

# **Syllabus of Certificate course in Library Automation and Networking**

**(B.Voc. Course Programme as per guidelines of NSQF, UGC)**

**Medium: Bilingual (English & Marathi), Duration: 06 Month, Credits: 30**

**Choice Based Credit System (CBCS) w.e.f. 2020-2021**



**B. Voc. Course Center: Raja Shripatrao Bhagwantrao Mahavidyalaya, Aundh  
Dist. Satara (M.S.)**

**Shivaji University, Kolhapur (M.S.)**

**2020-21**

## **Certificate course in Library Automation and Networking**

**(B.Voc. Course Programme as per guidelines of NSQF, UGC), w.e.f. 2020-21**

### **I. Objectives of the Course:**

1. The learner community will be able to gain theoretical as well as practical knowledge in the area of Library Automation and Networking.
2. The learner shall acquire necessary competencies by gaining knowledge through practicing various software, tools, techniques and methods.
3. To make employable to learners towards the Automation and Networking arena in this digital age.
4. To provide basic and essential skills among learner community in specific library Automation and Networking area as well as similarly any digitized area with interdisciplinary approach.

### **II. Outcomes of the Course:**

After completion of the course, students will learn the changing role of libraries and the importance of automation, networking and digitized libraries in the education system. Learners will be able to get job opportunities in the sector from school libraries to University and similar automation and networking related interdisciplinary areas. Besides, students can move vertically as well as horizontally towards the job sector and higher education.

### **III. Duration and Intake capacity of Course:**

**1. Duration:** The duration of the Certificate Course shall be six months (one semester) as per the NSQF guidelines of UGC and approved from Shivaji University, Kolhapur. Intake capacity will be 30 students only by following the merit and reservation criteria as per the Shivaji University, Kolhapur and Govt. of Maharashtra.

**2. Teaching Faculty:** The Course will be headed by the full-time course Coordinator and teaching faculty will be invited as guest lecturers from various locations in keeping with their specialization and expertise in their respective domains.

### **IV. Instructional Delivery Mechanism:**

1. The way of learning is face-to-face regular mode as per the designed timetable.
2. By providing printed, non-printed as well as multimedia-based audio-video learning contents.
3. Extra lectures will be provided through online mode via Zoom, Google Meet and LMS system.

4.40% syllabus will be theory based and 60% weightage will be given to skill component as per the NSQF guidelines

**V. Evaluation System:** The evaluation system will be the same as followed by the Shivaji University, Kolhapur. This course is consist of a single semester and shall have a weightage of 25% for Internal Exams and 75% for term end exams.

**The achieved marks and percentage shall be conversion as determined below.**

#### Grades and Grade Points

Letter Grade	Grade Points
O (Outstanding)	10
A+ (Excellence)	9
A ( Very Good)	8
B+ (Good)	7
B ( Above Average)	6
C (Average)	5
P (Pass)	4
F ( Fail)	0
Ab ( Absent)	0

#### Certificate course in Library Automation and Networking

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#### Syllabus Structure

#### A) General Education Component: 12 Credits

Sr. No.	Course Code	Title	Mark s	Credit	Teaching hours
		<b>Compulsory (Theory)</b>			
1	BVGE-1	Introduction to Computer Technology	75	3	45
2	BVGE-2	Communication and Professional skills	75	3	45
2	BVGE-3	Introduction to ICT Tools	75	3	45
		<b>(Elective Paper) Choose any one</b>			
4	BVGE-4	Information Literacy in Education System	75	3	45
5	BVGE-5	Personality Development & Value Education	75	3	45
		<b>Total</b>	<b>300</b>	<b>12</b>	<b>180</b>

## B) Skill Development Component: 18 Credits

Sr. No.	Course Code	Title	Marks	Credit	Teaching hours
<b>Compulsory (Theory)</b>					
6	CCLAN-01	Introduction to Library and Information Science	75	3	45
7	CCLAN-02	Library Automation And Modernization	75	3	45
<b>Elective ( Theory) Choose any one</b>					
8	CCLAN-03	Library Networking Digital Library & Electronic Security System	75	3	45
9	CCLAN-04	Electronic Information Sources and Services	75	3	45
<b>Practicals (Compulsory)</b>					
10	CCLAN-05	Library Automation	75	3	45
11	CCLAN-06	Digital Library Applications	75	3	45
12	CCLAN-07	Digitization and Electronic Security System	75	3	45
<b>Total</b>			<b>450</b>	<b>18</b>	<b>270</b>
<b>Overall Total</b>			<b>750</b>	<b>30</b>	<b>450</b>

