

QUAID-E-AWAM UNIVERSITY,
OF ENGINEERING SCIENCE & TECHNOLOGY
NAWABSHAH



Request for Proposal (RFP) for
Robust Implementation of
ERP/Learning Management System

Procurement Ref: No
Date of Opening
Venue

06/2022
January 31, 2022
at Admin Block, QUEST, NAWABSHAH, Nawabshah

Data Sheet

Bid Selection Method	The method of selection is: Quality and Cost Based Selection (QCBS). RFP can be downloaded from: https://www.QUEST, Nawabshah.edu.pk/ and http://www.ppra.org.pk
Bid Security	2% of bid amount
Deliverables	
✓ General Ledger	
✓ Student's Profile & fee status	
✓ Financial dashboard Reporting system	<ul style="list-style-type: none">▪ Project Charter, Project Schedule, Work Breakdown Structure (WBS)▪ Fortnightly Progress Reports▪ Inception Report▪ Gap Analysis Report, Data Migration Plan▪ Installation of LMS at QUEST, NAWABSHAH, Nawabshah▪ Installation of ERP at QUEST, NAWABSHAH, Nawabshah▪ Training material▪ Training and User Acceptance Testing (UAT) at QUEST, NAWABSHAH.▪ Data migration and customization (if any) and development of Management Information System(MIS) reports▪ 3-months parallel run at QUEST, NAWABSHAH and other campuses and sites (affiliated colleges if required)▪ Source code & related training and technical Documentation with backup tools
Contact Person	For queries / clarifications, if any please contact: Mr. Qamar Shaikh-0336-8577735 Deputy Director Finance, QUEST, NAWABSHAH, Nawabshah
Language	Proposals should be submitted in English language
Currency	All prices should be quoted in Pak Rupees
Estimated Time	The estimated months required for the assignment to be proposed by the bidder.
Taxes	The price should include all applicable taxes.
Proposal Validity	Proposals must remain valid for 90 days from submission date
Bidder must submit	Two (02) copies of technical (One Original technical & one Photocopies) and 01 copy of financial proposal in single envelope.

	A printable and searchable PDF copy in a USB flash /CD drive of technical proposal.
	Technical and financial proposals should be submitted in separate envelopes & both sealed in single envelope & USB must be part of technical proposal and should be clearly marked " Implementation of LMS and ERP ".
Proposal Submission Address	Directorate of Finance at Admin Block QUEST, Nawabshah, Sindh, Pakistan
Submission Date & Time	Both Technical proposal & Financial bid must be submitted in Two different sealed envelopes and placed in single envelope on or before January 31, 2022 at 11:00 A.M
	In case of Second attempt bids will be open on 15th Feb 2022 same time same venue.

1. Project Overview

Quaid-e-Awam University (QUEST, NAWABSHAH) Nawabshah is soliciting proposals from PROPOSER to acquire integrated Learning Management System (LMS) and Enterprise Resource Planning (ERP) solution based on open source platform for the automation of student academic life cycle (from Admission till alumni) and administrative/financial processes of QUEST, NAWABSHAH as per high level scope of work. However, requirements/scope of work may be enhanced during the requirement analysis/gathering phase of the project:

1.1 About QUEST, NAWABSHAH

The Sindh University Engineering College Jamshoro was established in 1963 as a constituent college of the University of Sindh to provide adequate opportunity of engineering education to the people belonging to the interior of Sindh Province. According to the education policy of 1972, the government decided to upgrade the college to the level of University of Engineering & Technology after shifting it to Nawabshah. Consequently, the first year classes were started at Nawabshah in February 1974.

In July 1976, this institution was declared as an additional campus of the University of Sindh through amendment in the Sindh University Act, 1972 and was headed by a Pro-Vice Chancellor. The additional campus was eventually upgraded to the level of University on 15 March 1977 through an ordinance. Later on, the Provincial Assembly of Sindh also passed an Act in this regard and named the institution as Mehran University of Engineering and Technology, Nawabshah. In 1980, the Government decided to shift Mehran University of Engineering and Technology to Jamshoro and the campus at Nawabshah was declared as a constituent college of Mehran University; renamed as Mehran University College of Engineering and Technology (MUCET), Nawabshah". On 7th August 1996, MUCET was upgraded to the level of a university through an ordinance and later through an act of Sindh Assembly and was renamed as **Quaid-e-Awam University of Engineering, Science and Technology (QUEST, NAWABSHAH), Nawabshah**. At present, QUEST, NAWABSHAH is accredited with the Higher Education Commission (HEC), Pakistan Engineering Council (PEC) and is the member of Association of Commonwealth Universities.

QUEST, NAWABSHAH is situated just outside the city of Nawabshah near airport and is spread over an area of 457 acres on both sides of the main Sakrand Road. Presently, it consists of three academic sectors. Sector-A houses the departments of Electrical Engineering, Computer Systems Engineering, Information Technology and Computer Science. Sector B houses the departments of Civil Engineering, Mechanical Engineering, Basic Sciences & Related Studies, and Mathematics & Statistics. All the laboratories of Civil Engineering, Mechanical Engineering and Workshops are located at Sector-C. Whereas, the newly established department of English is located on the first

floor of the old library building, adjacent to the newly constructed and fully equipped Data Center and Examination Branch located at ground floor near Sector-B.

The Central Library is located in between the multipurpose hall and the hostels. This beautiful, capacious building is fully equipped with all the basic facilities for students and is open for 7 days a week. The departments of Electronic Engineering, Energy & Environment Engineering are located near Sector A and C; whereas, the Telecommunication Engineering and Chemical Engineering departments are located near Mechanical Engineering workshops. The Administration Block is situated near Sector-C. All the stakeholders of the university, i.e., teachers, officers, employees and students have the facility of an express electricity feeder to work with full peace of mind with zero load shedding. There is a well-planned residential colony consisting of a substantial number of bungalows for the teachers, officers, and quarters for employees. A constituent college, named Engineering College Larkano, was established at Larkano city in 2010. The Honourable Chief Minister, Sindh upgraded the college and declared it as QUEST, NAWABSHAH Campus Larkano, vide a Notification No.SO(U)/U& B/QUEST, NAWABSHAH/7-1/2018/211, dated 23-11-2018.

Project Objectives and Background

1.2 Assignment Objectives

The objective of this assignment is to identify and select a software development/ IT vendor firm/chartered Accountant firms with proven experience in developing and implementing LMS and ERP based on open source platform. The PROPOSER will provide off-the-shelf solution which can be deployed and implemented in a shortest span of time. The PROPOSER will perform an analysis of the QUEST, NAWABSHAH current environment, business processes and organizational strategy prior to the deployment of the software.

The high-level objectives of acquiring a new LMS and ERP solution are as follows:

- Achieving paper less working environment.
- Improve service level and coordination among departments, sections etc.;
- Reduction of approval time though automation of workflow, case management and approval cycle.
- Empowering faculty members, students and other staff to accomplish work at their own.
- Integration with the banks to streamline accounting process.
- A self-sustainable and cost-effective solution.
- Meeting QUEST, NAWABSHAH needs for the next 20 years at least.
- Efficient student life cycle management.
- Automation of manual processes.
- Strong IT infrastructure to support new solution.

1.3 Assignment Background

QUEST, NAWABSHAH currently has been using its own mechanism and Admission System. Both business and technology needs have changed dramatically over the period of time. Therefore, the University desires to acquire a robust, state of the art and preferable open-source solution to automate its student life cycle.

2. Terms of Reference (TOR)

QUEST, NAWABSHAH, intends to have off-the-shelf, web based and scalable Learning Management System (LMS) and ERP based on open source platform at Data Centre of its Main Campus. Users of Main Campus will access these centralized web based services through intranet platform, however; remote side users of sub campuses/affiliated colleges will access these services through Pakistan Education and Research Network (PERN), which is a high-speed network of Higher Education Commission (HEC) of Pakistan and being used for inter-site connectivity.

The main components and deliverables of the assignment are as follows:

- Conduct Gap Analysis for system/ modules
- Develop software as per the QUEST, NAWABSHAH requirements
- Installation and deployment of software
- Training and QUEST, NAWABSHAH of the software
- Implementation and live run of software
- Technical support services up to 05 years

3.1. In Scope Locations

Following is the list of in-scope locations:

1. Main Campus, QUEST, Nawabshah
2. Affiliated colleges
3. Private candidates/Distance learning candidates

3.2. In-Scope Modules

This section describes the implementation of the systems and modules covered in this assignment.

S/No.	System Name	Criticality Level (High/ Medium/ Low)
1.	Learning Management System (IMS)	High
2.	User Management System	High
3.	Hostel Management System	High
4.	Workflow & Data Archiving System	High
5.	Financial Management System	High
6.	Human Resource Management System	High
7.	Payroll System	High
8.	Procurement System	High
9.	Inventory System	High
10.	Business Intelligence (Bi) System	Medium

Following Modules necessarily covered:

3.2a General Ledger Financial Module

- ✓ Chart of Accounts
- ✓ Customer/vendor/other subsidiaries
- ✓ Receipt Vouchers
- ✓ Journal Vouchers
- ✓ Payment Vouchers
- ✓ Grant requested, Grants receipts, Grant utilization, Final grant reporting system
- ✓ Budget Allocations (Cost center wise, Faculty wise, Building construction project wise)
- ✓ Cost centers based data entry and reporting
- ✓ Data uploading facility from admission module, bank statements and hostels etc
- ✓ Ledgers, Trail balance, Balance sheet, profit/loss statements.
- ✓ Work flow & approvals
- ✓ Documents archival integration for supporting document attachments.

3.2b Student Profile and Fee Status

- ✓ Student Profile
- ✓ Fee accruals in student ledger from the fee challan of admission module.
- ✓ Receipt verification from bank statement using bank's csv file/softcopy
- ✓ Faculty wise/ student wise / classes wise fee receivable, late dues with charges.
- ✓ Verification of hostels, transportation and other facilities as per admission criteria.
- ✓ Audit tool to verify the data integrity of different departments and compliance control.
- ✓

3.2c Financial Dash board Reporting system

- ✓ KPI reporting
- ✓ Daily Bank Position, Collection & Expenditures
- ✓ Expected revenue and expanses in coming days
- ✓ Faculty wise student's strength, teaching & non-teaching strength & their Expenses.

- ✓ Faculty/Department wise revenue, expenses, budgets variances.
- ✓ Details of scholarships, discounts in fee and other means of fee waivers.
- ✓ Development projects, construction, transport expenses and hostel expenses
- ✓ Specialized financial reporting for HEC, Sindh Government and Other departments.

It is noted that, the Firm should be an Audit firm enlisted in A-category of the auditors issued by the state Bank of Pakistan and should have satisfactory OCR rating by ICAP.

The functional and other requirements are the integral part of this TOR and discussed in detail in Sections below:

3. Functional & Other Requirements

4.1. Learning Management System (LMS)

ORGANIZATION STRUCTURE AND POLICIES

The salient features of the module should include but not limited to the following:

- a. Facility to maintain multiple campuses and affiliated colleges, addresses, contact information, higher management profile, etc.
- b. Facility to define student information such as name, contact number, email address, mailing address, academic records and other details.
- c. Facility to define different fee structures.
- d. Facility to define quota rules.
- e. Facility to define academic rules for admission, enrollment, exams, double degree, semester freeze and un-freeze, semester repeat, attendance, grading system and other rules and scenarios defined in the prospectus and university directives.
- f. Facility to define scholarship programs, donors and criteria for awarding scholarships.
- g. Facility to setup faculties, their departments, and affiliated colleges.
- h. Facility to define affiliated colleges and their departments.
- i. Facility to setup admin staff such as VC, Deans, Chairpersons, Directors, Dy. Directors, Registrar, Dy. Registrar, lab in charge, superintendents, etc.
- j. Allow to differentiate between academic and nonacademic Organizational units
- k. Facility to maintain bank accounts for fee collection.
- l. Facility to maintain Semester and Annual Academic Programs and their details such as number of years, number of semesters, regular and summer semester, maximum credits hours, degree duration, batches with the following information:

- i. Batch Code and Name.
 - ii. Years to pass such as BSc/BE/ME/Phd previous year, BSc/BE/ME final year , BSc/BE 3rdyear, BSc/BE/ 4th year
 - iii. Maximum Credit Hours to Pass.
 - iv. Number of Core Credit Hours to Pass.
 - v. Number of Major/Minor Credit Hours.
 - vi. Date of Admission.
 - vii. Registration Number Template if any.
 - viii. Passing Marks of a Course.
 - ix. Batch Timings (Morning or Evening etc.).
 - x. Number of Probations.
 - xi. Probation starts CGPA and ends CGPA.
 - xii. Any Specialization is offered.
 - xiii. Any Thesis/Project is offered.
- m. Any other setup required for the processing of LMS related transactions.
 - n. Ability to maintain different versions of the organizational unit over time based on date with ability to turn “on” or “off” the organization unit.
 - o. Define academic program, specialization, sub specialization courses to be offered, degrees to be offered and pre-requisite requirements.
 - p. Define minimum/maximum credit hours for each degree program.
 - q. Define Core/ Elective courses in each degree program
 - r. Define multiple formulas for grading schemes and their associated values.
 - s. The solution must be able to support grading scheme settings as per programme
 - t. The solution must be able to set/announce dates for course start/end, course add/drop, exams, result declaration, convocation etc.
 - u. The solution should manage the users according to role and permission to access can be controlled by campus, faculty, department, section and unit wise etc. for editing and viewing data.
 - v. Provision to withdraw students from programme/courses as per University rules
 - w. Allow to define calendar for each campus
 - x. Allow to define office rooms and relevant details.
 - y. Provide ability to define course transfer credit rules.
 - z. Define multiple criteria for probation/suspension based on CGPA or another basis.
 - aa. Define assessment types for each course like quizzes, assignments, mid-term, end-term, class-participation etc.
 - bb. Define maximum enrollment at the program and section level.
 - cc. Terms in a year should be categorized such as Fall, spring, semester trimester etc.
 - dd. Produce a bulletin report of course catalog, with detailed information including descriptive text, prerequisites, co-requisites, and programme requirements.
 - ee. The report can be obtained in hard copy and/or its results may be displayed in the open access area of the Student Self Service component. that details the defined academic catalog for a given academic year.
 - ff. Restrict a course to only those students within a specific class (i.e., freshman, sophomore), major, level,
 - gg. program, campus, degree and/or college, etc.
 - hh. Assign different titles and descriptions to the same course.
 - ii. **BANK API:** Ability assist Banks for processing with Application fee collections by providing a *real time interface* to inquire invoice details or post collected amount directly to the System.
 - jj. Solution to maintain a log of system generated email and SMS notifications that should be available to administrators

- kk. Ability to verify CNIC and extract/ record corresponding personal information from NADRA System
- ll. Ability to connect with the Online Payment System through Bank(s) for all types of payments across the solution
- mm. Integration with the SMS Gateway for delivery of notifications/ alerts to the users of the solution
- nn. Integration of Library Management System, like Koha, etc.

