OneX
End-to-end Examination

COEMPT
Celebrating 22 Years

About COEMPT EDUTECK

COEMPT EDUTECK is an ISO 9001 – 2015, ISO 27001:2013 and ISO 20000-1 2018 certified organization which has been providing technology enabled solutions related to learning, examinations and assessments.

We have been bestowed with the following awards:

- World's Greatest Brands – Asia & GCC - Process Reviewers - PricewaterhouseCoopers
- Best e-Learning companies in India at the World Education Conference
- Best Technology Solution Provider at the World Education Summit

We have 20 years of rich and diversified experience of working with educational institutions through our innovative turnkey technology solutions in the teaching, learning, examination and evaluation space that have empowered our customers to positively impact their students and practice transparency in governance.

Products and Services

EXAMINATION SOLUTIONS

OneX
end to end examination

OnMark

LEARNING SOLUTIONS

TekEdge   **EduLib** .in   Digital **LAB**s

Sales Enquiry

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COEMPT

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OnMark

Affiliation | Admission | Pre-Examination | Question Bank Management
Remote Proctored Online Examination | Onscreen Evaluation | Post-Examination
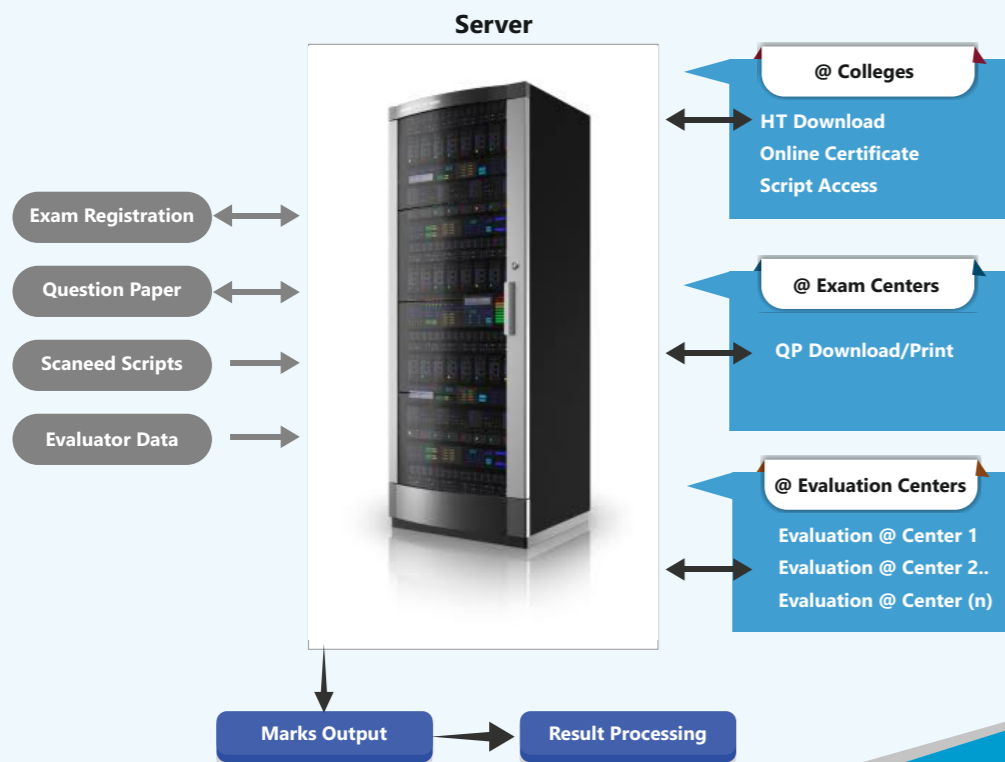
One of the most critical duties of an educational institution is to conduct examination and provide required certificates and awards to candidates who fulfill the pre-requisites.

