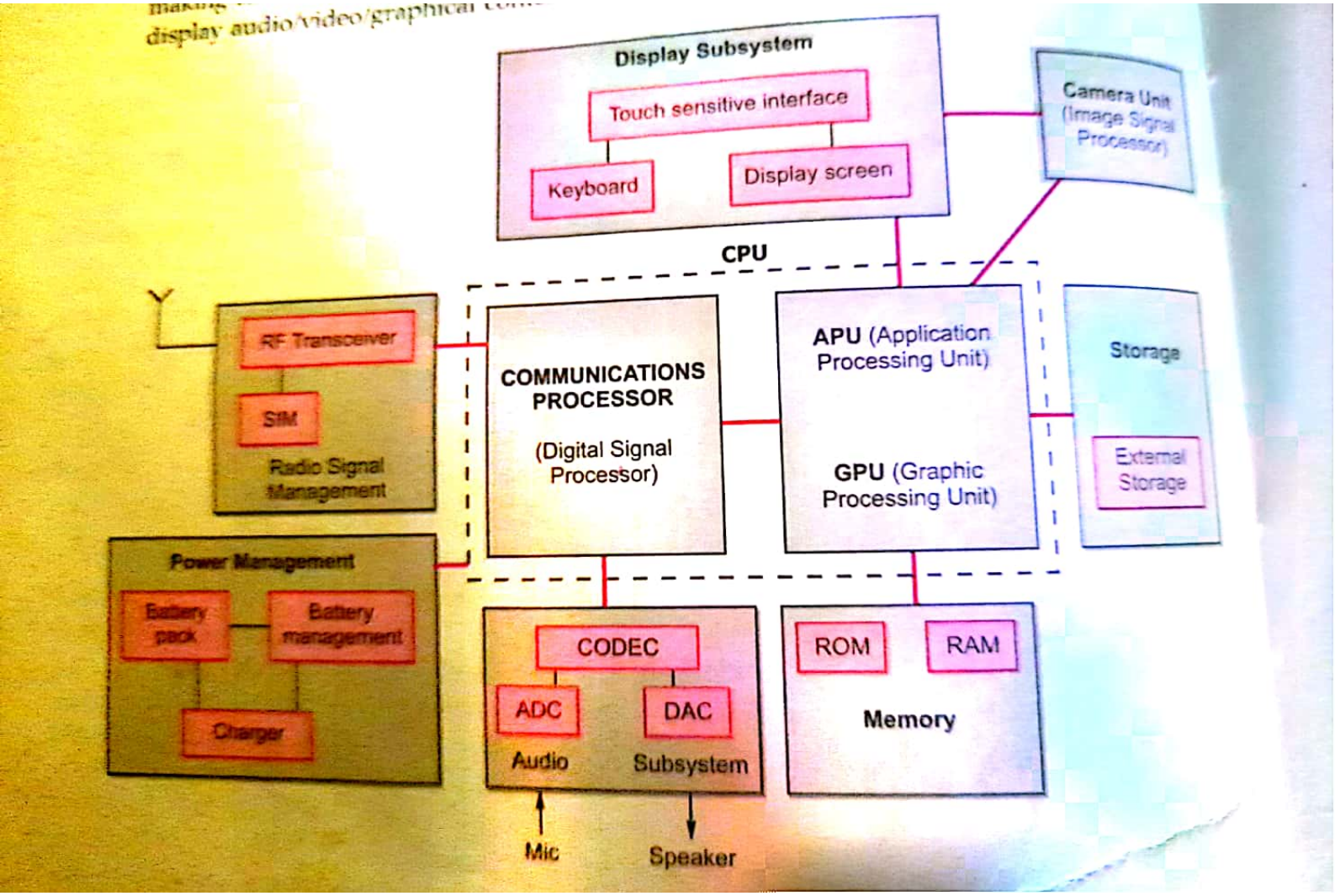
display audio/video/graphical



(*i*) **Communications Processing Unit.** [*Mobile System I/O Unit*] This subsystem is responsible for making and receiving phone calls on a mobile handset. It has a digital signal processor that helps it work with **RF Transceiver** and the **Audio subsystem.**

- ***Radio Signal Management Unit*** is responsible for connecting **SIM** (which provides a type of modem) to the base stations through radio signals. (*3G/LTE/4G based cellular networks*).

(*ii*) **Applications Processing Unit (APU).** This subsystem is responsible for governing, controlling all types of operations taking place on a mobile system by running various types of mobile applications **(apps).**

NOTE

These days major components of a mobile system are integrated on a single chip called **System on a Chip (SoC).** The SoC chips consume less power compared to other alternatives.

2. Display Subsystem

This subsystem is responsible for providing **display facilities, touch sensitive interface** and **touch sensitive keyboards.**

3. Camera Subsystem

This subunit is designed to deliver a tightly bound image processing package and enable an improved overall picture and video experience. It has an integrated Image Signal Processor ensures things like *instant image capture, high-resolution support, image stabilization,* and other *image enhancements.*

4. Mobile System Memory

Like its other counterparts, a mobile system also needs memory to work. A mobile system's memory is comprised of following *two* types of memories :

(*i*) **RAM (Random Access Memory).** It is the work memory of your mobile system. The installed mobile apps, when run, are first loaded in the RAM and then executed. These apps remain in the RAM after you are no longer using them and then they are shifted to background.

The more RAM you have on a smartphone, the better the performance and faster the phone will generally be. RAM does not store information once the device is turned off.

(*ii*) **ROM (Read Only memory).** The ROM or **Read Only Memory** is a part of mobile system's internal storage and it is not accessible for users to write on and is thus referred to as *Read Only Memory*. The ROM is basically **Flash memory or technically EEPROM** (electrically erasable and programmable read only memory).

This ROM part of a mobile system internal storage is where operating system resides. It also has some preinstalled apps in this memory sections which cannot be deleted on users' end either. This is the reason why you don't get full internal memory as advertised on the Box, because a part of it has been used to house operating system and other pre-installed apps.

NOTE

RAM memory is volatile, it loses its contents when you switch off the device.

Check Point 1.2

1. What are major functional components of a mobile system ?
2. What is the role of Communication processor of a mobile system ?
3. How does a mobile system manage and draw power ?
4. What is the role of display management unit of a mobile system ?
5. How does memory of mobile function ?
6. How does the CPU of a mobile system work ?