

CHAPTER IV EXAMINATION

EXAMINATION

The Examination wing of the University of Kerala is responsible for conducting the examinations, the timely publication of results and disbursal of certificates to successful students. The University conducts around 10,000 examinations every year. Examinations for every course have to be conducted at least twice a year. Audit observations on the examination process are as follows:

4.1. Delay in conduct of examinations and publication of results

End Semester Evaluation (ESE) of all the courses in all the semesters are to be conducted by the University⁴¹ and results are to be published (based on the Examination Calendar prescribed⁴²) within 45 days from the last day of the examination.

Audit scrutinised the records of the dates of examination and dates of publication of results of 12 ESE for the three-year UG programme in affiliated colleges for students of 2016 and 2017 admissions. It was observed that the delay in conduct of examination when compared with the examination calendar was above 200 days in one case, between 100 to 200 days in two cases and between 50 to 100 days in three cases. Delay in publication of results was above 300 days in two cases, between 200 to 300 days in four cases and between 100 to 200 days in four cases (**Appendix 4.1**).

Audit also observed that ESE were conducted while students were studying in the next higher semester. For instance, ESE for first semester 2017-18 admission which was scheduled between 08 November 2017 to 22 November 2017 was conducted in 2018 between 26 March and 09 April though classes had commenced for the next semester on 24 November 2017. Moreover, as students⁴³ who have failed/ were absent/ reappeared for betterment of marks in any of the semester papers could appear only in the next similar examination (i.e., examination conducted for the succeeding batches), undue delay in results implies that students would have to re-appear/ prepare for re-examination for improvement/ clearing the exams without being aware of their actual results, causing hardship to the students.

In its reply (13 December 2021), the Government attributed the delay in examination to the occurrence of floods and the COVID-19 pandemic. It was also stated that the University was following manual system of false numbering of answer scripts; in one semester the University had to false number more than 2.50 lakh answer scripts which takes nearly 25 days. This adds to the delay. Government also stated that University had already identified the issue and was

As per Clause 9.3 of the University of Kerala Regulations relating to the First-Degree Programmes under the Choice Based Credit and Semester (CBCS) system in Affiliated Colleges, 2013

by the University Level Monitoring Committee (ULMC)

in the Choice based Credit Semester System

taking measures to conduct examination and evaluation in a time bound manner by introducing the Student Life Cycle Management System.

The reply is not tenable since there was delay in conducting examination and publication of results even before the flood and COVID-19.

4.2. Out of syllabus questions

According to Clause 9 and 10 of Chapter IV of the Examination Manual, the Controller of Examinations with the approval of the Vice-Chancellor has to constitute a Board of question paper setters every year for each subject or group of subjects to scrutinise the papers and to see whether the prescribed standards have been kept and whether the scope of the questions are within the prescribed syllabus. The Controller of Examinations should constitute a Scrutiny Board to ensure that the questions are in conformity with the prescribed syllabus and scheme of examination and maintain the required standards.

Even though such a mechanism existed, Audit found that during 2016-2021, complaints were received regarding 'out of syllabus' questions in 389 papers of different subjects. Controller of Examinations stated that this issue was solved by adopting different procedures, *viz.* liberalised valuation, adding grace marks and by distributing the marks in the remaining questions. It was also intimated that University had taken action against 13 personnel (Chairman/ question paper setters) for 'out of syllabus' questions included in question papers.

However, University did not provide to Audit the number of cases in which the complaints were confirmed after verification. As per the minutes of Syndicate meeting held on 30 April 2019, the number of question papers to be scrutinised varies from 20 to 40 per Scrutiny Board. Due to the large number of question papers to be scrutinised, efficient scrutiny cannot be ensured. Hence, errors are reported in the scrutinised question papers after the examinations.

The Controller of Examinations replied (November 2020) that from 04 May 2019, a Pre-valuation Board to examine the complaints regarding out of syllabus questions was constituted. The Pre-valuation board considers the complaints regarding 'out of syllabus' questions after the conclusion of examination and before the valuation of answer scripts and if there is any question from areas not included in the syllabus, the mark for the same is proportionally distributed among other questions.

The minutes of the Syndicate meeting indicates that the Scrutiny Board was not effective in eliminating 'out of syllabus' question, the inclusion of which causes avoidable hardship to students and prolongs the administrative processes unnecessarily.

