

Academic information

BUNDELKHAND UNIVERSITY

















"QUALITY: ADDING VALUE TO HIGHER EDUCATION"

"Education is the manifestation of perfection in Man"

Swami Vivekananda

Paradigm Shift

Old Paradigm

- What we give to the students
- Inputs
- Faculty Teaching
- Curriculum
- Educational activities as an end
- More quantitative (how much)

New Paradigm

- What the students can/are able to do
- Outcomes
- Student learning
- Education
- Educational activities as means to an end
- More qualitative (how well) as well as quantitative

What is driving accreditation of higher education?

Public accountability & higher education

Changing contexts, few boundaries

Demand for access

Reauthorization of Higher Education

International pressure... professional mobility

Our Vision for ICT Enabled Institution

- Involvement of all stakeholders in institutional development
- Evolve as efficient, effective, secure, transparent and result oriented system
- Provide requisite technological support for teaching and learning
- Ensure technical support to all institutes on campus and affiliating colleges

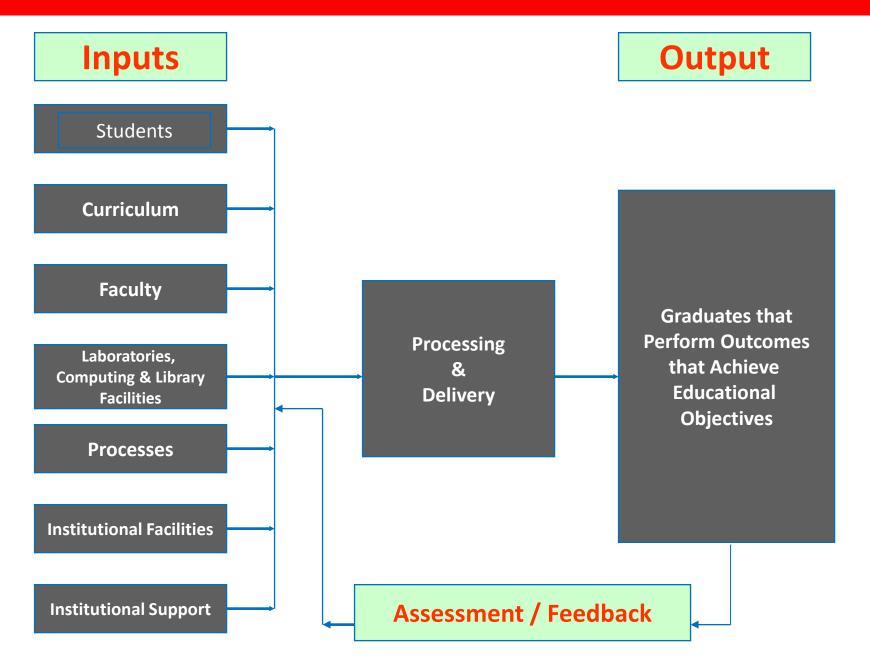
ICT Tools: in Practice

- Online Admission System
 - University Campus (Entrance / Direct Admission)
 - Affiliating Colleges through University Website
- Fees Submission System with Payment Gateway
- Monitoring the records of faculty and staff in affiliated colleges
- Student Login, Management & Information System
- Examination Management System
 - Pre-Examination
 - Post Examination

ICT Tools: in Practice

- Digital Evaluation System /On Screen Evaluation
- Result Processing System
- Secured Degree & Mark sheet Printing
- Virtual Classroom, E-Learning and Capacity Building
- Linked with National Programme on Technology
 Enhanced Learning (NPTEL) of Ministry of HRD
- Budget & Financial Accounting System
- Library Management System
- SMS Integration with SMS Package

ASSESSMENT MODEL



On Screen Evaluation

TATA CONSULTANCY SERVICES

Experience certainty.



Hardware + Network + Software + Services

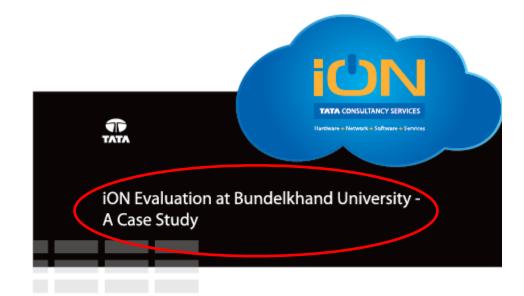
ION is Tata Consultancy Services' strategic unit for Small and Medium Business. ION provides end-to-end business solutions to the SMB segment, the growth engine of the economy. ION caters to the needs of multiple industry segments with best practices gained through TCS' global experience, domestic market reach, skills, know-how and delivery capabilities.

For more Information, visit us at www.tcslon.com

Contact

To know more about the iON Evaluation at Bundeikhand University - A Case Study Toll Free Number 1800 209 6030 ion.salessupportgecs.com





Ensuring an accurate, user-friendly and transparent evaluation

The Business

Bundelkhand University (BU) is a public university based in Jhansi, Uttar Pradesh, India, Founded in 1975, it has professional, technical and vocational study programmes along with facilities for research. The University has grown rapidly and each successive administration has

Engagement Overview

ION Digital Evaluation was implemented at Bundelkhand University as part of the university's initiative to technology-enable its examination and evaluation processes. The first phase of this engagement with TCS focused on deploying the solution for nine streams across

iON Digital Evaluation

Challenges

- Inconsistency in marking across evaluators
- Errors/Omissions: Missed sections, totalling errors
- In-efficiency: Delays in results publishing

Solution

- Answer Books digitized
- Evaluators & Answer books on the Cloud
- Marking Scheme to drive uniformity
- Auto Governance checks like totaling, reviews

