**Question # 1**

void main() {

int length = 4;

int breadth = 6;

if (length == breadth) {

print('The dimensions represent a square');

} else {

print('The dimensions represent a rectangle');

}

}

**Question # 2**

void main() {

int age1 = 25;

int age2 = 35;

if (age1 > age2) {

print('The first person is older than the second person');

} else if (age1 < age2) {

print('The second person is older than the first person');

} else {

print('Both persons are of the same age');

}

}

**Question # 3**

void main() {

int classesHeld = 16;

int classesAttended = 10;

double attendancePercentage = (classesAttended / classesHeld) \* 100;

print('Attendance percentage: $attendancePercentage%');

if (attendancePercentage < 75) {

print('Sorry, you are not allowed to sit in the exam');

} else {

print('You are allowed to sit in the exam');

}

}

**Question # 4**

void main() {

int year = 2000;

if (year % 4 == 0) {

if (year % 100 == 0) {

if (year % 400 == 0) {

print('$year is a leap year');

} else {

print('$year is not a leap year');

}

} else {

print('$year is a leap year');

}

} else {

print('$year is not a leap year');

}

}

**Question # 5**

void main() {

int temperature = 42;

if (temperature < 0) {

print('Freezing weather');

} else if (temperature >= 0 && temperature <= 10) {

print('Very cold weather');

} else if (temperature > 10 && temperature <= 20) {

print('Cold weather');

} else if (temperature > 20 && temperature <= 30) {

print('Normal in temperature');

} else if (temperature > 30 && temperature <= 40) {

print('It\'s hot');

} else {

print('It\'s very hot');

}

}

Question # 6

void main() {

String alphabet = 'a'; // Change this to read the alphabet from the user

if (alphabet == 'a' || alphabet == 'e' || alphabet == 'i' || alphabet == 'o' || alphabet == 'u' ||

alphabet == 'A' || alphabet == 'E' || alphabet == 'I' || alphabet == 'O' || alphabet == 'U') {

print('$alphabet is a vowel');

} else {

print('$alphabet is a consonant');

}

}

**Question No 7**

void main() {

int id = 1001;

String name = 'James';

int units = 800;

double billAmount;

if (units <= 199) {

billAmount = units \* 1.20;

} else if (units >= 200 && units < 400) {

billAmount = units \* 1.50;

} else if (units >= 400 && units < 600) {

billAmount = units \* 1.80;

} else {

billAmount = units \* 2.00;

}

print('Customer IDNO: $id');

print('Customer Name: $name');

print('Unit Consumed: $units');

print('Amount Charges @Rs. 2.00 per unit: $billAmount');

print('Net Bill Amount: $billAmount');

}