Government replied (13 December 2021) that the Question Bank module in the Student Life Cycle Management System would be a panacea for the problem. It was proposed to set up a question bank by taking the questions and scheme from all the interested faculty members both in and outside the University and the

question papers as and when required would be generated from the question bank using the software avoiding duplication of questions.

However, Audit observed that issue of 'out of syllabus' questions continued to plague the examination system of the University during the period of Audit.

4.3. Deficiencies in examination procedures

• The detailed procedure for transfer of question papers to colleges and its opening are given in the Examination Manual of the University. The printed question papers received from the press are stored in a Question Paper Room in the office of the Controller of Examinations and the sealed covers containing question papers are distributed to the examination centres through the Collection and Distribution Unit (CD Unit) three days before the date of commencement of the examination. The covers containing question papers should be examined in the presence of the Additional Superintendent/ Senior Assistant Superintendent and two Assistant Superintendents. The Additional Chief Superintendent and Senior Assistant Superintendent and the Chief Superintendent must sign the covers after satisfying themselves that the covers are in good condition. Despite these safeguards prescribed, Audit noticed 10 instances of wrong opening of question paper packets in eight affiliated colleges as detailed in **Appendix 4.2**.

Audit observed that though the Vice-Chancellor cancelled the wrongly opened question papers in all the 10 cases, three colleges conducted examination with the cancelled question papers as shown in **Appendix 4.3**.

The Syndicate decided to entrust (July 2020) the Convenor and Controller of Examinations to assess the quantum of financial loss to the University and seek explanation from Principals and Chief Superintendents of the colleges concerned. University informed Audit (10 September 2021) that the process of assessing the quantum of financial loss to the University is yet to be finalised.

Besides the associated financial implications created by opening of questions papers wrongly, such instances also create logistical challenges to the University as fresh sets of new question papers have to be printed and supplied to all the examination centres at very short notice.

Government replied (13 December 2021) that the incidents happen mainly due to negligence or due to human errors.

Though the instances of wrong opening of question paper packets at examination centres were not considerable, the University still needs to ensure that the safeguards prescribed in the Examination Manual are strictly adhered to.

According to Chapter VI of Examination Manual, false numbers are allotted to answer scripts to prevent the identity of examinees to examiners who value the answer scripts. The process of false numbering shall be done with utmost secrecy and the false number allotted to a section⁴⁴ shall not be allotted to any other section for a particular session of the examination. Similarly, the false number given to one paper in a section shall not be given to any other paper of any subject.

Audit scrutiny revealed that false numbers were allotted in duplicate to answer scripts used in examinations (of different subjects) conducted during the same month. In CBCSS courses for the period January 2016 to May 2020, 1,00,399 false numbers were allotted in duplicate in the same month out of which, 2,669 false numbers belonged to the same course were noticed during data analysis.

Government in its reply (13 December 2021) accepted that in the present tabulation system, same false numbers for two different exams for the same programme was possible and since different softwares were used for different examinations, duplication of false numbers among different examinations was also permissible. The Government also stated that with the introduction of the proposed Student Life Cycle Management System these issues would be eliminated.

4.4. Deficiencies in system of accounting of blank answer books kept in colleges/ examination centres

Chapter V of the Examination Manual describes the procedure to be followed for the conduct of examinations by the University. University informed Audit that 19 cases of malpractice/ manipulation of answer books were reported during the period 2016-21. In order to strengthen the accounting of blank answer books kept in colleges/ examination centres, the Syndicate decided (01 August 2019) to constitute a team to start verification of the answer books kept in colleges/ examination centres and to submit a verification report. It was also decided that the outdated and damaged answer books would be collected back and the remaining answer books would be the opening balance of that college/ examination centre for further accounting. Further, sanction was accorded (August 2019) to form a new section (CE-III) for supervision and monitoring of daily usage of answer books issued to colleges/ examination centres. Audit observed that verification of answer books was conducted from 06 January to 12 November 2020 and only six out of the 297 University examination centres could be covered. Since the verification process has not been completed, colleges/ examination centres recorded the opening stock as the stock in hand on date of forwarding of accounted statement to the Controller of Examinations. Chances of misuse of answer books already misplaced still exist.

