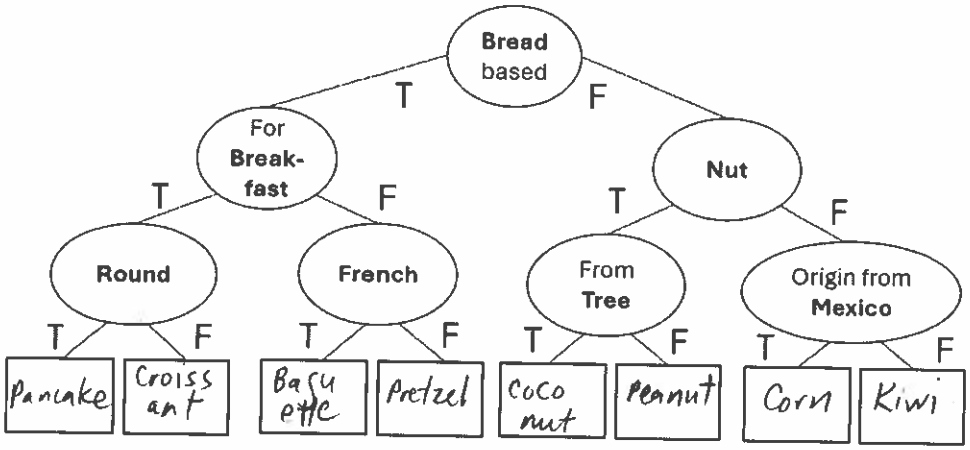


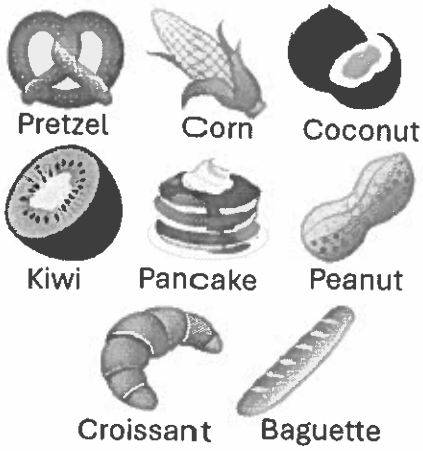
(b) Then, use your binary search tree to fill in the program.

```
onEvent("start", "click", function( ) {
  Music();
});
//AI Question Functions ----------------
function Music() {
  var ans = prompt("Musical Instrument? (T/F)");
  if (ans == "T") {
    Strings();
  } else {
    Input();
  }
}
function Strings() {
  var ans = prompt("In Strings section? (T/F)");
  if (ans == "T") {
      Electric();
  } else {
       Metal();
  }
}
function Electric() {
  var ans = prompt("Uses electricity? (T/F)");
  if (ans == "T") {
    Guitar();
  } else {
    Violin();
  }
}
function Metal() {
  var ans = prompt("In brass section? (T/F)");
  if (ans == "T") {
    Trumpet();
  } else {
    Drum();
  }
}
function Input() {
  var ans = prompt("Computer input? (T/F)");
  if (ans == "T") {
    Words();
  } else {
    Storage();
  }
}
```

```
//Code Continued:
function Words() {
  var ans = prompt("Inputs text? (T/F)");
  if (ans == "T") {
    Keyboard();
  } else {
    Mouse();
  }
}
function Storage() {
  var ans = prompt("Computer storage? (T/F)");
  if (ans == "T") {
    DVD();
  } else {
    Printer();
  }
}
//Object Functions (Leaves) -----------
function Keyboard() {
 setText("output", "Keyboard");
}
function DVD() {
 setText("output", "DVD");
}
function Violin() {
 setText("output", "Violin");
}
function Guitar() {
 setText("output", "Guitar");
}
function Drum() {
 setText("output", "Drum");
}
function Trumpet() {
 setText("output", "Trumpet");
}
function Printer() {
 setText("output", "Printer");
}
function Mouse() {
 setText("output", "Mouse");
}
```

3. (a) Fill in the blanks to make the program to build the binary search tree. /10





(b) Then, use your binary search tree to fill in the program.

