



Automation of Examination Division



Guru Ghasidas Vishwavidyalaya (A Central University Established by the Central Universities Act 2009 No. 25 of 2009) Koni, Bilaspur – 495009 (C.G.)

Automation of Examination at Guru Ghasidas Vishwavidyalaya, Bilaspur

Brief Report

Guru Ghasidas Vishwavidyalaya, Bilaspur, is a central university and known for its academic excellence. The examination system is an integral part of teaching learning process and plays a crucial role in evaluating students' knowledge and skills as per the Learning Outcomes Based Curriculum Framework (LOCF). The manual processes often leads to delays, errors, logistical challenges and needs more manpower. Automation of the examination system can significantly improve efficiency, accuracy, transparency and reducing administrative burdens.

This write-up explores the automation of various examination processes at Guru Ghasidas Vishwavidyalaya, Bilaspur, which have been implemented with Enterprise Resource Planning (ERP) system from 2013 to 2019 through IUMS and later from 2020 onward through Samarth Portal.

The University has implemented the Samarth Portal, an ERP system to automate and streamline various examination processes which has enhanced the efficiency, accuracy and transparency of the entire examination process. This report provides an overview of the existing examination system at Guru Ghasidas Vishwavidyalaya, Bilaspur, the challenges it faced and how automation could address those challenges. This report outlines the key processes involved in the automation, including online registration, enrolment generation, course selection, online exam form submission, verifying of exam forms and generating of roll list by the HoDs, admit card generation with allocation of Exam Centre and admit card downloading by the students, question paper delivery system (QPDS), uploading of marks directly by the evaluators on the Portal, result processing and its declaration, viewing of results by the students, various types of report generation etc.

The report focuses on the automation of the various examination processes under the following headings:

1. Induction and Enrolment Process:

The Samarth Portal enables a seamless induction process for new students, providing them with essential information and guidelines.

Students can access the portal with the help of personal login ID to fill out the enrolment form with their personal and academic details.

The system validates the form entries, ensuring accurate and verified information.

Upon successful submission, students receive a confirmation and unique identification number called as GGV enrolment number for future reference.

2. Course Selection:

Students select courses of their choices in each semester, based on their academic requirements, option and availability.

The portal provides detailed course information, including core courses, generic courses, ability enhancement courses, skill development course, vocational course, value added course from an inclusive list of elective/optional courses. Once students finalize their course selection, the system updates their academic records accordingly.

3. Online Exam Form Submission:

An online examination form is available on the Samarth Portal. Students fill up the online examination form. Students can select the desired and studied courses as per their core courses, and elective courses of their choices as available on the examination portal.

The system verifies the eligibility criteria, such as payment of semester fee, minimum required attendance and any late fee, if applicable before accepting the exam form.

Upon successful submission, students receive a confirmation and acknowledgment slip in the PDF format of their exam form.

4. Exam Form Verification and Roll List Preparation:

The system generates the Roll list of all students who have submitted their form of the program. The portal provides a comprehensive overview of the registered students, their chosen courses and exam preferences. HoDs can review and verify the exam forms of each student, ensuring compliance with eligibility criteria. The concerned HoD prints out the Roll list and send it to the Controller of Examination after seal and signature. The system generates roll lists based on the verified exam forms facilitating efficient exam administration.

5. Admit Card Access:

The system generates unique admit cards for each student, ensuring authenticity and security. Using the Samarth Portal, students can download their admit cards 7 days before commencing of end semester examination for upcoming exams. Admit cards contain essential details such as exam schedule, exam center, instruction about the examination and student identification information.

6. Uploading of Marks on the Result Portal:

The system's benefits in terms of time, money and efforts saved have resulted in a streamlined and secure process, ensuring a fair and transparent evaluation for all students. An automated system has been designed to process exam results, including marking and calculation of scores. HoDs allocate the password/ right of result portal to the examiners for uploading the marks of evaluated papers directly on the portal.

7. Result Processing:

Confidential Section officials and staff ensure that all marks (Internal & End semester) of each papers of the specific program have been uploaded by the concerned examiners then they go for result processing. The processed result is verified with the exam scheme of the respective ordinances of that program in terms of total papers (theory/ Practical) maximum marks, minimum passing marks, grades, required credit, division, distinction etc. It is re-checked by the result committee and after approval from the competent authority the result is published by the COE.

8. Result Viewing:

Once the examination process is completed, students can access the Samarth Portal to view their results. The portal displays individual student's scores, grade cards, and cumulative academic performance. The Students can also access detailed subject-wise performance analysis and course-wise progress reports.

9. Online Access of Published Result:

The Samarth portalProvides online access of result to individual student ensuring confidentiality and timely dissemination. Incorporate mechanisms for re-evaluation or grievance redressal, if required. The staff of Examination Section print out the Grade cards/ Mark Sheet of the all students and after checking it and signed by the COE are sent to the respective HoD for its distribution to the concerned students. The required data for e-Degree/ Diploma certificate have been uploaded on NAD/Digilocker from 2015 onward for passed out students. The results declared data of each semester for Grade Card/Mark Sheet for credit transfer purpose are uploaded on the ABC account of each students from the academic session 2021-22 onwards.

10. Question Paper Delivery system (QPDS) through Samarth ERP:

The University has established a well secured and password protected QPDS on Samarth Portal which is a network infrastructure between the confidential section of the examination branch and the question paper setter.

The Portal ensures controlled access, advanced security measures and data encryption to protect question papers. Question papers are prepared in PDF formats and protected using robust password. Encryption keys are securely generated and shared only with authorized personnel involved in the examination process. The QPDS has the following features:

- a) Digital Locking Mechanism: Question papers are digitally locked using cryptographic techniques to prevent unauthorized access or tampering. The locked question papers can only be decrypted using the authorized encryption keys by designated personnel.
- b) Authorized User Access: Only authorized personnel, such as confidential in charge and designated staff have access to the secure platform and question paper repository. User access is protected through authentication mechanisms, including usernames, passwords, and two-factor authentication.
- c) Secure Printing and Distribution: Authorized personnel have the responsibility of printing the decrypted question papers. Printers in the confidential section are equipped with security features, such as watermarks and unique identifiers, to prevent unauthorized duplication. The printed question papers are stored in secure lockers until they are distributed to the respective examination centers.
- d) Delivery of Question Paper to Examination Centers: The confidential section ensures the secured and monitored transportation of question papers to the respective examination centers. Trained personnel, accompanied by security personnel if required, deliver the question papers directly to the authorized representatives at the examination centers.

Benefits of the Question Paper Delivery System:

- a) Enhanced Confidentiality: The implementation of the secure question paper delivery system significantly reduces the risk of question paper leaks or unauthorized access. Encryption and digital locking mechanisms ensure that question papers remain confidential until the examination day.
- b) Time Savings: The automated system streamlines the question paper generation, encryption and distribution processes saving significant time for examination officials. It has reduced manual handling and paperwork result in quicker preparation and delivery of question papers to examination centers.
- c) Cost Reduction: The system reduces costs associated with physical printing, transportation and storage of question papers. It eliminates the need for extensive security measures, such as hiring external agencies or additional personnel for question paper handling and protection.
- d) Effort Minimization: The automated question paper delivery system reduces the efforts required for manual paper-based processes, ensuring efficiency and accuracy.
- e) Fairness and Integrity: The QPDS ensures fairness in the examination process by maintaining the confidentiality and integrity of question papers. It also prevents any unauthorized access or tampering, promoting an unbiased and transparent evaluation system.

f) Improved Stakeholder Trust: Implementing a secure question paper delivery system enhances stakeholder trust in the examination process. Students, faculty and other stakeholders have confidence that the examination is conducting fairly and with utmost confidentiality.

11. Report Generation:

Enabled efficient and accurate automatically generation of result reports such as total appeared students, passed, failed etc. including merit lists and subject-wise performance analysis. The platform provides an easy access to various types of reports based on categories of students required by IQAC, University administration, regulatory bodies and Ministry of Education.

12. Electronic Delivery of Documents through WES

WES is World Education Service. It provides facilities for transmission of International Academic Credentials from the Institute to WES through secure file transfer protocol (SFTP) and represents to WES that any transmitted mark sheet, transcripts or degree certificates are authentic and dully issued by GGV, Bilaspur (C.G.). WES will accept only legal documents that are issued, attested by the COE/Registrar or designee. For this, Institute's email address that is traceable tothe institution and by a person who has the authority to send documents to WES is needed. For this Examination Section has provided officialEmail:drexam@ggu.ac.in which is operated by Dr. Sampoornanand Jha Deputy Registrar Exam.

For above purpose of WES electronic delivery of documents WES and GGV have signed on MOU after the testing the functioning of SFTP and thus has started a digital partnership with WES which is effective from 13.01.2022. Both parties are agreed to respond to request for technical support as soon as possible and no later than 24 hours (Except holidays) after request for support is made. Each party is responsible for privacy applicant's data while in its procession.

This MOU has created an environment where educational document's transmission is quick, secure, seamless and with minimum disruptions for our students.

Steps of WES: Electronic Delivery of Documents:-

- Students apply with WES to obtain the unique WES reference No. (Seven digit) for verification of the educational documents such as marks sheets, transcript, degree etc. directly to WES via the established digital channels.
- ii. Students pay for evaluation fee when they apply for WES
- iii. Students submit an application with requisite fee, WES reference application form and the educational credentials which are to be sent to the WES in the Examination Section from GGV.
- iv. The concerned officials of examination section check them from their Academic records (Tabulation Chart) and verified by officers of examination section.

- v. The scan copy of transcript or verified educational documents are uploaded on the WES portal through SFTP.
- vi. On the next day WES portal documents are transmitted into the system instantly through SFTP.
- vii. Students will receive a communication from WES.WES verified educational verification is valid throughout the USA and CANADA

In this Process University sends scan copy of verified educational credentials such as mark sheet, degree, transcript as electronic documents, there is no need to send the hard copy.

13. Implemented Academic Bank of Credits Facility at GGV, Bilaspur

Academic Bank of Credits is a credit based highly flexible, student centric facility to promote flexibility of curriculum framework and inter-disciplinary or multi-disciplinary academic mobility of students across HEIs with appropriate credit transfer mechanism. It aims to facilitate students to choose their own learning path to attain Degree, Diploma or Post-graduate Diploma or academic qualification with multiple entry-exit as well as any-time, any-where and any-level learning.

The Guru Ghasidas Vishwavidyalaya, Bilaspur has been implementing the Academic Bank of Credits (ABC) from the Academic Year 2021-22 onwards. The total no of students 3603 admitted in Academic Year 2021-22 and all the students already got registered with Academic Bank of Credits (ABC) facility. The students of Academic Year 2022-23 also got registered themselves with Academic Bank of Credits (ABC) facility. The university pursued aggressively to get the students registered with Academic Bank of Credits (ABC) facility. In this direction the GGV, Bilaspur issued notification, sent email to all the students and did wide publicity through ABC Poster. The proofs of all the publicity material is hereby provided in the succeeding pages of this report. The registration for the students of Academic Year 2022-23 got completed in the month of April 2023. The all students of Academic Year 2022-23 already got registered with ABC facility.

The GGV, Bilaspur integrated the Academic Bank of Credits (ABC) IDs of students with the process of filling up the exam form. The students can not submit the exam forms without registration of Academic Bank of Credits (ABC) ID. Henceforth, the exam form has mandatorily incorporated the Academic Bank of Credits (ABC) ID in its downloaded PDF by the students. All the declared results of Academic Year 2021-22 and 2022-23 data for grade card and degree are uploaded at National Academic Depository (NAD) along with students' Academic Bank of Credits (ABC) ID.

The GGV, Bilaspur is a leading central university in India for facilitating its students who got admitted in Academic Year 2021-22 and onwards for Academic Bank of Credits (ABC) ID and pioneering in implementing the national education policy 2020 in its true sense to acquire academic qualification with multiple entry-exit as well as any-time, any-where and any-level learning. The GGV has uploaded the list of courses to be offered under Academic Bank of

Credits (ABC) facility for its students and for all the students of consortium of 12 other central universities.

