**Paper 5 Serial Management**

**Unit 8 Automation of Serial:**

**General Introduction: Library are using computers to perform their day to day work and develop Information Communication Technology (ICT) infrastructure. The application of computers in the library operations avoid repetitive jobs and save** lots of labour, time, and money Automation is also helpful to increase speed of library work Automation or ICT including computers, operating systems, techniques and operators are not only used in the library for processing data, but also for data storage and retrieval. Library automation is the application of computers, (desktops, and laptops) including all other relevant devices and tools for the processing of data in a library. The automation also covers administrative services, accountancy services information services, security services and some office procedures. The computer technology might also be used in library for acquisition, cataloguing, circulation, and particularly for serials control and OPAC services. All the activities need operation through information communication technology or other mechanical and technical devices closely related thereto is called Automation. But when we focus on automating of a particular group of literature in a library, like serial publications, will be called Automation of Serials in library.

**Meaning of Automation: Self-acting, moving or acting on its own, self-working, automatically, not to repeat an action for execution of an objective work.**

**Origin of the word Automation:** The word ‘Automation’ has been derived from a Greek word ‘automatos of persons, “acting of one’s own will”, of things “self- moving, self- acting”, The Greek word ‘automatos’ itself is combination of two Greek words, ‘auto’ means “ self” (see auto, ‘+ ‘matos’, “thinking, animated” – men, “to think”,, ’ which means something which has the power of spontaneous thinking, motion or self-movement

**Definition of Automation:** It can be defined as a technology concerned with performing a process by means of programmed commands combined with automatic feedback control to ensure proper execution of the instructions. The resulting system is capable of operating without human intervention

**Definition of Library Automation:** The phrase ‘library automation’ is being used in literature for the last four decades. A perusal of the literature would indicate that many authors have not tried to define the term explicitly. They use the term ‘Library automation’ to mean the use of computers as an aid for library activities. However, some authors have tried to define the term. For instance Markers (1967) says “Library automation in the broadest sense can be taken to mean the employment of machines for library processes. In general, however, library automation has come to mean the application of computers and related data processing equipment to libraries.

Salmon (1975), has tried to give a more exhaustive definition. According to him “Library automation is the use of automatic and semi-automatic library activities as acquisition, cataloguing, and circulation. Although these activities are not necessarily performed in many traditional associated libraries. Library automation may thus be distinguished associated with related fields such as information retrieval, automatic indexing and abstracting, and automatic textual analysis.”

On the basis of the definitions of automation the following may be considered to be its essential characteristics:-

* The operations of processes are carried out automatically
* Avoids or reduces human actions and thus save labour, money and time.
* Increases accuracy and quality of work
* Increases efficiency and speed- up the operations

**Synonymously Use of the word or term “Automation:** The word automation is a Generic Term This Term is very frequently used inter-changeably i.e. Automation, Computerization, Mechanization, and Digitization.

**So Automation** is the use of control systems and **information** technologies to reduce the need for human work in the production of goods and services. In the scope of **industrialization**, **automation** is a step beyond mechanization. Form all the above discussions it can be observed that the term ‘library automation’ is used to imply just the mechanization of traditional and/or manual house–keeping routines of a library.

The application of data processing equipment to do/to support the clerical/repetitive functions found in technical processing circulation control and serials control.

The application of data processing equipment to the fields of information storage and retrieval, automatic indexing and abstracting and in reference work; and

The application of computers/data processing equipment for operation research and system analysis.

**Background of Common word Automation: What it is?** In the ancient times people worked by hand. They made every task, every works without any help. Later they began to do some simple (and later more complicated) machines, e.g. Water wheels for lifting water from channels, mills (water and wind mills) for milling corns, etc. They began to use animals to give their force, their power to get work machines, vehicles, etc.

In the 19th century the machines were able to do many tasks. Steam engines gave the mechanical energy to machines, but the man had to control every machine and computer control all the data processing and retrieval process.

“The term automation is used in automatic manufacturing, control system, computing machinery or equipment that reduces the participation of human labour in production or services”

“Any work which has been done with help of automatic machine like computer without any human interface is called automation. The biggest benefit of automation is that it saves labour, however, it is also used to save energy time, money and materials and to improve quality, accuracy and precision”.

**Historical Background of Automation in Library:** Since 1960s, libraries have been using technology in general, and computers in particular, to automate a wide range of administrative, public, and technical services tasks. Keeping in view automation or computer applications in a library we may broadly point out different areas of librarianship for being automated i.e. administrative work, security work, manpower dealing, acquisition matters, post-acquisition process, classification, cataloguing, circulation reproduction, reference service,, and serials control.

**Need of Serial Automation:**

1. To have control over serial publications
2. To provide easy access to the serials by the users
3. To improve the quantity, quality, speed, efficiency and effectiveness of the materials and services.
4. To facilitate wider dissemination of information and services.
5. To obtain/deliver wider/increased information operational and service execution facilities
6. Serial publications automated in a library can be shared easily with all concerned through either means.
7. **Continue maintenance and development of the materials, services and standards.**

**Basic Requirements or Steps for Serial Automation:**

1. **Fix objectives of the library**
2. **Adequate collection be available**
3. **Proposal preparation**
4. **To prepare budget expectedly needed for automation of serials in a library.**
5. **Hardware and software systems be provided**
6. **Trained manpower be available.**
7. **Estimated time period needed for completion of automation and its follow up.**

**Automation of Serials (Major Functions need Automation):** The automation of serials activity may encompass following functions for enhancing and increasing speed of information provision services in a library:

1. To prepare written policy for dealing in automation of the serials publications
2. To manage properly office routine works
3. Library staff enrolment, development and controlling.
4. Division of staff duties.
5. Monitoring performance of different sections of the library
6. To provide secured environment to the library users.
7. **Acquisition: The staff becomes able to handle following acquisition functions:**
   1. **Suggestions management**
   2. **Processing selection, ordering, reminders, changing and cancellation**
   3. **Receipt, payment and budgetary control**
   4. **Masters files; such as venders, booksellers, publishers etc. etc.**
   5. **Accessioning**
   6. **Numbering**
   7. **labelling**
   8. **Different reports**
8. **Classifying Serials: Electronic DDC helps providing classification number and subject heading to the recently acquired serial.**
9. **Cataloguing: library serials are catalogued for their retrospective conversion. It facilitates the library staff to deal/process library serials easily.**
   1. **Automation allows cataloguer to use his/her own templates for cataloguing library serials.**
   2. **Allows to generate users generated customized reports**
   3. **Facilitates authority database of person name, corporate body, subject headings and series names.**
   4. **Very convenient application of MARC the latest version.**
   5. **Multi-lingual database by using Unicode character set.**
   6. **OPAC: It can robust OPAC The OPAC has deep search facility with minimum information of the item by using Author, Title, Corporate body, Conference name, Subject headings, keywords, class numbers, series name, accession number, combination of any two or more of the described above regarding the item.**
10. **Circulation: In this activity the automation plays following roles:**
    1. **Membership**
    2. **Transaction**
    3. **Inter Library Loan (ILL)**
    4. **Overdue charges**
    5. **Reminders**
    6. **Search status**
    7. **Maintenance of Items: such as replace, binding, missing, lost, withdrawal etc. etc.**
    8. **Report generation basing on various requirements.**
11. **Reference Services: Automated library data can make it feasible to provide reference services easily to library customers.**
12. **Bibliographical Services: References, citations, notes are automated for extending facilitation to the researchers. Prepared bibliographic descriptions is another facilitation through library automation programme.**
13. **Current Awareness Service is totally dependent on automated library system.**