1) Firstly SOAP is a protocol, REST is an architectural style. In terms of security, SOAP is more powerful than REST. Because SOAP contains its own security protocols and hold status information with respose and request. But Rest access Restful Services via Url and there is no any security protocol.
SOAP uses only xml format but REST can use text, xml and json formats.
If data size and speed is important for our application, using REST is better than SOAP. Because reading json is easier than SOAP and json hold data in smaller size than xml type.
Caching processs is easier in REST. Because Rest uses simple http get method.
Design in REST is easier and better. Because SOAP needs development tools for desing but REST not.
For using servis which is SOAP, client have to know all details about SOAP. REST don't need this. Because, for using REST service it is enough to know URL information.

2) Functional test aims to test function independet of side affect and enviroment. For example: When we click a login button, it directs us main page. Acceptance test aims to control software whether do its work true. For example: Test of registering a new user.

3) When we test our software, we should pay attention that we test only one scenario. The scenario can have some dependency like database process or out service. We should test our software without these dependency. For this we do mocking. By using mock object, we can imitate object which we want to test. For examle while we are testing, we can use mock object instead of object that performs database operation. In this way we can focus the real testing scenario and it provides us saving time. Because database process can take so much time. Some java mock libraries are Mockito, Jmock, PowerMock.

4) The code must be tested to write quality code. Code coverage percent tells us how much of code has been tested and it means ratio of the code controll test to the code we write. %80-85 is generally enough for code coverage. Because %20 of code can't use so much.

5) Both of Post and Put are http method which send data to server. Post is only used when we send data to specific resource and what yo do with data is related to server. But Put access the same resource with same adress and if there is a content, it change with coming data. If there is no any content, new content is created. Put is preferred more to send file based content to server.

6) Http is a protocol which provide to communicate between web browser and web server and have safe and unsafed methods. Safe method means that do not modify resource. Options, Get, Head methods are safe methods of http. Put, Post, Delete, Patch are unsafe methods of http.

7) Http Basic Authentication is a method that server wants a username and password from client and server should verify these information by comparing with database. It is how it happen: Client requests page using Basic Authentication. Server send 401 code and www-Authenticate:Basic header. This header indicates that client should start Basic Authentication. When client browser encounters this header, username and password window open like pop-up. Client enter username and password. Then server verify username and password and if it is true, returns the requested resource.

8) RestTemplate is a default class in Spring Framework. It provide to execute synchronous http requests on the client side and is used to create applications that consume RESTful web services.

9) If a method is called once, it returns a result. Then the method is called again and it returns the same result. This means that it is an idempotent method. Get, put, delete and post methods at http are idempotent methods.

10) DNS spoofing is a computer security attack. DNS is like phone directory. It converts domain name to Ip adresss. Cyber hacker redirect web traffic to fake web servers and web site which is prepared for identity phishing. To prevent DNS spoofing, we often should clean DNS cache.

11) Content negotation is about http. It is a content agreement between client and server. It aims to present content different documentation type by using url.

12) Statelessness is one of Restful web service requirements. It tells that server should not hold any information about client. Every request by client should carry the necessary information so that server can return results.

13) CSRF is Cross Site Request Forgery. We assume that a user login a web application. Another person is doing request by using the user's account unaware of the user. This is called Csrf. Csrf occurs in systems that do not control how and from which source the request to the application are sent. There are some precautions to prevent CSRF. Some of them are that we should click on verified source links and regularly clean cache. Also, while receiving request from users, post method should use.

14) Http request consist of four parts: method, path, version of the protocol and headers. Http response consist of four parts:version of the protocol, status code, status message and headers.