4.2. ADMISSION MODULE

The salient features of the module should include but not limited to the following:

- a. The module starts at the stage when a student applies for the admission and ends when the student is selected in a program.
- b. Facility to allow students to apply for online admission. In case of receiving manual application, the concerned admission staff can enter the credentials of students such as particulars of students registered for different programs.
- c. Facility to verify applicants' databased on criteria defined in the system.
- d. Facility to define merit including quota for gender, district, provinces, marks of previously attained qualifications such as Matric, Secondary, Bachelor and other qualifications possessed by the candidate.
- e. The solution must provide ability to assess entry eligibility and calculate merit scores and relative rankings for all applicants belonging to a similar program (e.g. All BS programs) together.
- f. System must provision ability to compute multiple eligibilities in parallel while listing merit position in serial. (The highest merit score applicant will have the highest merit position (1) and so on.)
- g. The system should provide a consolidated administrative view of all of the applicants, their eligibility status, merit score, position and scale based on program (preference) applied.
- h. Solution must allow administrators to override eligibility and merit of the individual applicants by having explicit choice to make a decision to override system-processed results based on defined rules. A user can choose to change the applicant's eligibility status from "Eligible" to "Not Eligible" and vice-versa.
- i. Ability to define discipline/program wise seats for selection
- j. Ability to provide updated information on seats for a program such as Total Seats, Available Seats, Confirmed Seats and Offered Seats etc.
- k. Ability for an authorized user to increase/decrease the seats for a program.
- l. Facility to publish merit list, send alert to successful candidates for interview, pay admission fee, and submit their credentials online.
- m. Facility to tag the students who qualifies the interview and document verification process.
- n. Facility to generate notification to the successful candidates to deposit fee as per the schedule.
- o. Provision to apply for other facilities offered by the university such as transport, hostel, etc.
- p. Facility to cancel, suspend student admission based on the rule defined in the system such as low GPA, misconduct, non-payment of dues etc.
- q. Facility to conduct and maintain Hafiz-e-Quran/Disable test/interview records.
- r. Facility to re-admit a student whose admission has been cancelled due to non- payment,

- Absence or any other administrative issues.
- s. Entry test option available for CBT or importing result from the other source.
 - t. Ability to define and manage admission control dates for programs, or combination of program and majors or program and combination of program offering variants such as full time/part-time or evening or morning sessions against which applications are invited.
 - u. Solution must allow creation and management of unlimited number of cohorts with distinct start, end dates, and allow tagging of it with each program.
 - v. Ability to control timelines for receiving applications online. These controls should be flexible to enough to support higher levels such as Campus deadlines or as low as a program application deadline.
 - w. Solution must provide ability to manage Admission Applications process for both local and International Applicants with maintenance of different polices such as reservation of seats, currency and application fee rate differences and different program entry criteria.
 - x. System must provide an online web portal where applicants can sign up, sign in, create, and manage admissions applications.
 - y. System should allow applicants to register for online Applicant Portal via either Phone Number or Email Address or both and CNIC.
 - z. Solution must allow Applicants to submit multiple applications against different programs using Online Web Portal.
 - aa. Online Web Portal must automatically control the creation and submission of application as per the setup timelines defined at institute, campus, career, program (or group of programs) or combination of these entities.
 - bb. Online Web portal should allow Applicants to save draft of applications as many times as desired before submitting the application formally.
 - cc. The solution must allow prospects to fill required information and submit application supporting document online including such as transcript, certification etc.
 - dd. The solution must capture the undertaking about the truthfulness and accuracy of the information provided from Applicants via Applicant Portal.
 - ee. System must ensure the format correctness or completeness of the applications received via Online Web Portal before submission process. The completeness can either be in the form of mandatory sections/fields or in the form of required number and type of supporting documents.
 - ff. Solution should support automatic trigger of either SMS or Email or both notifications to the relevant "Admissions Team" at various stages of the Online Web Portal Process such as signing up of new applicants, Submission of new applications, or data updates in Submitted applications etc.
 - gg. Ability to allow Applicants a restricted editing of submitted online applications to upload their final result transcript that is sometimes awaited from the awarding Institution(s).
 - hh. Ability to allow Applicants to upload the supporting documents even after submission such as but not limited to, missing documents or application fee payment receipts etc.
 - ii. Applicant should be able to download and print filled admission application form, fee challan, roll number slip and the offer letter from the portal.
 - jj. Enable students to check their admission decision status and outstanding admissions documents through self-service component.

- kk. There must be an interface for administration and academic department to manage student admission processes online.
- ll. Solution must have an ability to provide intake wise users data security to manage and process admission application based on combination of campus, career, discipline, programs etc. Each user must be able to create & view only as much applications data and process them as per the issued data security.
- mm. System must provide administrators with controls to restrict or provide access to different admissions features such as only some users must have provision to such as generating offer letters, sending communications to applicants, entering the application fee payments or viewing supporting documents etc.
- nn. Maintain an unlimited number of applications for a particular individual to any academic level, with distinct admission decisions for each application.
- oo. Provide a one page 'quick entry' page for staff to get a record created immediately in the system for an applicant.
- pp. Provide mechanism to help ensure admissions data is not altered on the system if when test scores are subsequently loaded.
- qq. Solution should provide ability to setup various application fee lines each having their own fee rates and applicability rules in form of combination of primary application data elements such as Campus, Career, Program / group of programs, local and international, self-finance or regular or any other application types.
- rr. Ability to customize application invoice template for enlisting the assessed fee based on defined rules along with the due date, payment conditions and payment details including bank details and other payment mode related information.
- ss. Ability to share/download Application fee invoice for Admissions Finance Team.
- tt. Solution must provide ability to generate Application Fee payment receipt when payment is entered against application fee invoice. The receipt format must be customizable to personalize the header/footer as per the institute's configurations.
- uu. System must assist in differentiating the paid and not yet paid applications so that further processing can only start on the paid applications.
- vv. System must have ability to write off the outstanding and overaged application fee invoices and make them as in-eligible.
- ww. Ability to send reminders to applicants to QUEST, Nawabshah missing supporting documents via SMS or email or both.
- xx. Solution should provide ability to schedule applicant interviews, assign interview marks and weightage as an Admission Criteria
- yy. Ability to reserve administrative sections or administrative fields to store "For Office Use" information with the Submitted Admission Application.
- zz. Solution must support creation and management of Admission Entrance Test Schedules
- aaa. Solution must provide ability to generate Admit slip for applicants to inform them of Admissions test details. Admit slip should be visible on online portal and sent as an email. This will allow Applicants to present admit slip at the venue of admission test as his identity.
- bbb. Ability to track entry Test Attendance.

- ccc. Ability to print test scores of applicants. These test scores can be posted on notice board, social media website or can be used for internal evaluation in excel.
- ddd. Ability to schedule interviews for applicants and sending them interview invites and Ability to print interview form and detail for an individual applicant. It will be used to present in front of interview panel or internal processing.
- eee. System should provide list of applicants that are appearing for interview with details like venue, dates and time.
- fff. Ability to categorize program or group of programs based on automated rules such as undergraduate admissions processing via eligibility rules, merit formulas, selection list or following a combination of eligibility/merit rule and subjective assessment for some like post-graduate programs or following a completely subjective evaluation and decision mode like for admitting to short-programs/certifications.
- ggg. The system should provide a consolidated administrative view of all of the applicants, their eligibility status, merit score, position and scale based on program (preference) applied.
- hhh. Must provide an entry eligibility and merit ranking details report.
 - iii. Ability to provide updated information on seats for a program such as Total Seats, Available Seats, Confirmed Seats and Offered Seats etc.
 - jjj. Ability for an authorized user to increase/decrease the seats for a program.
- kkk. Solution must have ability to automatically allocate seats to the candidates in batch, based on their merit ranking and program preference order.
- lll. Ability to generate offer letter in bulk as per the configured template that can vary based on the selected program
- mmm. Ability to convert applicants with admission status 'admission offer accepted' to Students in a batch whilst copying all relevant policies and information in student profile
- nnn. Ability to build and generate custom and on demand reports for end-to-end admissions process.
- ooo. Ability to provide a downloadable extract of all or criteria-based admission application data received for a year.
- ppp. Provide out-of-the-box analytics to monitor applications data received such information on applicant biographical and demographical details, education background, fee status and programs applied etc.
- qqq. There must be an interface for administration and academic department to manage student admission processes online.
- rrr. System must be able to display program wise different list of applicants i.e. Submitted Applications, In-Progress Applications, Rejected Applications, Cancelled/ Withdraw Applications etc.
- sss. Complete installation of all sub-components pertaining to Recruitments & Admissions as per manufacturer's guidelines. Configuration of all sub-components for an optimum and efficient output of the solution, meeting the objectives and requirements. Testing and commissioning of the complete setup as per the requirements and satisfaction of QUEST, NAWABSHAH.
- ttt. Inquiry Follow-ups & Bulk SMS and Mailing
- uuu. Online application form filling and submission with offline record and scan document availability.
- vvv. 24 x 7 Availability of application forms www. Password protected Pre-Registration process
- xxx. Special Configurable Treatment for Reserve class students and staff (Handicap Students)

- yyy. Student inquiry Management with online inquiry form (Integrated with Website)
- zzz. Online payment gateway integration including Bank Challan System
- aaaa. Configurable Start Date, End Date and Fees Details
- bbbb. Online Payment Processing
- cccc. Configurable Payment Option for Cheque, DD and Online Transfers
- dddd. Real time update on application payment details and statement for reconciliation.
- eeee. Stepwise Online application status and confirmation via interface, SMS, and email
- ffff. Dynamic Merit List Generation for all departments/programs.
- gggg. Publishing Merit list of short-listed candidates integrated with (website)
- hhhh. Offline inquiry Form for Staff to record inquiries and the students may get offline hard copy feedback or online feedback.
- iiii. Student Registration and Record Management
- jjjj. Migration and Admission Cancellation.
- kkkk. Student ID card generation and email ID generation.
- llll. Maintenance of student central personal file by enabling provost, chief proctor, concerned
- mmmm. HoD/, exam section, dept coordinator, AO office etc record their concern data in the student file
- nnnn. Generation of reports related to student total strength program wise, campus wise, department wise, and domicile based,
- oooo. Online credit transfer form to be accessible to member for decision-making and approval from the competent authorities.

4.3. ENROLLMENT/REGISTRATION MODULE

- a. The module starts at the stage when a student gets admission in a program and ends when the student is enrolled in a program.
- b. Facility for the student to select courses offered in a semester through the system upon new admission.
- c. Facility to select courses for new semester by the students.
- d. Facility to define and implement course selection rules as defined in the prospectus such as number of credit hours, eligibility of re-selection of repeat courses, etc.
- e. Facility to review enrollment list/ course selection chose by the students.
- f. Facility to assign LMS Registration number for record tracking.
- g. Facility to maintain study schemes in which students have been enrolled.
- h. The system should have the facility to allocate courses from multiple study schemes to students where a student can select a course from new scheme though he/she has been enrolled to old study scheme.
- i. Facility to freeze semester or course and generation of alerts to all the concerned departments.
- j. Facility to setup batch/ session to be attached with each student.
- k. Facility to close enrollment of student at the completion of study programs.
- l. The solution must be able to support setting of study intake and academic semester with subject auto enrolment.
- m. Activate a student in a new Term and Session in order to progress him to the next Academic Level in order to allow new Course Enrollments.
- n. Ability that affiliated colleges shall access the registration page online and enter their student's data for registration. With a deadline
- o. Ability of the system to accept the data and generate an auto acknowledgment email to the college

- p. Ability of the system to check the affiliated college's students for eligibility and generate a list of total number of students registered/enrolled and make a computer-based fee slip for college for submission.
- q. Provide ability to hold or block registration if any discrepancy
- r. Individually enroll Students in one or multiple Class or Section.
- s. Update/delete Course information (Course Name, Course Category, and Course Catalog Number) for an individual Student's enrollment in that course.
- t. Drop Enrollments for students who have not made tuition fee payment.
- u. Provide ability to automatically notify students prior to drop from courses due to non-payment of tuition.
- v. To allow a student to enroll in available Classes at his/her ease via self Service.
- w. Ability to allow admin to toggle Self Service Enrollments for a courses
- x. Allow a student to be able to view Courses which are open for enrollment in the selected semester
- y. Student should be able to view Course details while browsing courses for enrollment - Credit Hours, Instructors, and Enrollment Requirements etc.
- z. Allow a student to do enrollments in more than one Term or Session, if the enrollment period is open
- aa. Ability for students to print their schedules, view their account information.
- bb. Provide ability to establish limits on the number of credit hours a student can register for during the term, by program.
- cc. Whenever a student repeats a course, it is tagged as "Repeating" in the system.
- dd. Ability to create per credit, flat rate, and plateau charge rules for fee assessment based on any of the following student information: student type, student attribute, residency, grading mode, instructional method, schedule type, admission term, degree, program, college, level, major class, and other related fields.
- ee. System Generated Student Registration Card.
- ff. Student-wise report of Enrollment summary.
- gg. Student-wise Registration Report for Enrollments and Financial summary.
- hh. Report for summary of Enrollments across Courses.

4.4. TIMETABLE, CLASS SCHEDULER MODULE & WORK LOAD

- a. Facility to define parameter such as number of students per discipline, number of students per course in each discipline, number of labs per course, number of classes per week, teachers' maximum load, section per course, etc.
- b. Facility to define number of rooms and their usage (classrooms, labs, etc.)
- c. Facility to assign faculty members to the subject/ course
- d. Facility to define calendar such as shifts (morning, afternoon, night etc.), working days (Monday, Tuesday, etc.) and class duration (1 hour, 2 hours, etc.)
- e. Facility to define common subject combination into a single class.
- f. Facility to define lecturer day preference (Monday, Tuesday, etc.), lecturer time preference (Morning, afternoon, night etc.)
- g. Facility to support cancelation, replacement and relocation of classes.
- h. Based on the above parameters, the system should auto generate timetable with clash checking for classrooms, faculty members and students.
- i. Facility to generate various reports based on timetable.
- j. Facility to assign workload to faculty.
- k. Facility to assign additional workload (if any).
- l. Facility to generate actual workload and extra workload.

4.5. ACADEMIC/ EVENT CALENDAR MODULE

The salient features of the module should include but not limited to the following:

- a. Facility to create semester creation with semester start date and end date.
- b. Facility to enter course/ semester add/ drop deadline date.
- c. Facility to enter tentative examination (mid-term & final-term) date sheets.
- d. Facility to enter result submission date.
- e. Facility to enter tentative result declaration date.
- f. Facility to enter convocation dates.
- g. Facility to enter dates of other non-academic events such as sports event, job fairs, drama & debate competitions, naat & qirat competitions, or any other external event.
- h. Facility to define and generate alerts of the upcoming events.