The examination division is considered as the backbone of any educational institution as it primarily deals student registration, appointments (paper setters, examiners, moderators, and supervisors etc), publishing examination schedule, conduct of examinations, answer-book evaluation, storage of evaluated answer books, processing of results, and awarding certificates

With the growing number exam takers the traditional systems seems to a misfit and to coup with this change, educational institutions are looking for customized technology solutions that will help them to effectively address many challenges they face in providing better governance and absolute transparency.

Our 'OnMark Solution' is designed to efficiently address the requirement of the examination division as the same has majorly covers all standard requirement pertaining to examination, evaluation and result processing which can be customized to suit an educational institutions specific requirement.

Solution Overview

Server

- @ Colleges
  - HT Download
  - Online Certificate
  - Script Access

- Exam Registration
- Question Paper
- Scaneed Scripts
- Evaluator Data

- @ Exam Centers
  - QP Download/Print

- @ Evaluation Centers
  - Evaluation @ Center 1
  - Evaluation @ Center 2..
  - Evaluation @ Center (n)

Marks Output → Result Processing

Pre-Examination

- ✓ Student Registration
- ✓ Examination Application
- ✓ Evaluator Management
- ✓ Course Management
- ✓ Hall Ticket Generation

'Pre-Examination Module' has been developed considering standard transactions of educational institutions. Critical tasks pertaining to course enrollment and examination application that students, administrator and staff need to perform, are automated that provide ease of use. Role based access, easy navigation features and measureable outcome enhance the user experience of the application.

Pre-Examination Modules

- Administration
- Academic
- Student Registration and Enrollment
- Payment
- Hall Ticket Generation
- Exam Center Management etc.,

This solution helps users with readily available information that empowers educational institutions to facilitate better governance and absolute transparency while they perform different tasks.
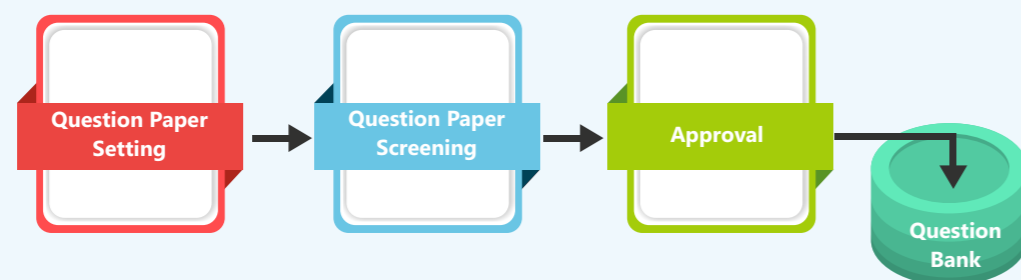
Question Bank Management

✓ Question Paper Generation

✓ Secured Question Paper Delivery

'Question Bank Management Module' is designed to empower educational institutions to continuously develop their unique repository of approved questions.

This solution has mainly three modules

- **Question Authoring Module** – This module enables educational institutions to facilitate role based contribution of questions using built-in question editor based on pre-defined course structure and question type. The question contributed can be reviewed and approved or rejected by the assigned authorized personnel ('s).

- **Question Paper Generation Module** – This module enables educational institutions instantly generate question paper based on configurable parameters saving them precious time and effort. The institutions can also add unique identification number or code and print it as a watermark to identify question papers in case of any malpractices by examination centres.

| Question Paper Setting | → | Question Paper Screening | → | Approval | → | Question Bank |

Question Paper Generation Process

- **Secured Question Paper Delivery Module** – This module uses a robust technology platform that works on complex encryption-decryption algorithms to deliver question papers to examination centres securely. The educational institutions can upload multiple question papers of different courses securely based on pre-defined timelines. Authorized personnel can download the desired question paper('s) only on validated computer systems('s). Single or multiple question paper for different subjects can be uploaded beforehand and the authorized personnel can decide on which question paper to be sent before the commencement of exam. This helps the institutions address question paper leakages and also improve the quality exam.

