1: Conformance Test

conformance test is a software testing technique used to certify that the software system complies with the standards and regulations as defined by specification.

conformance test is used to determine how a system under test confirms to meet the

specification standard.

2: Comformance Test Includes:

- 1. Performance test
- 2. functions test
- 3. Robustness test
- 4. Interoperability test
- 5. Behavior of system test

3: Why do we need Conformance Testing?

- 1. To check for the system's requirements fulfillment.
- 2. To check the development, design and evaluation as per specification.

4: What do we need to test?

the standards/scope of specifications

5: when to perform Conformance Testing?

when the specification require the consistency, completeness and correction with the code.

6: How to perform Conformance Testing?

- 1. Analyzing requirements specification
- 2. Preparing test plan, selecting test tools and test suite
- 3. Preparing test cases and its purpose, design testing procedures
- 4. Create documentation for prepared test designs
- 5. Check necessary validations
- 6. Adapting relevant testing policies and certifications

7: What the purpose of The Conformance Testing?

- 1. ensure efficiency
- 2. ensure performance
- 3. avoid future risks for a software application

8: Advantages of Conformance Testing

- 1. Assure the proper implementation of specifications
- 2. Assures portability and interoperability
- 3. Provides appropriate utilization of standards
- 4. Make sure that interfaces and funcitons are working as expected.

9: Disadvantages of Conformance Testing

- 1. tested with suitable methodology
- 2. Categorizing specifications
- 3. predefining values

10: Conformance Testing Summary

- 1. Conformance testing used to check whether the system meet the specification requirement
- 2. Test tools and Test Methodology and Test program are critical for Conformance testing
- 3. Assuance of Standard utilization and interoperability

11: Vulkan Conformance Testing

- 1. Vulkan Conformance Testing ensure whether the code APIs are meet the standards
- 2. Vulkan Conformance Testing ensure whether the code APIs will function correctly even in the
- 3. Comprehensive conformance testing is required when release new features

12: Task sub-group(TSG)

- 1. TSG is accountable of TSG operations and deliverables
- 3. TSG meet reqularly
- 4. TSG meet regularly to discuss progress and issues
- 5. TSG has a defined/rigorous development process which uses issue trackers, code reviews, continuous integration

13: TSG(Task Sub Group) Chair Assist RESPONSIBILITIES

- 1. Assisting TSG chair: assist him to ensure timely deliveries
- 2. Ensure the issue are being updated
- 3. Ensure the status is being recorded
- 4. Code reviews are happening
- 5. Changes are being merged
- 6. Support TSG process and ensure the process being followed

14: Maintaining Vulkan CTS Private/Public repositories RESPONSIBILITII

- 1. Vulkan CTS has a private repository
- 2. Vulkan CTS will mirror private repository to public repository
- 3. Ensure both private/public repository are up to date
- 4. Ensure permissions are assigned correctly
- 5. Changes are correctly propagated through release branches
- 6. Branching strategy is being followed
- 7. Ensure Khronos Gerrit Server is being regularly upgraded
- 8. Request Khronos webmaster to regular upgrade Gerrit
- 9. Administrator rights for khronos Gerrit
- 10. Maintainer rights for VK-GL-CTS repository on Github

15: Maintaining CTS tools and other repositories

- 1. TSG has CTS tools repositories(public/private)
- 2. TSG CTS tools includes integration scripts and conformance submission verification scripts
- 3. Maintain the tools repositories and kept up to date

16: Maintaining CTS continuous integration(CI)

- 1. Monitor TSG Jenkins and Docker instances to make sure no issues preventing CI from running
- 2. CTS CI(Continuous integration) ensure CTS can be built for a number of Linux distributions
- 3. CTS CI used to run automated conformance submission verification.

- 4. Extend CTS CI to execute other automatable tasks
- 5. Ensure Jenkins/Jenkins plugins/Docker being regularly upgraded.
- 6. Administrator rights for Jenkins/Docker instances

17: Maintaining CTS documentation

- 1. TSG maintain public/private wikis/README written in Markdown
- 2. Wikis/README written by Markdown contain build instructions/description of internal process,
- 3. Make sure to keep these doc up to date

18: Managing CTS Releases and release schedule

- 1. TSG publishes one major Vulkan CTS release every 3 months
- 2. TSG publish a major release for each new API version
- 3. TSG deprecate/withdraw certain erleases according to the agreed policy
- 4. Ensure all above 3 schedules happens on time

19: Managing Contractors

- 1. Khronos has a team of external software developers
- 2. Atten Weekly calls with developer team, review progress and reports, assign tasks, resolve blocking issues, and interact with the team using email/khronos chat