4.6. STUDENT FINANCIAL MODULE

- a. Facility to generate online fee challans for the following cases:
 - a. Entry test fee
 - b. Admission of new program
 - c. Semester fee challan
 - d. Course fee, diploma, certificate fee, etc.
 - e. Other fee such as transcript fee, degree fee, semester fee, etc.
- b. Each challan will have multiple head of accounts i.e. security fee, admission fee, course fee, Student cards fee etc.
- c. Facility to handle the following scenarios:
 - a. Part payments and instalments
 - b. Adjustment of advances
 - c. Scholarship
 - d. Waivers
 - e. Penalties on late payment
 - f. Refund of fee
- d. Facility to upload bank scroll in machine-readable format based on challan ID of a student or electronic data interchange service giving challan wise collection of fees deposited by the students in the bank.
- e. Facility to record bank/ cash receipt
- f. Provision to enter adjustments to rectify errors
- g. Provision to create bank reconciliations
- h. Facility to handle final settlement of students through the system
- i. Facility to generate projected fee estimates of any program enrolled with reference to any particular student.
- j. Facility to generate challan based on different category such as batch, individual student, semester wise, program wise, etc.
- k. Facility to maintain history of semester wise fee charged to the student.
- l. Integration with General Ledger (a module of ERP software) to post-financial effects of different receipts in the form of journal voucher.

4.7. STUDENT DISCIPLINE AND CONDUCT MODULE

- a. Facility to maintain record of student conduct and discipline.
- b. Facility to issue show cause notices to students.
- c. Facility to send SMS/Email for personal hearing before the discipline committee.
- d. Facility to inform Parents/ Guardian regarding student misconduct if needed.
- e. Facility to maintain record of show cause notices/penalties.
- f. Facility for student to appeal against the decision of disciplinary committee to the appellate committee.

- g. Facility to communicate decision of disciplinary/ appellate committee to the student concerned.

4.8. EXAMINATION MODULE

- a. Facility to propose tentative semester wise date sheet by Controller of Examinations/ Head of Departments/ Affiliated colleges focal person.
- b. Facility to categorized course marking schemes as external and internal basis as per approved criteria
- c. Setup the assessment structure, give each assessment due weightage, max marks, minimum passing percentage, and assessment date, re-sit provision etc.
- d. Setup of a Grading Scale to determine the marks threshold in which specific grade will be given for example. 90- 100 = A, 80-8= B+, 70 to 7= B etc. the actual figures will be taken from controller examination.
- e. Setup of a Grading Model i.e. Bell Curve Relative Grading, Absolute Grading etc.
- f. An excel-view for the Gradebook in which all Students can be graded together.
- g. Facility to publish final date sheet on university website as well as on student portal after getting approvals.
- h. Facility to schedule exam and resources such as seating capacity, supervisory staff, etc.
- i. Facility for the faculty/ Exam section to setup scoring scheme for each course such as weightage of mid-term exam, final-term exam, assignments, quizzes, class participation, etc. to compute GPA
- j. Facility for the faculty to upload scores of mid-terms, final-term, quizzes, assignments, etc.
- k. Facility to generate/verify and approve award lists and attendance sheets at different levels (HOD, etc.) compiled by different faculties. The award list contains the results of mid and final terms exam and sessional tests marks (assignment /presentation /quizzes) obtained by the students.
- l. Online hosting of results and transcript so that the student can view or print result from student web portal.
- m. Facility to constitute committee of external examiner, supervisor and other member to examine/evaluate the Research/thesis/ project submitted by students and to conduct viva voce examinations.
- n. Facility to attach each batch of students with the committee, supervisors, etc.
- o. Provide an online access to supervisor/ exam section to record result of thesis and viva to prepare award list (results).
- p. Facility to handle students migrated to and from other institutes.
- q. Facility to handle course equivalency of migrated students.
- r. Support/Flexibility for change in university semester by laws.
- s. Registration, Enrollment, roll number and result support for private and affiliated colleges students.
- t. Provision of internal and external marking as per criteria defined in the university rules and regulations
- u. University faculty and affiliated colleges focal person can update Course and Course Component maximum marks if given privilege
- v. Ability that affiliated college's focal person enter the students result (internal), while external entry will be made by examinations section.
- w. To manage Course repeat attempts for Student via Student Grade Roster
- x. Unfair Mean Cases module
- y. Facility to keep record of Repeat Semester, Repeat Courses, Incomplete grade courses, freezing semester
- z. Facility to keep record probations, promotion etc
- aa. Facility to keep record of the duration of degree programs
- bb. Grade/class-wise reports for students
- cc. Provision for affiliated colleges to login onto the system to check their student's academic

status & have the provision for the affiliated colleges to print their examination roll number slips.

- dd. Online verification module for degree/certificates. e.g; (HEC PQR website)
- ee. System must maintain log / history of any marks changed by any user in any assessment.
- ff. Locking of Gradebook for an Instructor once Submitted.
- gg. **Grace Marks & Condonation:** Define grace rules parameters such as ... the max total grace marks, max grace applicable in a subject, are grace marks to be counted in subject marks... etc.,
- hh. **Examination Pattern:** Define flexible Exam pattern by defining no of class test, terminal examinations, final examination & their weightage in result. User can define Subject-wise exam pattern also. Multiple flexible Exam patterns can be defined and any one pattern can be assigned to a course.
- ii. **Internal marks / External Marks** (Passing both external and internal Marks as per rules)
- jj. **Locking system** for Internal marks made by affiliated colleges, (college authorized personal can make entry for internal marks - not editable) – anomaly (if any) arises will communicate to anomaly committee.
- kk. **Examinations:** Multiple Examination per session such as – in 2022 exam, fall 2022, fall 2022 Repeat, spring 2022 Special Chance, etc.
- ll. **Faculty:** such as Civil Engineering, Mechanical Engineering, and Electrical Engineering etc.
- mm..Department/Centre/College etc
- nn. **Affiliated Colleges:** information and programs detailed
- oo. Program Offered
- pp. **Campus:** Information with respective programs.
- qq. Program Offered
- rr. **Medium:** such as – English, Urdu & Pashto, Arabic, etc
- ss. **Semester / Year :** Fall/Spring – Yearly
- tt. **Programs:** Define university course can be seen in prospectus of the university.

4.8.1. CONDUCT SECTION

1. Scrutiny of forms with date entered by college
2. Creation of new examination, centers, Hall, etc.
3. Supervisory staff
4. Classifying Paper checker as checkers, Paper setters
5. Types of Exams (Spring/Fall)
6. Approval by Board of studies
7. Appointments of Supervisory staff
8. Acceptance / Refusal of Supervisory staff
9. Dispatch of letters
10. Student Registration - On line/offline Examination form filling
11. Data entry of examination forms – On line by Students / Data Entry Operator
12. Verification of Examinations forms
13. Roll number allotment to eligible students
14. Dispatch of Roll No. to affiliated colleges and constituent department/centers/ etc
15. Examination Time Table Entry
16. Confidential list and attendance sheet creation with photo & CNIC
17. • Course statement – Discipline-wise – center-wise – course-wise number of student appearing for the examination
18. Retrieving of old marks (Passed/Failed/Repeat/IOG/SCE/ etc)

19. Seating Arrangement: College can define center, hall, seating capacity in rooms & courses to be mixed on one bench. Computerized Plan for seating arrangement can be generated. Manual changes are possible.
20. MIS / Statistical Reports (as per QUEST, NAWABSHAH, Format)

4.8.2 Secrecy/Semester Section

1. List of paper setter/examiner
2. Appointment of paper setter/examiner of theory/Lab/viva/Thesis/Project etc and dispatch/receiving of letters and number of courses and discipline
3. Internal marks entry by colleges on-line & locking or offline by examination section staff.
4. Internal Marks reports subject wise & consolidated
5. Reminders to colleges for In-complete internal marks entry
6. Absentee / un-fair means / copy entry by Exam-Centre In-Charge after each paper
7. Dispatch of Answer Books to University Exam section
8. Code number generation for Answer books & Code-No-Roll-No relation Reports
9. Code no. pasting by secrecy staff on Answer Books
10. Award lists subject- wise marks entry by examiner.
11. Dispatch of Answer Books, award lists to examiner
12. Reminder to examiner for un-submitted award lists and A/books via e-mail / SMS/ Letter
13. Marks entry by Data Entry Operator / on-line by examiner; verification and locking
14. Code No Decoding to Roll Number on award lists
15. Absolute or Relative Grading – Allot absolute or relative grades for each course.
16. University of QUEST, Nawabshah
17. Result Preparation –Grades, GPA & CGPA calculation by applying Exam semester regulations
18. Tabulation sheet Printing
19. Scrutiny of Tabulation sheets
20. Corrections after scrutiny
21. Final Result (consolidated semester-wise result/Gazette)
22. Discipline-wise transcripts (with photo) & Gazette and other reports printing
23. Result SMS To students
24. Dispatch of Mark sheets / Grade cards to colleges
25. UFM penalties (if any)
26. MIS Reports – according to semester, subject, gender, grade etc.

4.8.3. RE-TOTALING

1. Data entry of Re-totaling forms
2. Locating bundles & retrieving Answer books
3. Calling Examiners for Re- totaling
4. Re-totaling (in case of un marked portion) by newly or the same examiners
5. Award list preparing
6. Entry of new award lists.
7. Marks Entry
8. Result Processing
9. New Tabulation sheets, Mark sheet / Grade cards Printing
10. Locking
11. Storage of data

4.8.4. DEGREE/CERTIFICATES/CONVOCATION

1. Certificates with photo (Migration, Provisional etc.)
2. Degree printing with photo
3. Degree verification system
4. Eligible list of candidates of Convocation
5. Annual convocation list
6. Convocation labels, slip & letters
7. Advertisement for convocation
8. Faculty wise summary list
9. Gold Medal List
10. Convocation Fees Reports
11. MIS Reports
12. University of QUEST, Nawabshah

4.9. Library Management System

The offered solution be able to provide interface for Library Management System but not limited to functions & features below:

Support patron master, Book bank run by university, Book searching from the university's library, Book catalogue, Borrowing, Book reservation, Book returning, Book renewal, Fine payment for late/lost/damaged books. Support excel and pdf reports for payments, reserve list etc Support module user creation/profiles, Book type settings, Book categories settings, Book status and book tags settings, Supplier profiles / categories, Patron groupings, Academic database settings, Inventory of books etc Capable to integrate with devices involved to automate complete library management system

4.9.1. Librarian Interface.

This section lists the functionalities that can be performed by staff/librarian. System should support the following functionalities for staff.

4.9.2. Circulation

This section covers functionality related to issuance/returning of titles. System should support the following functionalities.

- Check Out: Issue a title against users
- Check In: Return an issued title
- Renew: Renew/extend checkout
- Transfer: Transfer title to another user
- Generate the SMS and Email alerts (Item borrow and Item return alerts)

4.9.3. Cataloging

This section covers functionality related to managing records. Following functionalities should be supported

- Add new record
- Update existing record
- Delete a record
- Acquisitions

System should support acquisition of new content from vendors. Vendors should also be managed through the system.

4.9.4. Advanced Search

System should support extensive search based on following criteria:

- Keyword based search and supporting operators.

- Complete content search.
- Search based on category, subject and date.
- Sorting.
- User should be able to search all libraries or selected (three to four) libraries simultaneously.

4.9.5. Reports

This section covers functionality related to reporting. System should generate the following reports at the minimum

- Hold Queues
- Checkouts
- Overdue
- Customized Repots

4.10. OUTCOME BASED EDUCATION:

Outcome-Based Education (OBE) is an educational evaluation system that bases each part of an educational system around goals (outcomes). By the end of the educational experience, each student should have achieved the goals/outcomes. The proposed system should support the following functions and features:

- a. Facility to define Program Educational Objectives (PEOs), Program Learning Outcomes (PLOs) and Course Learning Outcomes (CLOs) for numerous batches of programs.
- b. Facility to append and update PEOs, PLOs and CLOs for single and collective courses within threshold limits.
- c. Facility to submit the OBE results for single and multiple courses.
- d. Facility to define KPIs for batches
- e. Facility in Grade-book to show Scores
- f. Facility to generate numerous reports as per QUEST, NAWABSHAH, PEC and other necessary requirements.

4.11. CURRICULUM MODULE

The salient features of the module should include but not limited to the following:

- a. Facility to add department wise course code and name with number of credit hours and course type (regular, non-credit, etc.)
- b. Facility to configure batch scheme of study with course code, course credit hour, passing marks, course type (regular, non-credit, etc.), optional or core course.
- c. Facility to attach teachers with courses offered in the semester of the specific batch.
- d. Facility to enter course syllabus/ outlines along with recommended books.
- e. Facility to enter course composition such as theory, lab, project, assignments, quizzes, etc.

4.12. DEGREE/ TRANSCRIPT MODULE

The salient features of the module should include but not limited to the following:

- a. Maintain student application status for issuance of required certificate or degree, etc.
- b. Maintain stock and movement of blank copies of transcripts, provisional certificates, degrees and distinction certificates
- c. Maintain issued Transcript, Provisional Certificate, Degree and Distinction Certificate along their numbers records of a student
- d. Integration with Student Financial Module to ensure that students' outstanding dues have been cleared and fee for degree/ transcript has been paid.
- e. Facility to maintain history of issuance of certificate to the student i.e. original, duplicate, etc.
- f. Facility to keep record duplicate, revised, cancelled transcripts and degrees.
- g. Facility to keep record of used and unused degrees, transcripts etc
- h. Facility to keep record of the used and unused answer books, continuation sheets.
- i. Facility to keep record of the funds received from Finance and adjustment of fund

thereafter.

- j. Facility to keep record of the funds utilization(both contingent and secrecy)
- k. Facility to keep record of verification of degrees/transcripts/DMCs
- l. Convocation: facility to keep record of the gold medals per each degree program per batch/session

4.13. ATTENDANCE MODULE

The salient features of the module should include but not limited to the following:

- a. Attendance module should be integrated with the electronic machine such as biometric or Radio-Frequency Identification (RFID) machine.
- b. System should maintain the attendance of students and faculty members of each class.
- c. Facility to rectify data fetched by the attendance machine by the authorized personnel.
- d. Facility to integrate with the Timetable & Class Scheduler module to record class- wise attendance of teachers and students.
- e. Facility to record the check-in and check-out times of teachers, students, employees, etc. at entry and exit points of the university through swipe cards and electronic barrier gates (i.e. tripod, flap, etc.).
- f. Class/students/day/week/month-wise Attendance report
- g. Setup the excellent, average and bad attendance thresholds with color-coding.
- h. View Class-wise Student attendance health and overall Present, Absent, Leave, Tardy counts.
- i. View Class-wise Student attendance health and overall Class attendance statistics.