iON

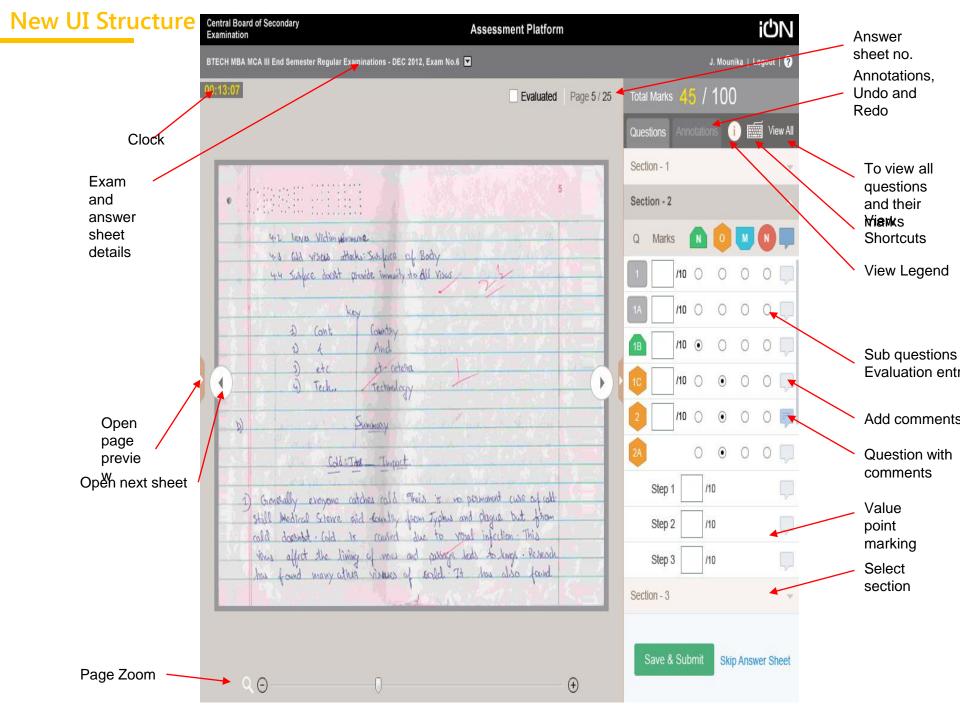
Digital Evaluation

Impact

- Evaluation Cycle
 Time reduction by
 30%
- Lesser Post results Queries
- 100% elimination of totaling errors
- Transparency in evaluation process

Engagement

- Implemented for 9 streams in B.ED & B.Tech exams
- Covering 152 subjects
- Using 45 certified evaluators
- Evaluated 26,000 answer sheets within 4 weeks



Proposed: Evaluation

- Make available the scripts on tablets for evaluation at distant places
- Signature track for avoiding proxies
- Online transfer of marks to Examination Master
- Continual Assessment in Semester System by introducing online testing through hierarchy of MCQ's arranged as per difficulty level (unitised in terms of systematic body of knowledge) to facilitate Choice based Cafeteria Approach Credit

ICT Tools: In Process

- Hostel & Mess Management System
- Course/Subject Master Management Module
- Faculty Login & Course Mapping Management
 System
- Grievance Management System
- Right to Information Management System
- Legal and Court Cases Management System
- Letter & File Tracking System

ICT Tools: In Process

- Digitization of Old Documents ***
- Training and Placement Management
 System
- Alumni Module
- E-procurement, Stores Inventory, Asset
 Management System
- Helpdesk
- HR & Payroll with GPF & CPF

Bhundelkhand University gets Smart

iON Demat Services

Challenges

- Increasing number of fake degrees and certificates
- Increasing instances of tampered certificates
- Huge delays in student background check

Solution

- Special print media & printing
- More than 10 inbuilt Security features
- Technology ensures
 Certificate is tamper
 proof
- Student data & documents on the Cloud

iON

Degree Demat Services

Impact

- Degree Certificate issuance time reduced by 50%
- Integrity and brand of the institute maintained
- Reduced cost and stress in document verification

Engagement

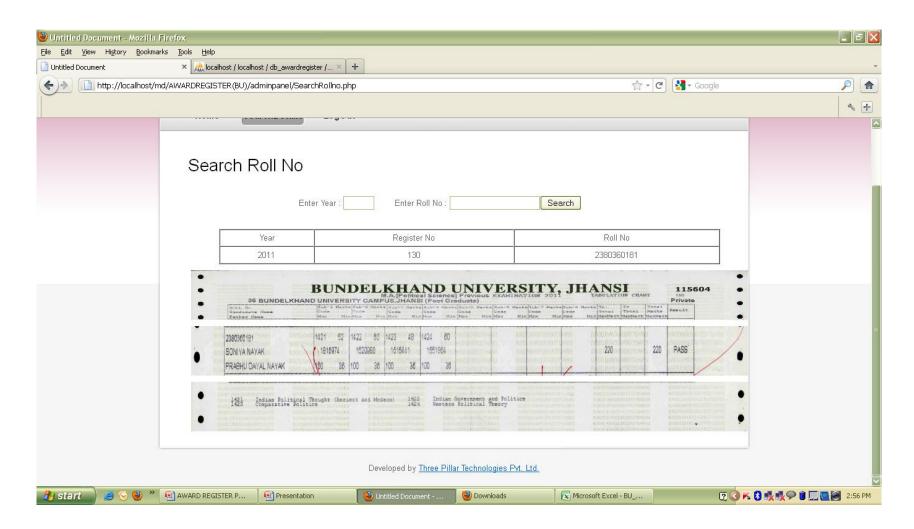
- Convocation Degrees for all programs going forward
- 13,000 Certificates delivered as of Feb 2014
- 37,000 Certificates under execution

Scanning of Award Register Sheet

Scanning of pages at required resolution and saving Images in the specified folder



View of the single roll number



BU embraces Digitization of Records

iON Demat Services

Challenges

- Inefficiency: Manual extraction from ledgers for verification
- Maintenance : fading chemical ink , tearing of pages
- Scale : Increasing number of student records

Solution

- Digitize existing student records
- Storage & retrieval on per record basis
- UTF 8 Compliant
- Special Encryption Technology
- Digital Signatures of Registrars stored securely

iON

Past Data Management

Perceived Impact

- Easy access per record basis
- Single click verification
- Unlimited and Hassle free archival of data

Engagement

- Past Data of over 10 years under consideration
- 3,00,000 records going to be digitized

Limitations and Bottlenecks

- Lack of Manpower
- Insufficient Funds
- Poor Connectivity
- Reluctance of People
- Lack of Training
- Poor Infrastructure
- Erratic power supply
- Insufficient bandwidth

Requirements

- Operational Training opportunities
- Onsite Technical Manpower
- A well equipped Information Centre with connectivity and manpower for each affiliated college
- A Data Centre and Mirror Server for Data Back up
- In-house solutions for up-gradation and maintenance

Road-maps

- The <u>Virtual Learning modules</u> need to be made modular, interactive and animated specifically for scientific applications. E.g. Dissection process for science students explained at slide.
- Operationalising access, equity and quality through effective and interactive virtual learning.
- Managing scarcity of faculty, classrooms and economic resources through effective Virtual learning modules
- Continuous upgradation of curriculum through interaction on trends and requirements with industrial houses and corporates at global level.
- Efficient Examination Reforms by ensuring continuous learning and evaluation in every semester.

