TEST 3

weeks 9 through 13. Note that there is a practice test 3 in the Week 13 folder on Sakai.

Basic Design patterns (C) – you may be asked to apply these to something like the 3D printer example
- Visitor
- Observer
- Command
- Façade
- State

Event-driven programming (C) (see mainly clickcounter and stopwatch examples)
- events - sources - listeners
- callback paradigm/Observer pattern (A)
- event queue and dispatch thread – in particular the Runnable interface and the run() and start() methods
- scheduled tasks/Command pattern
- modeling dynamic, event-driven behavior with state diagrams (A)
- State pattern

Model-view-adapter architecture (A)
- differences from model-view-controller (C)
- related patterns (MVP– model view presenter – and MVVM – model view view model) (K)

Android framework basics (A to the extent of the examples and projects covered so far)
- architecture (K)
- overview (C)
- views and widgets (A) – clickcounter, stopwatch, and project 4 (timer)
- activities and their lifecycle (scroll about 60% down) (A)
- saving application state (e.g., during rotation) (A) – clickcounter

Please also review the following background reading
- Programming Android chapters 1 through 6 (may be available on LUC Safari through the Library system) or http://www.techotopia.com/index.php/Android_4_App_Development_Essentials chapters 1 through 8
- SE Radio episodes 46 (refactoring) and 65 (embedded systems)

Finally, to succeed on this test, you should be intimately familiar with
- clickcounter example
- stopwatch example
- projects 3 (shapes) and 4 (timer) and the pertinent group activities – focus especially on shapes