|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Process | | System Roles | | | | | | | | | |
| Human | Non-Comp Hardware | | Computing Hardware | Software | | Database | Network & Communication | | |
| **Set Question Papers based on COs and conduct Examinations**  **UGC approves curriculum based on PLO and CO** | Faculty Member  a) Set question papers for examinations according to mapped COs.  b) Set classroom, time and date of examinations.  c) Invigilate examinations and collect test papers. Student  a) Sit for examinations and submit attempted test papers to faculty.  Higher Management (HM)  a) Sends the Curriculum booklet to UGC. b) If it gets approved by the UGC then the HM publishes the Curriculum booklet. c) If it doesn’t get approved the HM sets the Curriculum according to the demands of the UGC. d) HM Sends the Updated Curriculum to the Department.  UGC:  a) Receives the Curriculum booklet from the HM. b) Reviews the booklet if it requires changes it sends back feedback to the HM regarding the changes as needed else it is approved by the UGC. | | Table and Chair  a) To use during examinations. Pen and Paper a) For attempting the examinations. b) Questions may be printed on paper. Clock a) Setting time for the examination. Room a) Designated room for examination.  Paper  a) It is used to print the booklet. | | Computer  a) Used by faculties to access the COs from the Excel sheet.  b) Faculties may also use it to take online examinations and interact with students.  c) Students may use it to attend online examinations. Mobile Phone a) Some examinations may allow mobile phones for scanning and uploading pdfs to virtual examinations. Printer  a) Used by faculties to print out question papers for students. Networking devices (Router, Switch, Bridge, Hub)a) Used by faculties and students to access the Internet.  Computer  a) Used by the HM to send the Curriculum by mail to the UGC. Also used for editing and updating the Curriculum booklet doc file. Printer a) Used by the HM to print the curriculum Booklet. Networking devices(Route r,Internet Cable by ISP Providers a) Used by HM/UGC to access the internet. | Microsoft Office  a) The software from which the faculty will collect COs. Google Classroom  a) Used by faculties and students during examinations. Operating System a) Any OS used by the users, e.g. Windows, Mac. Printing Software a) Printing software used for printing the question paper. PDF viewer a) To view questions in PDF or send the answer in PDF.  Microsoft Office  a) Used to edit or update the Curriculum file. Gmail a) Used to send mail to the UGC/HM. Operating System a) Any type of OS used by the users.e.g. Windows, Linux. Adobe Acrobat a) Used to view the PDF file. Printing Software a) Used for printing the curriculum doc | | **Microsoft Excel Database**  a) Faculty access COs from this.  Microsoft Excel Files  a) HM access the data to edit or update the Curriculum | Internet  a) Used by  faculties to  access the  Excel file  via email.  b) Used by  faculties and  students during  examinations.  Internet  Connection  a) It is used by  the HM/UGC  to send or  receive mail. | | |
|  | |  | |  |  |  | |
|  | |  | |  |  |  | |
|  | |  |  |  | |  |  | | |
|  | |  |  |  | |  |  | | |
| **Generating Student Transcripts** | | Student  a) Requests information regarding one or more courses from Admin.  b) Provides admin with necessary info such as ID/CourseID etc. Admin  a) Receives requests for Student transcript information.  b) Asks for Student's identifier information and list of courses. c) Goes through Excel File to collect the necessary information d) Compiles necessary information into a file and passes it to student. | | Paper  a) The student may have to fill out a form with necessary information (Student ID,CourseIDs.etc. ).  b) Their course results/transcrip t information may be printed into a report.  Pen  a) The student may have to fill out a form with necessary information (Student ID/CourseIDs,etc ). | Computer  a) To access the internet and Excel files that hold information about student marks for a course.  b) Students may request information via email.  Printer  a) To print out forms the student will have to fill out to give required information. b) To print out transcript/gra de information. Networking devices (Router, Switch, Bridge, Hub) a) Used by Admin and Students to access the Internet. | Microsoft Office  a) The data is stored in MS Excel files. Operating System a) Any OS used by the users, e.g. Windows, Mac, Linux etc.  Printing Software  a) Printing software used for printing the forms and transcripts. PDF viewer b) To view the transcript in PDF form. | | Microsoft Excel File System  a) The marks for each course separated. by COs and PLOs are kept in Excel Files. | Internet Connection  a) Used to access MS Excel files.  b) Used to request information from Admin.  c) Used to send reports to students. | | |
|  | |  | | | | | | | | | |
|  | |  |  |  | |  |  | | |
| **Mapping of COs from PLOs** | | **Faculty Member**  a) Maps the COs from PLOs based on the syllabus covered in the course.  b) Sends the mapped COs to the admin through email. Admin  a) Receives the mapped COs from the faculty member.  b) Updates it in the excel file containing the COs. | | **Paper**  a) Used if the faculty member or the admin wishes to print out the mapped COs. | **Computer**  a) Used to edit the COs' Excel file. Printer  a) Used to print out the COs for hardcopy storage backup in case something happens to the digital version. | **Microsoft Excel**  a) Used to store the mapped COs.  Web Browser  a) To send and receive the COs through email. | **Microsoft Excel File System**  a) Contains the mapped COs.  Hardcopy storage  a) Contains the hardcopy version of the COs' Excel file for backup. | | | **Internet**  a) Used  to  send  the  emails  contai  ning  COs. |
|  | |  | | | | | | | | | |
|  | |  |  |  | |  |  | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Teachers evaluation about students and submit COs to Admin to update in Database system** | **Faculty Member**  a) Check exam scripts ,mark thosepapers and list COs for each student.  b) Submit student’s COs to Admin  c) Send the exam script back to Student. **Admin**  a) Update COs to Database System.  **Student**  a) Request the faculty to receive the exam paper. | **Pen and Paper**  a) Used by Instructor to mark exam papers and list COs. | **Computer**  a) Instructor used it to Store the exam result.  b) For sending COs to Admin via e-mail.  c) Used by Admin to update COs in Excel Database. **Printer**  a) Used by instructor to print out hard copies of COs.  **Networkig**  **devices (Router, Internet Cable by ISP Providers):**  a) To get access to the Internet Faculty and Admin used it. | Microsoft Office  a) Admin stores COs in MS Excel files. b) Instructor stores student's COs. . Operating System  a) Any OS used by the users, such as Windows, Linux, Mac. **PDF viewer**  a) To view questions and mark them digitally in PDF. Google Mail  a) Used by Faculty to send  CO’s to admin for update. Printing Software a) Faculty prints out COs and delivers physical copy to Admin. | **Microsoft Excel Database**  a)Controlled by Admin to update COs info. | **Internet**  a) Used by instructor to send COs to admin via email.  b) Used by Admin to update COs in Excel database |