4.14. TEACHERS' PORTAL / LEARNING MANAGEMENT SYSTEM (LMS)

The salient features of the module should include but not limited to the following:

- a. The Teacher's Portal should be integrated with other core module of LMS to perform the teacher's specific tasks.
- b. Facility to record attendance entry by classes.
- c. Facility to enter marks of each exam.
- d. Facility to auto lock of lecturer exam screen once the marks entry has been posted.
- e. Facility to view complete student profile.
- f. Facility to create e-learning courses.
- g. Facility to develop e-learning subject, quiz and online exam.
- h. Facility to upload multimedia e-learning contents.
- i. Facility to upload e-learning content assignment by the students.
- j. Facility to monitor student upload of homework and assignment, track by time.
- k. Facility to send messages and chat with student and University administration.

4.15. STUDENTS' PORTAL / LEARNING MANAGEMENT SYSTEM (LMS)

The salient features of the module should include but not limited to the following:

- a. Students should access the portal using their own login id and password.
- b. Facility to view and update the following information
 - i. Email/ contact number/ mailing address
 - ii. View academic calendar
 - iii. Register in a program
 - iv. Register for an exam (Self Service)
- c. View program/ subjects registered
- d. View exam results
- e. View attendance
- f. View event calendar
- g. Access online library
- h. Print fees challan
- i. Print grade report/ transcripts

- j. View payment information such as invoice
- k. Provision to generate various requests, such as request for transfer of program, request for hosteltransfer, etc. and monitor its status.
- l. Facility to conduct online quizzes and exams.
- m. Facility to download homework and assignments, lectures and e-learning contents.
- n. Facility to submit homework and assignments to lecturer.
- o. Facility to send messages and email to instructors.
- p. Facility to distribute class-related content through forums and message boards
- q. Facility of chat rooms so that students can discuss with each other or teachers can quickly review information.
- r. Facility to participate in a survey conducted by the university.
- s. Facility to access portal through mobile application of the university.

4.16. RESEARCH AND FINAL YEAR PROJECT (FYP) MODULE

The salient features of the module should include but not limited to the following:

- a. Facility to enroll students for final year projects and thesis.
- b. Facility to approve proposals and thesis by evaluation committee.
- c. Facility to define schedule for proposal, presentation and final reports
- d. Facility to record FYP, thesis, research project and publications by faculty members
- e. Facility to record grade for completed projects and thesis
- f. Facility to record feedback for proposal/thesis, presentation and reports
- g. Facility to record and archival of proposal and thesis for undergrad and postgrad students
- h. Integration with central repository/ achieving system for storing project related material
- i. Facility to record payments of both local & external examiners Payable system
- j. Facility to generate alerts and reports for enrolled students and users
- k. Facility to attach images/ MS Office files along with submission of proposal and other requirements

4.17. FEEDBACK/ SURVEY MODULE

The salient features of the module should include but not limited to the following:

- a. Facility to define custom surveys such as teacher's evaluation, course evaluation, etc. as required by the HEC or any other bodies.
- b. Facility to define rating scales, score and weightage of QUEST, Nawabshahions.
- c. Facility to host survey online and invite audience to participate through email / SMS.
- d. Facility to produce analysis of survey data through Business Intelligence (BI) tools.
- e. Facility to specify time for collecting feedback and subsequent reminders.
- f. Facility to export data of the collected feedback in CSV/Excel/ or any other format.
- g. Facility to generate status of pending and completed feedback.
- h. Make it available on a separate page on same university website and title it QEC
- i. Please provide some space on this page to upload HEC policies and events related to QEC
- j. Make student online portal available on page to upload forms by QEC
- k. Courses related data in form of time table may be updated by relevant department along teacher and course name
- l. Students roll number, names etc should display to QEC office already entered by Admission Section
- m. provision of report generation may be provided to QEC
- n. provide permissions and rights to QEC to manage and access this page

4.18. SCHOLARSHIP MANAGEMENT MODULE

The salient features of the module should include but not limited to the following:

- a. Facility to define different scholarship programs offered by different bodies i.e. HEC, USAID, Faculty Development Program, Overseas Scholarship, etc.
- b. Facility to define criteria for shortlisting of applicants for each scholarship program.

- c. Facility to record and process request raised by the donors i.e. HEC for the advertisement of scholarship slots for submission of scholarship applications.
- d. Facility to host online application form on the QUEST, NAWABSHAH website to collect application from the applicants who wish to avail scholarship.
- e. Facility to attach supporting documents with the application form.
- f. Facility to view the application in tabular form and assign scores based on the credential provided by the applicant.
- g. Facility to shortlist the applicants based on the scores and rules defined by the University.
- h. Provision to plan interview sessions with the applicants who qualify for next round of interview and send call letter to the student for interview.
- i. Facility to enter score of applicants during the interview session.
- j. Provision to prepare merit list and waiting list of shortlisted applicants.
- k. Provision to record award of scholarship for qualified applicants.
- l. Facility to record invoice in the system to release funds from the donor. The system should be integrated with Receivable module to post the financial effect of invoice
- m. Facility to record the receipt against invoice through Cash Management module discussed above.
- n. Facility to disburse payment to the applicant through the Cash Management module or adjust the amount against fee challan generated from the Student Financial module of LMS.
- o. Facility to generate the scholarship grants utilization report from the accounting system.
- p. Facility to enter closing of scholarship award upon successful completion of the program by the student.

4.19. UNIVERSITY ID CARD WORKBENCH MODULE

The salient features of the module should include but not limited to the following:

- a. Facility to issue university ID card to employees and students
- b. Facility to generate different designs/formats university ID cards
- c. Facility to print multiple ID cards on single page
- d. Facility to take picture and integrate it in the ID card

4.20. ALUMNI MODULE

The salient features of the module should include but not limited to the following:

- a. Facility to assign Alumni status to ex-faculty members and graduated students.
- b. Facility to keep record of Alumni's status (employed/non-employed), their addresses, contact numbers etc.
- c. Facility to take inputs from alumni about the courses taught and market trends
- d. Facility about donations from alumni

4.21. USER MANAGEMENT SYSTEM (DOIT)

The salient features of the system should include but not limited to the following:

- a. Facility to maintain user profiles.
- b. Facility to process request for granting/ revoking access rights.
- c. Facility to manage access rights at the following levels:
 - i. Modules
 - ii. Menu
 - iii. Setups
 - iv. Transactions
 - v. Reports
 - vi. Data
 - vii. Button
- d. Facility to maintain multi role base access i.e. need to know basis like edit, entry, view, entry & view, edit etc.

- e. Facility to define user groups to define roles and access rights. Once a user is assigned to a particular group all the access rights given to group can be assigned to the particular user.
- f. Facility to control access by campus wise, faculty wise, department wise, section wise, etc.
- g. Facility to log users along with their activities with date and time stamp.
- h. Facility to generate logins in batch mode, where multiple logins can be generated for multiple students at once.
- i. Facility to allow user to change passwords
- j. Facility to define policies related to password strength, password change.
- k. Facility to grant/ revoke/ modify access rights.
- l. Facility to maintain audit log of all activities performed by a user.

4.22. OPERATIONAL REPORTS

- a. Solution must export all implemented/configured RULES & POLICIES regarding all components across the solution.
- b. Generate a report having list of students with their academic information and personal profile details.
- c. Ability to generate fee bill for Admissions Application.
- d. Generate a report for summary of students admitted by admission announcement.
- e. Ability to generate PDFs of Entry Test Slips having applicant details, test schedule and venue of the test
- f. Ability to print test scores of applicants. Post it on notice board or social media website or can be used for internal evaluation in excel.
- g. Ability to print interview form and detail for an individual applicant, which can be presented in front of interview panel or internal processing.
- h. Generate a list of applicants appearing for interview with details like venue, dates and time.
- i. Provision to print the detailed financial summary at department, program and term level. Show details like total receivable, total received, total outstanding for overall institute and then for each department, program and individual student.
- j. Ability to print the collection summary total amount at department level.
- k. Generate Student Registration Card
- l. Generate Student-wise report of enrollment summary having registered courses and credit hours etc
- m. Generate Student-wise report for Enrollments and Financial summary
- n. Ability to generate an academics report to list the grades for a student in a single term
- o. Generate the report for count of students across Campuses, Schools, affiliated colleges and Departments
- p. Ability to generate the class/day-wise report of attendance summary
- q. Generate the Grade Reports for a particular student. Show marks, grades and GPA, CGPA
- r. Ability to generate the Class-wise Student Grades Report
- s. Generate the provisional and final Transcript as per Actual timeline of courses completion by students
- t. Generate the provisional and final Transcript as per required and expected timeline of courses completion by students
- u. Access to a read replica of the database in a secure manner for customized on-demand reporting.
- v. Provide ability to export Campus/program/department wise academic programs data with details in Excel.
- w. Provide ability to export Campus/program/department wise Core/Elective/Minor/UR courses data with details in Excel.
- x. Provision of a report: Batch wise List of students - Left during semester

- y. Provision of a report: Batch wise List of students Semester freezing
- z. Provision of a report: Batch wise list of students – Dropped various subjects
- aa. Provision of a report: Batch wise List of Students – Scholarship Awardees
- bb. Provision of a report: Letter format - Shortage of Attendance
- cc. Individual reports for repeat courses, Makeup course retests and I-grades may be made available in LMS
- dd. Batch-wise list of students who appeared in exams in a particular semester.
- ee. Batch-wise list of students, who are withdrawn, suspended and deferred in a particular semester.
- ff. Batch-wise summary of grades awarded by a faculty member is required. Course code, course name, credit hours, teacher name, batch and grades summary needs to be exported.
- gg. Student-wise summary of grades improved by the student is required. Student Reg No, Name, Degree, Batch, Course code, course name, credit hours, semester, Old Grade, New Grade and CGPA need to be exported.
- hh. Batch-wise list of students who earned F and D in a semester is required. It can be made more generic as list of students who earned any grade in a semester.
- ii. Student's personal info and contact info may be displayed and downloaded in a tabular form for administrative tasks.
- jj. Provision of a report: Semester wise student's financials
- kk. Provision of a report: Semester wise students with outstanding dues
- ll. Provision of a report: Term wise students having Installments
- mm. Provision of a report: Program & Department wise student's financials
- nn. Provision of a report: Program & Department wise students with outstanding dues

4.33. Central Library Module:

Digital Library and Automated Library will have the following requirements.

- a. To have the provision to entered the maximum number of recorded books along with their credentials written in the accession register.
- b. To have the provision to entered the maximum number of serial publications along with their credentials written in the Serial accession register.
- c. To have the provision to enter the maximum number of Library User is along with their credentials written in the Library Membership Form.
 - I. Three picture
 - II. NIC copy
 - III. Students ID Copy
 - IV. Membership fee @100
- d. To have the portal to upload the digital copies of the books in the maximum capacity.
- e. To have the portal to upload the digital copies of the serial publications in the maximum capacity.
- f. To have the facility to inform the users about the fresh arrivals.
- g. To have the facility of unique member identity.
- h. To have the facility to inform the users about the due date about their borrowed materials.
- i. To have the facility to inform the users about their overdue fine on their borrowed materials.
 - I. In case of overdue @5 rupees will charge per day/per volume
 - II. In case of damage book the fine will be imposed upon the nature of damage
 - III. In case of lost book Triple Cost will be imposed
 - IV. In case of Library membership Card lost @100 will be imposed
- j. To have the facility to suspend the outstanding/defaulters members.
- k. To have facility of members clearance service from central as well as departmental libraries.
- l. To have the facility that member can access the library as well as their account virtually at

any location.

- m. To have facility of purchase books on supply order/Spot Purchase mode through centralized Purchased committee from the local market.
- n. To have the facility to generate the members report.
- o. To have the facility to generate the books report.
- p. To have the facility to generate serial publication report.
- q. To have the facility to generate the daily, weekly, monthly, and yearly reports of the issued/returned books and members.
- r. To have the facility of inter library loan, i.e. from central library to faculty and departmentallibrary.
- s. To have the facility to have the facility of union catalogue.
- t. To have separate portal and access for HEC Digital Library.
- u. To have the facility of RFID system.
- v. To have the provision for future expansion of incorporating other digital libraries and platforms.

5.1. Hostel Management System

The system will be used by the Provost and will support activities that assist student for seat allotment process specific to all applicants. The salient features of the module should include but not limited to the following:

- a. Facility to create setups of male/ female hostel blocks, floors, rooms and their description with type, capacity, and detail of other item in a room, room charges, details of supervisory staff of hostel and mess such as Warden, Assist. Warden, Head Bearer, Bearer, etc.
- b. Facility for the students to apply online for hostel and other services.
- c. Facility to define merit criteria for hostel allotment.
- d. Facility to generate hostel Merit list
- e. Facility to configure room allocation rules and automatically allot rooms to students based on room size, type and capacity.
- f. Facility to maintain the room status whether it is occupied or vacant.
- g. Facility to manage the reallocation of room to student with semester wise and maintains attachment detail of the same.
- h. Facility to generate monthly mess bill of each student.
- i. Facility to record attendance through check-in and check-out times of students at Facility to maintain the details of fee paid by the students.
- j. Facility to impose penalties and fines on students based on disciplinary issues
- k. Facility to manage the student clearance with respect to vacant date and submission of other related item of the room.
- l. Facility to maintain the information of visitors with respect of student and room.
- m. Facility to manage and control hostel assets efficiently and track hostel consumables and durables by location, value, date and allot codes using RFID or barcode scanners.
- n. Facility to maintain details of meals and accounts of each student.
- o. Facility to create week wise menu.
- p. Facility to automatically calculate mess charges, track mess expenditures and other transactions.
- q. Facility to monitor monthly expense of mess, kitchen stock, etc.
- r. Entry and exit points of the hostel and mess by swipe cards and electronic barrier gates (i.e.tripod, flap, etc.)
- s. Facility to track missing students in the hostel and notify parents by email/ messaging.
- t. Facility to integrate with complaint management module to lodge any complaints.
- u. Facility to generate reports of hostel for hostel officials such as hostel wise, floor wise occupied and vacant rooms list, students list availing mess services, non- payers list, etc.

5.2. Food and market Management module

The salient features of the system should include but not limited to the following

- a. Facility to define rentable assets and maintain its record
- b. Facility to call Tender/Bids for rentable facility within campus premises.
- c. Facility to maintain Check on food menu and prices.
- d. Facility to maintain record of rent collection
- e. Facility to maintain record of penalties imposed on violation.