Road-maps.....2

- Strengthening and equipping the library by facilitating management of information overload with economies of space and infrastructure
- Establishing database links with various Boards for 10+2 results to facilitate verification and authentication for admissions in higher studies
- Provision of common platform/link with UG results of all universities for verification and authentication for PG admissions
- Establishment of data warehouse at state level for availability of records of students, faculties, affiliated colleges for the reference and use of Governor as well as other authorities of State/Central Govt.
- Introduction of Dual Shift system due to flexibility in Learning Schedule thus ensuring access to maximum masses.

Thanks QUESTIONS?

Interactive Biology Lesson – Frog Dissection

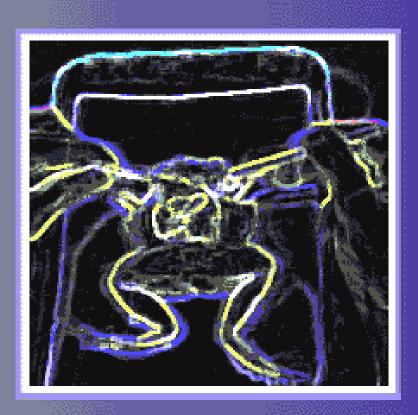


Preparation

Skin Incisions

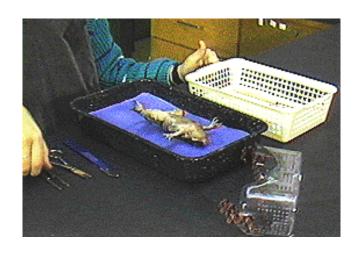
Muscle Incisions

Internal Organs



Click on one to select

Preparation





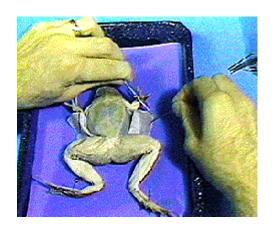






Horizontal Incisions Between the frog's Legs.

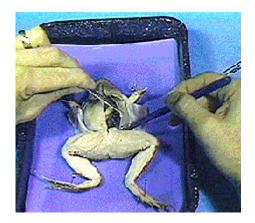




Separating the Skin and Muscle and Pinning the Skin Flaps to the tray





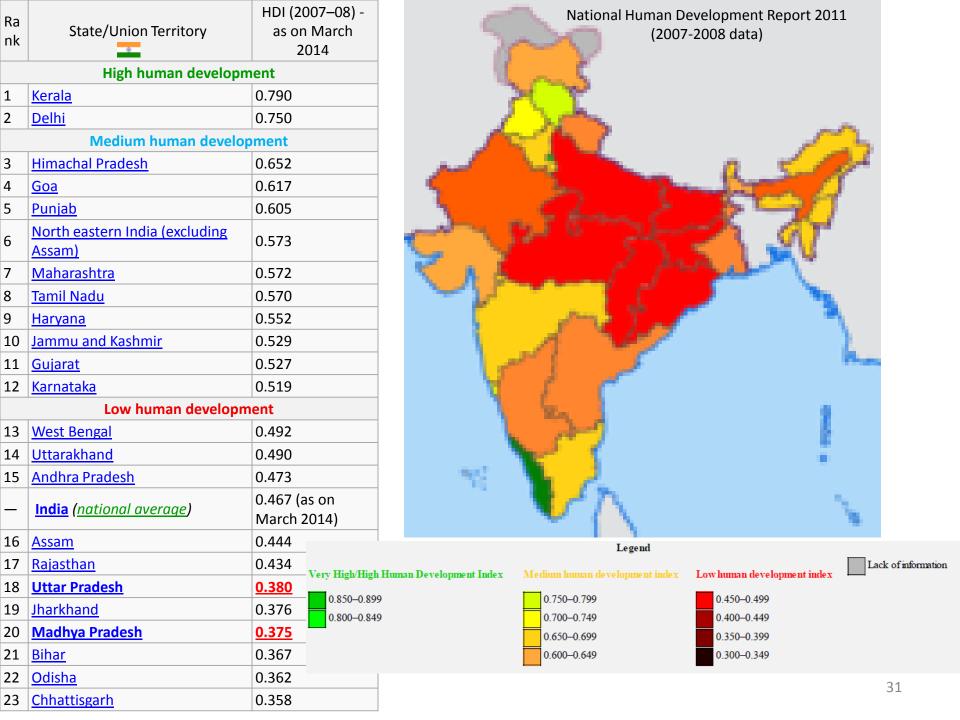


District-wise colleges

<u>District</u>	No. Of Colleges	<u>Status</u>
Banda	20	(Govt. 1, Aided-2, SFS-17)
Chitrakoot	13	(Govt. 2, Aided -1, SFS-10)
Hamirpur	15	(Govt. 3, Aided-1, SFS -11)
Jalaun	43	(Govt. 1, Aided-4, SFS- 38)
Jhansi	33	(Govt.2, Aided-4, SFS-27)
Lalitpur	07	(Govt.3, Aided-1, SFS-3)
Mahoba	10	(Govt. 2, Aided-0, SFS-8)

Population and Literacy Trends - Bundelkhand Region (as per Census 2011)

District	Total Population	Male	Female	Growth %	Average Literacy	Male Literacy	Female Literacy
Banda	1799541	966123	833418	17.06	68.11	79.38	54.03
Chitrakoot	990626	527101	463625	29.29	66.52	77.42	54.03
Hamirpur	1104021	593576	510445	5.78	70.16	81.27	57.19
Jalaun	1670718	895804	774914	14.87	75.16	84.89	63.88
Jhansi	2000755	1061310	939445	14.66	76.37	86.58	64.88
Lalitpur	1218002	639392	578610	24.57	64.95	76.41	52.26
Mahoba	876055	466937	410118	23.66	66.94	77.72	54.65



Faculties on the Campus

- 1. Faculty of Agriculture
- 2. Faculty of Arts
- 3. Faculty of Commerce
- 4. Faculty of Law
- 5. Faculty of Medicine
- 6. Faculty of Science
- 7. Faculty of Education
- 8. Faculty of Engineering & Technology

Institutes of Higher Learning

- 1. Dr. Rangnathan Institute of Library And Information Sciences
- 1. Institute of Economics and Finance
- 2. Institute of Management Studies
- 3. Institute of Tourism and Hotel Management
- 4. Institute of Earth Sciences
- Institute of Mathematics & Computer Applications
- 6. Institute of Music And Fine Arts
- 7. Institute of Food Technology
- 8. Institute of Engineering and Technology
- 9. Institute of Architecture and Town Planning I
- 10. Institute of Basic Sciences
- 11. J.C.Bose Institute of Life Sciences
- 12. Institute of Agriculture Sciences
- 13. Dr. B.R.Ambedkar Institute of Social Sciences
- 14. Institute of Home Science
- 15. Institute of Education

