Blockchain Essentials

1. What is your understanding of blockchain?

   The mechanism developed to process an unchangeable, immutable, tamper proof and verifiable data through a chain of blocks is basically blockchain. This mechanism was penned by Satoshi Nakamoto, an anonymous person/organisation to eliminate the concept of third party and rather make the data more secure by end to end processing.

2. What is the core problem that blockchain is trying to solve?

   Any ledger consists of important data that needs to be kept secured. Generally, a third party is trusted to manage all the data processing and its security. However, this means the security of data is solely in the hands of this third party and is prone to update, delete or misuse of data. This is the core problem i.e security of data due to which blockchain was developed.

3. Features of blockchain?
   a. Decentralisation of data.
   b. Verifiability.
   c. End to end data processing eliminating the third party.
   d. Data transparency.

4. What all things does a block contain?
   a. Block number.
   b. Transaction records.
   c. Previous data key.
   d. Mining key.

5. How is the verifiability of blockchain attained?

In blockchain mechanism a piece of data is decentralised i.e distributed among a number of systems. Now once the data is created it has its own identity or key which further gets updated every time the data is updated or changed. The formula is

Block 1 = 0 + B = C

Block 2 = C + D = E

Here, B is the newly created data and C is the original key. Further, this data its original key C will be edited i.e updated document D will now have a new key E and so on.
In this way the data is distributed among many computers so if one gets a different key than what others got it can easily be said that the computer with a different key has updated data which needs to be checked.