5.3. Workflow & Data Archiving System

a. File Tracking and Workflow System

The salient features of the system should include but not limited to the following:

- a. Facility to define organizational structure, campuses, departments, sections, etc.
- b. Facility to define various roles and designations such as VC, Dean, Director, Chairman, Registrar, etc.
- c. Facility to assign users with their corresponding designations.
- d. Facility to define approval hierarchy for different types of transactions.
- e. Facility to define different stages for different types of transactions.
- f. Facility to map workflow stages with the transactions recorded in the core systems.
- g. Facility to define approval limits.
- h. Facility to define service level (time) for each role for the completion of each task assigned to him.
- i. Facility to raise demand to initiate process where the user is allowed to enter data like date, file number, concerned person/organization, remarks, noting, processing stages, etc.
- j. Facility to attach scanned documents with each stage/ process and should be stored in archiving system.
- k. Facility to send and receive any communication among the users engage in the process with read receipt.
- l. Facility to store document reference of transactions recorded in the core systems with the stages defined for each case/ demand. Alternatively, the user will select the demand reference while creating transaction in the core system.
- m. Facility to define additional charge in case of the non-availability of primary responsible person.
- n. Facility to see any action item marked to him for any further action. The user is also able to perform the following actions:
 - i. Add notes
 - ii. Prepare Drafts
 - iii. Recommendations, etc.
- o. Facility to generate alerts in case the tasks is not completed in the due course of time.
- p. Auto closure of case/ demand upon completion of last stage.
- q. Facility to monitor the status of each case/ demand raised by the requesting person.
- r. Facility to integrate with the mobile application of the university.

b. DOCUMENT IMAGING & ARCHIVING SYSTEM

Document Imaging and Archiving system will be integrated with the File Tracking and Workflow system to capture and store the documents with reference to various stages of each case/ demand.

- a. Facility to scan images along with tags such as document case/ demand number, subject, date & time, keyword, etc.
- b. Facility to attach other documents such as PDF, Word, Excel Sheets, etc.
- c. Facility of auto-indexing to facilitate search.

- d. Facility to retrieve documents based on different search tags define in the system.
- e. Facility to scan documents using Optical Character Recognition (OCR) technology, so that search can be performed on the text.

5.4. FINANCIAL MANAGEMENT SYSTEM

The Financial Management System (FMS) should be implemented for the following functional areas:

- a. Main Campus Accounting
- b. Satellite Campuses/ Affiliated Colleges
- c. GP Fund Accounting
- d. Benevolent Fund Accounting
- e. Lab Testing Fund Accounting
- f. Consultancy Fund Accounting
- g. Pension Fund Accounting
- h. Any other entities operating independently

5.5. GENERAL LEDGER

The General Ledger system (GL) will be fully integrated with all other modules having financial effects such as Payables, Receivables, Human Resources Management System (HRMS), Fixed Assets, etc. The integration will be done to the extent that any financial transaction generated by other modules, will be periodically posted into the control accounts in the GL. The GL system will have the following salient features:

- a. The General Ledger should support cash basis/ double entry system.
- b. Provision to maintain financial accounts of multiple campuses/ entities/ employee funds within a same database thereby helping the user to consolidate the financial information at Group level.
- c. Facility of maintaining multiple years of data jointly allowing previous and current year's data to be accessed simultaneously.
- d. Handling of multi-level chart of accounts with a flexibility of defining user specific structure of the chart of accounts in line with the requirements set-out by Project to Improve Financial Reporting and Auditing (PIFRA) by devising new accounting
- e. model.
- f. Providing multi-level cost center structure to record transactions with reference to different segments like department, campuses, etc. to produce segment wise analysis.
- g. Calendar with user-defined financial periods according to reporting requirement of the QUEST, NAWABSHAH.
- h. Facility to define standard vouchers with customized printing options.
- i. Facility of standard transaction narration on single keystroke for each voucher type.
- j. Full screen-editing facility while entering data.
- k. Provision to define month end vouchers as 'reversible' at the opening of subsequent financial period.
- l. Providing options whether to maintain automatic numbering of all documents or user entered document number.
- m. Powerful password protection for all activities.
- n. Facility to lock entered data to protect against any changes.
- o. Provision for standard/ recurring vouchers.
- p. Flexible user defined on-screen inquiries to analyze the entered vouchers with different logical operator and filters.
- q. Automatic calculation of excess/ shortage of funds at year-end (temporary or permanent) and update of user defined profit account with corresponding printing of Journal Voucher.
- r. Period-end and year-end processing and generation of year-end voucher for closing balances of accounts.

1. General Reporting

- a. Option to print the voucher as soon as its entry has been completed.
- b. Printing of transactions list, voucher type wise.
- c. Printing of trial balance at any level of the chart of accounts with data range selection.
- d. Printing of general journal, ledger activity and ledger balances.

2. Financial Reports

- a. Month wise income and expense report, with budget comparatives.
- b. Comparison of data of different periods
- c. Facility to design user-defined report formats through the report writer including balance sheet, profit/ loss statement, income / expense statement.
- d. Facility to set up cash flow statement through the report writer
- e. Cost center definition enabling cost-center wise reporting.

5.6. BUDGET MODULE

The Budget module is designed to allocate the financial budgets at group or detail account code level, in accordance with the QUEST, NAWABSHAH's requirements. The system will also maintain track of budget revisions during a financial year. The proposed module will have the following salient features:

- a. Facility to enter annual budgets for different heads of account and campuses with a breakup of financial periods defined by the user.
- b. Facility to define multiple budgets such as HEC/Sindh Government budgets as well as recurring budgets.
- c. Facility to allocate budget figures with reference to business segment i.e., cost center, department, campuses, etc.
- d. Facility to copy previous year's budgeting values or get new allocation using a factor of previous data to minimize the data input efforts.
- e. Facility to revise the budget before completion of the year.
- f. Facility to print report for each head of account comparing the actual amount therein with the budgeted figure and the last year's figure.
- g. Facility to view consolidated budget covering all the departments and campuses.
- h. Facility to import budget data from the spreadsheets.
- i. Facility to compare budgets from periods of different years for a head of account and their actual for different reports including profit and loss statement, balance sheets, cost center-reports and other user-defined reports.

5.7. Accounts Receivable

The Accounts Receivable module will cover the transactions of parties, employees other than students. The module should be fully integrated with the General Ledger system, where only control accounts will be maintained for trade debtors. At the end of every day/ or every month the control account in the General Ledger will be updated based on the detailed transactions in the accounts receivable. The main features of the module are as follows:

- a. Facility to enter invoice into the system thereby producing a corresponding accounting voucher into the general ledger system to book the financial effects in customer ledger
- b. Maintenance of customer account balances
- c. Facility to knock-off invoices with cash receipts
- d. Facility to maintain details of outstanding invoices
- e. Facility to enter credit and debit notes to handle effects of sales returns, bad debts, replacements etc.
- f. Facility to incorporate adjustment notes

Reports

- a. Details of outstanding invoices
- b. Printing of customer ledger/ customer statement Customer balances report
Ageing analysis of receivables Tax reporting

5.8. Accounts Payable

The Accounts Payable module should be linked with the inventory system to validate all the purchases. The user will be able to enter supplier's invoices and record payable liabilities. The system should also be integrated with the General Ledger system to book accounting effects, resulting from the entry of supplier invoice, debit/credit notes etc. The system should provide a facility to make payments against the payable liabilities and make necessary deductions. The main features of the system are as follows:

- a. Facility to enter bill/ invoice containing demand reference, supplier reference, payment and tax deductions.
- b. Facility to enter supplier invoice along with other costs breakups to account for purchases and accounts payable.
- c. Facility for the Purchase department to validate and approve invoices on the computer.
- d. Maintaining track of local and foreign purchases.
- e. Maintain history of foreign currency rates used for the purchase of imported items.
- f. Facility to define approval cycles to authorize payments initiating from different authorities such as VC, Chairman, Pre-audit, etc.

General Reporting

- a. Details of outstanding bills/ list of payments to be made during each week List of payments due in the next number of days and the related cash outflow requirements aging analysis for a given set of days
- b. Printing of supplier ledger and balances Sales tax report

5.9. Cash Management Module

The Cash Management module is designed to analyze the future inflow and outflow of cash generated from the account's receivables, payables, etc. This module also includes preparation of bank reconciliation, maintenance of multi-currencies, computation of forex gain/ loss etc. The proposed module will have the following salient features:

- a. Facility to setup banks, bank accounts, cash accounts, impress accounts, etc.
- b. Facility to prepare payment voucher on the basis of supplier invoice.
- c. Handling of supplier payment by incorporating withholding tax according to the nature of services and amount limit.
- d. Facility to link payment with available budget.
- e. Facility to prepare and maintain cash receipts
- f. Facility of advance payments from customers and adjust this at the stage of issuing invoices.
- g. Providing a reporting lines for evaluating future cash inflow and outflow, thereby gives a base for future fund management in terms of investment, debt service, pay off liabilities, etc.
- h. Provision to prepare bank reconciliation to evaluate exact cash position at different banks of the University of QUEST, Nawabshah.
- i. Facility to compute forex gain/ loss upon receipt of customer dues and payment of outstanding amounts.
- j. Facility to print cash, bankbooks, ledgers, etc. for given range of dates.

Tax Reporting

- a. Tax payment receipt (challan)
- b. Monthly statement
- c. Annual statement
- d. Supplier Certificates

5.10. Fixed Assets Module

Fixed assets system maintains complete record of all assets owned by the QUEST, NAWABSHAH, and records the movement of these assets from one department to the other and from one location to other. The system also calculates year-end depreciation and determines the written down value (WDV), at the time of disposal to calculate the gain/ loss on disposal of assets. The salient features of the Fixed Assets system are given below:

- a. Maintain comprehensive database of assets using multi-level asset codes for analyzing group and detail level information.
- b. Multi-location assets maintenance
- c. Department-wise assets management
- d. Disposal of assets using various modes of asset disposal.
- e. Provision to write-off assets
- f. Provision for different type of adjustments i.e. revaluation, re-classification etc.
- g. Transfer of asset to other locations/ departments.
- h. Breakup for assets costs either acquired locally or imported
- i. Maintains the history of previous years schedules
- j. Fixed assets register for individual items
- k. Edit lists and MIS reports
- l. Integration with the General Ledger system

Depreciation

- a. Maintaining different methods of depreciation calculation like straight line, reducing balance etc.
- b. Depreciation methods setup at group level as well as at individual level
- c. Provision to define depreciation policies regarding acquisitions and disposals
- d. Prepares monthly and annual depreciation schedules.
- e. Cost center-wise depreciation allocation
- f. Initial and normal depreciation rate (if different). Initial depreciation values are for the first year of newly acquired assets
- g. Number of shift days (if applicable) at group level
- h. Provision for calculating shift-based depreciation.

Reports

- a. Fixed assets register
- b. Depreciation schedule – financial and tax List of assets location-wise, department-wise List of transfers/ disposals/ additions
- c. List of revalued assets/ re-classified assets/ written-off assets

5.11. Contingency Fund Module

This module should maintain contingency fund account of each department, recording of contingencies and reimbursement of contingency fund. The salient features of the module

should include but not limited to the following:

- a. Facility to record the receipt of cheque/ cash in the Contingency Fund module.
- b. Facility to enter the contingency details in the register.
- c. Facility to create demand to replenish the fund by submitting details to the concerned department.
- d. Facility to generate report related to contingencies.

5.12. Investment Portfolio Module

The Investment Portfolio module should be integrated with the Financial Management System (FMS) to automate the complete cycle of making investment i.e. term deposit (TDRs) in financial institutions, profit calculation on investments, accounting, maturity and renewal of investments. This module should have the following features:

- a. Facility to record financial investment i.e. TDR, COD, Mutual fund, etc. in different banks containing investment amount, maturity date, profit rate, profit terms and other parameters.
- b. Facility to compute profit, and post the corresponding accounting voucher in the Accounting System for fund management
- c. Facility to distribute profit amount among them members of fund based on the formula devised by the management.
- d. Facility to record maturity and renewal of investment.
- e. Facility to terminate the investment.
- f. Facility to record any financial charges, taxes levied on the investment and posting of these effects in the accounting system.

5.13. Procurement System

The Procurement system will be used to maintain all activities related to purchase monitoring and execution, starting from the entry of the requisition, getting quotations from the market and preparing purchase orders to communicate with suppliers. The proposed system will be integrated with the Inventory system as required to maintain supply chain. The system will also be integrated with the Payable system to share purchase order data for the preparation of supplier invoice. The main features of the system are as follows:

- a. Facility to maintain supplier database containing name, address, credit period, credit limit and their origin like foreign and local etc.
- b. Facility to enter requisition by each concerned department.
- c. Requisition generated by various departments would be accessible to Purchase Department for requesting quotation or calling tender for the procurement of goods and services depending upon the value of goods or services.
- d. Facility to generate MIS reports related to purchase transactions.

Tendering

- a. Facility to enter various stages of tender such as development of RFP, publishing, opening, awarding, etc.
- b. Facility to handle single stage and two stages tendering process as per Public Procurement Regulatory Authority (PPRA) rules
- c. Facility to record bidders applied for providing goods or services
- d. Facility to shortlist bidders based on their initial Expression of Interest (EOI) submission
- e. Facility to handle different selection methods such as Quality and Cost Based Selection (QCBS), least cost, etc.
- f. Facility to record tender fee with respect to each bidder
- g. Facility to evaluate each bid and record scores of the bidders
- h. Facility to award contract to the successful bidder

Procurement of Low Value Items (other than tendering)

- a. Provision to enter quotations received from suppliers.
- b. Facility to generate comparative statement based on the quotations received from supplier.
- c. Facility to generate purchase/ supply orders against quotation received from suppliers.
- d. Integration with the Inventory system to maintain the status of goods received and outstanding quantities against each purchase order.

5.14. Inventory System

The Inventory system is designed to manage movements of stock i.e. receipts of materials from supplier, issuance of materials to the user departments, materials returns, etc. The system will maintain built-in controls related to stock management like re-order level, lead-time, re-order quantity, etc. The Inventory system will be integrated with the Purchase system, such that all the Goods Received Notes will be linked with Purchase Order to evaluate quantity ordered, quantity received and partial status of purchase orders. Efficient management of stocks by maintaining stock monitoring parameters like minimum and maximum levels, re-order quantity and lead-time.

- a. The total cost of an item can be maintained as a break up of various cost heads, for instance purchase price, freight, custom duty, etc.
- b. Valuation of stock based on weighted average cost.
- c. Preventing shortfall by maintaining a minimum level for all items in stock.
- d. Multiple stock adjustments and reports on their quantitative and financial effects
- e. Producing financial / quantitative reports of the stocks procured, issued and in hand.
- f. Different characteristics can be defined for different groups of items. This is in addition to the levels of codes maintained in the system.
- g. Facility to maintain multiple warehouses. Each warehouse can have its own Goods Receiving Notes, Material Issues, Sales Invoices and other transactions.
- h. Facility to enter quantitative information separately by Stores staff and financial valuation separately by the Finance department for each Goods Received Note (GRN).
- i. Facility to define item types such as capital goods, consumable items, etc. Upon entering the GRN, the system should update the acquisition in the Fixed Assets system.
- j. Materials valuation linked with the prices in PO/ supplier invoice/ payment voucher.
- k. Quality Control (QC) inspection and facility to maintain stock as useable, damaged/ expired
- l. Providing the management with consumption pattern of stock items
- m. Provision to maintain separate buying units and issuing units and their conversion
- n. Material Issue and Material Return Note to manage stock movement between store and departments.
- o. Stock transfer note to move stock between various warehouses.
- p. Stock adjustment note for different type of errors like excess/short stock
- q. Facility to return damage stock to the supplier and automatic generations of debit note to supplier ledger balances.
- r. Cost center-wise storage and issuance of stock.
- s. Facility to generate MIS reports related to inventory transactions.