- 16. Major Dhyan Chand Institute of Physical Education
- 16. Institute of Forensic Sciences And Criminology
- 17. Bhaskar Institute of Mass Communication and Journalism
- 18. Institute of Languages
- 19. Institute of Pharmacy
- 20. Institute of Biomedical Sciences
- 21. Institute of Rehabilitation Sciences
- 22. Institute of Information Technology
- 23. Institute of Environment & Development Studies
- 24. Babu Jagjeevan Ram Institute of Law
- 25. Pt. Ram Narayan Sharma Institute of Ayurveda And Alternate Medicine

> Login	
	All fields are mandatory
OSM: Password:	104 ••• Login Forgot Password

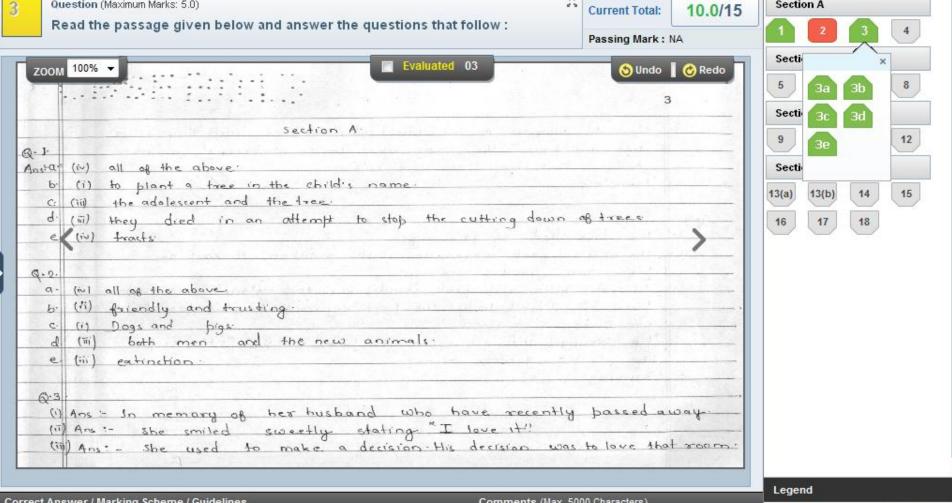


Welcome MCA302Reviewer



Please take a moment and read the instruction below before you get started

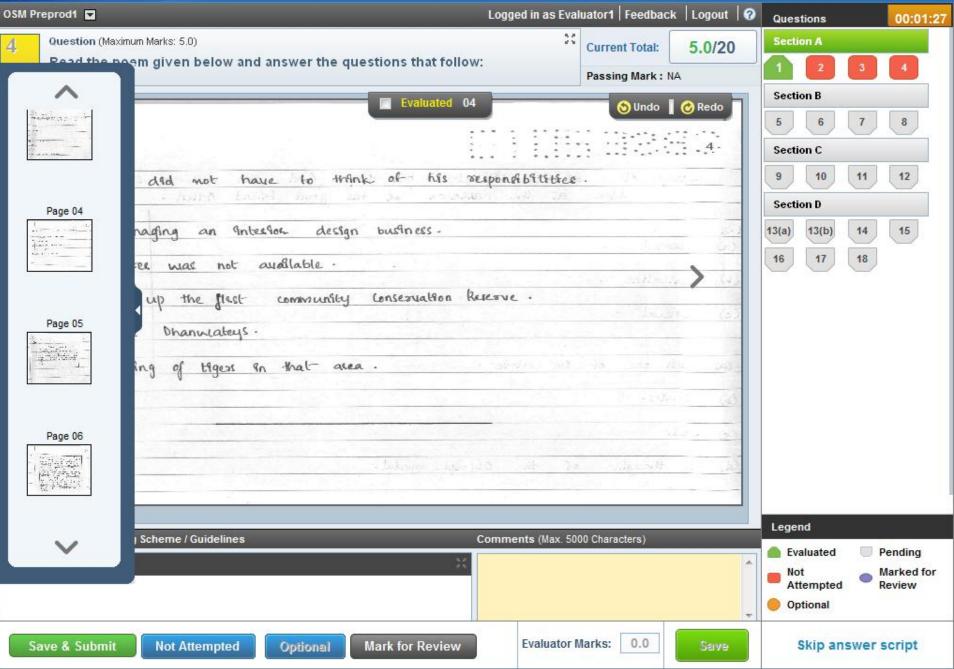
- . Choose the subject and medium for which you want to start the answer script evaluation (Ex: choose "English") and click on Start Evaluation
- You will be guided with a demo for the first time before allocation of answer script
- After an answer script has been allocated, you may choose to use the button "Skip answer script" to skip an answer script choosing appropriate reason
- Evaluators are responsible for the quality of the evaluation



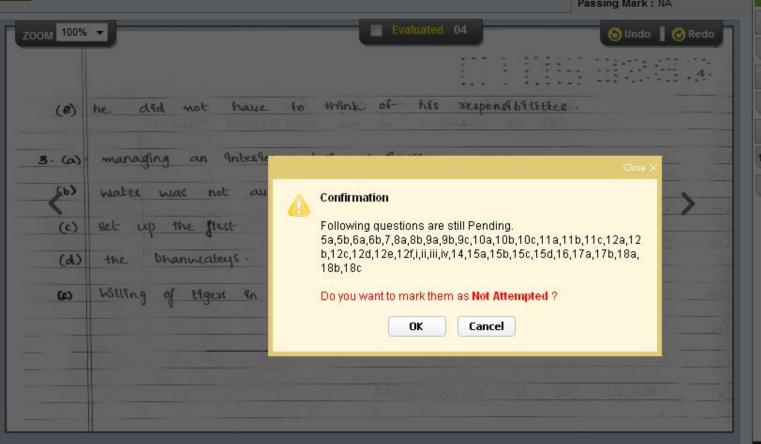
Correct Answer / Marking Scheme / Guidelines Comments (Max. 5000 Characters) Evaluated Pending Answer Marked for Attempted Review Optional 5.0 Save & Submit Not Attempted Mark for Review Evaluator Marks: Skip answer script Optional

00:01:03





Attempted Review Optional Evaluator Marks: 0.0 Skip answer script Mark for Review



