

ਮਹਾਰਾਜਾ ਰਣਜੀਤ ਸਿੰਘ ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ, ਬਠਿੰਡਾ

MAHARAJA RANJIT SINGH PUNJAB TECHNICAL UNIVERSITY

(A State Univ. Estd. by Govt. of Punjab vide Punjab Act No. 5 of 2015 and Approved u/s 2(f) & 12 (B) of UGC; Member AIU)

Bathinda-151001 (Punjab), India

ANNUAL REPORTS EXAMINATION 2016-2021



MAHARAJA RANJIT SINGH PUNJAB TECHNICAL UNIVERSITY

Bathinda-151001 (Punjab), India

ANNUAL REPORT EXAMINATION



2021

**INTERNAL QUALITY ASSURANCE CELL
MAHARAJA RANJIT SINGH PUNJAB TECHNICAL UNIVERSITY
BATHINDA 151001**

ANNUAL REPORT EXAMINATION

Prepared by:

- Prof. (Dr.) Karanvir Singh, Controller of Examination, MRSPTU, Bathinda
- Prof. (Dr.) Harish Garg, Deputy Controller Examination, MRSPTU, Bathinda
- Mr. Simran, DEO, ITes, MRSPTU, Bathinda

All rights reserved with MRSPTU

Year 2021

INTERNAL QUALITY ASSURANCE CELL

ANNUAL REPORTS EXAMINATION

2016-2021

Number of outgoing/final year students year-wise during last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
474	466	682	129	162

Number of students appeared in the University examination year-wise during last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
1959	1769	1848	1646	1421

Number of re-evaluation applications year-wise during last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
5	270	183	13	0

Year Wise Report of E-Module Developed/Improved

Sr. No.	E-Module Developed/Improved	Year	Features Released
1	Examination	2015-2016	<ol style="list-style-type: none"> 1. New portal Started add examination process 2. HOD can fill the student (Reg/Reappear) examination system 3. Assigned teachers can fill student internal systems. 4. Notification module.
2	Examination	2016-2017	<ol style="list-style-type: none"> 1. Whole college wise challan generated. 2. Exam paper transfer online as per college and paper wise. 3. Online examination time student attendance. 4. Result system in student account so student can check any previous own result in own account
3	Examination	2017-2018	<ol style="list-style-type: none"> 1. Create new reports in admin section like: <ol style="list-style-type: none"> 1.1 Active session filled form report. 1.2 New use for: exam session billing system 1.3 Whole reporting system was added in different admin ids.
4	Examination	2018-2019	<ol style="list-style-type: none"> 1. Students can fill their regular and reappear form online while login into the examination portal. 2. New DMC and Degree format. 3. Bulk scheme upload module. 4. Online payment System with ICICI. 5. Online services for students. 6. Automation Work for UMC Cases for Examination. The issue was that when a student on whom the UMC case was made, his/her semester upgrade was suspended for some specific date. Now, once the suspension date was completed then College Head Usually complained that they were unable to see the Suspended student after completing their suspension effective date. So, the Examination Team had to Login to the Examination Software and manually perform the operation. However, after performing this automation implementation work Once a student has completed their suspension period after effective suspension date, they will be automatically able to see in the HOD portal when they Log In with their login details.

