Question 1: **[18 marks]**

Ranhill SAJ Sdn. Bhd. is a subsidiary of Ranhill Holdings Berhad, an integrated water supply company. Due to the current Movement Control Order (MCO), Ranhill SAJ encourages all customers to pay their bills online. Consider a module, called "PayBill" is part of Ranhill SAJ Sdn Bhd billing application. The PayBill module computes bill payment of water consumption for different types of use.

Based on water tariff rates in the table below, write the test cases for testing the functionality of this module by using **equivalence partitioning (EP)** strategy. Use data from **boundary values analysis (BVA)** for each test case.

Type of Use	First Rate	Second Rate
Residential	0.80 for first 20 m^3	3.00 for the following m^3
Government Buildings and Statutory Bodies	2.07 for first 35 m^3	2.28 for the following m^3
Industrial, Commercial and Trading	2.80 for first 35 m^3	3.30 for the following m^3

Write the solution using the table format as below.

Type	Equivalence Class	Status	Representative (BVA)	Expected Result

Question 2: **[22 marks]**

```
<!DOCTYPE html>
<html>
<body>
<script>
  var hours=window.prompt("Please insert number of hours");
  hours=parseInt(hours);
  var total;
  if (hours <= 3 && hours > 0)
  {
    document.write("Your total fee is RM2.00");
  }
  else if (hours > 3 && hours <= 15)
  {
    total = 2.00 + ((hours-3)*1.50);
    document.write("Your total fee is RM" &total);
  }
  else if (hours > 15)
  {
    document.write("Your total fee is RM20.00");
  }
  else {
    document.write("Error! Please insert a valid number of hours");
  }
</script>
</body>
</html>
```

Based on the snippet of HTML codes as in the figure above, answer the following questions:

a) Draw a **flow graph**.

b) Calculate the **cyclomatic complexity**.

c) Identify and list down all **independent paths** based on the answer in (a).

d) Design a **test case** to force execution down each independent path. Use the table format as given below when designing the test cases.

Independent Path	Data for Test Cases	Expected Result