Section C 9 10 11 12 Section D 14 15 13(a) 13(b) 16 17

Mark for Review

Evaluator Marks: 0.0

Not

Marked for Review

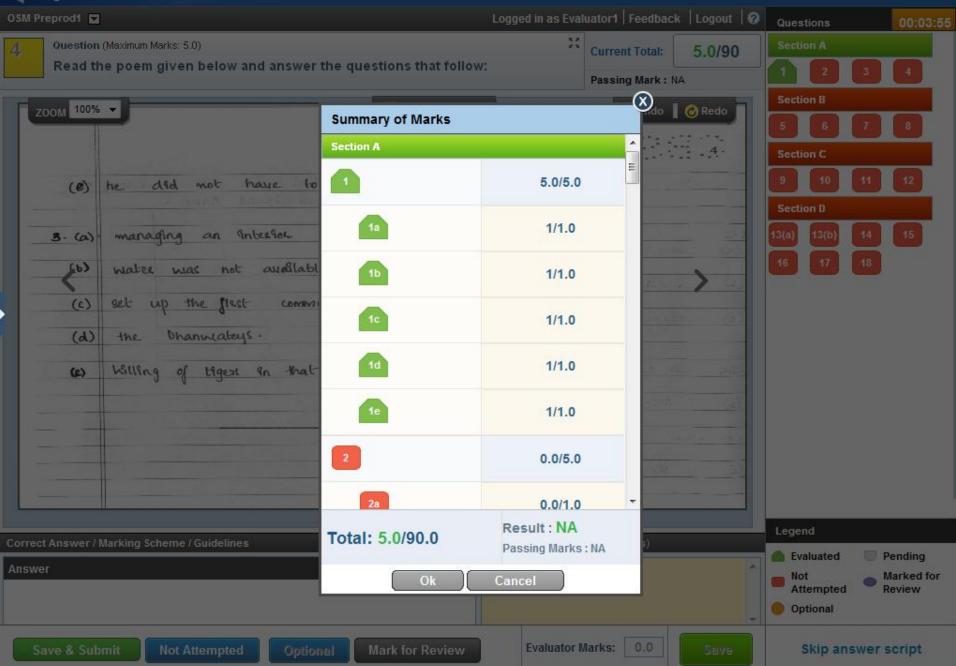
Pending

Evaluated

Optional

Attempted

Skip answer script



Digital Evaluation Logged in as GAURABH MISHRA | Feedback | Logout | ? CBSE Demo Evaluation Ouestion (Maximum Marks: 6.0) Section A Feedback Close 🗶 Dear Evaluator, You have played a critical role in the execution of this evaluation. We solicit your valuable feedback to understand your views and your experience on conducting the digital evaluation. Your feedback will enable us to improve the solution and the process for conducting a digital evaluation. For each question listed below, request you to specify the Importance (High, Medium, Low or NA) and the performance rating as per scale below: 4 - Exceeded expectations; 3 - Met expectations; 2 - Improvement needed; 1 - Failed to meet expectations Importance Performance S.No Question Remarks Rating Rating Communication - How was your experience in receiving timely communication on the evaluation 4 ▼ High venue details and time lines? Communication - How was your experience in the clarity of instructions being provided? High 4 ▼ **Training** - How would you rate your experience on the training provided so as to enable you to High 4 ▼ ensure smooth execution of the evaluation? **Solution** - How would you rate your experience with the usage of the solution? High • 4 🕶 Support - How was your experience in raising your concerns/ issues, and getting timely support High 4 ▼ and resolution?

Support - How was your experience with the usage of the solution?

Support - How was your experience in raising your concerns/ issues, and getting timely support and resolution?

Process - Were the process instructions provided help you to get a clear understanding of the steps to be followed for conducting an evaluation