			<ol style="list-style-type: none"> 7. Examination Code is written for M. Pharma DMC Process for Branches Pharmaceutics, Pharmacognosy, Pharmacology, Pharmaceutical Chemistry, Pharmaceutical Analysis and Quality Assurance. In this Process New Exam Marks Filling, Result Notification Data and DMC Format Was Created. 8. Automation Work of Shaheed Bhagat Singh State Technical Campus (SBS) Degree work was completed. The Examination Department Support team when try use the Generate DMC for this college then they usually face issue due to Scheme Passing marks conflict between MRSPTU and SBSB and due to it DMC were not getting generated. Apart from this, Branch Change Issue in SBS and which lead to unable to generate DMC. All this work was manually performed from the back end by the IT Department. After take over this work was automated.
5	Examination	2019-2020	<ol style="list-style-type: none"> 1. Online documents uploaded by university to student accounts. 2. Mobile Applications for students. 3. Online Examination system whole process new grade system (Regular/Reappear) 4. Scheme uploads the activity which takes an ample amount of time in every semester. The activity which was performed manually by the IT Department for that work was automated and it would take a few minutes to upload the whole scheme. As a result of it ample amount of time was saved for examinations and the IT Department. 5. Students who got upgraded in every semester that task was performed manually so that an upgrade stored procedure was created which took some time in order to upgrade all students in one go. 6. Examination DigiLocker Work from Examination Software was completed. Apart from this Degree PDF Generation Code and Encryption of SHA6 was also Implemented in Examination as well as DigiLocker Server Code.
6	Examination	2020-2021	<ol style="list-style-type: none"> 1. Examination software needs to be modified for push degree requests, Digilocker services code needs to be created at server end, configuring dig locker services which is the

			<p>hardest part as it includes ample amount of testing, server and database configuration and many more tasks. Apart from this, the code at the examination side was done in a fully automated way. After completion of the work in April 2021 Maharaja Ranjit Singh Punjab Technical University became the first technical university whose degree was available on Digilocker.</p>
--	--	--	--

EXAMINATION REFORMS: THE ROADMAP

1. Introduction

As the globalization is taking place, it becomes imperative to build the examination system in such a way that the students are capable of reaching out in the entire world. The growth in economy at an accelerated growth also requires human resources to keep up to the momentum and pace of change and growth. The real challenge lies in giving the right knowledge and evaluating the same so as to create a skilled resource of the young population has, to unleash their potential to take on the baton of change and growth. The focus of the university should be on excellence and employability. A strong system should be there in place which can take care of the needs of students and maintain the quality of imparting education and evaluating the same. With a robust system in place, the prime focus of higher education sector should be that the education be more learner centric, be oriented to conduct and gain knowledge through research, and strive for constant improvements in quality. Innovation and technology can be utilized to accelerate the above requirements. With this, students who have enrolled in higher education programmes can attain requisite skills through the learning outcomes

2. Current Examination system

In India, the education has so far been largely examination oriented. The existing examination pattern exam is more of memory learning. In the affiliating university system, external final University-conducted examination takes place at the end of every semester or every year and this is the sole criteria for the purpose of external assessment. This evaluation system insulates students from the quest of knowledge, excitement of discovery and joy of learning as marks are more important as these lead to better job opportunities.

3. Rationale for Evaluation Reforms

Examinations play a very important role and are the deciding factors in making career of the students of his choice. Their ability to do a job or pursue higher qualifications depends on the degree of knowledge they possess. The changing global environment in industry has brought drastic changes in skill requirement and the decision-making capabilities of the students leading to tremendous pressure on the human resource to perform is there on the human resource. The end term examination for three hours each is the sole tool to decide the future

career of students and it only tests memory learning skills. Present day requirement is not just to possess information but an individual application to every situation in day-to-day life. Memory learning is required but is not adequate to perform in the challenging environment globally. As there is a need to assess application skills or skills such as analysis, creation, evaluation etc., so evaluation system needs to be modified as per the new requirements. Reforms, thus, are much needed to ensure credibility and the outcome of the assessment system. There is a need to have more horizontal assessment modes rather than having one single vertical mode that decides the fate of students, as the horizontal assessment mode aims at overall development of students in terms of their critical thinking, problem solving ability, right application of knowledge, and maintaining ethics.

4. Evaluation Reforms

a) Outcome based Education and Assessment

Learning Outcome Based Education (LOBE) advocates the importance of establishing a clear picture of what is important for students to be able to do, organizing the curriculum, instruction, and assessment to make sure that learning ultimately happens. Evaluation system to be designed in such a manner that the desired outcomes are evaluated in a fruitful manner and the programme/course objectives are achieved

b) Assessment and its types

Student understanding must be based on and accordingly assessed for a variety of learning activities. Student can be assessed by various methods which would include

Based on Purpose: Assessment types include i) Summative (evaluation of students learning at end of instructional unit) and ii) Formative (informal and formal tests administered during the learning process).