Stage 1 — Configure Portal

Stage 2
- Authenticate College Computers(s)
- Provide User ID and Password

Stage 3 — Question Paper Upload by University & Encryption E.G., 30 Minute Before Exam

Stage 4 — At Exam Centres
- Download Question Paper & Decryption Key E.G., 10 Minutes Prior to Exam
- Decrypt Question Paper

Stages to Enable Secured Question Paper Delivery

Security Features Question Paper Delivery at Centres

- Built-in user authenticate module allows authorized users to access the secured server where question papers are uploaded
- Question paper('s) are encrypted using the platform before it is uploaded
- Computer system authentication features enables the upload and download of question papers on specific computer systems only
- Role based access to perform specific task like uploading question paper('s), downloading question paper('s) and for checking audit trails/reports
- Reporting module is designed as a dashboard to enable real-time question paper upload and download status update for each of the center

Answers Book Evaluation

✓ Answer Book Digitization
✓ Onscreen Marking

'Answer book evaluation module' consists of two major application i.e., image processing application and onscreen marking application to process the answer book for evaluation.

The answer-book goes through the following processes

Scanning/Digitization:	Answer book is scanned and uploaded for evaluator to securely access and mark;
Onscreen Marking:	Markers log-in to evaluate the student answer book and award marks;
Mark Export:	Once the answer books are evaluated, the marks can be either exported in the format as desired by the educational institution or it can be sent to our result processing module for tabulation

To ensure quality and error free evaluation the onscreen marking application can be configured as per the pre-define parameters set by the education institution. Other checks and balances can also be configured to ensure quality output while delivering digitization of answer-book. In-built control components in the onscreen evaluation module ensure quality error-free evaluation.

Answer Book Digitization Module

The uniqueness of our 'Answer Book Digitization Module' is that we specialize in facilitating onscreen marking after digitizing the answer book using book-scanners; this is done to ensure that the answer-book is not tampered or cutting the answer book spine.

This process has been adopted to ensure that the educational institutions maintain the originality of the answer book and have an upper hand to respond to queries or legal cases pertaining to the evaluation process.

We have designed and developed proprietary scanners, proven project management methodology and quality control parameters to ensure smooth and quality digitization work.

The digitized answer books are securely uploaded to a server which integrated with a range of security features (Unified Threat Management - UTM) firewall, gateway anti-virus, and intrusion detection and prevention capabilities.

The answer book will be made available for evaluation as per the readiness of the education institution and availability of evaluators.

Onscreen Marking Module

'Onscreen Marking Module' is a proven and widely accepted solutions that can be configured based on pre-defined requirements for answer book evaluation of the educational institutions.

The institutions can ensure quality evaluation basing on the any or all of the following parameters:

● Double (OR) Quadruple Marking,
● Addressing of NAs (Not Attempted),
● Checking for Deviation, and
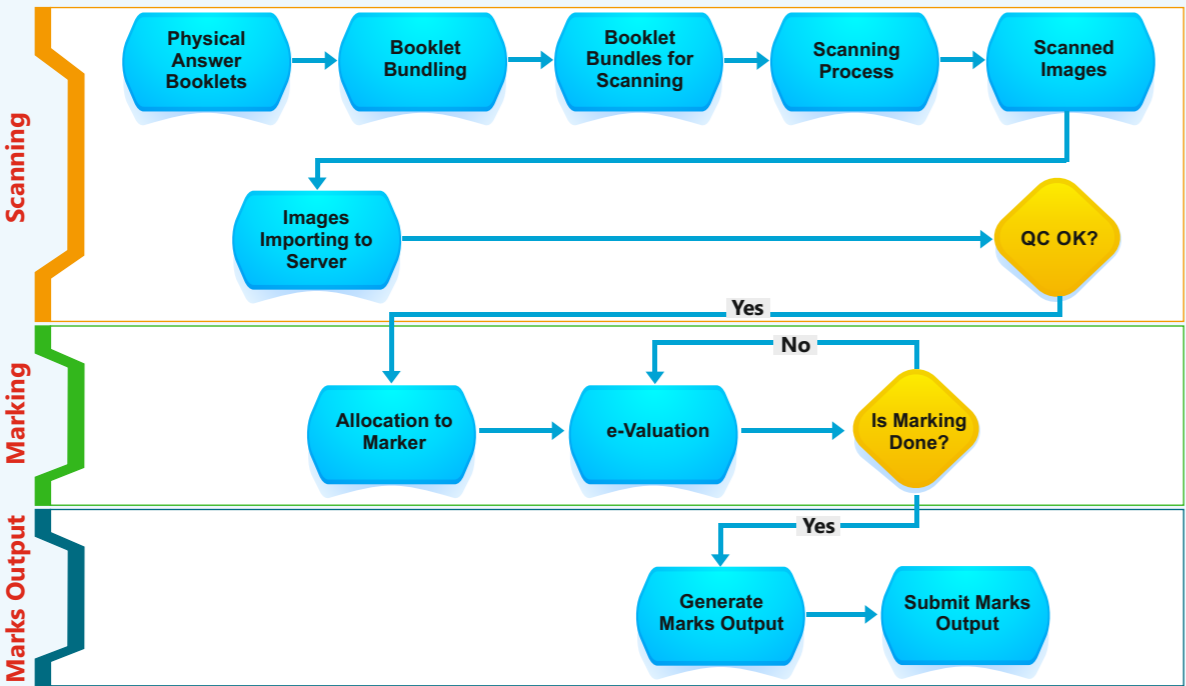● Escalate to 3rd (OR) 5th Evaluator