The University formed CE-III section to monitor the daily usage of answer books. The colleges/ examination centres forward their answer book utilisation

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There are more than one section dealing with examinations

details through e-mail. Daily usage of answer books is being forwarded but details such as serial numbers of answer books issued (both main book and additional book) and number of students who attended the exam are not being collected. In the absence of these details, monitoring of unused answer books may not be effective.

Government replied (13 December 2021) that the Syndicate meeting of 23 July 2021 had decided to finish the verification in three months but it had been delayed due to COVID-19. Monitoring of the details would be done after the introduction of Student Life Cycle Management System.

Audit observed that there are still no fool-proof safeguards against misuse of the answer books, which are still not fully accounted for. Audit also observed that verification of only 48 out of 297 exam centres (16.16 *per cent*) have been completed so far (30 March 2022).

4.5. Missing answer scripts

Audit observed that there were cases where answer scripts of students went missing at multiple stages of the valuation procedure. However, no serious action was taken by the University in most of the cases, as detailed below.

4.5.1. Answer scripts lost from the University

As per Chapter VIII of Examination Manual, "If an answer book is missing, all the staff members employed in the respective camp shall be jointly and severally liable for the lapse. The punishment may also include imposing censure/ suspension". A fine of ₹5,000 per paper is to be levied from the staff member employed in the respective camp. Further, if an examiner fails to return the answer book to the University, he/ she shall be permanently debarred from taking up duties of University Examiner and a fine of ₹5,000 per missing / damaged paper shall be imposed on him/ her. The punishment may include withholding the placement/ promotion of teachers. If the answer script is found to be irretrievable, the candidate may be given another opportunity to reappear for the examination in accordance with the same scheme and syllabus without charging the examination fee.

During the period 2013-14 to 2020-21, answer scripts of 98 students (19 examinations) were reported as missing from the University. Answer scripts were lost from both the University and Colleges as well as from the Examiners as detailed in **Appendix 4.4** and **Appendix 4.5**. On verification, it was seen that, in none of the cases action was taken against the erring officials except in one instance, where it was decided to collect ₹10,000 from the erring official being cost for conducting re-examination. Other action against erring officials was limited to giving warning to erring official/ debarring from examination duties.

Government replied (13 December 2021) that the main reason for answer scripts going missing was non-adherence to the specifications in the Examination Manual in packing of answer scripts by the colleges. Government further stated

that steps would be taken as decided upon by the Syndicate against evaluators on account of negligence.

Even though Public Accounts Committee (PAC) in its 43rd Report for 2011-14 had directed the Higher Education Department to furnish the details of disciplinary action taken against the officers responsible for missing answer scripts in the University while discussing Performance Audit of 'Functioning of the University of Kerala' which featured in the Report of the Comptroller and Auditor General of India (Civil) for the year ended 31 March 2010, several cases of missing answer scripts are still being reported and no action has been taken against the officials concerned indicating lack of seriousness on the part of the University in addressing the issue.

4.6. Lack of adequate controls in Tabulation Software

Examination mark lists are generated by tabulation sections in the University, using in-house tabulation software developed over a period of time (commencing from 2001). Audit analysed 11 out of 18 tabulation databases of regular courses, maintained by the IT Cell of the Controller of Examinations for the period 2016 to 2021.

Audit noticed the following deficiencies during the analysis of the backup data furnished by the University.

- Workflow approval mechanism (digital equivalent of files moving from a lower authority to a higher authority) had not been integrated in any of the tabulation software test-checked. Only username and passwordbased control had been implemented.
 - In the reply (13 December 2021) Government attributed the reasons for not implementing workflow integration as large volume of data, complexity of the system, staff shortage and the software in use were based on the software developed in 2001. Government also stated that the proposed system for Student Life Cycle Management System would be based on workflow integration.
- End Semester Assessment marks (in [t_mark] table) obtained by a candidate could be modified due to addition of grace marks/ moderation or on account of revaluation/ scrutiny and the earlier marks record was transferred to logs. Since no reasons were recorded (in [t_mark] table and logs), the reason for change in marks could not be ascertained which makes the system prone to misuse. Corrections could be made to exam registration and mark details of students through backend bypassing table level locks (locked to prevent unauthorised entry in exam registration and marks details) and the transaction logs were not captured. These logs are essential to identify and prevent tampering of marks.