Based on Nature of Data: i) Quantitative evaluation is mainly concerned with scholastic achievement in subject-based performance whereas ii) Qualitative is chiefly about evaluating the non-scholastic and probably more important, aspects of the student's personality involving social, emotional, attitudinal and moral/ethical assessment.

Based on Domain: Assessment types include i) Scholastic achievement (assessment of curriculum related classroom teaching and learning) and ii) non-scholastic achievement (assessment of students behaviour, values attitude, emotional stability during co-curricular activities and other structured or unstructured situations inside or outside the classroom).

Based on Measuring Standard: i) Criterion-referenced (uses test score to generate a statement about the behaviour that can be expected of a person with that score), ii) Norm-referenced (Standardized) (whether test takers performed better or not than a hypothetical average student) and iii) Self-referenced (Ipsative) Evaluation (assessment of a person's performance is compared with their own earlier performance to identify improvements, if any)

c) Assessment Rubrics

Introduction: A rubric for assessment, also called a scoring guide, is a tool used to interpret and grade students' on any kind of work against criteria and standards. An assessment rubric provides the means to increase objectivity in assessment and reduce subjectivity; presents a clear expectation on the assessments, and relates it to learning outcomes; ensures consistency, transparency and fairness in the marking process across course instructors for the same assessment type; efficiently grades or marks many assessments for a large group of students; defines clear guidelines for moderation; and provides more objective data for analytics.

Structure of a Rubric

It is usually in the form of a grid, a grading/ marking/ scoring rubric combines the elements of performance, criteria and descriptors to create an assessment tool for the course instructor.

Criteria	Score (5)	Score (3)	Score (1)
Content	The material presented was complete, precise and well supported by facts and figures	The material presented was partially complete and was off-topic at some places	The material presented was incomplete and largely off-topic
Knowledge & Understanding	Seminar demonstrated thorough knowledge and applicability of facts, terms and concepts	Seminar demonstrated moderate knowledge and applicability of facts, terms and concepts	Seminar demonstrated limited knowledge and applicability of facts, terms and concepts
Discussion	The student actively participated in the discussion and was able to give a convincing reply to question	The student had a moderate participation in the discussion and was able to give a	The student did not participate in the discussion and was not able to give a

		convincing reply to some questions	convincing reply to most questions
--	--	------------------------------------	------------------------------------

d) External and Continuous Internal Assessment Modes

Based on the types of assessment and triangulation of assessments, various models of implementation are suggested for both theory as well as practical courses giving different weightage to Internal and external marks. All the models focus on continuous assessments, mixing types, so that ongoing feedback is obtained for both the teacher and the student. It is possible to administer many of one type of assessment at regular intervals or choose the best out of the many.

e) Credit System and Grading

The UGC had issued guidelines to all Universities in 2015 for implementation of the choice-based credit system with a view to offer students choice of courses within a programme with a flexibility to complete the programme by earning credits at a pace decided by the students themselves. The system allowed students to choose inter-disciplinary, intra-disciplinary courses according to their learning needs, interest and aptitude. It was considered as a cafeteria approach and was expected to provide mobility to students. The same has been implemented in the University in 2016 and modifications are being done for betterment of the system.

Most institutions follow the absolute grading system which is a simple procedure wherein the marks obtained by students correspond to a specific grade and grade point. It reflects the individual performance in a particular subject without any reference to the group/class. The absolute grading system has limitations and may be susceptible to some inconsistencies. The relative grading system on the other hand provides relative performance of a student to a group/class wherein the student is ranked in a group/class on basis of relative level of achievement. In this system students are awarded a particular grade on the basis of their relative performance and which is done by assigning grades on basis of a normal curve. This facilitates comparative performance and eliminates negative effect of pass or fail.

f) Credit Transfer Policy

Facilitation of credit transfers is a must to support the continuation of learning and should enable the students to gain the qualification in minimal time provided they meet all minimum standards and requirements. Credit transfers should also facilitate mobility of students among institutions. Students who have completed course-work, at least first year, at some university other than the university to which transfer is sought (may request for transfer of admission to this university. A student may be granted admission only through an admission process that will follow the same policy as for fresh admissions. However, a uniform credit system must be followed by all universities to effect transfer of credits.

