Test Case1:

```
public List<String> function(List<String> list) {
        if (list.size() <= 0) {
     throw new IllegalArgumentException("List length should be greater than 0");
        }
        List<String> numMines = new ArrayList<>();
        for (int i = 0; i < list.size(); i++) {
            if (!list.get(i).equals("#")) {
                int num = 0;
                if (i - 1 >= 0 && list.get(i - 1).equals("#")) {
                    num++;
                }
                if (i + 1 < list.size() && list.get(i + 1).equals("#")) {
                    num++;
                }
                numMines.add(String.valueOf(num));
            }
             else {
                numMines.add(list.get(i));
            }
        }
        return numMines;
    } 22vk
```

Statement Coverage= 5/22 = 23%

Test Case2:

```
public List<String> function(List<String> list) {
        if (list.size() <= 0) {
            throw new IllegalArgumentException("List length should be greater
than 0");
        }
        List<String> numMines = new ArrayList<>();
        for (int i = 0; i < list.size(); i++) {
            if (!list.get(i).equals("#")) {
                int num = 0;
                if (i - 1 >= 0 && list.get(i - 1).equals("#")) {
                    num++;
                }
                if (i + 1 < list.size() && list.get(i + 1).equals("#")) {
                    num++;
                }
                numMines.add(String.valueOf(num));
            }
else {
                numMines.add(list.get(i));
            }
        }
        return numMines;
    }
```

Executed – 16/22

Statement Coverage = 16/22 = 73%

Test Case3:

```
public List<String> function(List<String> list) {
        if (list.size() <= 0) {
            throw new IllegalArgumentException("List length should be greater
than 0");
        }
```

```
        List<String> numMines = new ArrayList<>();
        for (int i = 0; i < list.size(); i++) {
            if (!list.get(i).equals("#")) {
                int num = 0;
                if (i - 1 >= 0 && list.get(i - 1).equals("#")) {
                    num++;
                }
                if (i + 1 < list.size() && list.get(i + 1).equals("#")) {
                    num++;
                }
                numMines.add(String.valueOf(num));
            }
else {
                numMines.add(list.get(i));
            }
        }
        return numMines;
    }
```

Executed - 13

Statement Coverage = 13/22 = 59%

Test Case4:

```
public List<String> function(List<String> list) {
        if (list.size() <= 0) {
            throw new IllegalArgumentException("List length should be greater
than 0");
        }
        List<String> numMines = new ArrayList<>();
        for (int i = 0; i < list.size(); i++) {
            if (!list.get(i).equals("#")) {
                int num = 0;
                if (i - 1 >= 0 && list.get(i - 1).equals("#")) {
                    num++;
                }
                if (i + 1 < list.size() && list.get(i + 1).equals("#")) {
                    num++;
                }
                numMines.add(String.valueOf(num));
            }
else {
                numMines.add(list.get(i));
            }
        }
        return numMines;
    }
```

Executed 12

Statement Coverage = 12/22 = 54%

Test Case5:

```
public List<String> function(List<String> list) {
        if (list.size() <= 0) {
            throw new IllegalArgumentException("List length should be greater
than 0");
        }
        List<String> numMines = new ArrayList<>();
        for (int i = 0; i < list.size(); i++) {
```

```
            if (!list.get(i).equals("#")) {
                int num = 0;
                if (i - 1 >= 0 && list.get(i - 1).equals("#")) {
                    num++;
                }
                if (i + 1 < list.size() && list.get(i + 1).equals("#")) {
                    num++;
                }
                numMines.add(String.valueOf(num));
            }
            else {
                numMines.add(list.get(i));
            }
        }
        return numMines;
    }
```

Executed 10

Statement Coverage = 10/22 = 45%

Test Case6:

```
public List<String> function(List<String> list) {
        if (list.size() <= 0) {
            throw new IllegalArgumentException("List length should be greater
than 0");
        }
        List<String> numMines = new ArrayList<>();
        for (int i = 0; i < list.size(); i++) {
            if (!list.get(i).equals("#")) {
                int num = 0;
                if (i - 1 >= 0 && list.get(i - 1).equals("#")) {
                    num++;
                }
                if (i + 1 < list.size() && list.get(i + 1).equals("#")) {
                    num++;
                }
                numMines.add(String.valueOf(num));
            }
            else {
                numMines.add(list.get(i));
            }
        }
        return numMines;
    }
```

Executed 8

Statement Coverage = 8/22 = 36%