FIGURE e5.17.1 The mercury delay lines in the EDSAC. This technology made it possible to build the first stored-program computer. The young engineer in this photograph is none other than Maurice Wilkes, the lead architect of the EDSAC.

FIGURE e5.17.2 A core memory plane from the Whirlwind containing 256 cores arranged in a 16 3 16 array. Core memory was invented for the Whirlwind, which was used for air defense problems, and is now on display at the Smithsonian. (Incidentally, Ken Olsen, the founder of Digital and its president for 20 years, built the computer that tested these core memories; it was his first computer.)

FIGURE e5.17.3 An early DRAM board. This board uses 18 Kbit chips.

FIGURE e5.17.4 A 1 MB SIMM, built in 1986, using 1 Mbit chips. This SIMM sold for about $5/MB in 1997. As of 2020, most main memory is packed in DIMMs similar to this, though using much higher-density memory chips (16 Gbits).

FIGURE e5.17.5 A magnetic drum made by Digital Development Corporation in the 1960s and used on a CDC machine. The electronics supporting the read/write heads can be seen on the outside of the drum.

FIGURE e5.17.6 The RAMAC disk drive from IBM, made in 1956, was the first disk drive with a moving head and the first with multiple platters. The IBM storage technology Web site has a discussion of IBM’s major contributions to storage technology.

FIGURE e5.17.7 This is a DEC disk drive and the removable pack. These disks became popular starting in the mid-1960s and dominated disk technology until Winchester drives in the late 1970s. This drive was made in the mid-1970s; each disk pack in this drive could hold 80 MB.