Government stated (13 December 2021) that mark entry lock was never released through backend. Frontend interfaces were used for this

purpose based on specific orders of Controller of Examinations received in the form of files. All changes in marks are retrievable at any point of time. Government further stated that logging had been enabled for mark unlocking interface recently for Deputy Registrar level users and the University was also planning to capture the remarks against these changes. The Government also stated that there was no online system to upload grace marks. After scrutinising the applications received directly from the students and obtaining specific orders from the Controller of Examinations, the sections concerned would enter the grace marks in the system using specific interfaces.

The reply is not tenable since the programmers, who also provide postrelease support, had full access to database and had the highest privileges, therefore, marks lock and lock release was not restricted only to frontend interfaces. Even though mark changes were logged, reason for the changes were not recorded. Besides, code changes to support approval for entry of grace marks were yet to be carried out.

The different software used by the University had many deficiencies as stated above and the gravity of the deficiencies in the software can be understood from one of the incidents described below (facts below are based on the Preliminary Enquiry Committee Report and Expert Committee Report) which resulted in unauthorised changes in marks of students.

In response to the complaint (October 2019) from a candidate that he was unable to register for the supplementary examination of Financial Accounting for BBA Degree examination of November 2019 for which he had also unsuccessfully attempted in January and November 2018, the IT Cell informed the ES 1 Section that the candidate had already passed the examination in December 2016. The ES 1 Section without examining how a candidate who had passed the examination in December 2016 could attend the examination again in January and November 2018 uploaded the mark list in student profile.

Subsequently, when a few other students approached the section with similar issues, the ES 1 section verified the tabulation sheets. On verification it was noticed that the moderation of core papers of December 2016 fixed by the PASS Board had been modified (from six to 10 in the case of BBA course, from two to eight in the case of BCA course and from four to six for B.Sc Electronics).

The Vice-Chancellor ordered a three-level enquiry (13 November 2019). It was observed that the undue hike in moderation was effected for 16 papers of Career Related programmes. Based on the recommendation (21 November 2019) of the expert committee, the Syndicate decided (April 2020) to cancel the Degree awarded to 23 students. For this purpose, a special meeting of the Senate (26 August 2021) approved the amendment to the Statutes of the University and decided to forward it to Hon'ble Chancellor for approval. The expert committee pointed out a serious error in the source code in relation with the updating of the moderation marks. Owing to the above error, whenever the computer program

was executed, moderation for all semesters and all years of the course (in respect of the same subject code) was given effect to.

According to Expert Committee report (November 2019), there is no centralised administrative control of data. The security is being maintained using username and password only and the User IDs were not based on any protocol made by the University. Password log register was not being maintained and 68 passwords were in circulation for 39 staff in the ES sections as on 16 November 2019. The Expert Committee also made 11 recommendations (November 2019) and Audit observed that seven recommendations have not been implemented till date (September 2021) as detailed in **Appendix 4.6**.

Government stated (13 December 2021) that in the case of change in marks on account of moderation, the system had failed to consider the particular exam along with the updation. The error had occurred only in the edit module for granting moderation which was corrected based on the Expert Committee report.

Even though the Government stated that software error was corrected based on the Expert Committee report, the reply is silent on the implementation of seven out of the 11 recommendations of the Expert Committee including the security audit of the software in which the error occurred originally.

4.7. Delay in revaluation

According to the Examination Manual, revaluation processes are to be completed within 60 days from the last date of receipt of applications for revaluation. On test-check of 49,914 records of CBCSS courses, Audit noticed that in 44,613 cases (89 *per cent*) more than 60 days were taken to complete the processes during 2016-2021. The time taken to publish revaluation results ranged from 61 to 120 days in 22,780 cases, 121 to 240 days in 14,072 cases and 241 to 597 days in 7,761 cases.

The PAC while discussing Performance Audit of 'Functioning of the University of Kerala' which featured in the Report of the Comptroller and Auditor General of India (Civil) for the year ended 31 March 2010 had strongly opined that the revaluation of answer scripts must be completed in a time bound manner as envisaged in the examination manual of the University to avoid the inordinate delay and hardship of the students.

Delay in declaring results of revaluation would impact the future education/ employment prospects of students as their final results would be delayed. Delays of such nature also reflect poorly on the quality of educational services rendered by the University.

