Software Testing

Testing Strategy - Strategy for s/w testing integrates Software test case design methods into a well-planned series of steps that results in the successful construction of S/W.

Strategy provides a road-map that describes the steps to be conducted as part of testing, When these steps are planned and executed, how much efforts, times and resources will be required. Therefore, any testing strategy must incorporate, ① test plan ② test case design ③ test execution ④ resultant data collection and ⑤ evaluation.

* Organisation for Software Testing.

For every software product, there is an inherent conflict of interest that occurs as testing begins,

S/E Create, analyse, model and develop the computer program and its documentation. Like any other builder, SE is proud of the edifice that has been created and frown @ any one who try to tier it down.

There are some misconception that can be erroneously inferred from the testing process:

① That the developer do not test at all;
② That the s/w should be tossed over the wall to a stranger who will test mercilessly
③ That testers get involved with the project only when the testing steps is about to begins.

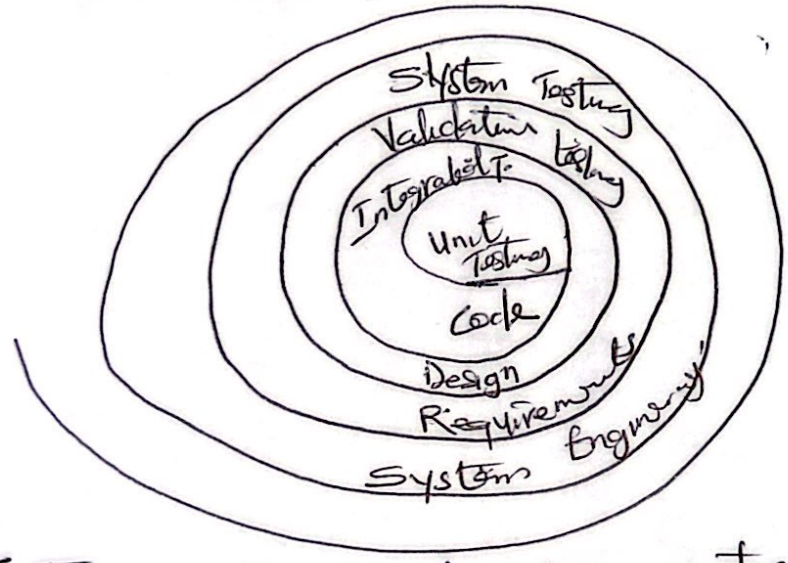
Each of these statements are wrong.

S/W Developer are to be responsible for Component testing to ensure they perform what is required to perform.
In many cases they (SD) performs integration testing the testing step that leads to the construction of the complete software architecture. At the end of the software architectural testing can an Independent Test group

ITG is part of the software development project team because it is imperative to work with the developers right from the analysis and design stage and stay involve till the completion of the project.

A Software Testing for conventional s/w Architecture

The software process may be viewed as the spiral illustrated below;



Unit Testing begins at the vortex of the spiral and concentrate on component (unit) of the program. Testing progresses as it moves to the integration Testing, where the focus is on design and construction of s/w architecture. Going forward we encounter validation testing where the requirements established as part of SRS are validated against the S/W that has been Constructed. Finally, we arrive at System Testing where the Software and other System Elements are tested as a whole.

Testing

There are 2 testing parts available to the proj team; ① ~~Walkthrough~~ Non-execution based testing
② Execution based Testing -

① Non-execution Based testing - This is less formal and has only few steps
ⓐ Walkthrough -
ⓑ Inspection or Review - This is more formal.
Both are done before development and are done on documents.

ⓐ Walkthrough - done by expertise outside the project team This group is formed specially for this purpose The scrutinize the documen from all angle and carry out corrections.

ⓑ Inspection or Review - Conducted with the help of some checklist.

Ass: Error, fault, and failure are often used interchangeably, which a diffused meaning. Discuss them.

Software Quality Assurance

Software Quality Assurance :- It is a process of ensuring that the software products are produced through the implementation of standard practices and procedure. It encompasses that the product go through the standard SDLC in order to prevent defect and to ensure that the software meets the required target. SQA are usually implemented from the conception of the idea till when the product is delivered, while the software testing usually happens later in the development process.