## Content wise syllabus structure of Certificate course in Library Automation & Networking

### Part A: General Education 12 Credits

#### **Paper Code: BVGE-1**

#### **Paper I: Introduction to Computer Technology**

#### **Unit I: Basics Computer Applications:**

Introduction, Meaning, definition and importance of Computer in automation and networking domain, Features & types, Data, Information processing cycle. Introduction to computer Generations, Computer languages, Compilers and Interpreters etc. Memory Devices (RAM, ROM & its types)

#### **Unit II: The Computer Hardware: Input & Output Devices**

Definition, nature, advantages of output devices, Need in automation and networking area, Introduction to new emerging trends in computer Output Devices: CRT Monitors, Printers & types. Parts of Computer System: (Input, Output, Storage unit, ALU, CU, CPU), Brief and basic introduction: Hardware, Software, Input Devices: Keyboard and Mouse: The Standard

Keyboard Layout, Using Mouse, Other Data Input Devices: Pen, Touch Screens, Bar Code Readers and OCR.

## **Unit II: Types of Operating Systems:**

Software: System and Application Software Operating System: Purpose of Operating Systems, Types of Operating System, Popular Operating System, Managing Hardware: Processing Interrupts, Working with Device Drivers, Utility Software, Backup Utilities, and Screen Savers.

## **Paper II: Communication and Professional skills**

### **Paper Code: BVGE-2**

**Unit I: Communication:** Definition, Types and Importance of communication skills in digital era, advantages and demerits of its. Oral Communication - Day to today talk, formal talk, informal talk, conversation, Body Language and so on.

**Unit II: Professional skills:** Meaning and definition, Types of skills: Technology, Administrative, Managerial, Interpersonal, Human Relation, Decision Making, Analytical, Team Building, Time Management, Motivation, Leadership, and Problem Solving Skills. Needs and Importance: Professional skills in digital era.

**Unit III: Professional ethics, duties and responsibility:** Meaning of ethics in professional domain, Need and importance of professional ethics, role and duties in automation and networking area, precautions, duties and responsibilities.

## **Paper III: Introduction to ICT Tools**

### **Paper Code: BVGE-3**

#### **Unit I: Basics ICT tools:**

Introduction of Internet and its features, use of email and social media etc., Remote learning, LMS etc. : Nature, feature, merits and demerits

#### **Unit II: Use of Computer Technology (ICT) in Library:**

Use of MS-Word, Excel, PowerPoint tools, Need and use of various ICT tools in library Automation and Networking.

#### **Unit III: ICT Application in Higher Education:**

E-Resource Management, E-learning, E-publishing, General applications and Services of ICT in Education and Research field.

**Elective Papers:**

**Paper IV: Paper I: Information Literacy in Education System:**

**Paper Code: BVGE-4**

**Unit I: Fundamental of Information Literacy and Products:** Concept, Definitions, Need, Objectives, Types and Importance of Information Literacy. Overview on products as Library Brochure, Database Brochure, Web-based Access Instructions, Information Bulletin; User Education

**Unit II: Basic Models and Standards of Information Literacy:** Models: Kuhlthau, Bruce's 7 Faces, Eisenberg and Berkovitz Big Six Model, SCONUL- Seven Pillar/Seven Faces Model, Empowering-8 Model etc. ; Standards: ACRL, ISTE, ANZIIL, AASL, AECT, IFLA Standards etc.

**Unit III: Application Information Literacy in education:** Role of Libraries and Information Centers, General Practices and Methods of Libraries in Promoting Information Literacy and Information Searching Skills

**Paper IV: Personality Development & Value Education**

**Paper Code: BVGE-5**

**Unit I: Overview on personality development:** - Definition, types and ways to improve personality. Character Building – advantages of good character, importance of trust, honesty, integrity, morality, and reliability as qualities of a good character. Leadership – Qualities of a good leader, Types and Principles. Goal setting – importance of goal setting, steps to goal setting and achieving goals.