14. Online Document Verification System: (It is under implementation process)

The Samarth Portal facilitates for the verification of educational documents such as mark sheets, certificates and other academic records. The students/ stake holders can submit online applications for Provisional certificate, Migration, Degree Certificate, Transcript, Duplicate Mark Sheet, Merit Certificate etc. electronically through the portal and they can remit the required fees of such application through Samarth portal. Employers of our students can upload educational documents of passed out students electronically through the portal for verification. University officials and designated authorities can access the portal to review and validate the submitted documents. The concerned Section will act on the application and upload their Certificate electronically on the Portal and its hard copy will be sent to their address by the Indian speed post.

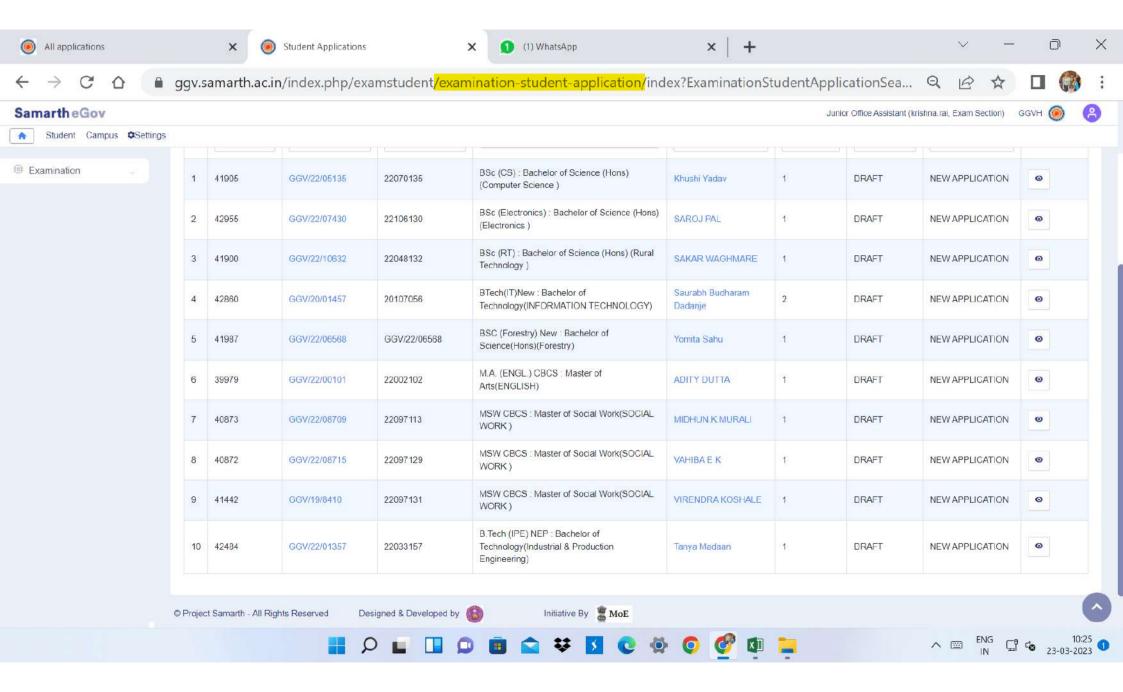
Controller of Examinations Guru Ghasidas Vishwavidyalaya

(A Central University)

