

CS683

Review

Final Exam

- 2 hours, 100 points
- Open book/open notes (pdf files)
- Computer and Android studio is allowed
- No internet is allowed
- 3 types of Questions
 - 2 concept questions.
 - 1 project related question with 2-3 sub questions.
 - 1 application coding question with about 6-7 sub questions (read/write code: complete code, write method, fix error, describe functionalities etc.)

Content

- Basic concepts:
 - Android **version**, history, hardware (ARM, NAND Flash), platform (Linux Kernel, ART), Application Development (SDK, AVD, APK)
- Basic UI
 - Activity/Fragment (lifecycle), layout, view/view group, event listener, Navigation, intent
- Advanced UI
 - Listview, Recyclerview (Adapter), ViewModel, LiveData
- Data storage
 - Sqlite, Room, shared preferences, basic file locations (internal & external files), content provider concepts
- Asynchronous processing
 - Process/thread concepts, Handler/HandlerThread, coroutine, broadcast receiver, started service, bound server, foreground service, notification, workmanager, pending Intent
- Android security concepts
 - Application sandbox, permissions, explicit/implicit/pending intents, open components, manifest file

