**Level 1**

1. D
2. D

**Level 2**

2.

Possible Combinations

| Time in the sun | Light intensity |
| --- | --- |
| T<3 | Very Low |
| 3<= T <=6 | Low |
| T>6 | Medium |
|  | High |

Missing combinations

| Time in the sun | Light Intensity |
| --- | --- |
| 3<= T <=6 | Low |
|  | High |

So we need at least minimum of 2 test cases = **B**

2.

Answer C

With regards to the equivalence partitioning technique we could separate classes as same as the 4 different resolutions. Therefore we need at least 4 test cases to test each of the test classes represented by each resolution.

**Level 3**

* A registered user can upload a picture with a minimum size of 100KB and maximum will be 4MB using only file formats “JPG”,”PNG”,”GIF”.
* A registered user can add a comment to a self uploaded or friend’s picture with a minimum of 2 and maximum of 500 characters
* A shared picture can be liked by minimum of zero and maximum of 1 million users
* A registered user is able to share maximum of 50 cat photos per day

**Using Equivalence Partitioning**

* A registered user can upload a picture with a minimum size of 100KB and maximum will be 4MB using only file formats “JPG”,”PNG”,”GIF”.

| **Partitions** | **Example Value** | **Expected Result** |
| --- | --- | --- |
| 100KB - 4000KB (4MB) | 2500KB (2.5MB) | Successfully Uploads |
| 0KB - 99KB | 75KB | Upload fails |
| 4001KB - 10 000KB | 5800KB (5.8MB) | Upload fails |

Couple of examples for Equivalence Partitioning test cases

| **Test**  **Case ID** | **Title** | **Preconditions** | **Steps** | **Expected results** |
| --- | --- | --- | --- | --- |
| TC01 | Uploading a JPG file with a size of 2.5MB | * User is registered * A cat picture of 2.5MB “JPG” file is available in the phone gallery | 1. Navigate to Photo sharing tab 2. Click upload icon 3. Select the cat picture of 2.MB “JPG” file, which is already available in the phone gallery 4. Click “Upload selected” | 1. Photo sharing window is displayed 2. Phone gallery opens to select the image 3. Particular image is selected 4. Image gets uploaded and once the uploading status bar reaches 100% it shows image in the “image editor” |
| TC02 | Uploading a JPG file with a size of 75KB | * User is registered * A cat picture of 75KB “JPG” file is available in the phone gallery | 1. Navigate to Photo sharing tab 2. Click upload icon 3. Select the cat picture of 75KB “JPG” file, which is already 4. available in the phone gallery 5. Click “Upload selected” | 1. Photo sharing window is displayed 2. Phone gallery opens to select the image 3. Particular image is selected 4. Image gets uploaded and once the uploading status bar reaches 100% it shows an error saying “the file size should be between 100KB and 4MB” |
| TC03 | Uploading a JPG file with a size of 5.8MB | * User is registered * A cat picture of 5.8MB “JPG” file is available in the phone gallery | 1. Navigate to Photo sharing tab 2. Click upload icon 3. Select the cat picture of 5.4MB “JPG” file, which is already available in the phone gallery 4. Click “Upload selected” | 1. Photo sharing window is displayed 2. Phone gallery opens to select the image 3. Particular image is selected 4. Image gets uploaded and once the uploading status bar reaches 100% it shows an error saying “the file size should be between 100KB and 4MB” |

**Using Boundary Value Analysis**

* A registered user can add a comment to a self uploaded or friend’s picture with a minimum of 2 and maximum of 500 characters

| **Partitions**  **(# characters per a comment)** | **Boundary Values**  **(# characters per a comment)** | **Expected Result** |
| --- | --- | --- |
| 2-500 | 1 | Comment Fail |
| 2 | Comment Successful |
| 3 | Comment Successful |
| 499 | Comment Successful |
| 500 | Comment Successful |
| 501 | Comment Fail |
| 0-1 | 0 | Comment Fail |
| 1 (Repeated) |  |
| 2 (Repeated) |  |
| 501 - 2000 (Max) | 500 (Repeated) |  |
| 501 (Repeated) |  |
| 502 | Comment Fail |
| 1999 | Comment Fail |
| 2000 | Comment Fail |
| 2001 | Comment Fail |

| **Test**  **Case ID** | **Title** | **Preconditions** | **Steps** | **Expected results** |
| --- | --- | --- | --- | --- |
| TC04 | Adding a comment to an image with “0” characters | * User is registered * User has an image in the feed which is shared by a friend or by the same user | 1. Navigate to the image in the “News Feed” 2. Click comment space in the image 3. Click “Add Comment” button without entering any characters | 1. Shared image is shown and a summary of current likes and comments are shown 2. Comment field activates and ready to take take input 3. Error should popup and state that “Please enter at least 2 characters” |
| TC05 | Adding a comment to an image with “2” characters | * User is registered * User has an image in the feed which is shared by a friend or by the same user | 1. Navigate to the image in the “News Feed” 2. Click comment space in the image 3. Add a Comment with “2” Characters 4. Click “Add Comment” button | 1. Shared image is shown and a summary of current likes and comments are shown 2. Comment field activates and ready to take take input 3. Added comment is displayed in the Comment field 4. Comment is successfully posited and can be viewed in the post |
| TC06 | Adding a comment to an image with “499” characters | * User is registered * User has an image in the feed which is shared by a friend or by the same user | 1. Navigate to the image in the “News Feed” 2. Click comment space in the image 3. Add a Comment with “499” Characters 4. Click “Add Comment” button | 1. Shared image is shown and a summary of current likes and comments are shown 2. Comment field activates and ready to take take input 3. Added comment is displayed in the Comment field 4. Comment is successfully posited and can be viewed in the post |
| TC07 | Adding a comment to an image with “501” characters | * User is registered * User has an image in the feed which is shared by a friend or by the same user | 1. Navigate to the image in the “News Feed” 2. Click comment space in the image 3. Add a Comment with “501” Characters 4. Click “Add Comment” button | 1. Shared image is shown and a summary of current likes and comments are shown 2. Comment field activates and ready to take take input 3. Added comment is displayed in the Comment field 4. Error should popup and state that “Maximum allowed characters for commenting is 500” |

Couple of examples for Boundary value analysis test cases