2 A computer with a Von Neumann architecture has a central processing unit (CPU) that carries out the fetch-decode-execute (FDE) cycle.

(a) Give the name of the first register that is used in the fetch part of the cycle.

..... [1]

(b) The CPU has a control unit (CU).

(i) Describe the role of the CU in the CPU.

.....

.....

.....

.....

.....

..... [3]

(ii) Give the name of the register that is part of the CU.

..... [1]

(c) The computer has primary storage. One example of primary storage is cache.

(i) Tick (✓) **one** box to show the correct statement that describes the purpose of cache.

A It stores important instructions. ☐

B It stores the next instruction to be processed. ☐

C It stores frequently used instructions. ☐

D It stores instructions so they are not lost when the power is turned off. ☐

[1]

(ii) Give **one** other example of primary storage.

Identify the type of data your example would store.

Primary storage .....

Data .....

.....

[2]

(d) The computer also has secondary storage.

Write the name of the type of secondary storage for each description in the table. Each type of secondary storage may be used more than once.

Type of secondary storage	Description
.....	It burns pits and lands onto a disk.
.....	It uses control gates and flow gates.
.....	It uses NAND or NOR technology.
.....	The surface of each platter is divided into tracks and sectors.
.....	It has a read/write arm that moves a laser across a disc.
.....	It controls the flow of electrons using transistors.

[6]