High

High

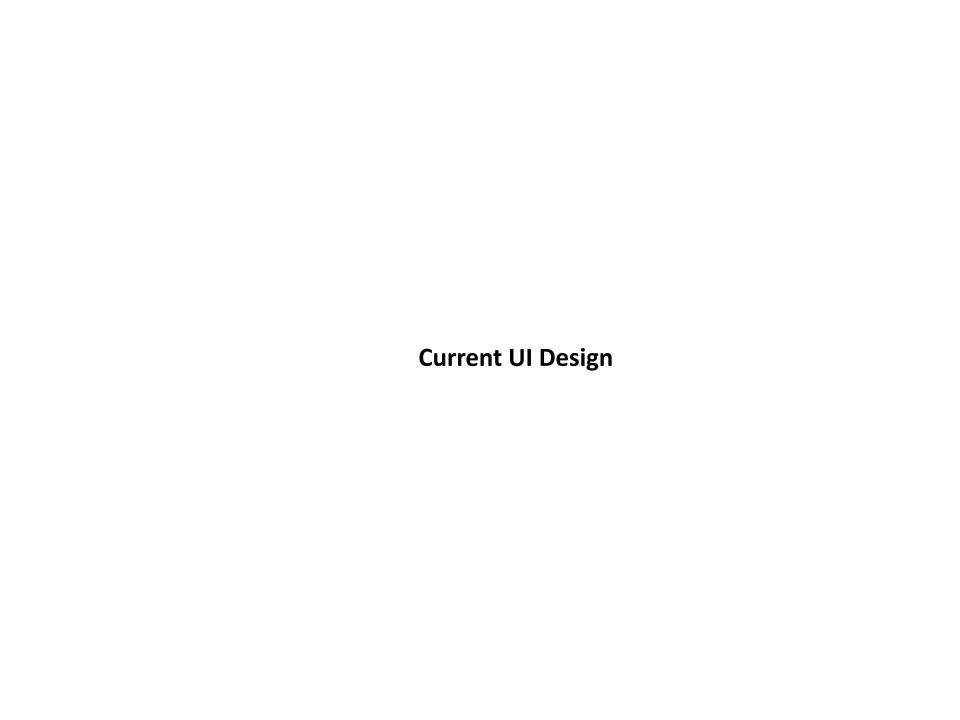
High

Optional

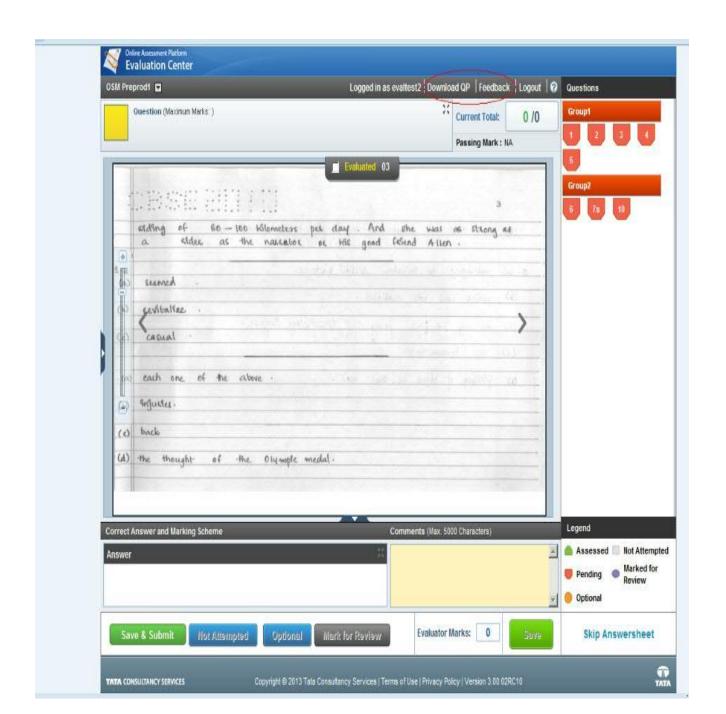
Submit Cancel

Submit Not Attempted Optional Mark for Review

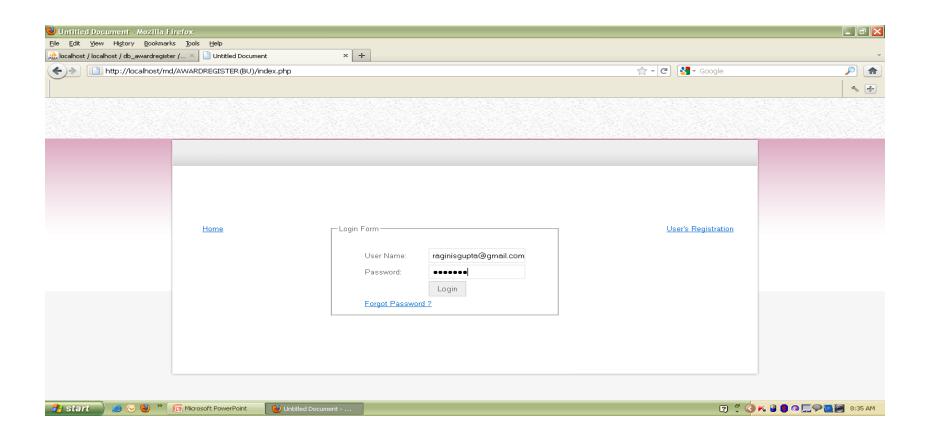
Evaluator Marks: 6.0 Save Skip answer script



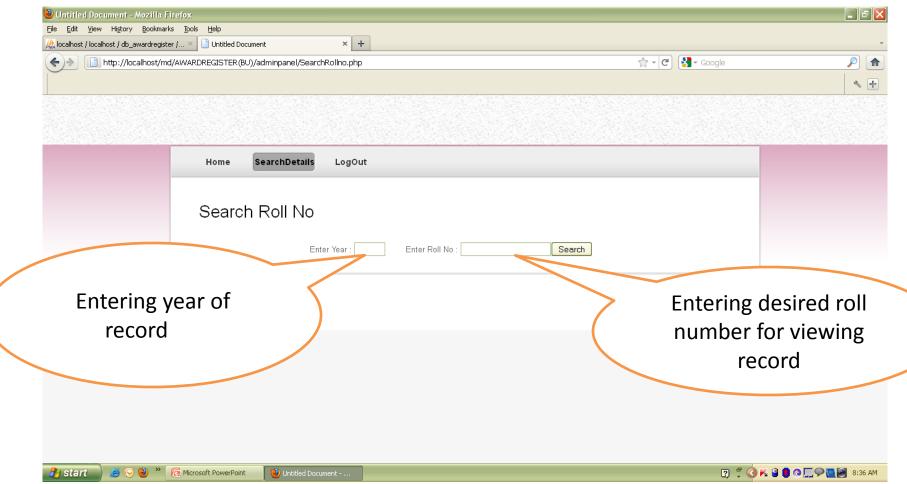
Current UI Structure



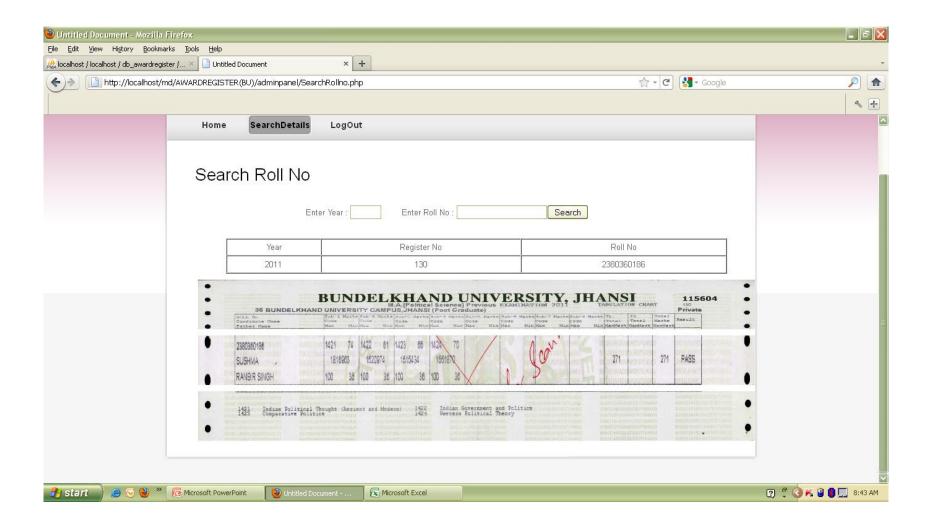
Logging in the system by Public member



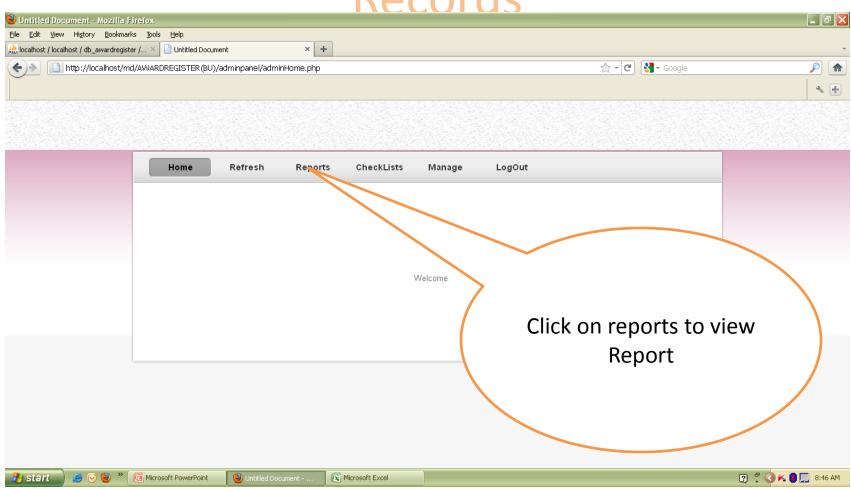
User will enter: year and roll number for viewing the record