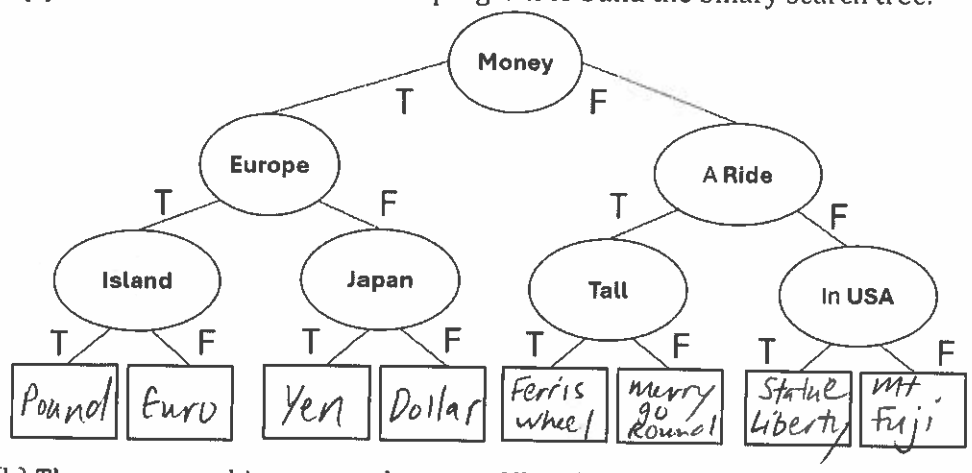
```
onEvent("start", "click", function( ) {
  Bread();
});
//AI Question Functions ----------------
function Bread() {
  var ans = prompt("Bread based?(T/F)");
  if (ans == "T") {
    Breakfast();
  } else {
    Nut();
  }
}
function Breakfast() {
  var ans = prompt("for Breakfast?(T/F)");
  if (ans == "T") {
    Round();
  } else {
    French();
  }
}
function Round() {
  var ans = prompt("Round Shape?(T/F)");
  if (ans == "T") {
    Pancake();
  } else {
    Croissant();
  }
}
function French() {
  var ans = prompt("Eaten in France?(T/F)");
  if (ans == "T") {
    Baguette();
  } else {
    Pretzel();
  }
}
function Nut() {
  var ans = prompt("Nut?(T/F)");
  if (ans == "T") {
    Tree();
  } else {
    Mexico();
  }
}
```

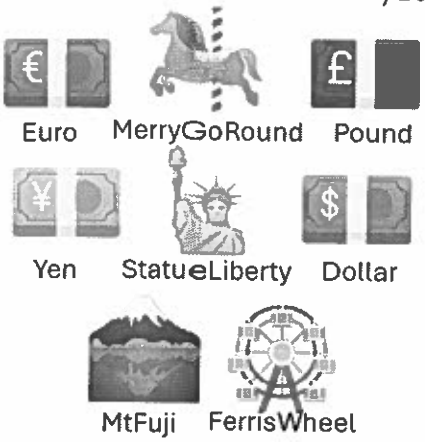
```
//Code Continued:

function Tree() {
  var ans = prompt("from a tree?(T/F)");
  if (ans == "T") {
    Coconut();
  } else {
    Peanut();
  }
}
function Mexico() {
  var ans = prompt("origin in Mexico?(T/F)");
  if (ans == "T") {
    Corn();
  } else {
    Kiwi();
  }
}

//Food Functions (Leaves) -----------
function Pretzel() {
 setText("output", "Pretzel");
}
function Corn() {
 setText("output", "Corn");
}
function Coconut() {
 setText("output", "Coconut");
}
function Kiwi() {
 setText("output", "Kiwi");
}
function Pancake() {
 setText("output", "Pancake");
}
function Peanut() {
 setText("output", "Peanut");
}
function Croissant() {
 setText("output", "Croissant");
}
function Baguette() {
 setText("output", "Baguette");
}
```

4. (a) Fill in the blanks to make the program to build the binary search tree. /10





(b) Then, use your binary search tree to fill in the program.

```
onEvent("start", "click", function( ) {
  Money();
});
//AI Question Functions ----------------
function USA() {
  var ans = prompt("In USA?(T/F)");
  if (ans == "T") {
    StatueLiberty();
  } else {
    MtFuji();
  }
}
function Japan() {
  var ans = prompt("From Japan?(T/F)");
  if (ans == "T") {
    Yen();
  } else {
    Dollar();
  }
}
function Europe() {
  var ans = prompt("In Europe?(T/F)");
  if (ans == "T") {
    Island();
  } else {
    Japan();
  }
}
function Island() {
  var ans = prompt("From Island?(T/F)");
  if (ans == "T") {
    Pound();
  } else {
    Euro();
  }
}
function Tall() {
  var ans = prompt("Tall/High?(T/F)");
  if (ans == "T") {
    FerrisWheel();
  } else {
    MerryGoRound();
  }
}
```

```
//Code Continued:

function Money() {
  var ans = prompt("Is it money?(T/F)");
  if (ans == "T") {
    Europe();
  } else {
    Ride();
  }
}
function Ride() {
  var ans = prompt("Is it a ride?(T/F)");
  if (ans == "T") {
    Tall();
  } else {
    USA();
  }
}

//Travel Functions (Leaves) -----------
function Euro() {
 setText("output", "EU Euro");
}
function Pound() {
 setText("output", "British Pound");
}
function Yen() {
 setText("output", "Japanese Yen");
}
function Dollar() {
 function("output", "American Dollar");
}
function StatueLiberty() {
 setText("output", "Statue of Liberty");
}
function MtFuji() {
 setText("output", "Japan's Mt Fuji");
}
function MerryGoRound() {
 setText("output", "Merry Go Round");
}
function FerrisWheel() {
 setText("output", "Ferris Wheel");
}
```