Ans a:

NullPointerException is a RuntimeException. In Java, a special null value can be assigned to an object reference. NullPointerException is thrown when program attempts to use an object reference that has the null value.

These can be:

Invoking a method from a null object.

Accessing or modifying a null object’s field.

Taking the length of null, as if it were an array.

Accessing or modifying the slots of null object, as if it were an array.

Throwing null, as if it were a Throwable value.

When you try to synchronize over a null object.

To avoid the NullPointerException, we must ensure that all the objects are initialized properly, before you use them. When we declare a reference variable, we must verify that object is not null, before we request a method or a field from the objects

Ans b:

This exception occurs when the app is trying to notify the user from the background thread (AsyncTask) by opening a Dialog.

If you are trying to modify the UI from background thread (usually from onPostExecute() of AsyncTask) and if the activity enters finishing stage i.e.) explicitly calling finish(), user pressing home or back button or activity clean up made by Android then you get this error

Ans c:

When acessing an array element beyond the size of array is represented by a class known as ArrayIndexOutOfBoundsException (from java.lang package).

That is why When JVM, encounters division by zero problem, to give the message, an object of ArrayIndexOutOfBoundsException is created and thrown. The thrown object of ArrayIndexOutOfBoundsException gives the message

Ans d:

The most probable reason for this is the missing activity in AndroidManifest.xml file.

Every Android Application must one application tag in Manifest file and within it there must be an Activity with <intent-filter> tag with action and category sub-tags. Which ever activity has these tags within it is the Launcher/Default activity which gets loaded when the App is run on a device.

Ans e:

The old method is deprecated starting in API 23, and the new method only exists in API 23+. You are attempting to call the new method on a device running API <23.

You can either perform an API level check and call the appropriate method, or you can use ContextCompat.getColor(Context, int) from the support-v4 library.