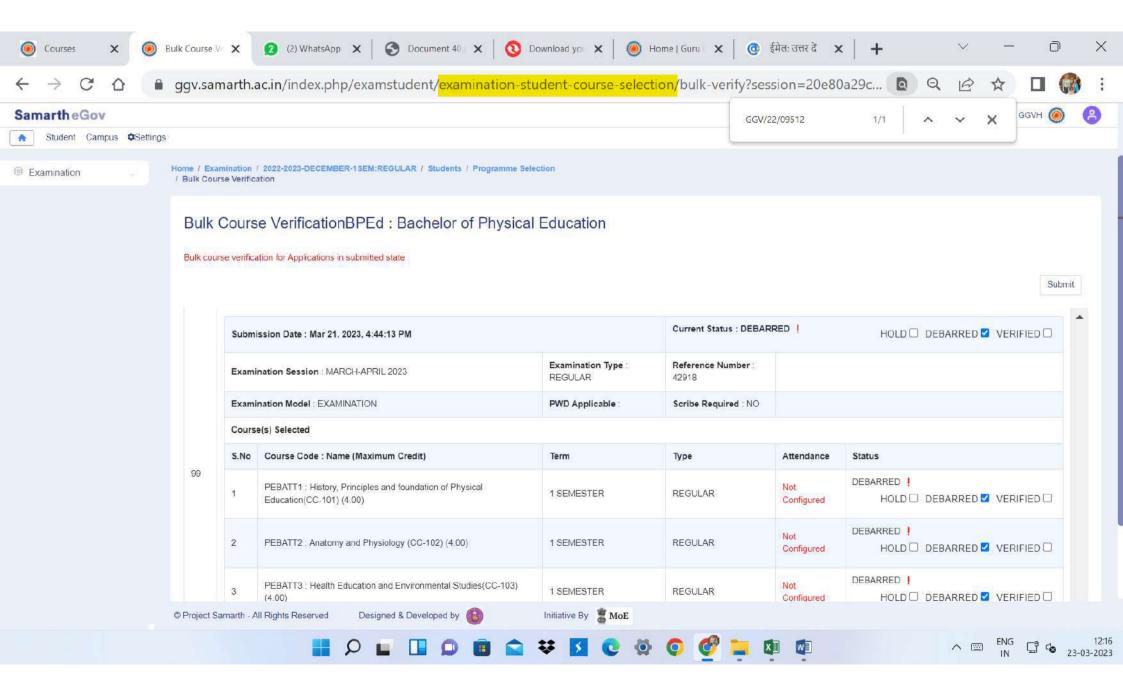
Bilaspur, Chhattisgarh

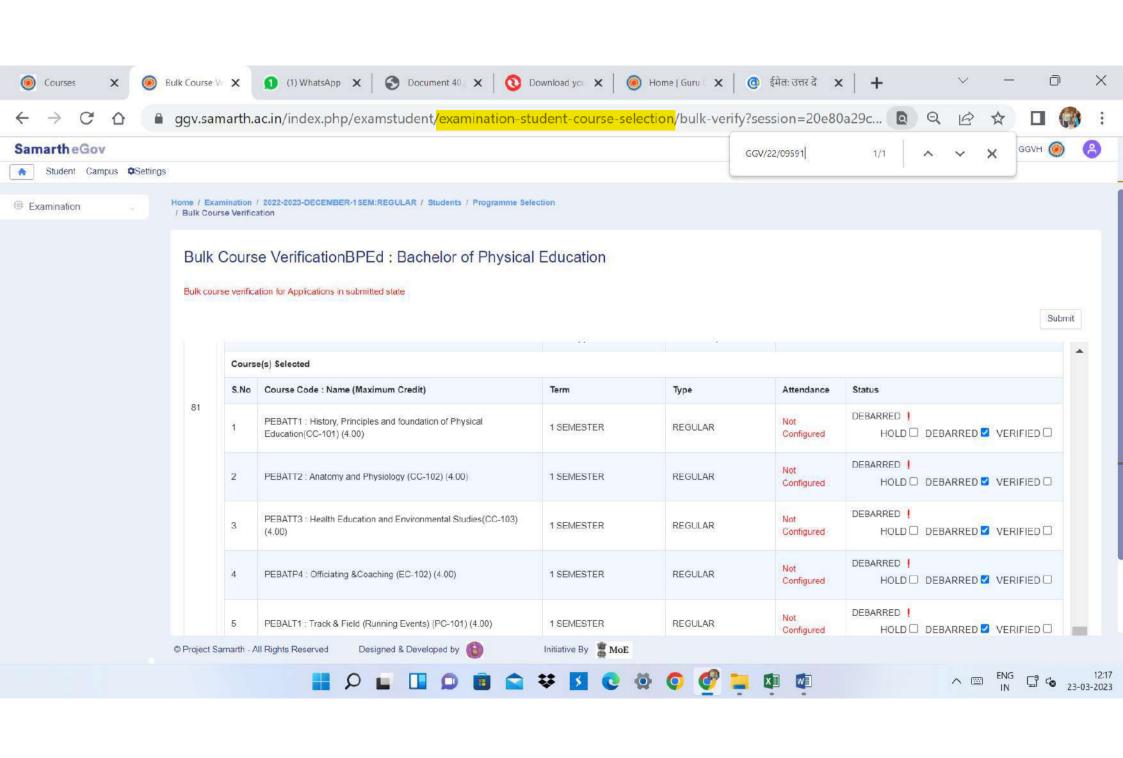
Guru Ghasidas Vishway

Examination Student Application

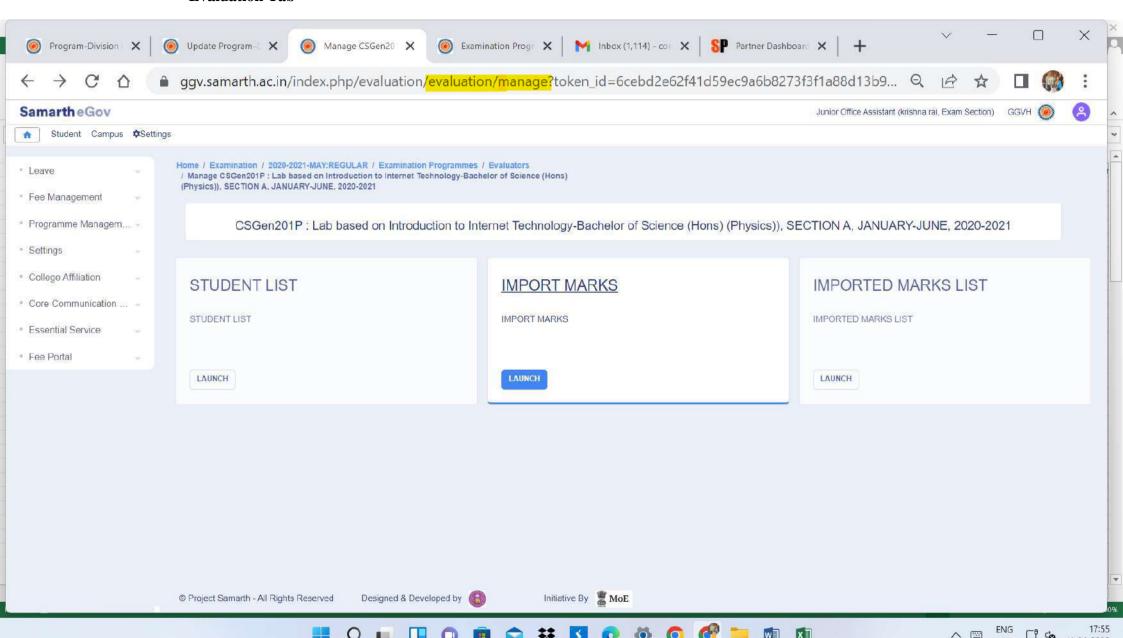


Student Course Selection

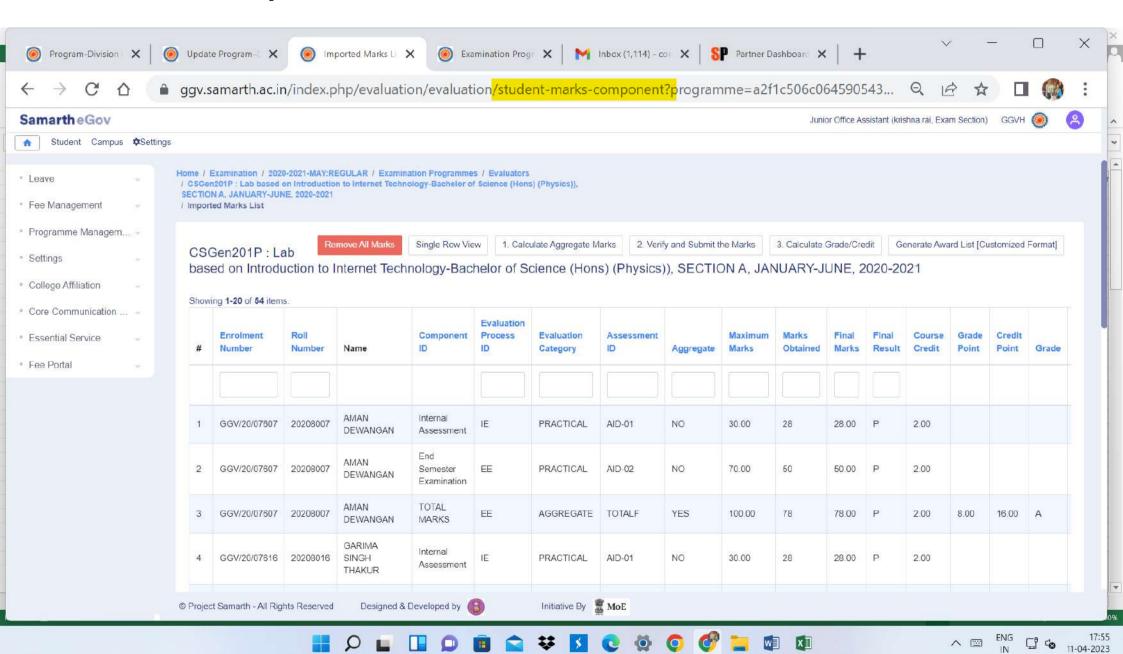




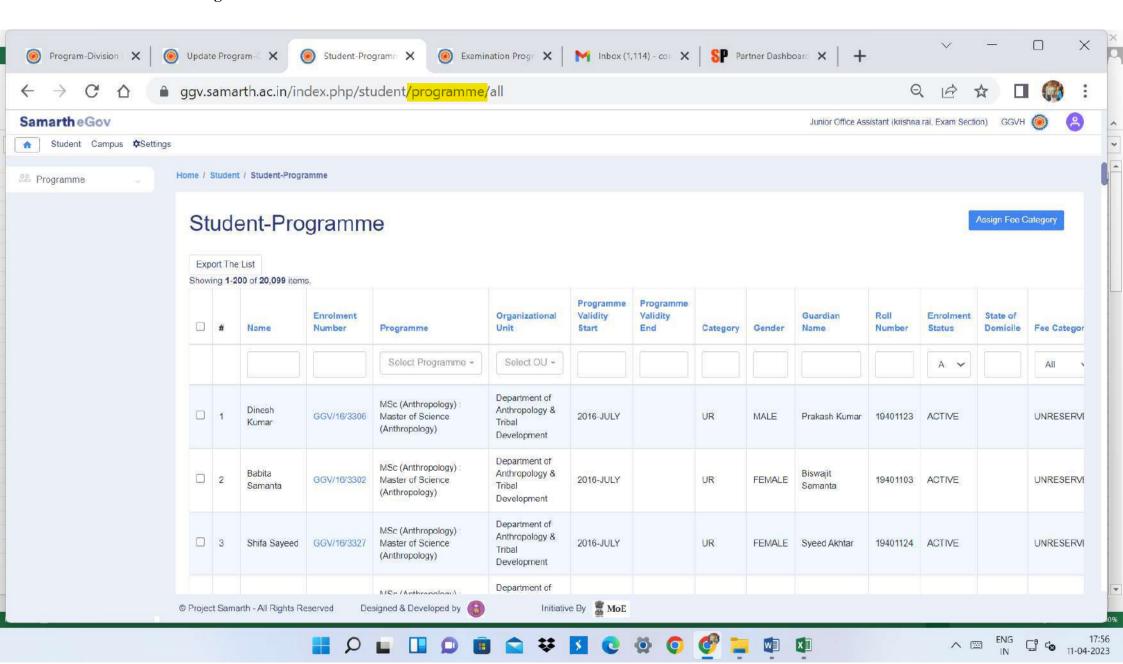