5.15. Human Resource Management System

The salient features of the system should include but not limited to the following:

- a. **Employee Module**

- a. Facility to enter employee personal information
 - b. Facility to enter academic record
 - c. Facility to enter date of joining or leaving
 - d. Facility to enter details of employee family
 - e. Facility to record medical history
 - f. Facility to enter multiple addresses
 - g. Facility to enter status of annual leaves
- b. Job Profile**
- a. Facility to create areas of operations such as Academic, Administration, Accounts, Provost, and HR etc.
 - b. Create uniform Job titles to be used in whole organization such as VC, Dean, Registrar, Chairman, Director, Superintendent etc.,
 - c. Facility to define government grade structure and pay scale to accommodate salary
 - d. Create Job positions such as VC, Chairman, Director, Superintendent etc.,
 - e. Facility to define job description by attach duties, responsibilities, skill, qualifications with the Job position
 - f. Define Job Evaluation Factors (Age, Qualification, Experience)
- c. Recruitment and Selection**
- a. Resources planning to define all the sanctioned posts in each department
 - b. Facility to view status of sanctioned positions such as vacant position, positions to be vacant, etc.
 - c. Facility to generate requesting for the hiring of a position.
 - d. Facility to publish adverts of vacancies on the website
 - e. Facility to define hiring criteria.
 - f. Facility to create and upload CVs using candidates own login id, password.
 - g. Facility to search best candidate from the CV database based on the criteria defined in the system and custom filters. Search of suitable personnel from the database of resumes based on:
 - I. Skills requirements
 - II. Educational requirements
 - III. Experience requirements
 - IV. CV text search for uploaded CVs
 - h. Facility to shortlist the selected candidates and send them call letters for interviews from the system.
 - i. Facility to define different stages for selection such as selection board, syndicate, registrar, etc.
 - j. Facility to schedule interviews/ assessment of the candidates.
 - k. Facility to conduct tests/ assessments/ interview sheets
 - l. Facility to generate offer letter to the selected candidate
- d. Training and Skills Development**
- a. Facility to raise training requesting based on training needs identification during the appraisals, recruitment, department's specific needs, etc.
 - b. Facility to prepare course calendar
 - c. Facility to enroll employees based on:
 - I. Courses already attended by person
 - II. Prerequisites/ skills required for course
 - d. Facility to mark course completion by:
 - I. Performing post training evaluations
 - II. Entering training costs

e. Appraisals/ Performance Management

- a. Facility to configure performance evaluation form for different grades
- b. Facility to record details of performance evaluation of the concerned HOD.
- c. Facility to define various stages of review, recommendations and approvals
- d. Schedule reviews and intimate stakeholders such as assesses, assessors
- e. Perform assessments based on the assessment workflow configured earlier.
- f. Recommend (review and amend system generated) compensations
- g. Review and finalize compensations
- h. Facility to generate promotion letter and update the grades and pay scales.

f. Employee Self Service (ESS) Module

This module should be designed to serves as an employee interface to the HR department. This module should have the following features:

- a. Online access to:
 - I. Pay slips
 - II. Outstanding Loans
 - III. Outstanding Leaves
 - IV. QUEST, NAWABSHAH procedures and policies
- b. Interfaces to file leave applications, loan applications and approvals should also be possible
- c. Provisions for notice board, employee feedback, newsletters and connecting other internal modules, where required.

g. Correspondence Management

- a. Reduce the burden of HR department by sending auto intimations from various processes such as job interview schedules, employee review schedule, compensation intimations, etc.
- b. Facility to define letter/email templates such as warning letter, appreciation letter, offer letter, employment contract, etc.
- c. Facility to attach QUEST, NAWABSHAH templates being used for the correspondence process
- d. Facility to add system bookmarks (such as employee name, designation, salary, etc.) in the template
- e. Facility to generate emails/ letters and send to recipients

h. Housing and Accommodation Module

The salient features of the module should include but not limited to the following:

- a. Facility to maintain record of all housing units owned by the QUEST, NAWABSHAH such as location, category, covered area, number of rooms, number of washrooms, other amenities, etc.
- b. Facility to register requesting for the allocation of house/ hostel rooms.
- c. Facility to create a waiting list of all those who applied, and case has been approved for accommodations based on the rules defined in the system.
- d. Facility to allocate accommodation to the applicants containing applicant name, tenure, terms and conditions, etc.
- e. Facility to deal locate accommodation upon the retirement or the will of the occupants.
- f. Assign an individual to housing depending on the length of the housing assignment (i.e., term, monthly,
- g. or daily), assess the associated fees and have the information immediately available to Accounts Receivable.

5.16. Payroll System

Payroll system should have a facility to set up employees' master file and the salary structure for each employee in terms of monthly allowances and deductions. The system should maintain the location-wise / department-wise employee cost thereby enabling the management to analyze the payroll cost contribution with reference to each department/ business unit. The effect of these transactions should be transferred to General Ledger system electronically.

The system should also provide **loan** module, which will maintain a track of various loans given to the employees by the QUEST, NAWABSHAH and will automatically make loan deductions according to the loan terms set in the system. All loans will be treated as interest free loans.

The payroll system should maintain track of leave record of each employee, in terms of leaves availed and leaves outstanding, and will automatically calculate the deductions for 'leave without pay'. The module wise features of the system are as described below:

a. Basic Salary Module

- a. Employees should be identified by unique numbers allotted to them and the system maintains the personal information of each employee, like employee's name, father's name, address, department, designation, location, date of joining and confirmation, date of leaving (for employees who have left), grade, National Tax Number and National Identity Card Number, eligibility for Employees' Old-Age Benefits Institution (EOBI), Social Security, General Provident Fund, etc.
- b. Facility to define government basic pay scales for each grade to compute allowances, annual increase.
- c. Facility to revise basic pay scales as and when required.
- d. All allowances offered to the employees and deductions made from their salaries are user-defined in the system.
- e. Allowances and contributions should be computed automatically based on formulas defined by the users as per the QUEST, NAWABSHAH policy.
- f. The effect of any changes in the allowances is immediately passed on to tax module and the system computes the tax automatically.
- g. Non-salary benefits offered to the employees should also be maintained by the system.
- h. The effect of the number of days not worked during the month is passed on the net amount of salary payable to that employee once these have been entered.
- i. Provision to split an employee's net salary for remittance to multiple banks.
- j. Printing of Pay-slips
- k. The Basic Salary module should be integrated with Workload module to compute and make payments of the extra work load (academic and administrative)
- l. The following reports should be produced from the system:
 - i. Employee's personal details
 - ii. List of employees: Department / location / designation wise
 - iii. List of employees joined and left during the month.
 - iv. Department-wise and grade-wise strength
 - v. Monthly payroll sheet by employee/department/location
 - vi. Departmental summary of the salary paid
 - vii. Annual payroll sheet: detailed and summarized
 - viii. List of employees paid by bank and cash
 - ix. EOBI, ESSI, education CESS and Group Insurance reports (monthly and annual) for

the contributions made by the QUEST, NAWABSHAH on behalf of its eligible employees.

b. Loan Management Module

- a. This module should keep a track of loans disbursed to employees, their recovery in installments and the balance amount payable.
- b. Loans of various kinds should be maintained, such as car loan, house loan, loan against PF, revolving funds, etc.
- c. Facility to setup different types of loans having different installment plans.
- d. Both interest based and interest-free loans should be maintained.
- e. Once the installment per month has been decided, the system keeps deducting the same amount regularly in the subsequent months until the total loan has been recovered or the installment amount has been changed.
- f. The system should have provision for lump sum payment.
- g. Monthly and annual loan register

c. Leave Management Module

- a. Maintenance of employees' leaves in terms of leaves allowed, leaves availed and leaves outstanding.
- b. The actual dates when the leaves were availed can also be maintained.
- c. The effect of days not worked in the month (leaves without pay etc.) is reflected on the salary of that employee.
- d. Monthly and annual leaves register can also be produced.
- e. Leaves encashment is also calculated once the cashable leaves have been identified.

d. Income Tax Module

Income Tax module should compute tax liabilities based on the latest tax rules and produce the following report:

- a. Income tax computation
- b. Monthly/ quarterly income tax return
- c. Salary certificate printing as per government requirement
- d. Income Tax Statement u/s 50 (1)
- e. Income Tax Statement 139
- f. Facility to produce tax report in a format prescribed for e-filing by the FBR

e. Load Management/ Overtime Module

- a. The module should keep record of extra load on daily basis and make payments on monthly basis through the pay-slip.
- b. The number of hours worked as overtime per day can be recorded through attendance module.
- c. Facility to define rules for the workload of maximum chargeable hours for academic and administrative staff.
- d. Facility to define different Admin load and honoraria for Dean, Chairman, Semester coordinator, Director, Warden, Assistant Warden, Proctor, Campus Coordinator, Provost, Chief proctor etc.
- e. Facility to prepare week wise course/ teacher assignment giving teacher name & Designation, course name, credit hours (theory & lab), FYP, admin load, total load, regular load, weekly extra load, total semester extra load, approved hourly rate, estimated cost.
- f. The system automatically calculates the amount payable by calculating each faculty's daily rates.
- g. Facility to generate remuneration bill based on workload and class attendance.

f. Bonus Module

Bonus module should work out the annual bonus based on detailed working of average basic salary and the bonus rate. Bonus should be calculated based on the criteria defined by the user, which may be parameters such as:

- a. Bonus rate
- b. Category of employees
- c. Designation
- d. Department
- e. Period of service of the employees
- f. The allowances that would form the basis of computation of bonus
- g. Provision to pay more than one bonus per year
- h. Provision to define formula for calculations of bonus amount based on configured allowances and specified rates.

g. General Provident Fund Module

- a. The module should compute the amount of provident fund to be deducted for employees who are members of the fund.
- b. Both employees and employer's contributions are maintained for each member employee as per the percentage decided. The accrued provident fund for each member is also maintained.
- c. The system checks those loans taken against provident fund do not exceed the accrued value of GPF for that employee.
- d. Printing of GPF ledgers for each member employee.
- e. Monthly/ Annual reports of contributions by the members and the QUEST, NAWABSHAH are also printed.
- f. The users can also get report from the system for the monthly allocation to be done for Provident Fund.
- g. Facility to disburse the profit amongst the members of the fund in accordance with their contributions as announced by the Khyber Pakhtunkhwa Government.
- h. This module should be integrated with the GL system and GPF funds accounting system to book the financial effects.

h. Benevolent Fund Module

- a. The module should compute the amount of benevolent fund to be deducted for employees who are members of the fund.
- b. The system checks that grant taken against benevolent fund do not exceed the limits set- out for different categories by the university.
- c. Printing of benevolent fund ledgers for each member employee.
- d. Monthly/ Annual reports of contributions by the members and the QUEST, NAWABSHAH can also be printed.
- e. The users can also get report from the system for the monthly all avocation to be done for Benevolent Fund.
- f. Facility to disburse the profit amongst the members of the fund in accordance with their contributions as announced by the Khyber Pakhtunkhwa Government.
- g. This module should be integrated with the GL system and benevolent funds accounting system to book the financial effects.

i. Pension Module

- a. The system should provide facility to calculate pension based on formula as per government directives.
- b. Provision to enter opening balances and define contribution of employee and employer based on basic pay and other allowances.
- c. Facility to record nomination forms submitted by the retired employee.
- d. Facility to disburse pension through payment system by making cheques.
- e. Facility to suspend pension or transfer the rights to the legal heirs as per the formula.

j. Final Settlement Module

- a. This module should compute the terminal benefits for the employee who leaves the organization based on the following parameters:
- b. Computation of leaves encashment
- c. Computation of notice pay (either side)
- d. Deduction of balance loan amount recoverable
- e. Deduction of tax recoverable form the employee
- f. Computation of salary for the days worked during the leaving month.

5.17. Business Intelligence (BI) System

a. Data Warehousing

Facility of data warehousing and data cubes based on internal database as well as external databases.

b. Business Intelligence (BI) Tools

- a. Facility to create Key Performance Indicators (KPIs) for comparing benchmark values verses actual outcomes.
- b. Facility to view dashboards for each functional area for the line management and top management such as VC, Dean, Chairman, Registrar, Director Finance, Provost etc. to monitor the performance.
- c. Facility to filter information based on criteria such as campuses, departments, sections, functional areas, etc.
- d. Facility to drilldown to navigate from dashboard to supporting reports.
- e. Facility to generate graphical and statistical reports such as charts, gauge, etc.
- f. Facility to generate alerts and view tickers in case of any exceptions in achieving KPIs.
- g. Facility to view dashboard on mobiles, tablets, etc. for Android and IOS.

c. Adhoc/ Custom Reporting

- a. Facility for the user to create custom report by their own, based on the data cubes developed in the data warehouse.
- b. Facility to drag and drop data fields to create a report.

d. Integration with Third Party Solution

The Integration tool will have the following facilities:

- a. Online updating of financial effects from LMS and other modules
- b. Provide APIs to develop routine to exchange data between ERP and other systems
- c. Data export and import facility in a prescribed format
- d. Maintain audit trail of data and related reports

6. General Requirements

6.1. Common Function Requirements

Following requirements are common to all system/ modules and should include but not limited tothe following:

- a. Software should provide a detail audit trail of all the activities and should be equipped with the query analyzer to view any exceptions.
- b. All reports can be exported in different formats such as PDF, MS Excel Format, Comma Separated Values (CSV), etc.
- c. Software should provide import data facility through MS Excel, CSV and other machine-readable formats.
- d. System should maintain electronic signatures of all the users and record with each transaction.