Onscreen Marking Module is secure and scalable and can be implemented on Intranet. The students anonymity is maintained across the system and answer books can be randomly assigned and rendered to evaluators (online).

Stringent authentication (i.e., login through a uid and pwd or through OTP sent to a validated mobile and/or a biometric verification) can be configured. Preconfigured mark schema and auto totaling feature ensure that there are no totaling errors.
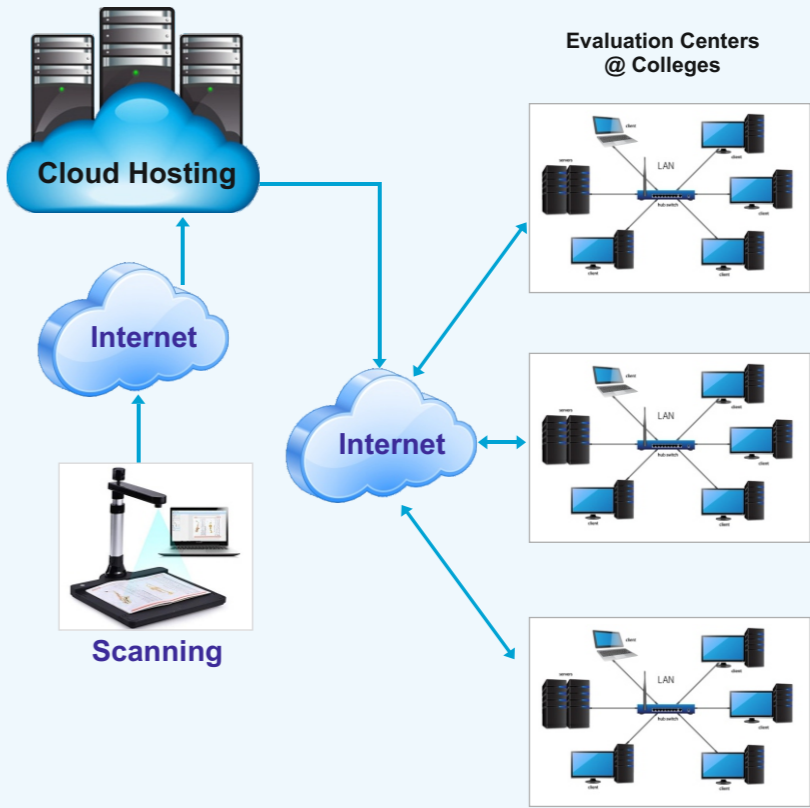
The evaluators can use appropriate annotation like tick symbol, wrong symbol, underline or pen tool while they digitally evaluate answer book the same will be available to students when the view their answer book.