Evaluation Tab



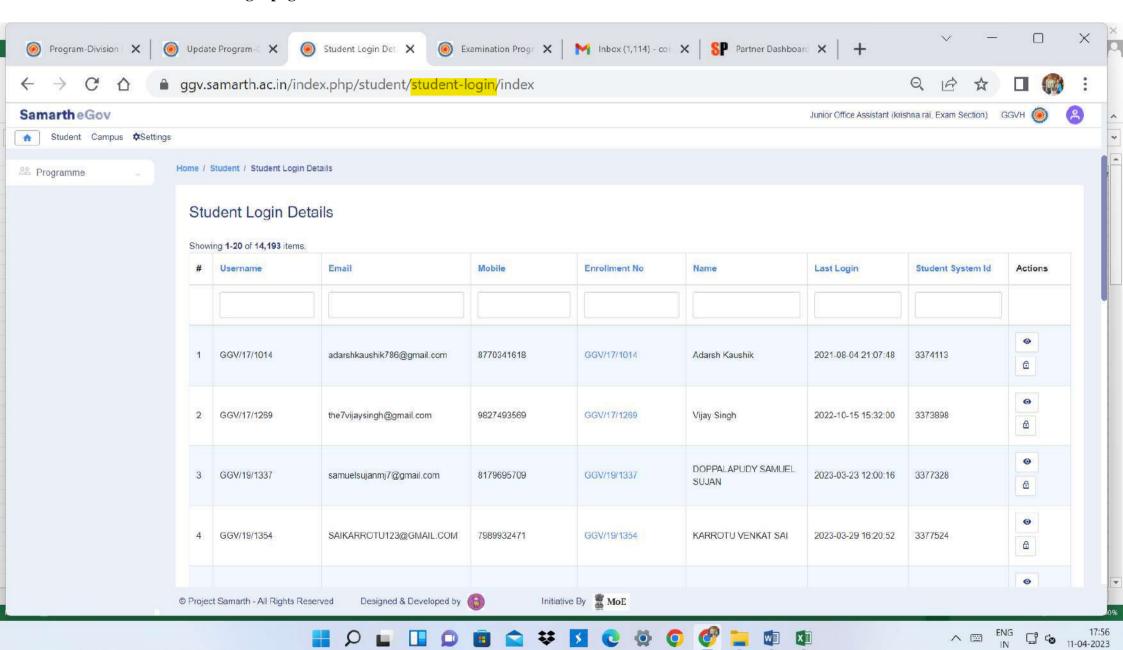
Students Imported Marks



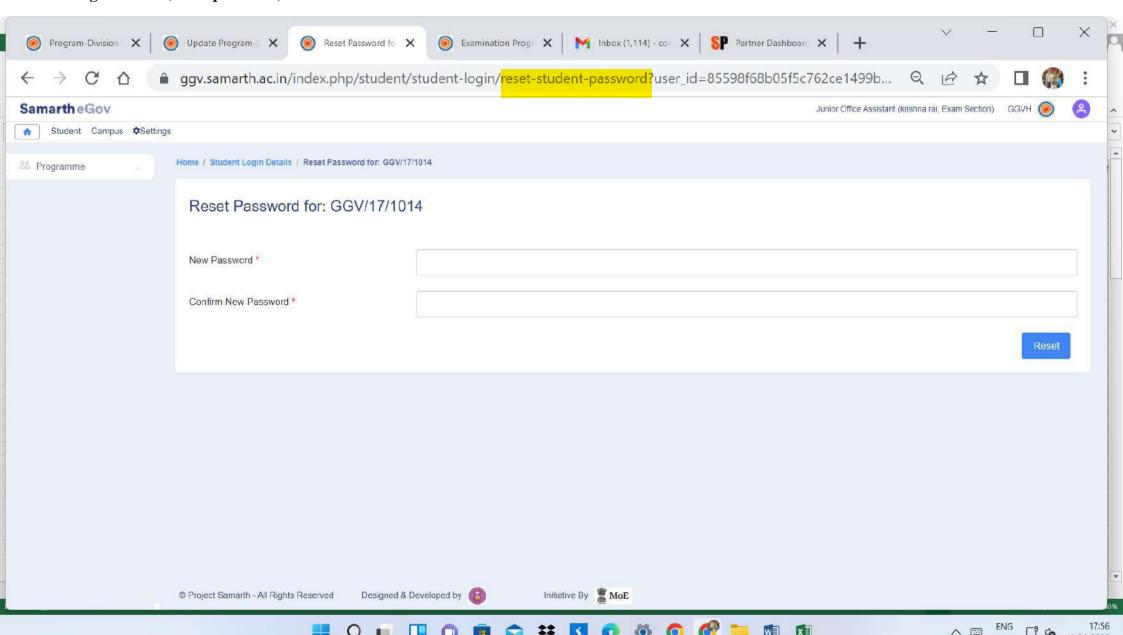
Student Programme



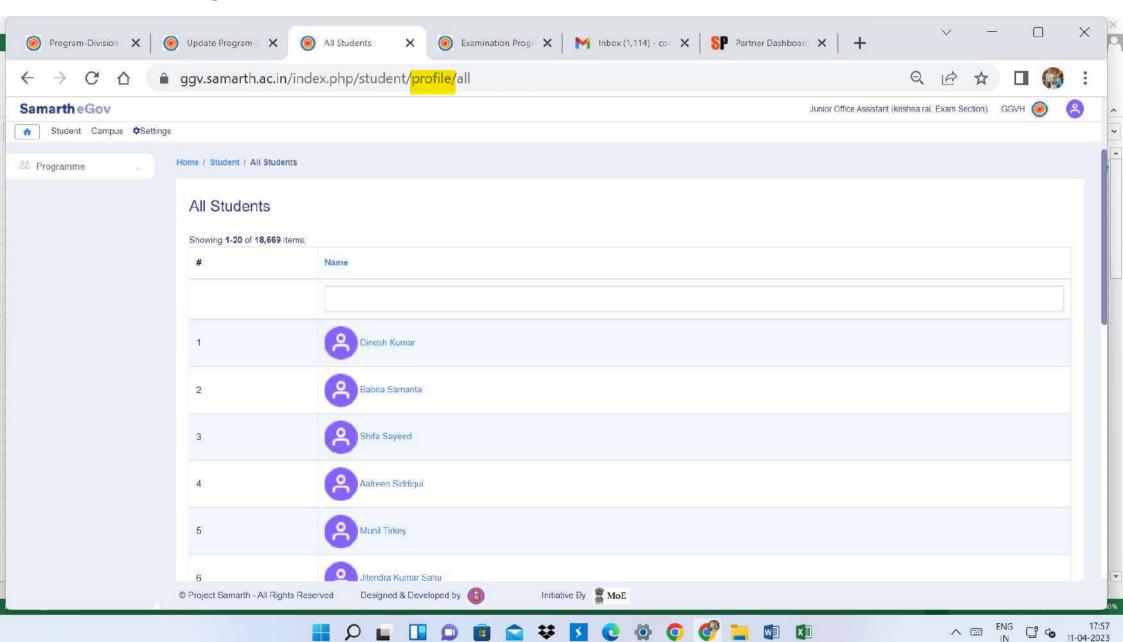
Student Login page



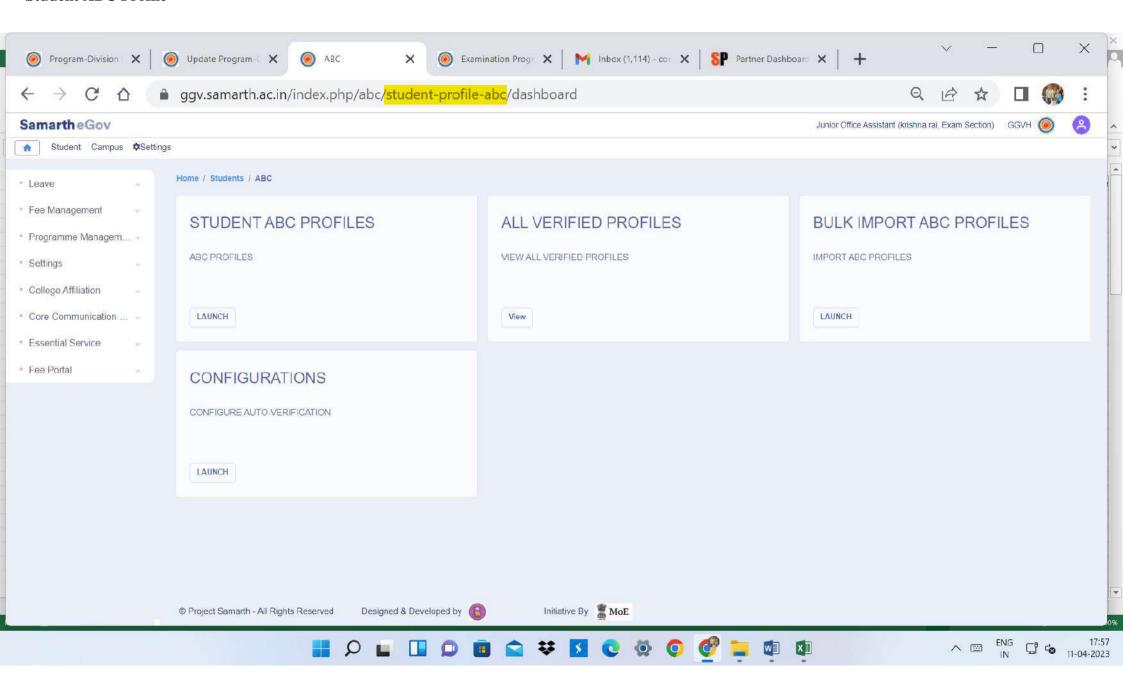
Student Login Details (Reset password)