6.2. Non-Function Requirements

a. System Architecture

- a. Software should be preferably developed in open-source technologies.
- b. The systems should be platform independent and compatible with all the leading Operating Systems such as Microsoft, Linux, etc.
- c. Systems should be web based and can be accessible from anywhere.
- d. All the mobile apps/ dashboards should be compatible with Android and IOS platforms.
- e. System should have single sign-in to access any system/ module.
- f. System should have unified architecture such that any entity student, employee, department, vendor, cost center, etc. created in one module should be accessible to other modules.
- g. All systems/ modules should be well integrated with each other to share financial effects and transaction references.
- h. The software should have a capacity to handle server requesting / web traffic of around 20,000 student and around 5,000 employees/ faculty members.
- i. System Security
- j. Systems should have secure communication with SSL (https) or any other equivalent security mechanism.
- k. All the sensitive information such as student grades, exam data, should be stored in encrypted form in the database.

b. Data Migration

- a. Vendor should submit data migration plan to move existing data from the currently implemented examination manual system etc. to the newly acquired system. The data mainly include the students', exam results and any other information maintained.
- b. The vendor should execute the migration plan once approved by the QUEST, NAWABSHAH.
- c. The vendor should verify the migrated data with the assistance of the QUEST, NAWABSHAH staff.

c. Source Code & Updates

- a. The vendor should hand-over the source code with documentation of all the systems/ module developed exclusively for the QUEST, NAWABSHAH.
- b. The vendor should also provide the development tools, technologies, APIs, etc. for future enhancements by the QUEST, NAWABSHAH.
- c. The vendor should provide updates of any new release from time to time during the agreed maintenance period.
- d. The vendor should impart training and transfer skills for onward customization and maintenance.
- e. The original source code of customization made by the vendor shall be the property of the QUEST, NAWABSHAH. The QUEST, NAWABSHAH shall have complete rights to modify and sell the software to other organizations.

d. Service Levels

- a. The vendor should specify the service levels for:
 - i. Fixation of critical and non-critical bugs and errors
 - ii. Response to any queries
 - iii. Time required for maintenance and upgrades
- b. The vendor should provide 2-year free technical support services after the successful deployment of the software
- c. The vendor should also quote the technical support services charges after the expiration of free services.

e. Availability

Software solution should be available for internal users 24 x 7 x 365 with minimal downtime.

f. Training Manuals

- a. Vendor should provide online help and user manuals covering each option for all the systems and modules discussed above.
- b. Vendor should provide installation manual.
- c. Vendor should provide technical documents such as data dictionary, schema, system architecture, DFDs, class diagrams and other necessary documentation for the customization of software.
- d. The vendor should update all the manuals discussed above time to time.

g. Trainings

- a. The vendor should impart training to the QUEST, NAWABSHAH project team and the end-users by taking the following initiatives:
 - I. Creation of test environment of the deployed software i.e. Conference Room Pilot (CRP) for software acceptance testing and on-going training.
- b. Provision of hands-on training to the end-users to allow them to test key processes.
- c. Train the trainer of the QUEST, NAWABSHAH for their capacity building.
- d. Train and empower the technical team so that they can add new modules, enhance and customize the existing software according to their needs.

h. Deployment Model

- a. The vendor should quote only on premises solution. The vendor should not propose cloud-based solution and Software as Service (SAS) model will not be considered and subject to the rejection of the proposal.
- b. The vendor may also proposed the Hardware require for the implementation of LMS/ERP.

6.3. General Requirements and Information for Proposal Submission

For a PROPOSER to be considered, QUEST, NAWABSHAH must receive two (2) copies (one original and one photocopy) of the technical proposal & one copy of financial proposal by 11:00 AM, January 17, 2022 at the following address:

At the office of Deputy Director Finance at Admin Block, QUEST, Nawabshah.

Please also send one printable and searchable PDF copy of technical proposal in a flash drive. All proposals must be clearly marked separately for both technical and financial proposals:

a. Technical / Financial Proposal “Acquisition & Implementation of LMS and ERP”

Sealed Technical and Financial proposals should be submitted in two separate envelopes placed and sealed in one big envelope (as per single stage – two envelopes bidding procedure).

There is no expressed or implied obligation for the QUEST, NAWABSHAH to reimburse responding PROPOSER for any expenses incurred in preparing proposals in response to this request.

QUEST, NAWABSHAH reserves the right to retain all proposals submitted, and to use any ideas in a proposal regardless of whether that proposal is selected. Submission of a proposal indicates acceptance by the PROPOSER of the conditions contained in this requesting for proposal, unless clearly and specifically noted in the proposal submitted and confirmed in the contract between QUEST, NAWABSHAH and the PROPOSER selected.

The QUEST, NAWABSHAH shall not bear any cost related to the preparation of proposal as well as any subsequent cost such as pre bid meeting visit cost, etc. incurred by the PROPOSER.

b. Project Contact

QUEST, Nawabshah invites bids in sealed envelopes (technical & Financial Proposals) under single stage two envelope procedure as per PPRA rule 36 (b) from reputed IT, software Services Organizations and from chartered Accountant firms (registered with Pakistan Software Board, Income Tax and Sale Tax Department) in accordance with instructions in RFP Document, for development of **Robust implementation of ERP Learning Management System** with different modules RFP document along with detailed specification, terms and conditions can be obtained from the office Deputy Director Finance, QUEST along with fee in shape of call Deposit of an amount of Rs. 3000/- (Non-Refundable) in favor of the Director Finance, QUEST, Nawabshah.

RFP duly prepared as per instructions in the RFP document must reach along with the earnest money @ 2% of bid cost in shape of Call Deposit from any scheduled bank in favor of the Director Finance, QUEST, Nawabshah from **January 17, 2022**. The Bids will be submitted up to **January 31, 2022 at 11:00 am and will be open on January 31, 2022 at 11:30 am** and in case of second attempt, the bids will be open on **15 February 2022 at same time and same venue** in Committee Room at Administration Block, QUEST, Nawabshah. In case of any unforeseen situation resulting in closure of office on the date of opening or if Government declares Holiday the RFP shall be submitted / opened on the next working day at the same time & venue. Any Conditional or un-accompanied of the earnest money, tender will not be considered in the competition. The bidders who intend to seek any clarification can submit written letter, which shall must reach to the undersigned prior to seven days of opening of Technical Proposals. Any written request received later than seven days will not be entertained.

QUEST, Nawabshah reserves the right to accept or reject any/all bid(s) with cogent reasons. The details i.e. RFP Specification and TORs can also obtained from the official website of the QUEST, Nawabshah i.e. www.quest.edu.pk as well as from PPRA website www.ppra.org.pk

c. Project Schedule & Deliverables

The following is a tentative time schedule and deliverables related to the requesting ERP and LMS acquisition and implementation project:

RFP release	January 17, 2022
Pre-bid meeting	January 20, 2022 at 11:00 am
Proposals Due (by 11:00 AM)	January 31, 2022 at 11:00 AM
Presentations by shortlisted firms	Will be notified if needed.
Contract awarded, work begins	(Provided that the final evaluation has been approved by the competent authority)
Submits Inception Report, Project Charter, Project Schedule and WBS	Within one weeks after awarding contract
Fortnightly Progress Reports giving target achieved against planned, targets slipped, causes and recommendations and next targets.	Fortnightly (before close of business of each fortnight)

Submits Gap Analysis Report, Data Migration Plan	To be provided the vendor
Installation of ERP and LMS software at QUEST, NAWABSHAH, Nawabshah and handing over of training material	To be provided by the vendor
Completion of training and UAT at University of QUEST, Nawabshah	To be provided by the vendor
Data migration, Customization and development of MIS reports	To be provided by the vendor
Completion of 2-months parallel run at QUEST, NAWABSHAH, hand other campuses/Affiliated colleges to verify the accuracy of new system.	To be provided by the vendor
Handing over of source code & related technical documentation as discussed above	To be provided by the vendor
Closeout and handing over and taking over of project	To be provided by the vendor

Note: The PROPOSER should submit the proposed project schedule giving the deliverables as mentioned above.

d. Eligibility Criteria for the Firm Applying

This Invitation for Bids is open to reputed firms/suppliers registered with Income Tax and Sales Tax Departments, who are on Active Taxpayer List of FBR, Government of Pakistan for supply and provisioning of such services. All the bidders are also required to be registered with Revenue Authority.

Government-owned enterprises in the Purchaser's country may participate only if they are legally and financially autonomous, if they operate under commercial law, and if they are not a dependent agency of the Purchaser.

Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices i.e. firm should not be blacklisted. Bidder for shall submit the undertaking not blacklisted to anywhere. The bidder should have strong understanding of LMS, ERP, and extensive experience with academic institutions of at least medium size university, preferably in public sectors. The bidder should have completed at least one successful implementations of LMS software in open source platform preferably in universities of at least similar nature and size.

e. Proposal Requirements

The Proposal should include the minimum information requesting below in the order listed. Emphasis should be on completeness and clarity of content. Please do not include sales and marketing brochures. Additional information, if provided, should be separately identified in the proposal.

f. Section One – Transmittal Letter

A cover letter (Annex - 1, to be furnished with **technical proposal** and Annex - 2, to be furnished with **financial proposal**) signed by an official authorized to solicit business and enter into contracts for the PROPOSER. The cover letter should introduce your firm and summarize general qualifications, including the firm's legal entity name, address, email address, phone number of contact person, and short synopsis of the proposal and credentials to deliver the services sought under the RFP.

g. Section Two – Experience and Qualifications

The PROPOSER should describe the company's profile giving details of legal status, services and products offer, number of offices, overall staff strength and other details highlighting the company's profile along with Annex – IV ((LETTERHEAD OF SUPPLIER/TENDERER/ MANUFACTURER) BIDDER QUALIFICATION STATEMENT)

- 6.3.g.1. A description summarizing the PROPOSER's experience over the past seven years in performing similar services as listed in this RFP to large academic

Clients. Please include the year, key scope objective(s), and LMS (along with the list of modules) that your firm implemented, include the names of the project manager, team members and their roles.

- 6.3.g.2. A statement identifying the names of key personnel that will be assigned to this project, including their titles, length of relevant experience (name of projects executed in

education institutions and task performed), qualifications and proof of certifications for the products and services being offered (attach resumes). Please include the PROPOSER's ability to adequately and consistently staff the project with the same team.

6.3.g.3. The PROPOSER will depute qualified staff in this project, mainly comprising of Project Manager, Functional Consultants, Developers, Business Analyst, QA Analyst, Database Administrators, Technical Writer, etc.

h. The firm's ability to complete the work specified in this RFP and produces the required products in a timely fashion and the ability to present any necessary reports and recommendations to university. This section should contain the description of at least one

6.3.h.1. successfully completed project in the last seven (7) years, including the name of public sector educational institution for which work was performed, general description of the scope of work, budget, name and contact information of agency representative responsible for the project.

6.3.h.2. Evaluation of the bids will be conducted in the following Two stages: -

Technical Stage-1 (A): Preliminary Examination

	Description of requirement	Responsive	Non-Responsive
	Proof of Registration (Certificate of Incorporation)		
	Proof of successful deployment of LMS system based on open-source Platform in University		
	Proof of registration with Revenue Authority		
	Proof that the PORPOSER is original owner of the software or authorized dealer (Annex- IX) (installation/commissioning/training undertaking by original equipment/software manufacturer)		
	Proof of the firm not black-listed (on Stamp paper)		
	Annual Audited reports of last financial years		
	Proof of being active tax payer		
	Authorization letter/ certificate from the principal to market their products along with partnership status (Annex-X (original software manufacturer's authorization form)).		
	Client's Reference(s) of similar work experience as mentioned in (Annex-V (reference list of similar nature completed projects)).		

	CVs of key personnel (along with the certificates)		
	Letter of bid (Bid Form) as per Annex-I (letter ofbid (letter of intention) (To be furnished with technical proposal)).		
	Bidder Qualification statement as per Annex- IV (LETTERHEAD OF SUPPLIER/TENDERER/MANUFACTURER) BIDDER QUALIFICATION STATEMENT)		

Note: QUEST, NAWABSHAH may ask clarification/additional documents other than mentioned above till the opening of Financial Proposal. The preliminary examination will be conducted on a Responsive or non-responsive basis. Only bids, which have been rated “responsive” in the preliminary examination of bids, shall be considered for further evaluation.

Technical Stage-1 (B): Technical Marking

In second stage of technical marking will be done as per section “**selection criteria**”. The Technical marking will be conducted on a pass or fail basis. Only bids which have been rated "pass" in the technical marking of bids shall be considered for further evaluation.

Financial Stage-2: Financial/Final Evaluation

Letter of Bid (Bid Form) as per Annex-II (LETTER OF BID (LETTER OF INTENTION) (To be furnished with financial proposal))

Price Break down schedule as per Annex-III (PRICE BREAKDOWN SCHEDULE)

6.3.h.3. Section Three – Outline Strategies and Options

Outline methodology, planning, design and execution strategies that will result in the analysis, design, implementation, and training of LMS and ERP that are practical to the University. Include a detailed plan for the services to be provided, along with deliverables to be provided at each step, with a corresponding timeline, including meetings with QUEST University officials. The work plan should be consistent with the scope of work presented above, however, the PROPOSER may suggest changes where appropriate.

i. Section Four – References

Provide at least one (1) reference from client from within the past Seven (7) years, preferably of an institute similar/higher in nature and size to University of QUEST, Nawabshah. Include the entity name and website URL, title, email address and telephone number for a contact person from each reference as well as scope of work and project start/end dates (Annex – V (reference list of similar nature completed projects)).

j. Section Five – Estimated Project Timeline and Pricing

The PROPOSER should provide module wise break-up of timelines and prices as mentioned in the section “In-Scope Modules”.

- a. Provide an estimated module wise project timeline required to implement the LMS and ERP solution as discussed in the scope of work. Project budgets should include:
 - b. A project schedule for each activity, milestone, and deliverable, and
 - c. Project budget defined, at minimum, as follows:
 - i. Task with a collective total by milestone and deliverable;
 - ii. Project responsibilities and estimated amount of time expected for each task, expressed in person-hours;
 - iii. Hourly rates for all project team members;
 - iv. Costs for any other expenses such as printing, travel and attendance at meetings, etc.
 - d. Provide pricing estimates that include:
 - e. Total Software Cost, with module wise cost break-up as per **Annex – III (PRICE BREAKDOWN SCHEDULE)**

- f. Per user license cost for professional user, limited user, student use.
- g. Study, implementation and training cost
- h. Annual maintenance cost.
- i. Charge-out rates of project proposed staff
- j. The PROPOSER shall present a specific “not to exceed” fixed fee, including associated administrative fees (i.e., printing costs, attendance at meetings, travel, boarding and lodging). Each phase of work should have an itemized budget including labor costs and expenses for each piece of work.
- k. The PROPOSER shall provide the payment schedule in accordance with the delivery however the payment schedule will be finalized by the client.

k. Available Budget/ Contract

The QUEST, NAWABSHAH wishes to negotiate a fixed price contract with a “not to exceed” total based on a clearly defined scope of work.

Selected prospective consultant shall be required to participate in negotiations with university officials and execute a contract for professional services.

The QUEST, NAWABSHAH reserves the rights to accept or reject the proposal either in full or part. All proposal responses must be received by 11:00 AM on January 31, 2021 for a PROPOSER to be considered. The QUEST, NAWABSHAH reserves the right to reject all proposals without assigning any reason.

l. Bid Security

The bidder /firms are required to deposit 2% bid security

m. Performance Guarantee

The supplier whose quotation is accepted will be required to submit a performance bond in the form of bank guarantee (Annex – VII (PERFORMANCE BOND (FORM))) as a professional liability issued by the first class recognized bank, the amount of which will be not less than eight percent (8%) of the total contract amount to guarantee faithful performance and completion of the Agreement. If the Contractor fails for any reason to execute the Agreement, the University will forfeit the said bond. The performance bond shall remain in effect until the satisfactory completion of the project, from the date of issuance.

The Bid Security submitted by the bidder and Performance Guarantee will be considered as security deposits the sum not greater than the 10%. In case the bidder is not providing the performance, security than 8% will be deducted from bill amount and the same will be returned after 6 months successful completion of the project.