Evaluator can insert comments question wise or for the whole answer book. Relevant question paper and answer key can be displayed to the evaluator during the evaluation process which the can refer during the evaluation process

The tool provides a thumbnail view of the answer book that will enable the evaluator to navigate the different pages with absolute ease

Workflow of the Answer-Book Digitization and Onscreen Marking

Answer Book Delivery Framework to Provide Onscreen Marking

Advantages of Onscreen Marking

- Answer books can be secured and easy processed and managed i.e., store, archive and retrieve
- Totaling mistakes can be nullified
- Ensures accurate and transparent evaluation of answer books
- Ensures on-time result declaration
- Effectively handle student queries, and court cases pertaining to evaluation
- Improves the quality of evaluation and image of the university
- As no paper to handle it enables university to optimize their logistics
- Evaluation is foolproof as it is anonymous marking meaning the evaluator will not know who the script belongs too etc.,
- Onscreen making empowers the university to improve the evaluation quality
- Enhances evaluator productivity
- Real-time monitoring of the progress of activity allows the university to take timely decisions like augmenting evaluators, modify marking quota

Post Examination

The overall purpose of the Post-Examination Module' is to ensure that the results of examinations are presented accurately and clearly, and that they reach the students in a timely and secure manner. This module is designed to ensure that the examinations results are correctly interpreted in the best interest of all its stakeholders.

Result Processing

The result processing module is a very important part of the OnMark Solution that has been built on standard components required by educational institution to process/publish results. The result processing module facilitate importing allotted marks in desired format or result tabulation, updating student data pertaining to absentee or malpractice, and facilitate the educational institutions with standard reports that can be pre-configured as per the unique requirement of the educational institution to publish or display.

Re-verification Module

Post the result declaration, the re-verification module can be customized to empowers the educational institution to provide secure online access to students to download and view their evaluated answer-books. After reviewing their evaluated answer-books if students wish to apply for re-verification, they can do so by filling an online form and paying the required fees using online payment option.

Certificate De-materialization Module

'Certificate De-metallization Module' empowers the educational institutions to curb fake certificate issues by creating a electronic repository of certificates and provide easy verification of their certificate from any third party be it a company, Indian or foreign University.

Online Examination

The online examination module has been designed to conduct home / centre based manual / remote proctored online examination or tests, to create assessment to continuously evaluate the performance or progress of students, and/or to facilitate instant certification. The online exam module is a browser based examination management module that enables you to generate questions and organize them into exams, quizzes, or tests, conduct assessments, and view the results through pre-configured reports.

Broad features Certificate De-materialization Solution

- Seamless data extraction from various source applications from various institutions
- Intelligent creation of relevant certificates through GUI based template designer
- Security ensured by digital signatures and PKI encryptions
- On demand generation of duplicate certificates
- Validation and Authentication of Certificates
- Multi-lingual capability to send mark-sheets in regional languages
- Demographic based reports and analytics
- Automated e-Delivery through email and web hosting
- Dedicated portal for electronic presentment and payment
- Digital Signatures

  - ✓ Can encrypt the mark-sheets, and certificates with digital signature
  - ✓ Provide external agencies to login and verify and validate these signatures using public key to verify the authenticity of these certificates

Self-Care Functionality of Certificate De-materialization Solution

- Registering students and allowing authentic students to log in
- Displaying student summary – Subjects taken, marks, etc
- Graphical representation of marks semester –wise
- View mark-sheets in PDF
- Registering complaint requests and complaint request tracker
- Complaint registration
- University information corner
- Integrating with 3rd party payment gateways
- Integration with university portals

Features of Online Examination Modules

- Author questions and classifying them into 10 different question types (objective and descriptive) and instant generation of question paper
- Design customized test and define the test time, minimum and maximum marks, and classifying the tests into fixed or random etc.,
- Users enrollment and validation prior to the online exam i.e., one-time or before every examination instance
- Secured online examination delivery by providing pre-defined login credentials and authorizing tests in specific ICT environment etc.,
- Instant Report generation
- Remote proctored objective / descriptive answer based online examination