

MANUAL OF EXAMINATION

AUTOMATION SYSTEM



UTTARAKHAND OPEN UNIVERSITY

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Abstract

Education has always been the building block of a society and a nation, so is the effective evaluation of formal learning. Due to an increase in access to education and higher enrollment, timely evaluation and declaration of results is continuously affecting the governance of examination process and procedures of Uttarakhand Open University (UOU). Therefore, digitization, at various levels in the examination process, has been initiated as an appropriate solution for timely preparation and declaration of examination results of UOU. Digitization has been initiated right from enrolling a fresh or existing learner in an academic session, continuously monitoring and modifying the process, whenever required, till the declaration of result. This process is not a step by step process, rather it is a continuous process having various stages entwined with each other. This process has helped in reducing the time involved in conducting the examination and declaration of results, which begins with preparation of date-sheet of examination in a precise & concise manner, and even converging three shifts of examinations to two shifts (*i.e.*, noon and evening only). Digitization has helped in reducing the number of days of examination to 22 working days (44 shifts of exams for more than 750 papers) and preparation and declaration of all the results within 45 days from the last day of examination. It has further implications in reducing the expenditure in conducting exams *via* reducing an entire shift for a period of 22 days.

Introduction

For any formal process of learning, evaluation is an important phase for measuring the effectiveness of learning amongst the learners. Therefore, Examination Section plays an important role in any educational institution. Similarly, in Uttarakhand Open University (UOU), since its inception, the examination section is continuously discharging its role, duties and responsibilities for the betterment of learners, University and the society. However, changing expectations of the stakeholders have also get reshaped over the period of time. Considering these new expectations and underlying changes, UOU has identified the need for upgrading the examination processes and digitize it to ensure speed, efficiency, accuracy, transparency, ease of record keeping, and quick retrieval of information and documents.

Abbreviations:

<i>UOU:</i>	Uttarakhand Open University
<i>SIS:</i>	Student Information System
<i>OMR:</i>	Optical Mark Recognition
<i>NAD:</i>	National Academic Depository
<i>ODL:</i>	Open and Distance Learning
<i>PWG:</i>	Pass with Grace
<i>OTP:</i>	One Time Password
<i>QR-Code:</i>	Quick Response Code

Description of Examination Automation System

The process of examination has been digitized right from enrolling a learner in a programme of study to award of degree and transcript, and even extending to verification of their documents later for any other purpose. After preparation of degree, the same is uploaded on the portal of National Academic Depository (NAD). Following is the step-wise detail of the digitized examination process of UOU:

- i. **Identification of Examination Cities**: Before starting a session and enrollment of learners, the examination section of UOU identifies Examination Cities, considering the previous admission and examination pattern, such as Haldwani, Dehradun, Haridwar, *etc.* At this stage only Examination Cities (not the exam centers) are identified and indicated in the SIS & Admission form.
- ii. **Establishing Contact with the Learners**: A continuous contact is established with the learners to make them aware at every stage about their examinations. The contact is established *via* UOU web-portal, e-mail and SMS facility.
- iii. **Enrollment of Learners and Filling-up of Examination Form**: The process of enrollment in UOU is online (using UOU website) as well as off-line (Admission Form). In a distance education system students are connected to the University via different modes of correspondence which they have. Therefore, the learners have to compulsorily mention their choice of the particular city for examination (mentioned as Exam City in the form) while filling-in the Admission form (either online or offline). This also includes submitting required examination fees of the learners for the courses offered in that particular programme of learning. However, considering that,

this is the Open and Distance Learning (ODL) system and the learners must have the liberty to opt when they want to appear for their examinations, they are provided with an additional facility through which, due to their inability to appear for the examination in that particular session, they may appear in the immediate next upcoming examinations (e.g., if they have filled their exam form for June 2017 exams then they may opt to appear in December 2017 exams instead of June 2017 exams).

- iv. **Filling-up of Back and Improvement Examination Form**: Conducting examination includes three sub-stages, *viz.*, learners appearing in main paper, back paper, and improvement paper examination. The exams are, further, classified into Theory Papers, Assignments, Practicals, Project-Work, Field-Work and Viva-Voce. Learners, depending upon their requirements, they fill-in their examination forms. All the learners appearing afresh have to fill-in their choice of Examination City, as mentioned above in step II above. However, the learners who require to improve their performance in a theory subject only have a window of six months (upto the immediate next examination term, say if, a learner has qualified the June 2017 examination and wishes to appear for Improvement Exams, he/she can only appear in December 2017 exams) to apply by filling-in the examination form for Improvement Examination. Only such learners are allowed to appear for Improvement Examination who have qualified in all the papers of that particular term and it includes the learners who have Passed with Grace (PWG).