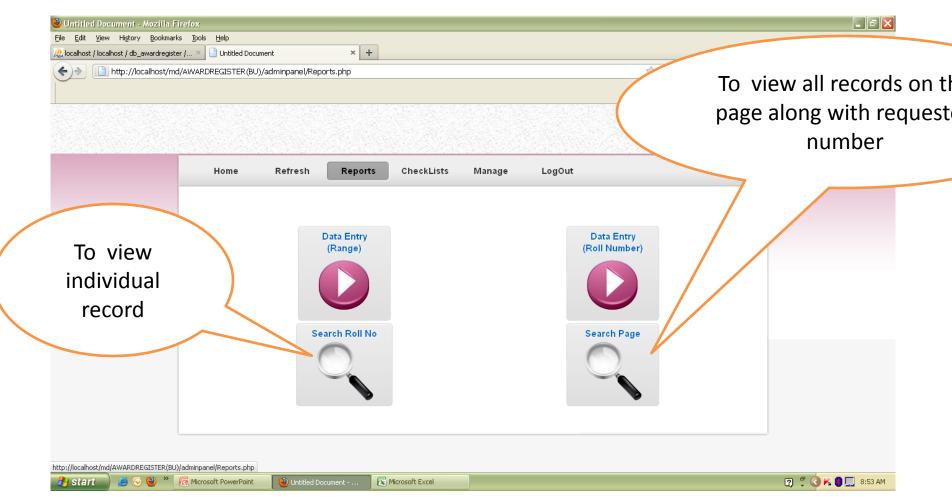
View of the Record



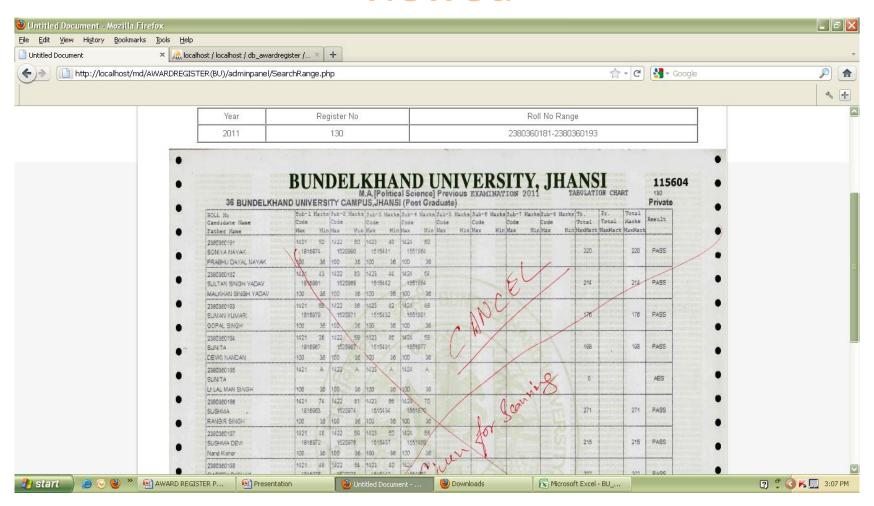
University authority viewing the Records



Records view:page wise and Roll number Wise



Whole page of the register can be viewed



Indian Scenario

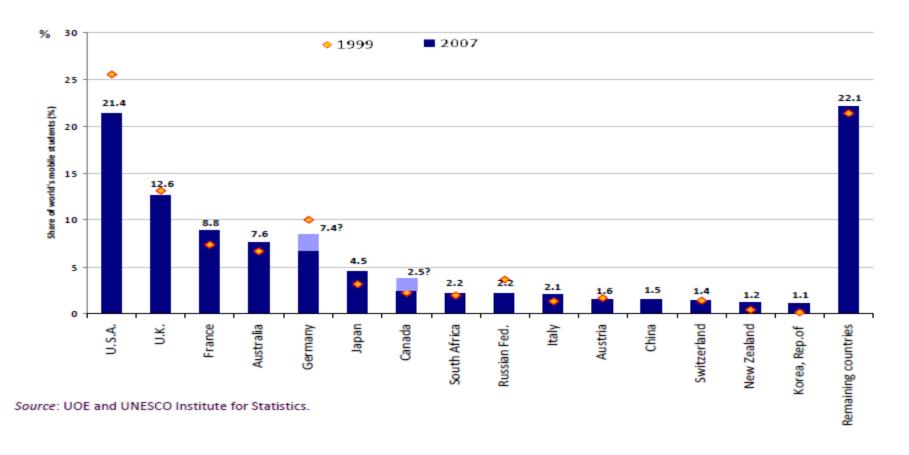
- National Knowledge Commission has recommended 1500 universities for India.
- India has sizeable percentage of population in the age group of 16-25.
- Globalized world is in need of human resources in the field of science, technology, medicine etc.
- India has the scope for knowledge export
- 150 years of university education especially in English medium has the scope for attracting students from other countries.

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- GATS 2005 India signed the General Agreement on Trade in service- no barrier for service in any part of the world.
- Any Foreign university can start its branch in India – any Indian university can open up its centre in any country.

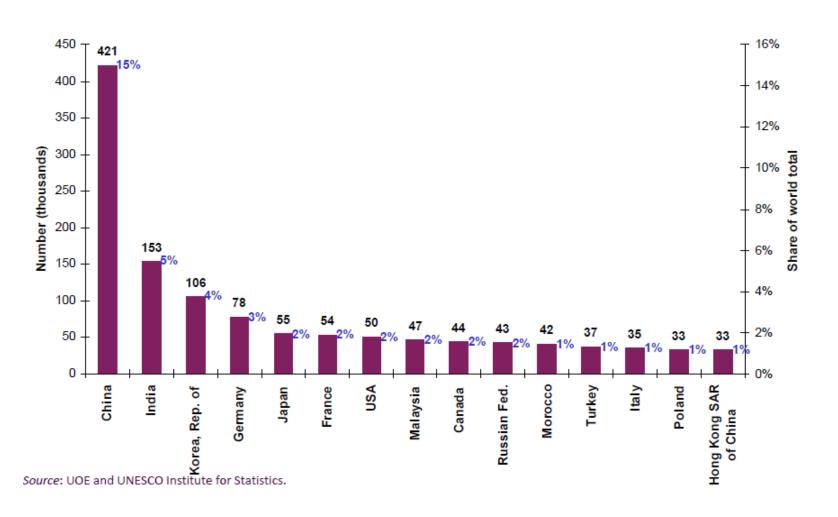
HE - Major Host Countries

Top 15 host countries; the top six countries hosted 62% of the world's mobile students in 2007

