## Details of the Information and Communication Technology Facilities available for the conduct of the Examination (OL Mode)

The exams of online mode students are conducted online through the remote proctoring mechanism and are administered through a third-party platform integrated with the Learning Management System for Online Learners. The following security measures are taken to ensure the smooth conduct of online examinations through remote proctoring:

1) **Identification of the examinee**: The system has a provision to make it mandatory for the student to capture his/her face and ID card before starting the exam. Once the student starts the exam, the proctor can see and compare the captured face, captured/uploaded ID card, and student-registered photo in the system and decide whether to authenticate or not authenticate the student based on the comparison result. Moreover, the system records the video of the student through the webcam, so that verification can be done even after the exam.

2) **Secure Browser**: Secure Exam. Application (SEA) has been developed to work on Windows, Linux, Mac OS, and Android. Once the student starts SEA, it locks the device environment completely which means that the student cannot minimize SEA, cannot copy-paste, and cannot access another application. The system has the functionality to blacklist any applications. In addition, SEA has the ability to detect virtual machines, Bluetooth devices, multiple displays, USBs, HDMI ports or connection to VPN, and in all such cases, the system can block the exam. automatically.

3) **Remote Proctoring:** The system has a number of robust proctoring features such as live monitoring of the student through his/her device camera. If configured, the same student can also be seen by the proctor from another angle provided the student joins the exam parallelly through another device such as a mobile phone which can be independently placed somewhere to capture the entire view of the space where the student is writing the exam which is otherwise impossible through the laptop/desktop webcam. The system has also a provision to share the student screen with the proctor. In summary, the proctor can monitor the student from (a) the student's laptop webcam through which he/she is writing the exam, (b) the 3rd Eye (an additional device) that captures room view, and (c) the device screen.
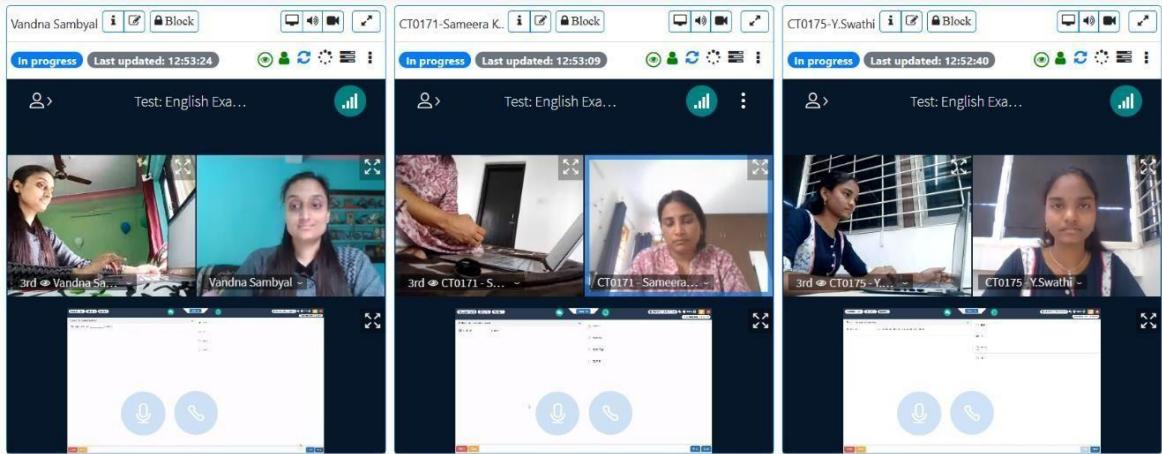
4) **Data Encryption**: Details of the software's data encryption and storage methods to ensure the confidentiality and security of the examination data are as follows:

   a. Access restriction through authentication.
   b. Optional Secure 2-factor authentication using Authenticator.
   c. One-way encryption of all user passwords.
   d. All documents that are uploaded are encrypted.
   e. Advanced access control for restricting recordings.
   f. Encryption on wire (for all types, Audio, Video, and all Data) and at rest (storage).
   g. Network security using 4096-bit RSA with SHA-256 secure signed certificates rotated very frequently.
   h. Usage of domain-based approach to security - where only people of a particular organization are allowed to collaborate in a secure and well-controlled environment, with the additional provision of inviting guests with restricted access privileges.
   i. Access and feature control by centralized and clearly defined configurable policies.