The next category of the learners who want to appear for back paper examination are provided a window of 15 days to one month to fill-in their

back-paper exam forms and select the exam city of their choice to appear in the exam.

- v. **Preparation of Date-Sheet:** After completion of filling-in of all the examination forms (main, back and improvement) and obtaining information from SIS about all the Courses the question papers required are ascertained and, the process of preparation of date-sheet is initiated. Digitization helps in identifying all the combinations of papers that are offered in a particular session (which varies in each session) and thus the date-sheet is prepared. Date-sheet so prepared is put on the website to allow various stakeholders to communicate their suggestions, if any. After getting all the suggestions, the required changes are introduced and the final scheme of examinations is published. The date-sheet is drafted in such a manner that the learners do not have any clashes of dates during their main papers. Utmost care is taken, so that, they do not have any clashes in their main, back paper examination, or two back paper exams. However, if any of such cases (less than 01%) appear than the learner is permitted to appear in any one the papers and the fees for the clashing paper is adjusted in their next immediate examination, so that, with the same examination fees of clashed paper they may appear in that particular paper too. The successfully drafted date-sheet is able to conduct more than 750 theory papers within 22 working days and two shifts in a day (total 44 shifts).
- vi. **Withdrawal of Fees and Exam City Change:** This is the spirit of Examination process of UOU, because all the learners (for main and back papers) are given an opportunity to submit their requests for examinations midifications. They are provided with a time-frame of 10 to 15 days, in which they are permitted to change their Examination City (if required) and

shift their fees from that particular examination to the immediate next examinations. This is the opportunity to the new learners who have filled in the choice of exam city at the time of enrollment or to the learners, who are having any other problems regarding their main and back paper examinations.

- vii. **Uploading Marks of Assignments:** While the learners are preparing for their examinations, the Learners Support Centers (LSCs) of the University are allowed to get the assignments evaluated (as prescribed by UOU) and upload their marks in the SIS. This process is continuously monitored by the Examination Section of UOU and a follow-up is always ensured to motivate the learners to submit their assignments for evaluation so that the marks could be uploaded. Apart from this, if the Examination Section observes any malpractice or improper evaluation of assignments, the University takes corrective measures *suo-moto* to rectify the issue.
- viii. **Uploading of the marks of Practicals, Projects, Field-Work and Viva-Voce:** Along with the conduct of theory papers, the other important sub-categories of a result are uploaded to facilitate the preparation of results. Therefore, it is essential that all the sub categories are completed simultaneously along with the theory marks for completion of a result. Later, various Exam Centres are identified and the learners are allotted to their closest exam-center to appear in practicals, projects, field-work or viva-voce. A blank award list is generated for the learners appearing in Main or Back paper examination, and the same are sent to the concerned Internal Examiner for conducting the examination. After successful completion of practical exams, they fill-in the award sheets duly signed by the external and internal examiners and submit it for being uploaded on SIS. These award

sheets are Optical Mark Recognition (OMR) based and, therefore, the process of scanning of OMR is initiated. Upon successful completion of scanning, the values are uploaded in SIS for preparation of result.

- ix. **Maximum Marks for all the Question Papers are the same:** At various stages and based upon the nature of programme, variation in the marks of External Exam and Assignments marks (say, Theory:Assignment, 60:40, 70:30, 80:20, 100:00, 35:15, 40:10 and Grading system as well) does exist which sometimes creates difficulty for the learners. Therefore, for the ease of understanding and in order to bring unanimity, it was decided that all the question papers will be prepared as Maximum Marks 80 (for Full Unit papers) and Maximum Marks 40 (for Half Unit Papers). After compilation of marks out of a Maximum of 80/40 Marks, the obtained marks are converted proportionately to the maximum marks which actually exist for a particular paper, e.g., a learner has a paper of MM 70 but he is appearing in a paper of MM 80 and obtained 50/80 (62.5%) then the marks so obtained are proportionately converted to 62.5% of MM 70, *i.e.*, Obtained Marks shall be 44/70.
- x. **Allotment of Exam Center and Hall-Ticket Generation:** After filling-in of the exam form, exam city change (if required), transfer of fees (if required), and the allotment of exam center takes place. All the examinees are allotted a particular exam center in an exam city, they opted previously and the Hall-Tickets are generated for all the examinees. These hall-tickets are available online on UOU web-portal and the learners download these whenever and wherever required. These hall-tickets include all the details about the examination of a particular examinees, say the papers he/she has opted to appear in and the date & exam-shift applicable.