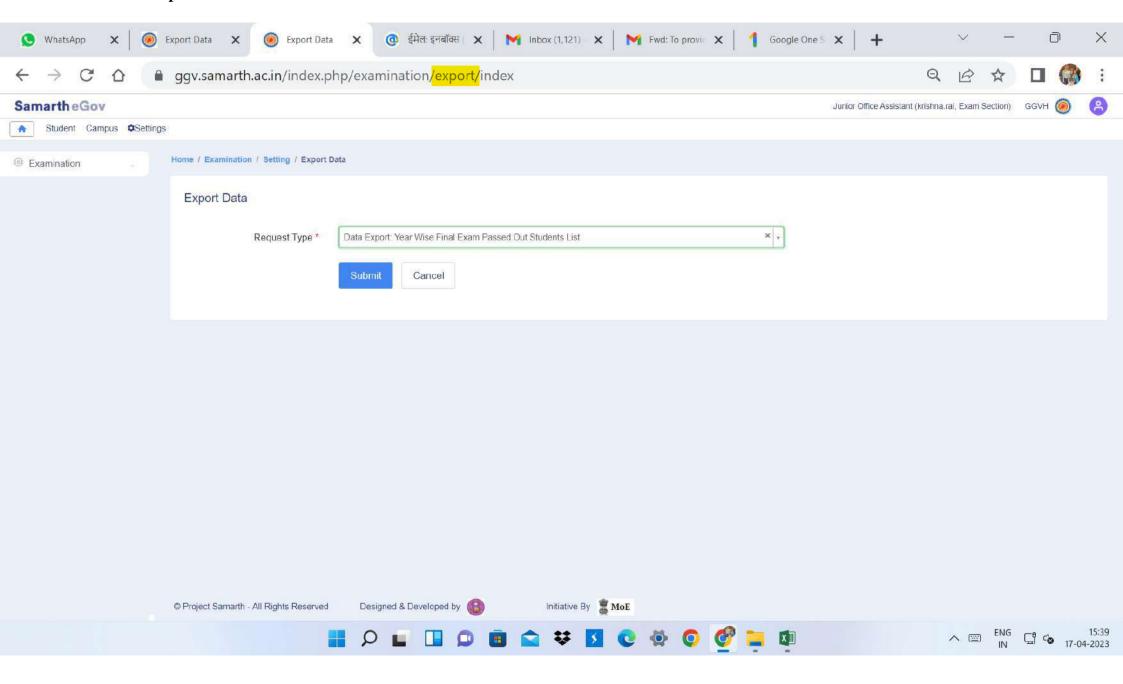
Student profile



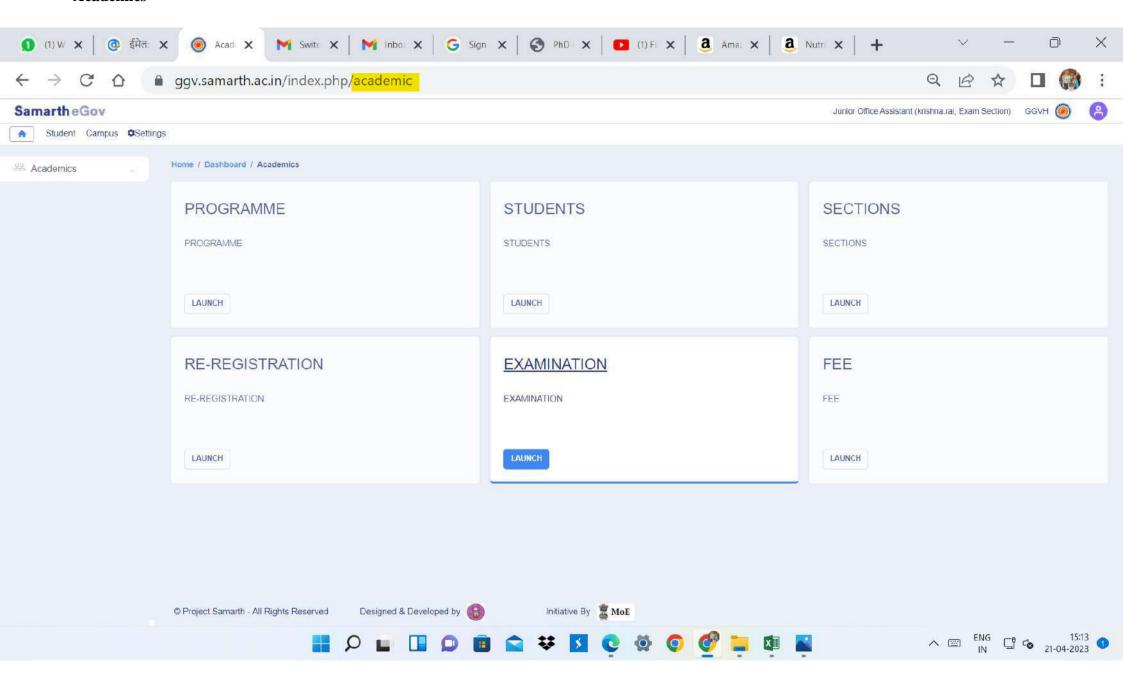
Student ABC Profile



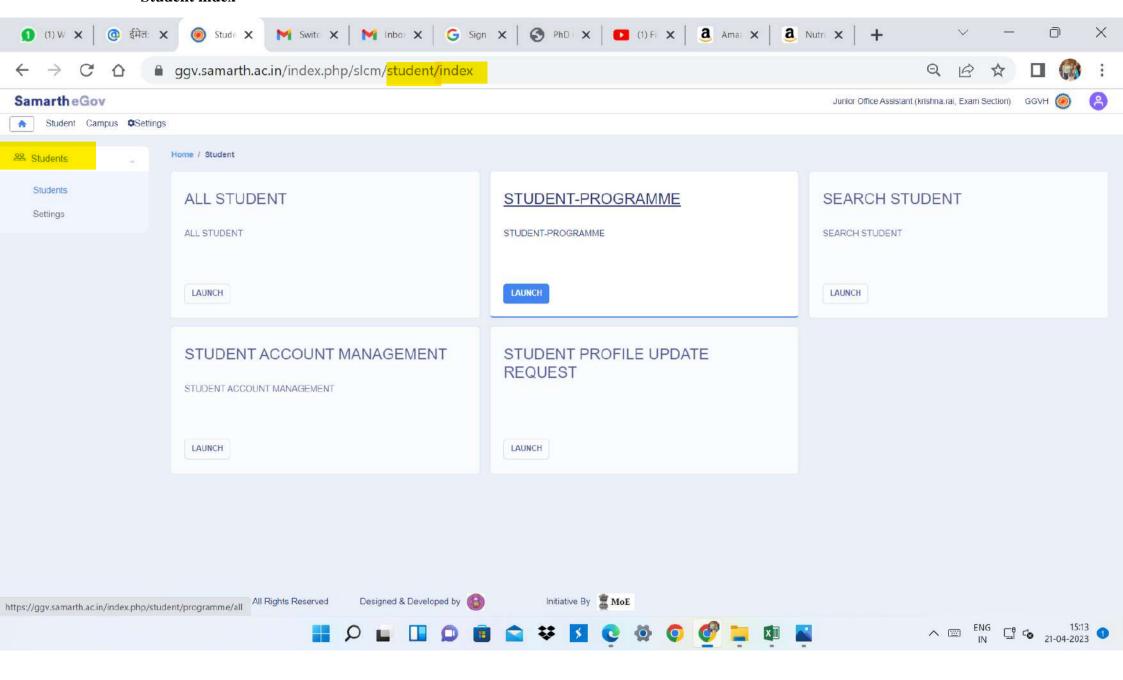
Examination export data



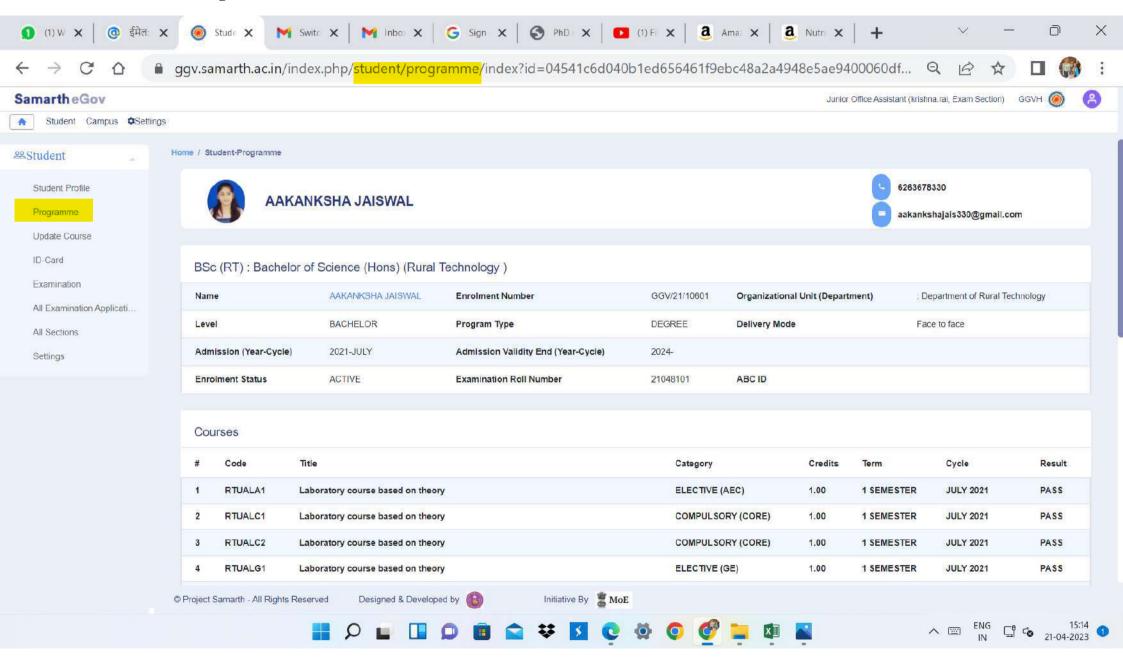
Academics



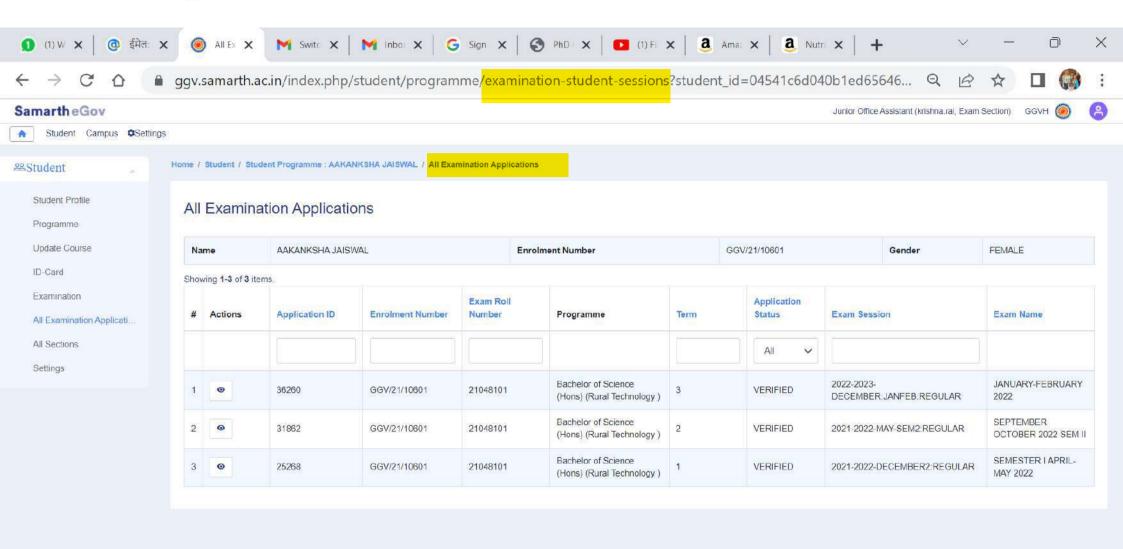
Student index

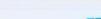


Student Program Details

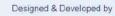


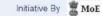
Examination Applications





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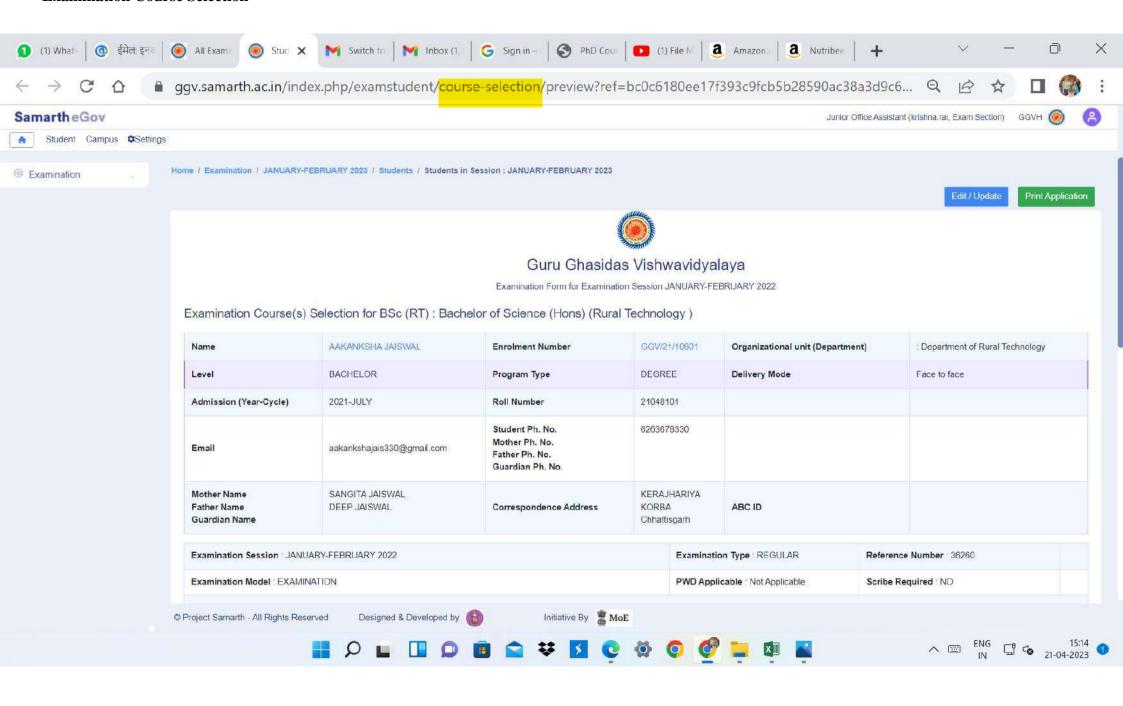




