	DEFINITIONS	TEST BASIS	TEST OBJECTS	TEST DEFECTS
Component Testing	Testing is performed on each individual component separately without integrating with other components.	➢ Detailed design ➢ Code ➢ Data model ➢ Component specifications	➢ Components, units or modules ➢ Code and data structures ➢ Classes ➢ Database modules	➢ Incorrect functionality (e.g., not as described in design specifications) ➢ Data flow problems Incorrect code and logic
Integration Testing	When Individual software modules are integrated logically and tested as a group	➢ software and system design ➢ Sequence diagrams ➢ Interface and communication protocol specifications ➢ Use cases ➢ Architecture at component or system level ➢ Workflows ➢ External interface definitions	➢ Subsystems ➢ Databases ➢ Infrastructure ➢ Interfaces ➢ APIs ➢ Microservices	➢ Incorrect data, missing data, or incorrect data encoding ➢ Incorrect sequencing or timing of interface calls ➢ Interface mismatch ➢ Failures in communication between components ➢ Unhandled or improperly handled communication failures between components ➢ Incorrect assumptions about the meaning, units, or boundaries of the data being passed between components
System Testing	System Testing is the testing of a complete and fully integrated software product	➢ System and software requirement specifications (functional and non-functional) ➢ Risk analysis reports ➢ Use cases ➢ Epics and user stories ➢ Models of system behaviour ➢ State diagrams ➢ System and user manuals	➢ Applications ➢ Hardware/software systems ➢ Operating systems ➢ System under test (SUT) ➢ System configuration and configuration data	➢ Incorrect calculations ➢ Incorrect or unexpected system functional or non-functional behavior ➢ Incorrect control and/or data flows within the system ➢ Failure to properly and completely carry out end-to-end functional tasks ➢ Failure of the system to work properly in the system environment(s) ➢ Failure of the system to work as described in system and user manuals
Acceptance Testing	Formal testing with respect to user needs, requirements, and business processes conducted to determine whether or not a system satisfies the acceptance criteria and to enable the user, customers or other authorized entity to determine whether or not to accept the system.	➢ Business processes ➢ User or business requirements ➢ Regulations, legal contracts and standards ➢ Use cases and/or user stories ➢ System requirements ➢ System or user documentation ➢ Installation procedures ➢ Risk analysis reports ➢ Backup and restore procedures ➢ Disaster recovery procedures ➢ Non-functional requirements ➢ Operations documentation ➢ Deployment and installation instructions ➢ Performance targets ➢ Database packages ➢ Security standards or regulations	➢ System under test ➢ System configuration and configuration data ➢ Business processes for a fully integrated system ➢ Recovery systems and hot sites (for business continuity and disaster recovery testing) ➢ Operational and maintenance processes ➢ Forms ➢ Reports ➢ Existing and converted production data	➢ System workflows do not meet business or user requirements ➢ Business rules are not implemented correctly ➢ System does not satisfy contractual or regulatory requirements ➢ Non-functional failures such as security vulnerabilities, inadequate performance efficiency under high loads, or improper operation on a supported platform