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**IT integration and reforms in the examination procedures and processes**

The Controller of Examination (CoE) is handling the examinations of the institute from the year 2015.

The CoE made many modifications in the process based on the inputs received from the stakeholders or the gaps observed so far. Some of the major modifications done are given as under:

Previous Practice and problems	Modification Made to overcome the problems.	Modification made in the Academic Year
<ul style="list-style-type: none"><li>Question papers (sealed enveloped) were required to be handed over to the CoE office.</li><li>The Course Instructor has to visit the CoE office in person.</li><li>The submission of question papers using this method was possible during the working hours only.</li><li>In case of missing page(s) or unclear print outs, the question paper printing process was affected.</li><li>Record keeping was manual for the same.</li></ul>	<b>Question Paper Upload System (QPUS):</b> DA-IICT has introduced QPUS for online submission of question paper. The system is locally configured on Moodle server which allows the users (pre-defined) to upload the question papers pertaining to their courses. The system has auto-email notification feature which sends two-way communication (faculty as well as CoE) regarding any action taken by the faculty. Considering security, the QPUS is made available on intranet with the restricted IP range only. The QPUS permit the user for uploading multiple question papers (upto 10 files) with the capacity of 20 Mbs in the each course. The QPUS has feature of adding comments, which allows the user to mention any special instruction related to Question Paper printing. The system generates log of each action taken by faculty which can be used by the authority for related analysis. The CoE can set the deadlines of question paper submission for the faculty which helps the timely submission of question papers. The QPUS also auto-generates the depository of all the question papers uploaded from the time to time.	AY 2016-17
<p>The schedules were prepared manually. The process had following issues.</p> <ul style="list-style-type: none"><li>Time consuming</li><li>Required human</li></ul>	<b>Examination Schedule Generator (ESG):</b> Earlier, in the DA-IICT, all the exam schedules were generated manually. It took a lot of time and efforts to handle several constraints while designing a schedule. There were always a threat of	AY 2018-19



<p>intervention</p> <ul style="list-style-type: none"> <li>• High chances of error and omissions</li> <li>• Lack of Resource optimization</li> </ul>	<p>errors and omissions.</p> <p>For a small modification, entire schedule got affected and it is a cumbersome process which is now handled by a system named <b>ESG</b> effectively and efficiently. The ESG takes care of following criteria while designing the schedule.</p> <ul style="list-style-type: none"> <li>• Rationally utilizing room capacity and optimizing distribution.</li> <li>• Minimization of invigilation</li> <li>• Ensures no overlapping of exams</li> <li>• Defining priority of class rooms / floor</li> <li>• Minimize the use of resources and number of time intervals.</li> <li>• Scope of customization</li> </ul>	
<p>Earlier, the question papers were printed either by faculty themselves or with the help of FB secretary/ staff. Problem with this process were as under</p> <ul style="list-style-type: none"> <li>• Direct involvement of Cls was necessary</li> <li>• No central monitoring and record keeping</li> <li>• Missing resource optimization</li> <li>• Threat of unauthorized access</li> </ul>	<p><b>Centralized Printing of the Question Paper (CPQP):</b> Before the set-up of the CoE office, there was a practice of printing question papers at various places of the campus. The faculty were used to print the question papers of their respective courses with the help of photocopy operators or on their own. We observed that:</p> <ul style="list-style-type: none"> <li>• There were no centralized records available for the printed question papers</li> <li>• In order to ensure secured printing, the course instructors were required to closely monitor the printing at various places.</li> <li>• Limited availability of resources at some places.</li> </ul> <p>Thus, we introduced CPQP wherein all the question papers are printed at only one location, i.e. in the office of CoE. By doing so, we could also address issues like centralized records of question papers printing, optimization of the resources and adding the security to the task.</p>	AY 2015-16
<p>Previously, faculty themselves (or their</p>	<p><b>On Time Delivery (OTD):</b> The CoE office also ensures that the required number of</p>	AY 2015-16





<p>authorized person) used to bring the question papers to the exam hall.</p> <p>This practice has its own limitations as under:</p> <ul style="list-style-type: none"> <li>• For faculty (or their authorized person), it was much required to reach to the exam hall on time in order to commence the exam as per schedule.</li> <li>• The responsibility of secure transfer of the question papers and timely delivery of the same was on individual course instructors.</li> </ul>	<p>printed question papers in a sealed envelope are directly delivered to the exam venue through CoE control room. Before the question paper reaches to the venues, the packets undergo multiple checks to make sure that all the question papers are properly printed and there are no defects. The OTD has relieved the course instructors from bringing their question papers on their own to the exam venue.</p>	
<p>We observed that there was no central depository of question bank /question papers available earlier, which is much needed for various reasons.</p>	<p><b>Depository of Question Papers or Question Banks (DQP/QB):</b> The CoE introduced depository of the question papers for the exams which are administrated by them. These question papers are saved on a drive in a soft copy formats also. Such depository is very much helpful and handy when it is required to be accessed by any authority or inspecting agency.</p>	<p><b>Soft copy depository created from AY 2016-17 onwards</b></p>
<p>There were no standard formats for keeping records like, invigilator's attendance, question paper movement registers, answer book receivers, previous schedules, seating plans etc.</p>	<p><b>Record Keepings - Invigilators, Answer Book receivers (RK):</b> The CoE office maintains records of invigilators attendance, answer book receivers, previous schedules, seating plans etc. for future requirements.</p>	<p><b>AY 2015-16 onwards</b></p>
<p>Earlier the students were used to keep their belongings in the exam</p>	<p>Introducing bag drop zones: A designated place was identified for keeping the belonging.</p>	<p><b>AY 2017-18 onwards</b></p>



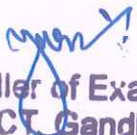
rooms only, which was creating a number of problems.		
Assistance to the differently abled student was missing earlier.	Notified and provided assistance to the differently abled students by : <ul style="list-style-type: none"> <li>• Providing writer facility</li> <li>• Allotting separate place to write the exam.</li> </ul>	AY 2016-17 onwards
Framing and notifying exam rules for differently abled student was missing earlier.	Created in accordance to the directives issued by various authorities including central govt.	AY 2019-20 onwards

**Note:**

During the ongoing Covid – 19 periods, we conducted/ are conducting the exams using online mode as under:

- Winter 2019-20 exams were conducted on Google Classroom which was online-open book mode. (on-time delivery of question paper with fixed time limit to submit the answer books using pen paper scan upload mode)
- Autumn 2020-21 onwards exams are conducted on the OPEP (Online Proctored Exam Platform).

We are constantly observing the process and making necessary changes, adopting new practice after due discussions and directives of the Exam Committee in the ongoing exams.

  
**Controller of Examination**  
**DA-IICT Gandhinagar**