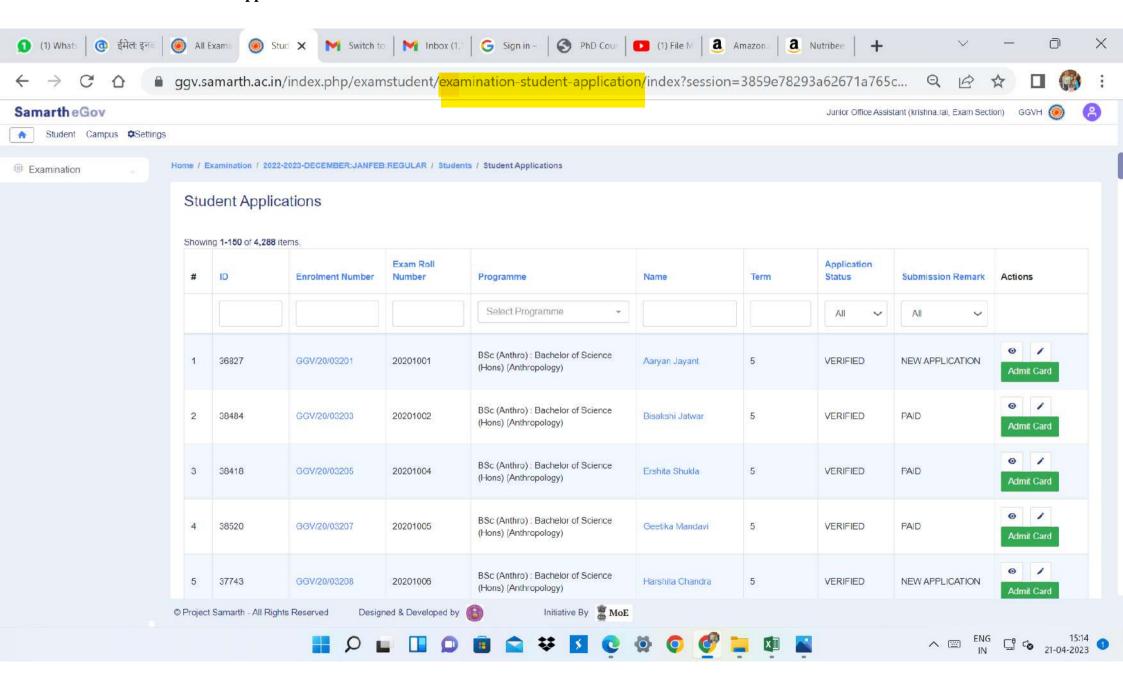




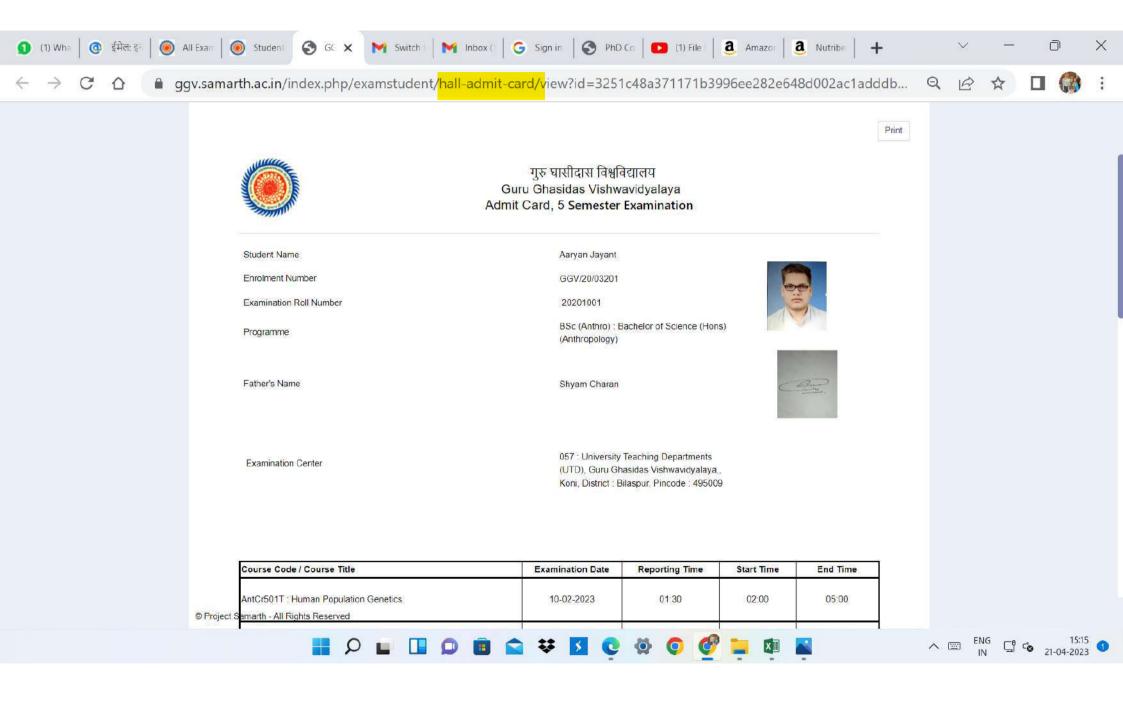
Examination Course Selection

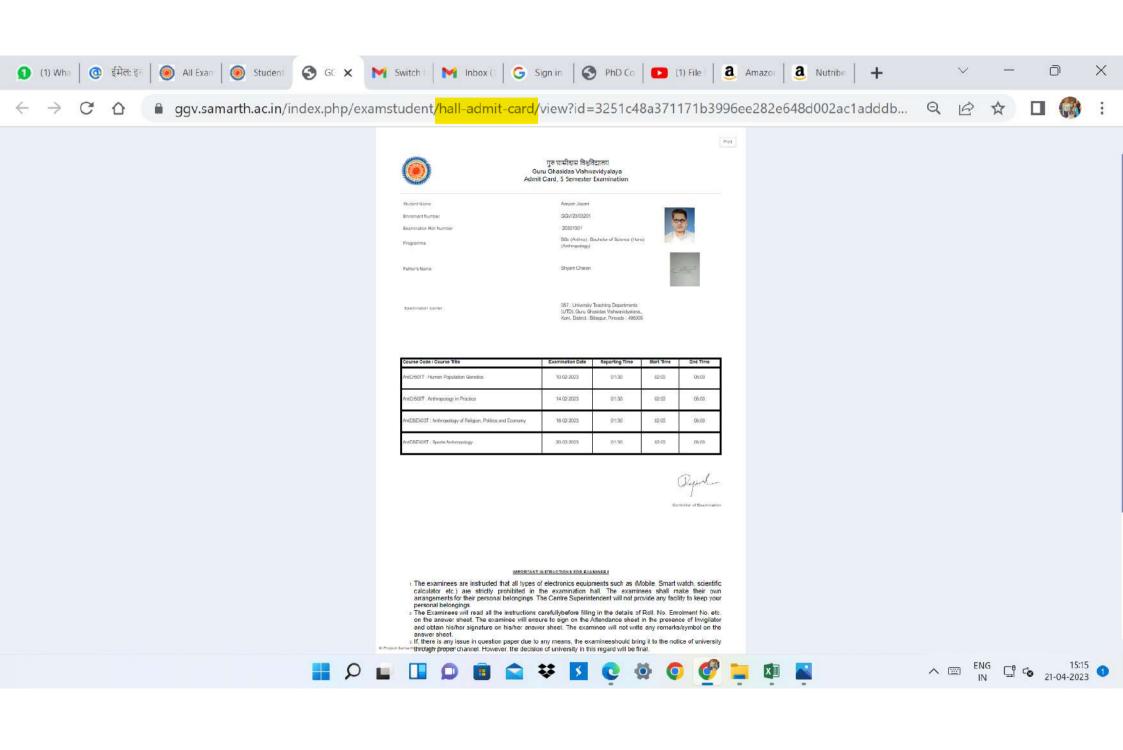


Student Applications

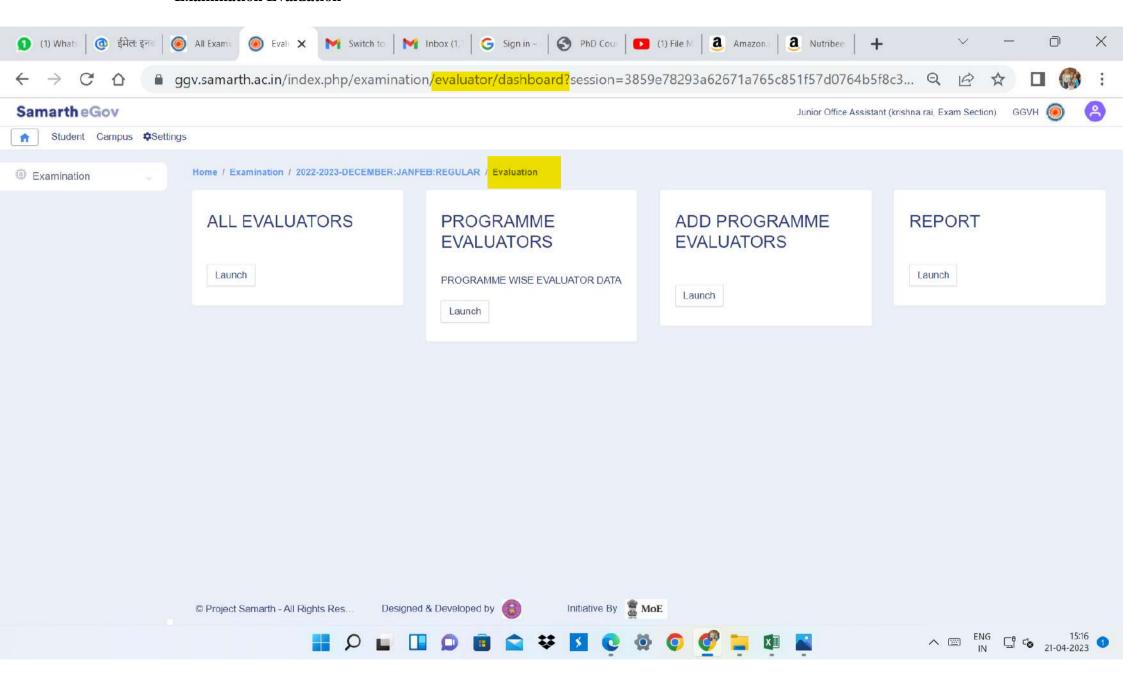


Hall Admit Card

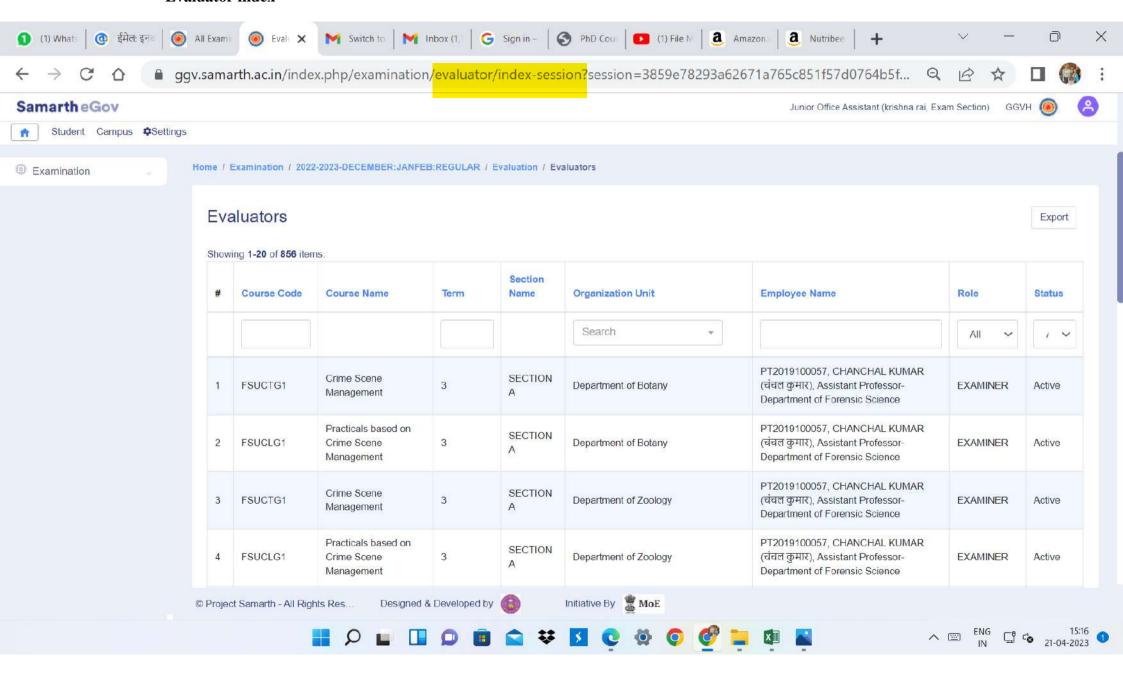




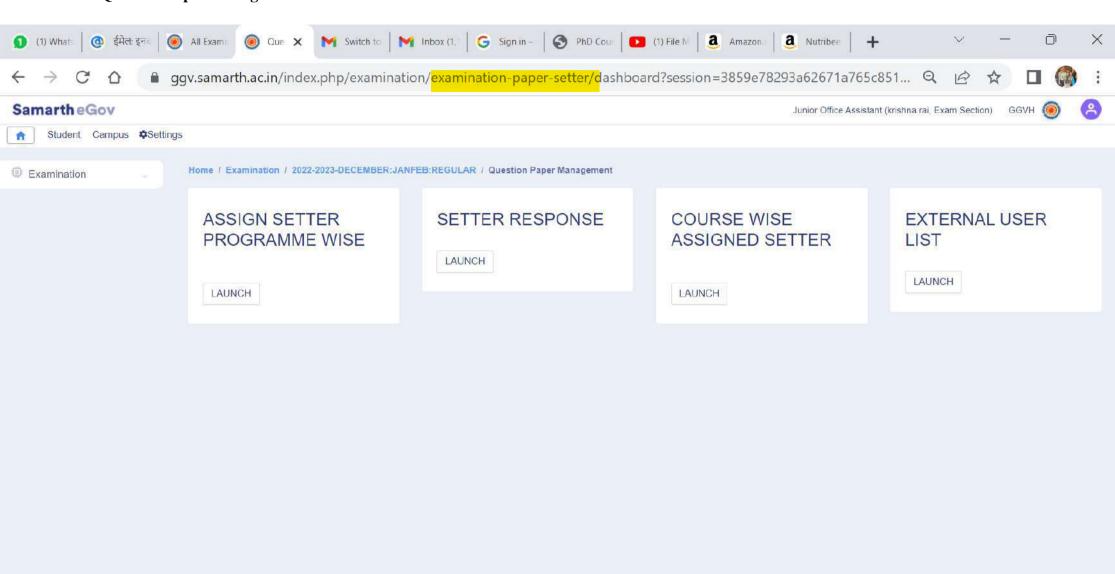
Examination Evaluation



Evaluator index



Question Paper Management