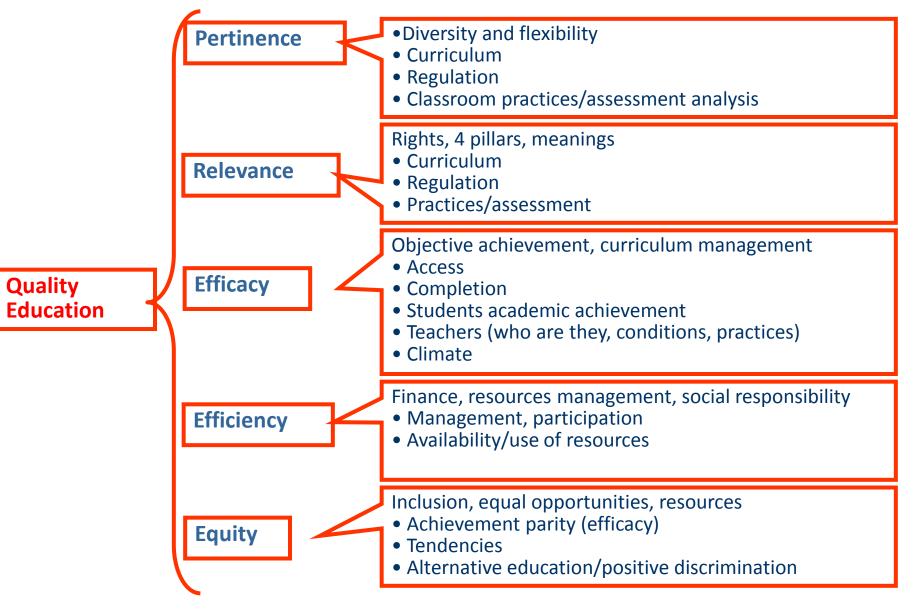


HE - Major Student Sending Countries

15 countries together account for 44% of the world's mobile students, 2007



What Do We Mean by Education Quality? A broad concept of quality education:



What are the Customers Expectations from Higher Education Product?

- The education customers' expectations and society at large may be segmented as follows:
 - <u>Knowledge</u> this is what enables students to continuously learn after graduating in relation to what they already know
 - <u>Know-how</u> this is what enables students to apply knowledge to work environments and this should be from different areas of learning covered
 - Wisdom this is the ability to distinguish what is vital from what is a not vital and set priority to resource management.
 - <u>Character</u> this may be said to be a combination of knowledge, know-how and wisdom coupled with motivation to deliver value for the stakeholders.

- Learning to see what is wrong in higher education environment is the beginning of change.
- Waste in Quality Management is defined as,
 - Any institution activity or operation performed that does not add any value to the customer satisfaction or experience, (i.e. student, employer and society).

- <u>Motion</u> this involves <u>movement</u> of people (educators, students, technicians, administrators, etc) and/or teaching equipments that does not add value to the student learning experience.
 - Examples are looking for information, forms, materials, educators and equipments located far from the point of operation.
- <u>Waiting Time</u> this is the <u>idle time</u> created in the University processes when people, information, equipments or materials are not at hand for use.
 - Examples is when students are waiting for appointments, procedures and expert guidance. Others are invasion of teaching time, class interruptions, poorly scheduled meetings and late arrivals by parties involved.
 - Causes of all these may include poor understanding of the standard time required to do a task and lack of accountability for delivering on time.
- <u>Uncertainty</u> this is when educators doing the work are not confident about the best way "best-practice" to perform the tasks.
 - Examples, unclear teaching methodology, unclear course curriculum, unclear laboratory procedures.
 - Causes include lack of standardized specifications of procedures of work.

- <u>Defects</u> include University activities that contain errors or lack something of value.
 - Examples include; teaching errors, presentation errors such as at seminars, graduation ceremonies, lectures, etc., documents errors, data entry errors, variation of same task outcomes, service delivery errors, product (graduate) errors and lost records.
 - Causes of these may include lack of understanding of what 'defect-free'
 University processes are and lack of standardization in work processes and quality management.
- <u>Processing</u> this include the activities in the processes of service delivery that do not add value from the customer perspective.
 - Examples include extra unnecessary steps, too many approvals, requirements confusion, charting during working hours, missing procedure requirement and too much regulatory paper work.
 - Causes of these may include poor work area design that does not promote smooth value flow, complex and multiple data forms, as well as use of obsolete procedures and forms.
 - Others include creating reports no one reads unclear roles and responsibilities and repeated manual entry of student data or results.

- <u>Over-Production</u> includes redundant work such as duplicate work
 - Examples are multiple forms with same information, recreating already existing knowledge, teaching previously taught curriculum, creating a new report when the data exist in the different department, creating departmental silos as well as protectionism.
 - Causes include poor communication between departments and staff.
- <u>High Inventory</u> this is when there is more material at hand than is required to do the work.
 - Examples include overstocked outdated books, poor understanding of supply and demand, obsolete equipments not discarded, unread emails, unfinished projects, files not worked on, unresolved challenges.
 - Others are unnecessary work-in-progress (repeating or part-time students) and finished products beyond what is needed on the normal basis (producing more graduates in degree with less or no demand).

Bundelkhand University

- <u>Underutilized Resources</u> this includes organization workforce, time, facilities and equipments available, which are not used to get the optimum benefit.
 - Examples include minimal hours of operation for the library, computer facilities and laboratory for the students. Note that, this is not referring to resource stressing, but just maximizing on the benefits that can be offered by the available resources.
 - Closed University culture to innovation and change, untapped areas of passion for staff and choosing short-term cost reductions that do not motivate staff are among other critical factors in higher learning institutions.

- <u>Poor Communication</u> this involves information and data waste.
 - All institutions experience problems nearly every day, which need to be solved by different people in the organization.
 - To solve most of these problems, information is required and now when the information, which is useful to solving the problem at hand, is not available or is difficult to retrieve, inefficiency in problem solving cannot be avoided.
 - Information should be availed to all people in the organization at the
 earliest possible time, whether positive or negative. Good information
 practice include; annual audited financial reports which can be posted on
 websites, annual key performance indicators (KPI's) such as profit margins or
 losses published to all employees for review and improvement.
- <u>Misused Resources</u> this is when allocated resources for a particular project are diverted owing to some special or personal interests.
 - This in most cases cannot be recovered and is not replaced at all.
 - Best practice is to stick to the annual budget and adopt the long-term philosophy over short-term or personal gains.