1. The advantages of UNIX being re-written in c language were that the code was more compact and make it portable to new hardware. It was easier to port to other processors.

2. Because AT&T could not enter the computer business due to the court order for the antitrust case, AT&T could not sell the Unix operating system. However, they were giving a free license of Unix and sent you all the source code. In 1975 computer programming was taking off, and since most of them liked Unix, it became popular. The main reason is AT&T makes Unix widely available at that time.

3. A) **The kernel** is the core of the operating system. It allocates time and memory to process each program. It manages the control of the machine and supervises the scheduling of the various user programs.

B) **The shell**/ command interprets - Looks after the communication b/n the user and the system itself.

C) **Various Utility** is programs that perform specific tasks like editing a file or sorting a bunch of numbers, in the word all other programs that are not provided directly as part of the operating system kernel.

4.

5. It was because the GPL license assures that the kernel source code will always remain available. GPL license and other new components revolutionized the computing industry with simple & important freedoms. These ideas spread around the world and rise from a hobbyist experiment to the foundation of a large commercial ecosystem.

6.