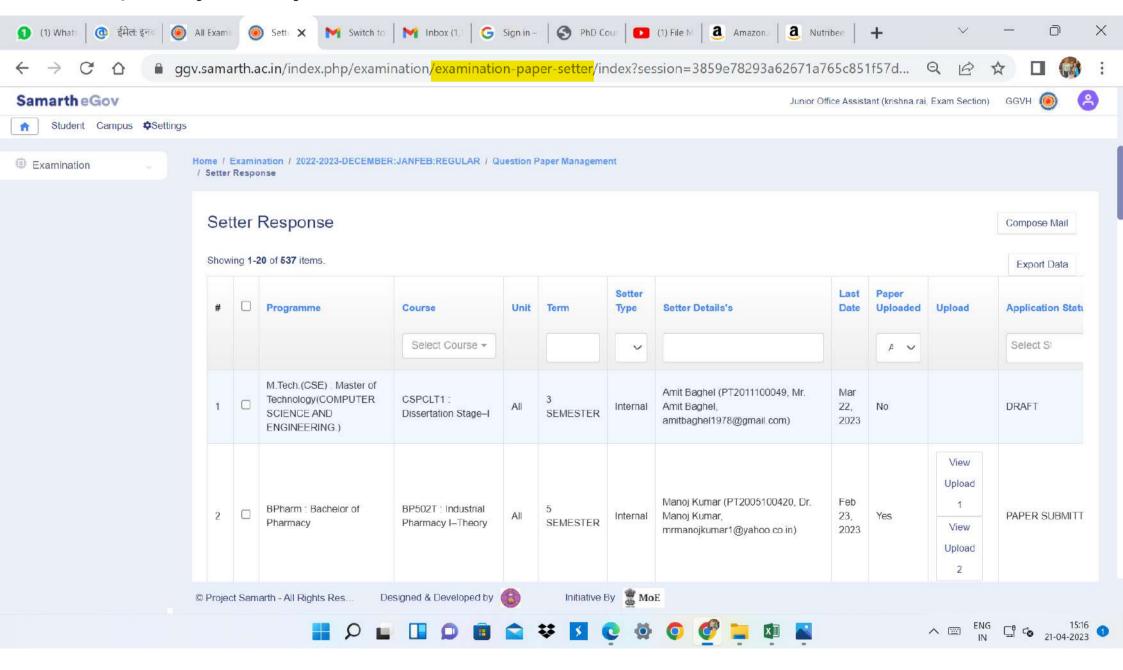


Initiative By **MoE**

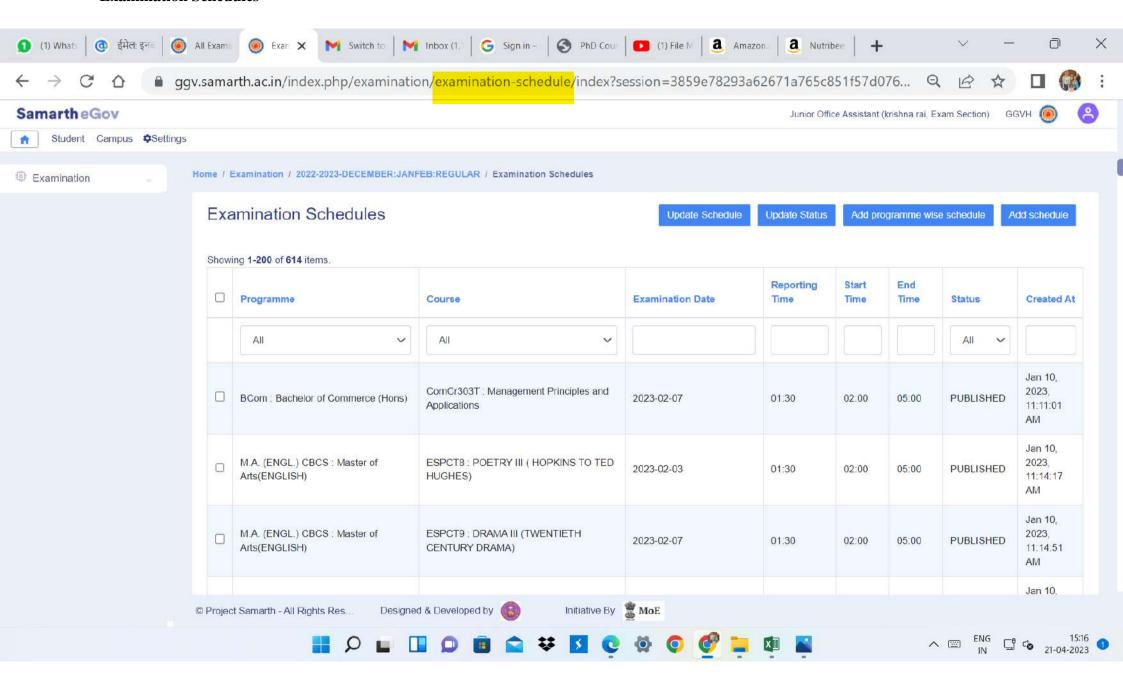
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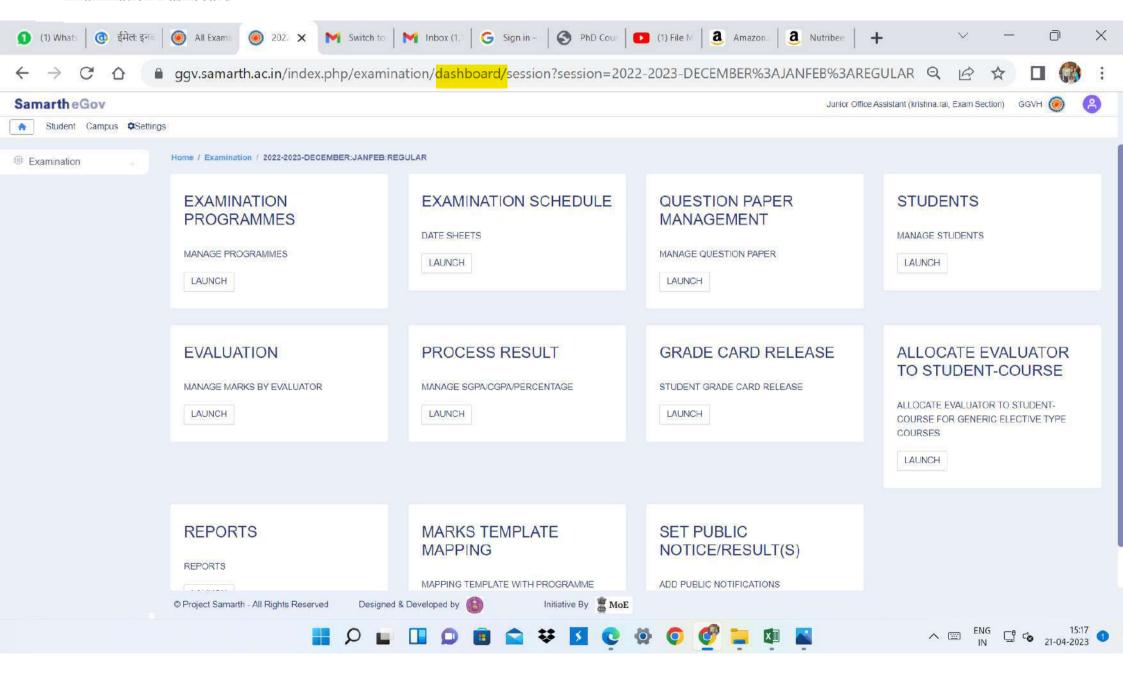
Question Paper Setter Response



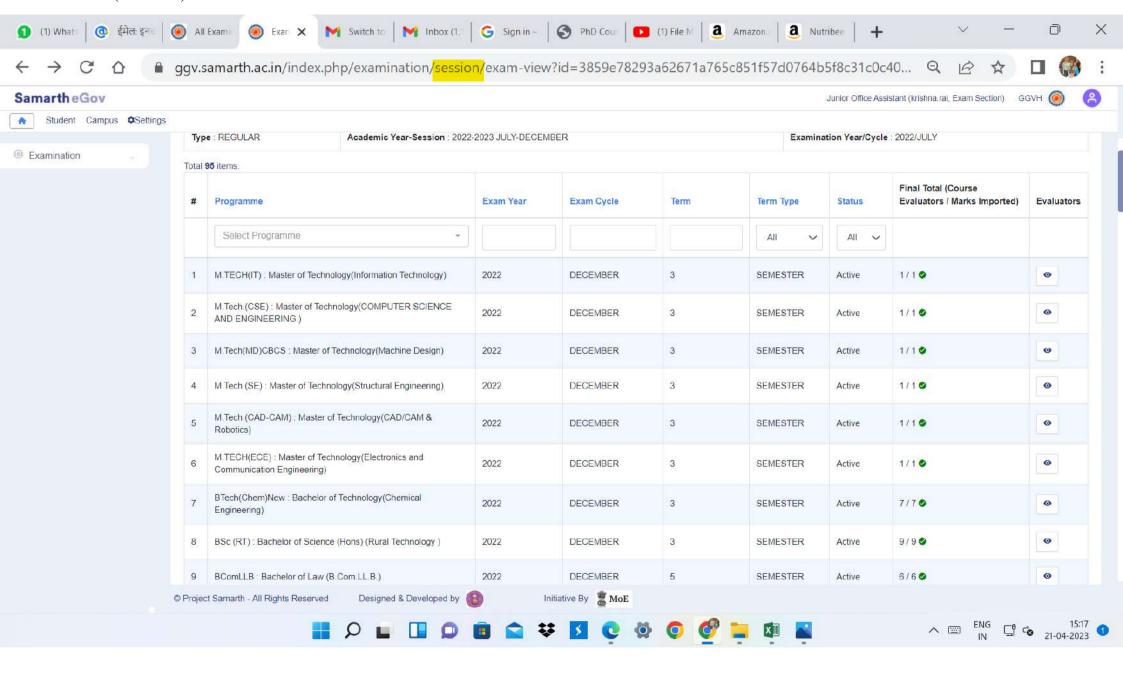
Examination Schedules



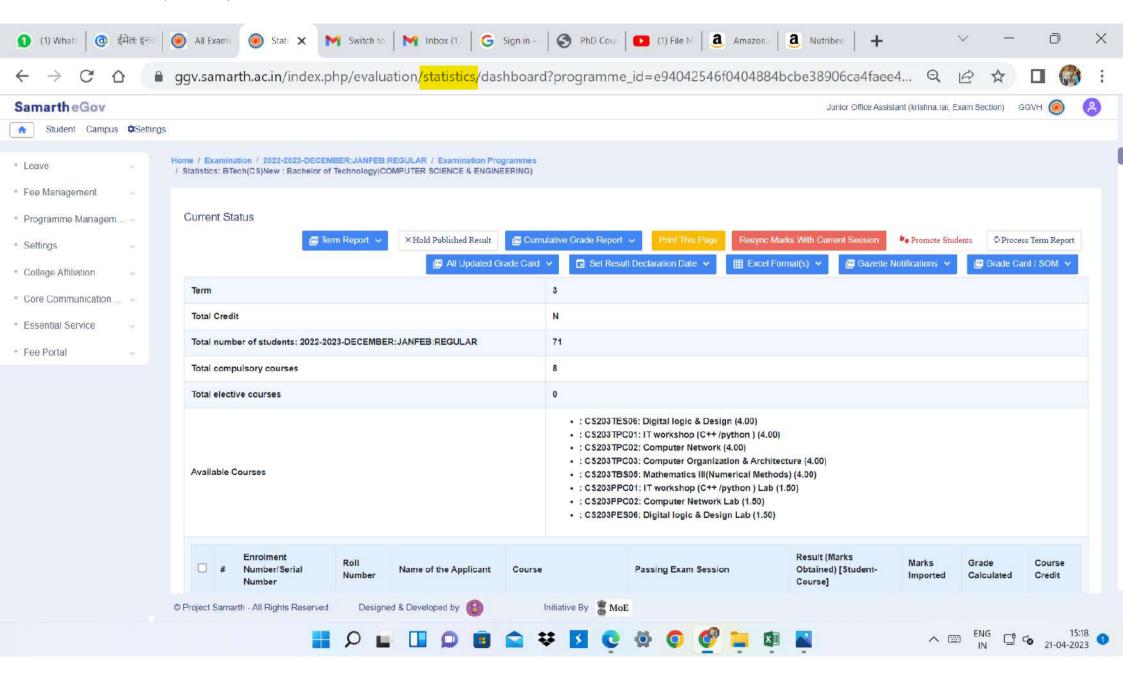
Examination Dashboard



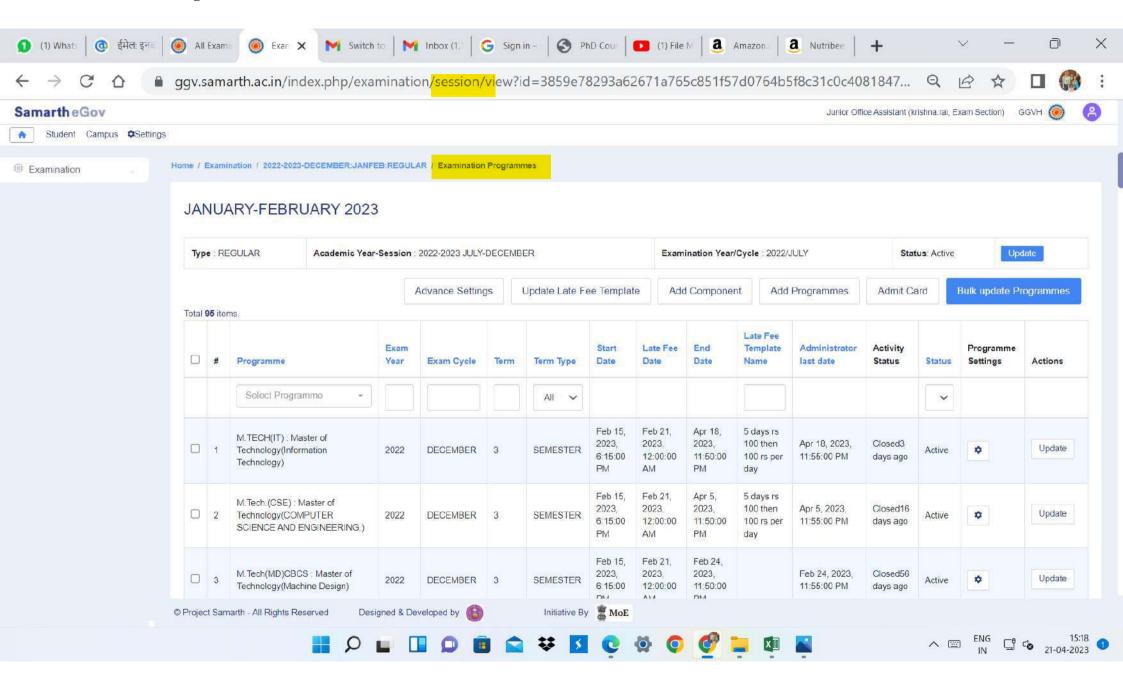
Marks (Sessional)