h) Question Banks

Teaching and evaluation complement each other; hence changes are not only required of the evaluation aspect, rather changes need to be affected both in teaching and evaluation. Question banks, thus is an attempt to integrate both teaching and evaluation. Preparation of question bank makes use of accumulated experience of teachers which renders effective examining of students. The need for setting of question paper through the question bank system is felt due to an increasing number of students enrolling for higher education programmes thus increasing the load which the existing pattern of examining must bear; curriculum revisions; inter-disciplinary nature of subjects due to integration of course contents from diverse courses; and need for increasing involvement of teachers in the evaluation process. Consequently, there is a constant need for development of standards and quality of examination along with demand for fair and just evaluation process. The question papers that are set using the traditional paper setting procedure by calling experts may lead to repetition of questions and that they just test information recall, whereas, there is a need to test analytical skills of students. Question banks lead to setting of better-quality questions that are valid and appropriate to test the abilities desired of students. Setting of Question Papers through the Question Bank System is a much-needed reform in the examination system.

i) Moderation

Moderation of assessment is an organized procedure which ensures use of valid assessment material and consistent application of criteria, to provide fair academic judgment and reliable outcome in the form of marks or grades. It assures appropriate designing and implementation of assessment activities along with generation of valid and reliable results. Integration of

moderation process with assessment system is imperative for the development of academic quality in higher educational institutions as:

- It addresses any difference in individual judgments of different evaluators.
- It ensures that all achievements in the form of marks and grades across courses reflect achievement of same level of standard.
- It is also carried out to develop a common understanding of the standards and criteria and to recognize performance which demonstrates that standard or fulfils that criteria.

Moderation may be conducted in case there are large number of fail grades or high grades, or when large numbers of students who have received the same grade or clustering of students on letter grades, or when there are discrepancies between grades allocated to individual students in different courses, or to find out the difficulty level of the question paper or whether the assessments modes used cover the entire syllabus or not.

j) Use of Technological Interventions

With the proliferation of different types of access devices, especially mobile access devices, technology has the potential to augment traditional classroom practices and revolutionize learning and evaluation methods. Technology, in fact can be an important driver to enable lifelong learning. Learning and engagement of students is facilitated by use of technology through several modes such as synchronous learning, semi-synchronous learning, blended learning, collaborative learning, flipped classroom etc. MOOC's, especially provided through SWAYAM, are a window of opportunity for lifelong learning and are offered through technology-based platforms. Learning management systems (LMS) are used by institutions to integrate the entire teaching, learning and evaluation process. The Learning Management System may be used by higher educational institutions to deliver academic content in blended form and to assess learning through thesis, assignments etc. Open-source learning management systems such as Moodle, Edmodo may be used for posting content in the form of videos, audios, e-learning modules, live class sessions etc. Use of plagiarism detection software is highly recommended in order to check originality of content.

k) Result Declaration

Declaration of results is a crucial element of the educational system of a higher educational institute on which rests its credibility and reputation. In order to strengthen the process of result declaration it is important to incorporate the following features:

- 1) Timeliness of declaration of result
- 2) Clarity of interpretation of the Result Card

3) Comprehensive Format

4) Accessibility

5) Verifiability



MAHARAJA RANJIT SINGH PUNJAB TECHNICAL UNIVERSITY

Dabwali Road, Bathinda (Pb.) - 151001

(Estd. by Govt. of Punjab Vide Punjab Act No. 5 of 2015) ONLY TECHNICAL UNIVERSITY OF PUNJAB HAVING UGC APPROVAL UNDER 2(f) AND 12 B OF UGC ACT, MEMBER AIU.



INTERNAL QUALITY ASSURANCE CELL
MAHARAJA RANJIT SINGH PUNJAB TECHNICAL UNIVERSITY
(DABWALI ROAD, BATHINDA (PB.)- 151001)