Government in its reply (December 2021) stated that delay noted by Audit on the revaluation process was due to various reasons such as time required for collecting answer scripts from different locations, ensuring submission of answer scripts to a new valuer other than the original valuer, COVID-19 pandemic etc. Government also stated that Centralised Valuation Camps and

the use of QR coded answer books and a separate module in the Student Life Cycle Management System, would expedite the process of revaluation.

4.8. Issue of Certificates

4.8.1. Delay in issue of certificates

In compliance with the UGC directions regarding issuing of original degree certificates in time, the Vice-Chancellor had ordered (July 2016) to ensure that the Degree Certificates are despatched within 15 days from the date of receipt of application, failing which disciplinary proceedings shall be initiated against those who are responsible for the delay. Accordingly, a Circular was issued (30 July 2016) regarding the same.

As per the details furnished to Audit for courses such as BA Annual, MBA, B.Arch, MCA, M.Tech and B.Tech part-time restructured for the period 2016-17 to 2019-20, only 707 certificates (four *per cent*) out of the 16,796 applications received were issued within the prescribed time period of 15 days. 3,537 certificates (21 *per cent*) were issued within one month, 12,238 (73 *per cent*) certificates were issued within six months and 209 certificates within one year. In 105 cases, the delay exceeded one year.

Government replied (13 December 2021) that the Draft Right to Service Act has been approved by the Syndicate to shorten the time of issuing of all the certificates to the candidates from the University. Audit noticed that though orders to ensure timely issue of certificates were issued by the University, the same has not been implemented till date (December 2021).

4.8.2. Non-implementation of Fast-Track System for issuance of Degree Certificate

The delay in issue of certificates by University has been referred to in paragraph 4.8.1 of this Report. The Syndicate held on 21 October 2016 resolved to introduce a Fast-Track System for issuing of Degree Certificates for the eligible candidates within seven working days on receipt of application by levying an additional fee of ₹1,000. The decision however, has not been placed in the Senate (March 2021) and hence has still not been implemented in the University till date.

Government replied (13 December 2021) that the introduction of Fast-Track system may create discrimination between students and that it would result in damage of the ethical principle that University followed.

Audit observed that a Fast-Track system is already in place in similarly placed Universities such as the Mahatma Gandhi University, Kerala. Absence of Fast-Track System in the University of Kerala may work to the disadvantage of students graduating from the University who could otherwise have benefitted from such a facility to receive their original Degree Certificates on priority basis. Such facility may be useful particularly in cases relating to pursuance of higher studies/ formalities relating to joining a workplace etc.

4.9. Conclusion

Though, the PAC directed that revaluation of answer scripts must be completed in a time bound manner as envisaged in the examination manual there was delay in conduct of examinations, revaluation of examination papers and publication of results by the University. Despite the presence of a Scrutiny Board to ensure that the question papers were in conformity with the prescribed syllabus, the issue of 'out of syllabus' questions continue to plague the examination system. Question paper packets were opened wrongly at examination centres which led to cancellation of examinations causing hardships to students. The University did not have adequate control measures to ensure that the blank answer sheets provided to colleges/ examination centres were not being misused. Despite the PAC seeking details of disciplinary action taken against the officers responsible for missing answer scripts in the University from the Higher Education Department, several cases of missing answer scripts are still being reported and no action has been taken against the officials concerned indicating lack of seriousness on the part of the University in addressing the issue. The tabulation software used by the University had several deficiencies making it prone to data manipulation, inadvertently or otherwise. There was delay in issue of certificates by the University.

4.10. Recommendations

 In order to reduce uncertainties from the students' perspective, the University needs to ensure that examination calendar is strictly followed and results declared in a time bound manner.

(Paragraph 4.1)

 The University may expedite the verification of blank answer sheets maintained by colleges and examination centres and maintain an up-to-date account of unused answer sheets. Government/ University may consider taking disciplinary action against officials responsible for misuse of blank answer sheets and loss of answer scripts.

(Paragraphs 4.4 and 4.5)

 In view of its crucial role in timely and accurate declaration of results of students, the tabulation programmes currently being used may be replaced by a single application software within a prescribed time. Reliance on the existing tabulation software pending such deployment should be only after ensuring compliance of the recommendations of the Expert Committee and confirmation of the same through a duly approved process.

(Paragraph 4.6)