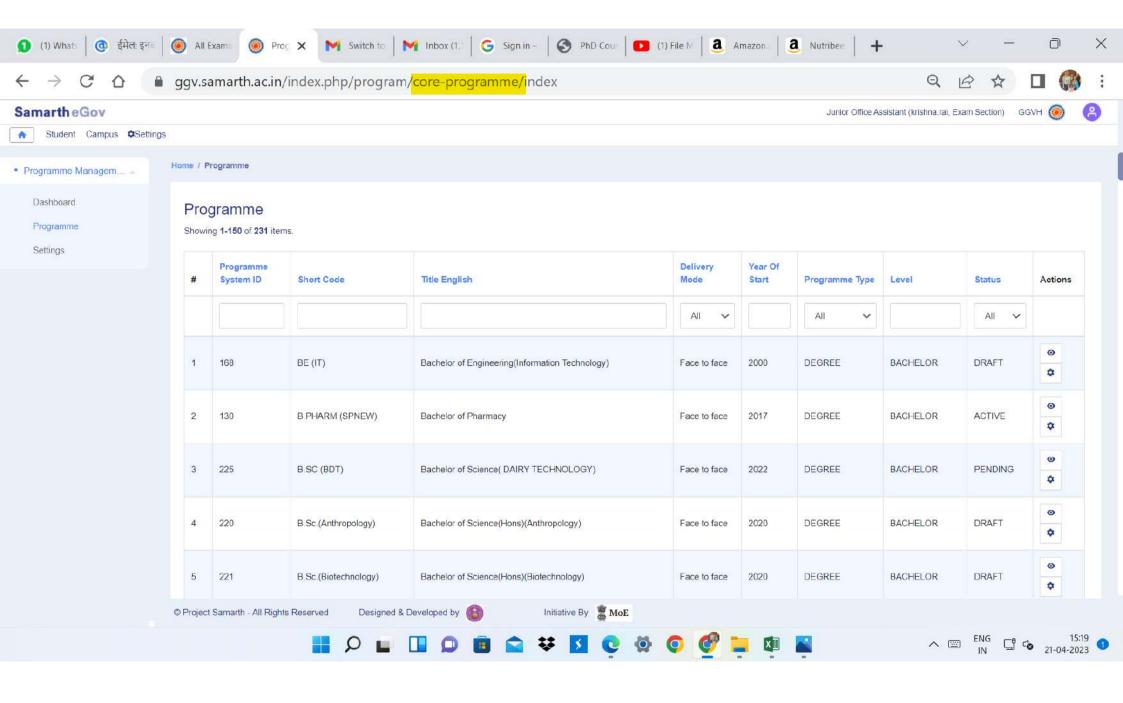
Evaluation (Statistics)



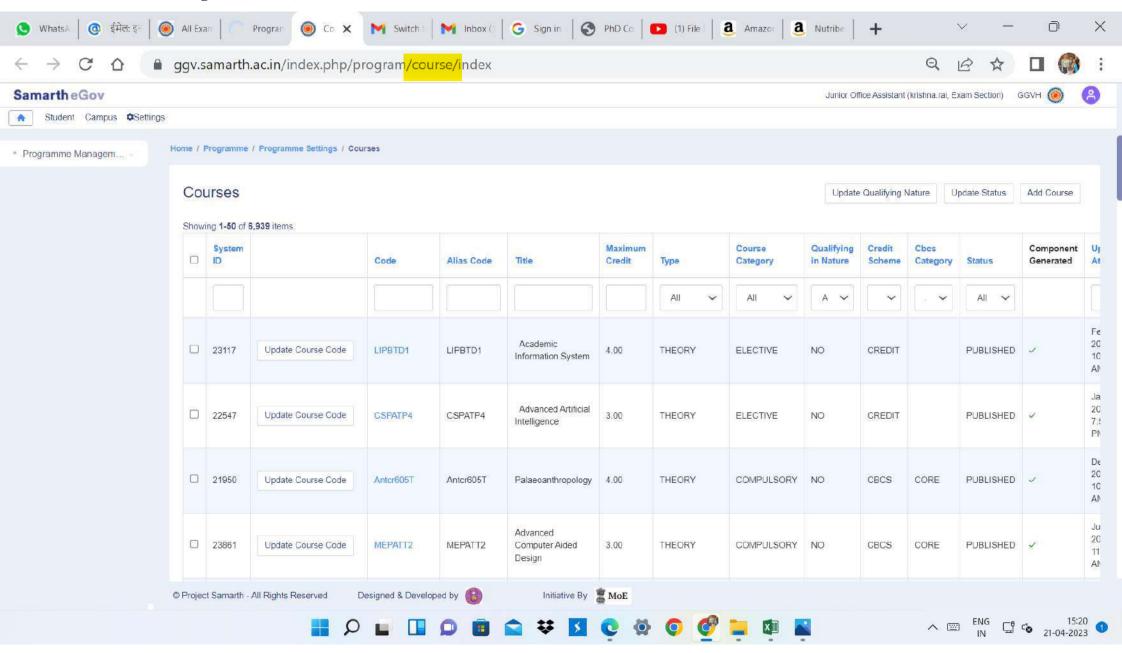
Examination Programmes



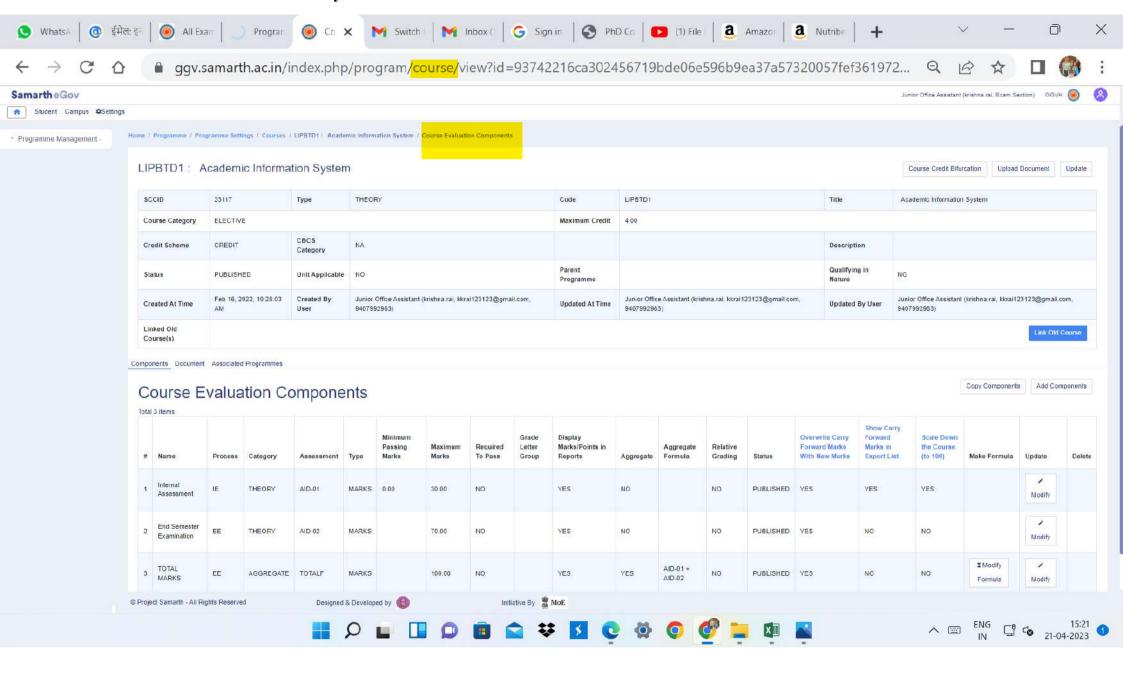
Core Programme



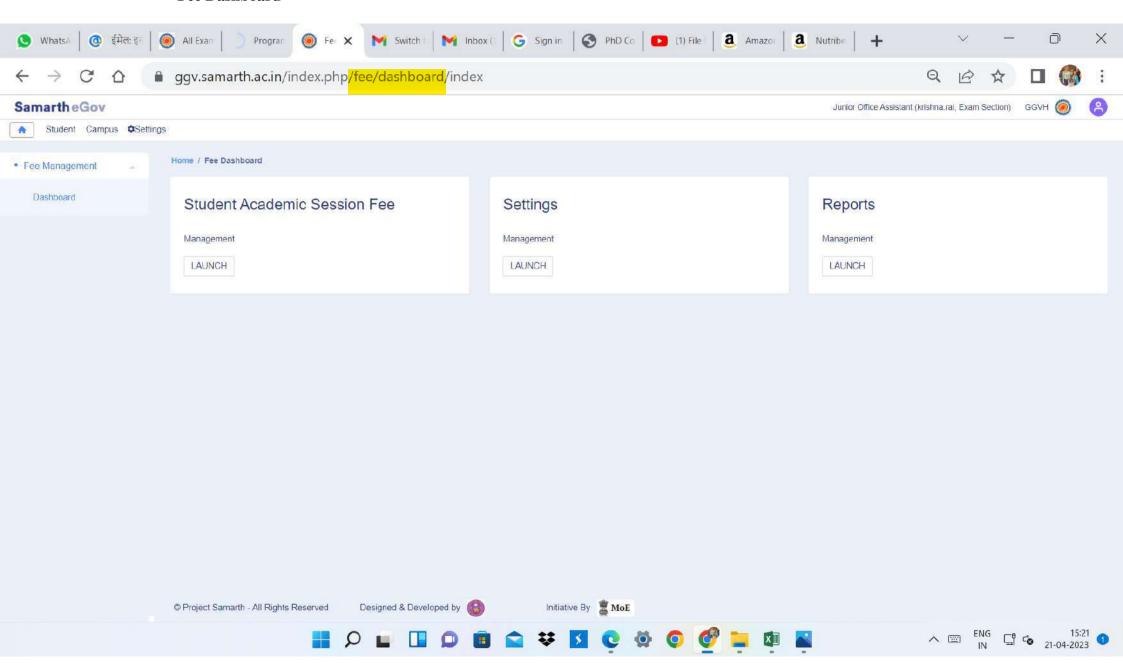
Program (Course)

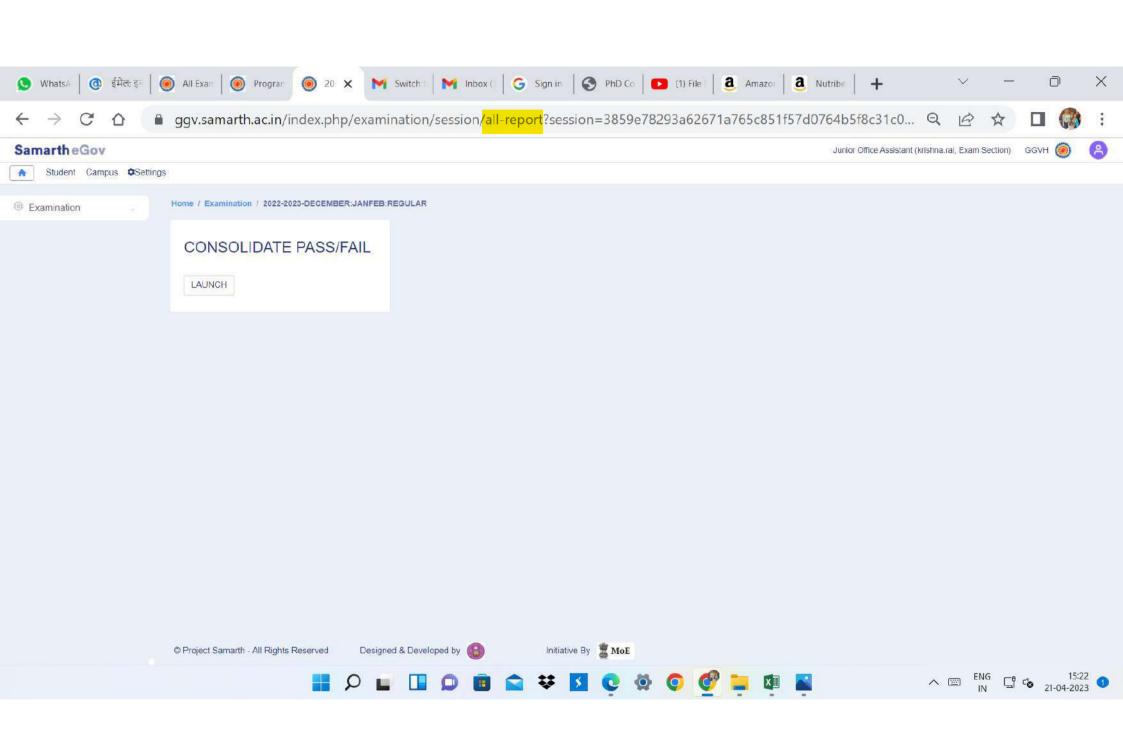


Academic Information System



Fee Dashboard





Program Dashboard

