Problem 1:

Use Makefile, type make in console to compile the file. Then, execute it as ./q1 [-c] [-u] [-i] source.txt.

Problem 2:

Fuction	User CPU(s)	System CPU(s)	Clock time(s)
fread/fwrite with 1 byte	1.62	0.00	1.63
fread/fwrite with 32 byte	0.05	0.01	0.07
fread/fwrite with 1024 byte	0.00	0.00	0.01
fread/fwrite with 4096 byte	0.00	0.00	0.01
fgets/fputs with 4096 byte	0.00	0.00	0.01
fput/fget	0.77	0.01	0.78

Observation 1: Though fget()/fput() and fread/fwrite with 1 byte read and write file stream one by one character, but obviously fget()/fput() is fast than fread/fwrite with 1 byte.
Observation 2: If buffer is larger than 1024 bytes when file is 20MB, times() cannot differ the performance of them.
Observation 3: If buffer becomes larger, the performance of fread/fwrite will become well.

Use Makefile, type make in console to compile the file. Then, execute it as ./q2.

Real time is equal to clock time.