```
%original image display
figure(1);
x=imread('E:\3227,06\a2\rangoli.bmp');
subplot(3,3,1);
imshow(x);
title('Original image rangoli');
%RGB of image
red=x(:,:,1);
subplot(3,3,2);
imshow(red);
title('red');

green=x(:,:,2);
subplot(3,3,3);
imshow(green);
title('green');

blue=x(:,:,3);
subplot(3,3,4);
imshow(blue);
title('blue');

%threshold
r=im2bw(red,0.5);
subplot(3,3,5);
imshow(r);
title('threshold red');

g=im2bw(green,0.5);
subplot(3,3,6);
```

```
imshow(g);
title('threshold green');


b=im2bw(blue,0.5);
subplot(3,3,7);
imshow(b);
title('threshold blue');

%addition
figure(2);
add=imadd(red,green);
subplot(3,3,1);
imshow(add);
title('added r+g');

%subtract
figure(2);
sub=imsubtract(red,green);
subplot(3,3,2);
imshow(sub);
title('sub r-g');

%complement
figure(2);
com=imcomplement(green);
subplot(3,3,3);
imshow(com);
title('complement');

%complement and add
figure(2);
addco=imadd(red,com);
subplot(3,3,4);
imshow(addco);
```

```
title('added & complement');

%bitwise and
figure(2);
ba=bitand(red,green);
subplot(3,3,5);
imshow(ba);
title('bit and');

%resize image
figure(3);
x=imread('E:\3227,06\a2\rangoli.bmp');
subplot(2,2,1);
imshow(x);
title('Original image rangoli');

c=imresize(x,0.9);
subplot(2,2,2);
imshow(c);
title('compressed');

e=imresize(x,7);
subplot(2,2,3);
imshow(e);
title('expanded');

%rotation
rot=imrotate(x,55);
subplot(2,2,4);
imshow(rot);
title('rotated');
```

Original image rangoli

red

green

blue

threshold red

threshold green

threshold blue

added r+g

sub r-g

complement

added & complement

bit and

Original image rangoli

compressed

expanded

rotated

```
%original image display
figure(1);
x=imread('E:\3227,06\a2\flower.bmp');
subplot(3,3,1);
imshow(x);
title('Original image rangoli');
%RGB of image
red=x(:,:,1);
subplot(3,3,2);
imshow(red);
title('red');

green=x(:,:,2);
subplot(3,3,3);
imshow(green);
title('green');
```

```
blue=x(:,:,3);
subplot(3,3,4);
imshow(blue);
title('blue');

%threshold
r=im2bw(red,0.5);
subplot(3,3,5);
imshow(r);
title('threshold red');

g=im2bw(green,0.5);
subplot(3,3,6);
imshow(g);
title('threshold green');


b=im2bw(blue,0.5);
subplot(3,3,7);
imshow(b);
title('threshold blue');

%addition
figure(2);
add=imadd(red,green);
subplot(3,3,1);
imshow(add);
title('added r+g');

%subtract
figure(2);
sub=imsubtract(red,green);
subplot(3,3,2);
imshow(sub);
title('sub r-g');
```

```
%complement
figure(2);
com=imcomplement(green);
subplot(3,3,3);
imshow(com);
title('complement');

%complement and add
figure(2);
addco=imadd(red,com);
subplot(3,3,4);
imshow(addco);
title('added & complement');

%bitwise and
figure(2);
ba=bitand(red,green);
subplot(3,3,5);
imshow(ba);
title('bit and');

%resize image
figure(3);
x=imread('E:\3227,06\a2\flower.bmp');
subplot(2,2,1);
imshow(x);
title('Original image rangoli');

c=imresize(x,0.9);
subplot(2,2,2);
imshow(c);
title('compressed');

e=imresize(x,7);
```

```
subplot(2,2,3);
imshow(e);
title('expanded');

%rotation
rot=imrotate(x,55);
subplot(2,2,4);
imshow(rot);
title('rotated');
```

Original image rangoli

red

green

blue

threshold red

threshold green

threshold blue

added r+g

sub r-g

complement

added & complement

bit and

Original image rangoli

compressed

expanded

rotated