- xi. **Preparation of OMR based Award Sheet:** While the examination is taking place at various exam centers, the Examination Section of UOU starts preparing OMR based Award Sheets for recording marks and uploading these in the SIS. These OMR award-sheets are printed with all the details related to a particular exam and all the examinees of that examination.
- xii. **Evaluation of Answer Sheets:** The OMR award-sheets are sent to the evaluators along with the answer-sheets. Evaluators have to darken the ovals pertaining to the fields of marks obtained by the examinees.
- xiii. **Remuneration to the Evaluators:** Method for the payment of remuneration to the Evaluators (for answer-sheets, project, viva-voce, field-work and practical) is also completely digitized. The evaluators have to fill-in the Online Remuneration Form provided by the Exam Section, indicating the main fields required for processing of payment. The sheets so generated are verified by the Controller of Examinations (COE) and forwarded to Accounts Section for further process and online payment.
- xiv. **Scanning of OMR Award-Sheets:** The completely filled-in OMR Award-sheets are collected from the evaluators along with the checked answer-sheets. A primary checking is done on OMR Awards by verifying that all the required entries are filled-in by the evaluator. Beyond this stage, the entire process of preparation of result is digitized and there is no human intervention in-between. These filled-in OMR awards are forwarded for scanning using OMR Scanner and the process continuous.
- xv. **Uploading Data in SIS:** After scanning these filled-in OMR awards, the scanned values are uploaded in SIS of all the examinees with the help of customized programming on the computer-systems of examination section.

- xvi. **Proportionate Conversion of Marks**: At this juncture, the conversion of marks also takes place for the various papers in which MM is other than 80/40. This conversion process is also digitized and conversion of marks is done by the SIS itself. These proportionately converted marks reflect in the results as *Marks Obtained*.
- xvii. **Declaration of Results**: Once all the entries are done, a Tabulation Report (TR) is prepared to have a final check on the results so prepared. Thereafter, on the recommendation of the tabulation committee and after approval of the competent authority, the result is declared on the website of UOU.
- xviii. **Online Availability of Mark-sheets**: Once the result is declared on the website, all the examinees are permitted to download their marks-sheets online. The mark-sheets of all the learners of UOU are available online so that they can download their marks-sheets whenever and wherever required. This marks-sheet (a color print-out) of the first year/ previous year is pre-verified and authenticated and it has the same validity as for a mark-sheet issued by the University. These marks-sheets can be verified online from the website of UOU. However, marks-sheets of only the first year and the previous years can be downloaded online. The consolidated final year/semester Marks-sheet or Transcript is issued by the University and that it is not available online.
- xix. **Resolving the Queries**: After declaration of results, if any deficiency is formed either by the learner or it is noticed by the University, such deficiencies are converted into queries and assigned a unique ticket for their rectification. These tickets are forwards to the concerned section and rectified within a period of 10 to 15 days.

- xx. **Award of Transcripts:** After declaration of result, a Transcript/Detailed Marks-sheet (for final year/semester qualified learners only) is generated for all the examinees and the same are forwarded to their LSCs for distribution to concerned learners only.
- xxi. **Award of Degrees:** With the announcement of Convocation, the process of preparation of degrees is initiated. At the time of admission, the learners are motivated to submit their degree-fees, so that, as soon as the Convocation is held for the particular session, the University is able to send the degrees of all the examinees to their given address. The examinees are allowed to change (only once) the address for receiving their degrees. In such case, they have to visit Apply for Degree link on UOU web-portal, and they are asked to proceed further only after verification of their record of using One Time Password (OTP) received on their registered e-mail i.d. with UOU. Upon verification, the system indicates whether degree fee has been paid or not, and if the degree fee is paid, the learner may proceed to apply for degree and update their address for correspondence. He/she can, further, check the entries to be printed on the degree, and if the fees is not paid then they are guided to payment gateway for online payment of degree fee and thereafter they may proceed with the same process as enumerated earlier. After, receiving the entries (online and offline), the degree section of the Examination department initiates the process of preparation of degrees and its dispatch to the learners. All the degrees are generated using SIS and then printed in-house as according to the requirements, standard pattern and with inbuilt security features.

- xxii. **Online Verification of Transcripts and Degrees:** Our relationship with the learner does not conclude with the dispatch of degrees, since most of the time many of these degrees are sent to the University for verification for different Job requirements. Therefore, UOU has started uploading the Degrees of the learners on the NAD Portal. Along with this, the Transcripts and Degrees of UOU have Bar-Code/ Quick Response Code (QR-Code) imbibed in these for immediate verification of these documents of learners.