Failure to provide a Performance Guarantee by the Bidder is a sufficient ground for annulment of the award and forfeiture of Bid Security. In such event the Procuring Agency may award the contract to the next lowest evaluated bidder or call for new bid.

n. Selection Criteria

A two-stage procedure is utilized in evaluating the proposals, with evaluation of the technical proposal being completed prior to any price proposal being opened and compared. Only those financial proposals of the proposers will be considered for opening that scores 70% marks in Technical Documents Evaluation. Before opening of financial proposals, the qualified vendors will be called for Presentations Session.

The technical proposal, which comprises of Technical Documents and Presentation, shall be evaluated based on its responsiveness to the Term of Reference (TOR)/ Scope of Work.

In the Final Stage, the financial proposals of all the qualified contractors will be compared. The overallweight-age factor applied to Technical & Financial scoring will be as under:

Sr. No.	Criteria	Weightage
1	Technical Proposal	
1.1	Technical Documents	50%
1.2	Presentation (Proposed Work Plan, Approach and Live Demo)	20%
2	Financial Proposal	30%

The selection process shall be based on the received bids. The process may include discussion and clarification through any means as notified. Criteria for evaluation Technical Documents Marks (TDM) and Presentation Marks (PM) shall include:

Factors	Max. Marks
LMS implementations in open source Platform 04 marks for each implementation	20
ERP Implementation 02 marks for each implementation	10
Official Partner of the proposed open source platform Gold = 10, Silver = 05, Ready = 02	10
Proposed Work Plan and Timeline	10
Name of Audit Firm Audit firm in QCR rated list - 02 marks 2019, 2020 and 2021 audit reports with total average assets of the 03 years:	10
List of Personnel, their Qualification and Experience	10
Completeness of PROPOSAL REQUIREMENTS mentioned in section "Proposal Requirement"	10
Number of Years the firm has been in consultancy practice in Pakistan (2.5 marks per year of Experience in related projects)	10
Relevant experience with public sector organization/Universities	10

o. Final Evaluation

The final evaluation will be based on the respective weightage assigned to Technical Criteria and Financial Criteria and the marks attained.

$TTM = TDM * 0.5 + PM * 0.2$

$TFM = 1st\ lowest * 30/Z$ (where Z is the value of 1st lowest, 2nd lowest, 3rd lowest etc.)

$GTM = TTM + TFM$

where:

TTM= Total Technical Marks TDM = Technical Document Marks PM =Presentation Marks

TFM= Total Financial Marks GTM= Grand Total Marks

7. Contract Terms & Conditions

7.1. Inspections and Tests

The Purchaser or its representative shall have the right to inspect and/or to test the Software to confirm their conformity to the Contract specifications at no extra cost to the Purchaser.

The inspections and tests may be conducted on the premises of the Supplier (Developer) and/or at the final destination. If conducted on the premises of the Supplier, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.

7.2. Delivery Delivery of the Goods/Services shall be made by the Supplier according to project deliverable and set deadline made by QUEST, NAWABSHAH, Nawabshah after award of the contract.

7.3. Warranty

Limited Media guarantee/warranty. The Developer warrants that, for a period of 2 years following delivery of the Software, the media upon which the Software is delivered will be free from defects in materials and workmanship under normal use.

The Developer's sole obligation in this regard will be to provide the purchaser with a performing copy of the Software without costs to the purchaser within a reasonable time (within one month) following the purchaser written notice to the Developer of the defect.

Limited Support Warranty. For a period of two (02) years following the deployment of the Software, the Developer shall perform its maintenance and support services consistent with generally accepted industry standards, but only if the Software is installed and operated in accordance with the Developer's documentation and other instructions.

Limited Performance Warranty. The Developer warrants that, for a period of two (02) years starting on the date of deployment of the Software, the Software will perform substantially in accordance with the functional specifications set forth in the documentation, but only if the Software is installed and operated in accordance with the Developer's documentation and other instructions.

7.4. Payment

If the Supplier, having been notified, fails to remedy the defect(s) within the specified period, the Purchaser may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

The Supplier's request(s) for payment shall be made to the Purchaser in writing,

accompanied by an invoice describing, as appropriate, the Goods delivered and Services performed, and by documents submitted.

7.5. Delays in the Supplier's Performance

Delivery of the Goods and performance of Services (modules/software/training/documentation etc.) shall be made by the Supplier in accordance with the time schedule prescribed by the Purchaser.

If at any time during performance of the Contract, the Supplier encounters conditions impeding timely delivery of the Goods and performance of Services (modules/software/training/documentation etc.), the Supplier shall promptly notify

the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier's time for performance, with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of Contract.

A delay by the Supplier in the performance of its delivery (implementation and deployment) obligations shall render the Supplier liable to the imposition of liquidated damages, unless an extension of time is agreed upon without the application of liquidated damages.

7.6. Liquidated Damages

If the Supplier fails to deliver any or all of the Goods or to perform the Services (modules/software/training/documentation etc.) within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, 0.5% of the total amount of the Contract per week, up to maximum of 10% of the total amount of contract. Once the maximum is reached, the Purchaser may consider termination of the Contract.

7.7. Termination for Default

The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate this Contract in completely or in part:

- a. if the Supplier fails to deliver any or all of the Goods or Services (modules/software/training/documentation etc.) within the period(s) specified in the Contract, or within any extension thereof granted by the Purchaser; or
- b. if the Supplier fails to perform any other obligation(s) under the Contract.
- c. if the Supplier, in the judgment of the Purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

For the purpose of this clause:

“Corrupt practice” means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. “fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Purchaser, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Purchaser of the benefits of free and open competition.

In the event the Purchaser terminates the Contract in whole or in part, the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods or Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

7.8. Force Majeure

The Supplier shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that it is delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

For purposes of this clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not restricted to, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

7.9. Termination for Insolvency

The Purchaser may at any time terminate the Contract by giving written notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, if such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Purchaser.

7.10. Termination for Convenience

The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in completely or in part, at any time for its convenience. The notice of termination shall specify that termination be for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

The Purchaser shall accept the Goods or Services (modules/software/training/documentation etc.) that are complete and ready for shipment within fifteen (15) days after the Supplier's receipt of notice of termination at the Contract terms and prices.

For the remaining Goods and services (modules/software/training/documentation etc.), the Purchaser may elect:

- a. to have any portion completed and delivered at the Contract terms and prices; and/or
- b. to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Services (modules/software/training/documentation etc.) and for materials and parts previously procured by the Supplier.
- c.

7.11. Settlement of Disputes

If any dispute or difference of any kind whatsoever shall arise between the Purchaser and the Supplier in connection with or arising out of the Contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.

If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to

the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter maybe commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods or

Services under the Contract.

Arbitration proceedings shall be conducted in accordance with the rules.

Notwithstanding any reference to arbitration herein,

- a. The parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
- b. The Purchaser shall pay the Supplier any dues.

7.12. Limitation of Liability

Except in cases of criminal negligence or willful misconduct, and in the case of infringement,

- a. the Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser and
- b. the aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective goods.

Annexure-I – Bidding Forms

LETTER OF BID (LETTER OF INTENTION)

(To be furnished with technical proposal)

To

QUEST, Nawabshah

Date: _____ Procurement Ref. No: _____

Dear Sir,

Having examined the bidding documents, the receipt of which is hereby duly Acknowledged, we, the undersigned, offer to supply, install, and train and commission the Software in conformity with the said bidding documents.

We undertake, if our Bid is accepted, to deliver the services/goods within days from date of award of contract.

We agree to abide by this Bid for the Bid Validity Period specified in the bidding documents and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any bid you may receive. We certify/confirm that we comply with the eligibility requirements as per bidding documents.

Dated this _____ day of _____ 2021

[Signature]

[in the capacity of]

Duly authorized to sign Bid for and on behalf of _____

LETTER OF BID (LETTER OF INTENTION)

(To be furnished with financial proposal)

Annexure – II

To:

QUEST, Nawabshah

Date: _____ Procurement Ref. No: _____

Dear Sir,

Having examined the bidding documents, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply, install, train and commission the Software in conformity with the said bidding documents for the sum of _____
[total bid amount in words and figures] or such other sums as may be ascertained in accordance with the Price Break-down schedule attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, to deliver the services/goods within days from _date of award of contract.

We agree to abide by this Bid for the Bid Validity Period specified in the bidding documents and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us. We understand that you are not bound to accept the lowest or any bid you may receive.

We certify/confirm that we comply with the eligibility requirements as per bidding documents.

Dated this _____ day of _____ 2021

[Signature]

[in the capacity of]

Annexure – III
PRICE BREAKDOWN SCHEDULE

1	2	3	4	5	6	7
Sr. No.	Module Description	Country of origin	No. of Licenses	Unit price (PKR)	Total price (PKR)	Yearly Cost impact
1	Learning Management System		20			
2	User Management System		1			
3	ERP		2			
4	Business Intelligence (BI) System		2			
5	Enterprise application Accounting		2			
6	Enterprise application Invoicing		2			
7	Enterprise application Purchase		2			
8	Enterprise application Inventory		2			
9	Enterprise application Events					
10	Enterprise application Website					
11	Enterprise application Project		1			
12	Enterprise application Documents					
13	Enterprise application Time off		1			
14	Enterprise application Studio					
15	Development Cost					
16	Implementation Cost					
17	Training Cost					
18	2 Years Support Cost					
	Grand Total =		35			

Please note that the list given above does not include the licenses for faculty, students and staff (Limited professional users), as these will be the part of a package offered by the vendors (please see section 1.1 for student, faculty and staff strength).

We offer to supply, install and commission the abovementioned service(s)/goods(s), in accordance with the terms and conditions stated in your request for Quotations referenced above. The validity period of our quotation is _____ days from the time and date of the submission deadline.

We confirm that the prices quoted above are fixed and firm for the duration of the validity period and will not be subject to revision or variation.

Quotation Authorized By:

Signature: _____ Name: _____

Position: _____ Date: _____
(DD/MM/YY)

Authorized for and on behalf of:

Company: _____

Address: _____

OFFICE SEAL

Annexure - IV

**(LETTERHEAD OF SUPPLIER/TENDERER/MANUFACTURER) BIDDER
QUALIFICATION STATEMENT**

Name and Address of Tenderer/Bidder

- A. Name of Supplier/Tenderer _____
- B. Address of Head Office _____
- C. No. of Employees/Engineers _____
- D. Date Established and/or Registered _____
- E. Project In-charge _____
- F. Section/Department/Division _____
- G. Tele facsimile Number _____
- H. Email Address _____
- I. Telephone Number _____
- J. Mobile Number _____
- K. National Income Tax No. _____

We hereby certify to the best of our knowledge that the foregoing statement are true and correct and all available information and data have been supplied and that we agree to show documentary proof thereon upon your request.

Date

Name & Address of the Tenderer

(Signature)

(In the Capacity of)

Annexure - V

REFERENCE LIST OF SIMILAR NATURE COMPLETED PROJECTS

Name of Purchaser / Institution	Purchase order No. and date	Contact Person/ Contact No./ Email/ Website	Modules Implemented	Value of order	Date of completion

Note: Please attach the supporting documents such as PO, Completion Certificates, etc.

Annexure - VI
CONTRACT FORM

THIS AGREEMENT made the day of 2020 between QUEST, Nawabshah, (hereinafter called “the Purchaser”) of the one part and *[name of Supplier]* (hereinafter called “the Supplier”) of the other part:

WHEREAS the Purchaser invited bids for certain goods and ancillary services, viz., procurement of Software’s and has accepted a bid by the Supplier for the supply, installation, commissioning and training of those goods and services in the sum of *[contract price in words and figures]* (hereinafter called “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
 - (a) the Price Schedule submitted by the Bidder;
 - (b) the Technical Specifications;
 - (c) the General Conditions of Contract;
 - (d) the Purchaser’s Notification of Award.
 - (e) Bidding Documents.
3. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract
4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the goods and services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, sealed, delivered by _____ the _____ (for the Purchaser)

Signed, sealed, delivered by _____ the _____ (for the Supplier)

Annexure - VII
PERFORMANCE BOND (FORM)

To

QUEST, Nawabshah

WHEREAS **(Name of Supplier)** (hereinafter called "The Supplier") has undertaken, in pursuance of Agreement dated _____ to supply, install, train and Commission Software.

AND WHEREAS, it has been stipulated by you in the said Agreement that the Supplier shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with the Supplier's performance obligations in accordance with the Agreement.

AND WHEREAS we have agreed to give the Supplier a Guarantee:

THEREFORE, WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of (Amount of the Guarantee in Words and Figures) and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under agreement without cavil or argument, any sum or sums within the limits of (Amount of Guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the (Day) day of (Month), (Year).

Signature and Seal of the Guarantor

Date _____

Address _____

Annexure - VIII

**INSTALLATION/COMMISSIONING/TRAINING UNDERTAKING BY ORIGINAL
EQUIPMENT/SOFTWARE MANUFACTURER**

We **(Name of Original Software Manufacturer or Authorized Dealer)**, a manufacturer/ authorized dealer duly organized under the law of **(Name of Country)** and having its principal place of business at **(Address of Original Software Manufacturer or Authorized Dealer)** hereby undertake that we are exclusively responsible for the successful Installation, Commissioning, and Training for the equipment/software offered by us/ our local agent for your Invitation for Bids Reference Number

_____ dated _____.

If for any reason, such as travel restrictions imposed by our government etc., we are unable to send our engineers/supervisors to perform the installation, commissioning, and training for our equipment/software at the Purchaser's designated premises, then we are exclusively responsible for all the costs inclusive of all associated expenses for seven (7) days detailed training of at least two (2) technical personnel of the Purchaser at our premises at **(Original Software Manufacturer or Authorized Dealer premises Address)** for each lot secured as per the Purchaser bidding documents.

Any and all costs associated with successful installation, commissioning, and training has been included in our aforementioned quotation.

Date _____

Name & Address of the Original Software Manufacturer or Authorized Dealer

(Signature)

Note: This letter should be on the letterhead of the Original Software Manufacturer or Authorized Dealer and should be signed by a duly person.

Annexure - IX

ORIGINAL SOFTWARE MANUFACTURER'S AUTHORIZATION FORM

To:

QUEST, Nawabshah

WHEREAS [_____ *name of the Original Software Manufacturer or Authorized Dealer*] who are established and reputable manufacturers of [*_name and/or description of the services/goods*] having factories at [_____
_____ *address of factory*] do hereby authorize [*name and address of Agent*] to submit a bid, and subsequently negotiate with you against Invitation for Bids Reference No. _____ for the above services/goods developed/manufactured by us.

We hereby extend our full guarantee and warranty as per General Conditions of Contract (2 year warranty) for the services/goods offered for supply by the above firm against this Invitation for Bids.

[Signature for and on behalf of Original Software Manufacturer or Authorized Dealer]

Note: This letter of authority should be on the letterhead of the Original Software Manufacturer or Authorized Dealer and should be signed by a person competent and having the power of attorney to bind the Original Software Manufacturer or Authorized Dealer.



End of Document