IN-LECTURE QUESTIONS FOR VIDEO 7.6

Note: See the answer key at the bottom of this file.

1. Write the missing text to refer to Android's share icon.
   ```
   android:src="@_____drawable/ic_menu_share"
   ```

2. A very large bitmap will cause an out of memory error on which line?
   ```
   a. Uri uri = data.getData();

   b. InputStream stream =
      getContentResolver().openInputStream(uri);

   c. BitmapFactory.decodeStream(stream);

   d. stream.close();
   ```

3. For Android 2.x especially, when you have finished using a bitmap, you should free up bitmap's native memory by using which method?
   ```
   a. bitmap.free()
   b. bitmap.recycle()
   c. bitmap.close()
   ```

4. Select the option to complete the code to draw bitmap 'src' onto bitmap 'dest'.
   ```
   a. src = BitmapFactory.decodeStream(stream,null,options);
      dest = Bitmap.createBitmap(100,200,Bitmap.Config.ARGB_8888);

   b. Canvas c = new Canvas(dest);
      c.drawBitmap(src,0,0,null);

   c. Canvas c = new Canvas(src);
      c.drawBitmap(dest,0,0,null);

   d. Canvas c = new Canvas(src);
      c.drawBitmap(src,0,0,null);

   e. dest.drawBitmap(src,0,0,null);
   ```

5. Write the missing code to return the width of a bitmap.
   ```
   int w = bitmap._____;
   ```

6. Select the best response. Which one of the following is true?
   a. Immutable means cannot be modified
   b. By default BitmapFactory.decodeStream creates an immutable bitmap
   c. "final String" means the variable will always point to the same String object
   d. All of the other responses are correct.

7. To draw text of size 48 onto a bitmap use:
   a. TextPaint's setTextSize method
   b. drawText("asd",48,x,y); method
   c. Canvas's setTextSize method

8. A common mistake for beginners when using
   `canvas.drawText("Hello",0,0,textpaint);` is:
   a. Not remembering to set up the text paint object first.
   b. Drawing above the top of the bitmap so they won't see anything.
   c. Both of the other options are correct.

9. True or false? If the alpha value is zero you have made fully transparent paint.
   a. True
   b. False

10. In which sequence can the 8 hexadecimal digits be mapped onto the color components when writing a color using a hexadecimal integer?
    a. alpha alpha red red green green blue blue
    b. alpha alpha red red blue blue green green
    c. red red blue blue green green alpha alpha
    d. red red green green blue blue alpha alpha

11. Write the missing code so that the expression is true if the bitmap pointer is pointing at a valid object.
    `mBitmap != _____`

12. Write the missing code so that the expression is true if the counter is not equal to 7.
    `count __ 7`

13. Write the missing code so that the expression is true if the pointer is null.
    `result __ null`

14. Which class is the method 'getExternalStoragePublicDirectory' in?
    a. Storage
    b. Resources
    c. Environment
    d. Activity

15. The constructor new File(path,filename)
    a. Creates a new Java object and creates a file on the file system
    b. Creates a new Java object but does not modify the file system
    c. Throws an exception of the file does not exist

16. Write the missing code to create a new FileOutputStream object using a variable 'f' that points to a File object.
    `FileOutputStream fos = _____(f);`

17. To save the bitmap to the external storage your manifest needs:
    a. ```
uses-permission
android:name="android.permission.WRITE_EXTERNAL_STORAGE"
```

    b. ```
uses-permission
android:name="android.permission.EXTERNAL_STORAGE"
```

    c. ```
permission
android:name="android.permission.WRITE_EXTERNAL_STORAGE"
```

18. To immediately tell Android that a new image exists and should be included in the gallery:
    a. Use ACTION_SD_CARD_CHANGED intent, call setData then sendBroadcast
    b. Use ACTION_SD_CARD_CHANGED intent, call setData then startActivityForResult
    c. Use ACTION_MEDIA_SCANNER_SCAN_FILE intent, call setData then sendBroadcast
    d. Use ACTION_MEDIA_SCANNER_SCAN_FILE intent, call setUri then startActivityForResult
    e. No additional code is necessary.

19. Write the missing code to set up an ACTION_SEND intent to share a jpg image.
    ```
intent.setType("____");
intent.putExtra(Intent.EXTRA_STREAM,uri);
```

20. Write the missing code to create a Uri object from a File object.
    ```
File f = …
Uri uri = Uri._____(f);
```

21. System.currentTimeMillis() returns a primitive integer value, an 8 byte Java type 'long', which represents:
    a. The number of seconds since the phone started
    b. The number of milliseconds since Midnight Jan 1 2001 UTC
    c. The number of milliseconds since Midnight Jan 1 1970 UTC

22. If you add a long primitive value to a string you get:
    a. An exception
    b. A long value
    c. A new string object

----------------------------------------------------------------------------------------------------------------

**ANSWER KEY:**

1. android:
2. c
3. b
4. b
5. getWidth()
6. d
7. a
8. c
9. a
10. a
11. null
12. !=
13. ==
14. c
15. b
16. new FileOutputStream
17. a
18. c
19. image/jpeg
20. fromFile
21. c
22. c