**Case study -Tablets use in examinations**

Use of an iPad for a student with visual dyslexia, dyspraxia, and ADHD, particularly in an engineering program, is well-supported by several rational points:

1. **Accessibility Features**: iPads offer a range of accessibility features beneficial for students with disabilities. For a student experiencing the "halo of text" effect associated with visual dyslexia, customisable text options (such as font size, style, and background colour) can help reduce visual stress and improve readability. Colour contrast settings are also vital, as they can enhance text visibility and graph comprehension.
2. **Interactive and Visual Learning**: Engineering involves complex equations and graphical data. iPads allow for dynamic interaction with these elements. Students can zoom in for a clearer view and manipulate objects, which is particularly helpful for those with dyspraxia who may struggle with fine motor skills needed for traditional drawing or writing.
3. **Note-Taking and Organization Tools**: iPads support various apps that facilitate organised note-taking and data management, which are beneficial for students with ADHD who often face challenges in these areas. Apps like Notability and GoodNotes allow integration of typed text, handwritten notes, and audio recordings, providing a multimodal approach that can help in maintaining focus and better information retention.
4. **Real-Time Problem Solving**: In time-sensitive assessments, the ability to quickly erase and redo work on an iPad can reduce physical barriers and anxiety related to manual corrections. This feature is especially useful in mathematical and engineering contexts where students often need to adjust complex calculations and diagrams.
5. **Portability and Convenience**: The compact and portable nature of an iPad means that students can easily carry it between classes, study sessions, and home. This is beneficial for maintaining a consistent and organized study environment, which can help mitigate the impact of ADHD on academic performance.
6. **Custom Apps and Software**: There are numerous educational apps designed specifically for STEM students that can run on an iPad. These include graphing tools, scientific calculators, and applications for coding and designing, which are integral to engineering studies.
7. **Enhanced Engagement**: The interactive nature of tablets can lead to higher engagement levels. For students with ADHD, who may struggle with attention and engagement, the tactile interaction with study material can promote sustained focus and interest.

Implementing iPads for students with disabilities, such as visual dyslexia, dyspraxia, and ADHD, in engineering programs during exams raises several technical and logistical issues that need to be addressed to ensure a smooth integration:

1. **Exam Integrity and Security**: Ensuring that the use of iPads does not compromise exam integrity is crucial. Measures such as disabling internet access, restricting app usage during exams, and using secure testing platforms are necessary to prevent cheating.
2. **Compatibility with Exam Formats**: Not all exam formats may be compatible with iPads. Technical adjustments might be required to ensure that digital versions of exams are accessible and functionally equivalent to their paper counterparts. This includes formatting issues with diagrams, equations, and other specialized content common in engineering courses.
3. **Accessibility Compliance**: The exam content on iPads must comply with accessibility standards. This includes providing text-to-speech options, adjustable text sizes and colours, and accessible calculators or graphing tools. Regular updates and checks should be conducted to ensure these tools are working properly.
4. **Training for Students and Staff**: Both students and invigilators need training on the use of iPads in an exam setting. Students require familiarity with the device's features related to their specific needs, while staff need to know how to support these technologies during exams, handle technical issues, and ensure compliance with exam rules.
5. **Technical Support**: Reliable technical support should be available during exams to address any issues that arise with iPad use. This includes hardware malfunctions, software glitches, and user errors, which could otherwise significantly disrupt the exam process.
6. **Device Provision and Maintenance**: Schools must ensure that iPads are available for all students who require them and that these devices are properly maintained. This includes updating software, ensuring battery life is sufficient for exam durations, and handling repairs or replacements as needed.
7. **Privacy and Data Protection**: Protecting students' personal and exam data is paramount. Proper data protection protocols must be in place to secure information stored on or accessed through the iPads.
8. **Flexibility in Exam Settings**: Accommodations may be needed to allow students to use iPads effectively. This could involve providing isolated spaces to reduce distractions or allowing extra time for those who need to use accessibility features.

In summary, using an iPad can provide tailored learning experiences that address the specific challenges faced by a student with visual dyslexia, dyspraxia, and ADHD. These advantages align well with the demands of an engineering curriculum, potentially leading to improved academic performance and a better overall educational experience.