How to answer the questions in the interview.

What's IP cores?

The first company I worked for was vbridge Microsyste. It's a design house. Its proudce were verified IP cores. 7 new IP cores were designed for the security engine : AES, DES, 3DES, MD5, SHA1, CRC, and a 5 bits MCU. I finished all IP cores at a rate of one month one IP core.

How to finish a IP core?

The design were include specification, user manual, testbench, RTL codes, timeing check script. Each IP core have about 10 modules and 3000 to 5000 lines. 3 to 4 of them were testbechs, and the others are RTLs.
The proceduce are :
1 using VIM to create or modify the codes;
2 using NC to simulate the RTL code;
3 using perl to analyze the simulation result;
4 using verdi to debug the code if necessary.
5 using VIM to create or modify the timing rules;
6 using synopsys DC to generate the netlist.
7 using NC to simulate the netlist;
8 using perl to analyze the simulation result again.
If ok, the testbench, the netlist, and the timing rules can be sent to the backend.

How to teach the new person?

1 Using git / svn / cvs to control your code ; write enough meaningful comment when save each version.
2 Read the specification carefully.
3 Write the testbench and generated the objective data; double check the specification before start to write RTL codes.
4 The manpower is expensive. Using more script to compare the data automaticlly.
5 Prefer using more scripts than using wave debuger to find the bug unless in the critical module(s).