3 Hardware – Part 1 —Answers

Answers

3.1 Hard disk drive (or solid-state drive, optical disc, USB flash drive).

3.2 Output = 0 (NOT inverts the input).

3.3 Primary memory is fast and used directly by the processor while running; secondary storage is slower but keeps data permanently (even with the power off). (Any clear difference.)

3.4 RAM is volatile —"volatile" means its contents are lost when the power is switched off.

3.5 OR gives 1 when either input is 1:
$0, 0 \to 0$; $0, 1 \to 1$; $1, 0 \to 1$; $1, 1 \to 1$.

3.6 RAM is fast but volatile and limited in size, so it cannot keep data when the power is off; a hard disk is large and permanent but slow. Using both gives fast working memory *and* large permanent storage.

3.7 `A AND B` is 1 only when both are 1, and `NOT` inverts it:
$0, 0 \to 1$; $0, 1 \to 1$; $1, 0 \to 1$; $1, 1 \to 0$.