**Unit II: Value education:** Concept, meaning and Definition, Purpose of Value Education, Importance of Values in Lifelong learning.

**Unit III: Social issues and Moral values:** Corruption, Cyber Crime, AIDS Awareness, and Substance abuse concept, source, consequences and remedy, Moral values & information age.

**Part B: Skill based component: 18 Credits**

**Paper Code: CCLAN-01**

**Paper V: Introduction to Library and Information Science**

**Unit I: Introduction to basics principles of library**

Definition of Library, Types and role in education system, five laws of library science, Functions, rules & regulations, library sections etc.

**Unit II: Cataloguing and Classification**

Basic introduction to cataloguing: Meaning, definition, process, codes and importance. Classification: Meaning, definition, importance and introduction to DDC.

### **Unit III: Library Sources and Services**

Print and Non-print resources, Services, Conventional and modern services, Need and importance.

### **Paper VI: Library Automation & Modernization**

**Paper Code: CCLAN-02**

#### **Unit I: Library Automation & Housekeeping operations**

Meaning and definition, Automation of housekeeping operations and steps in planning of automation, Implementation.

#### **Unit II: Format, Standards and Execution of Automated Housekeeping operations**

Definition and concepts of Bibliographic standards, MARC 21 CCF structure, Z39.50, Z39.71 standards

#### **Unit III: Network Library Services:**

Automated Alerting system through mobile message and email, Library 3.0, Document Delivery and Reference services

### **Elective Papers:**

### **Paper VII: Library Networking, Digital Library and Electronic Security System**

**Paper Code: CCLAN-03**

#### **Unit I: Introduction to Networking and database**

Networking: Basics concepts & types, Topology, Database: Meaning, definition: types and design of application.

#### **Unit II: Digitization and Digital Library**

Digitization: Meaning & definition, process of digitization, Hardware & Software requirements.

Digital Library: National & International initiatives, IPR & Legal issues

#### **Unit III: Electronic Security Systems and digitization system**

Introduction, nature, features and advantages of RFID and Tattle Tape system, Institutional Repository, Biometric Access, Smart Card, Shelf Check System

## **Paper VII: Electronic Information Sources and Services**

**Paper Code: CCLAN-04**

**Unit I: Electronic Information Sources:** Meaning, Definition, Characteristics and Use, Types and Examples of Electronic Information Sources, Emerging Trends and Technologies in Electronic Information Sources

**Unit II: Electronic Information Services:** Meaning, Definition, Need and Scope, Types of electronic information services, Emerging Trends and Technologies useful for Electronic Information Services

**Unit III: Open Access and new trends:** Open Access Information: Meaning, Need, Purpose and Benefits of Open Access, Use of Social Media, Remote Login, Mobile-based Library Services, Use of Expert Systems and Robotics, Augmented Reality and Virtual Reality.

## **Paper VIII: Library Automation (Compulsory Practical)**

**Paper Code: CCLAN-05**

1. Using SOUL Software (Licensed)
- OR**
2. Using Koha Software (Open source)

## **Paper IX: Digital Library Application (Compulsory Practical)**

**Paper Code: CCLAN-06**

1. Using DSpace (Open source s/w)
- OR**
2. Internship

## **Paper X: Digitization and Electronic Security System (Compulsory Practical)**

**Paper Code: CCLAN-07**

1. RFID & Tattle Tape System
- OR**
2. Digitization Process
- OR**
3. Smart Card, Barcoding & QR code processing

**Exam Pattern:** Semester

**Examination:**

**Scheme of examination:**

- ✓ The semester examination will be conducted at the end of term (both theory and practical examination)
- ✓ There are in all 10 papers for a single semester. Four theory papers will be for general education and 3 theory and 3 practical papers for skill based education. Each paper will be of 75 marks each. Hence total marks of semester will be of 750 marks.

**Scheme of examination for a paper**

Credits	Teaching Scheme	Examination Scheme			
		Theory /Practical Paper Hrs.	Internal Marks for Seminar & Unit Test	University Exam	Total Marks
03	04Hrs. per week	2.50 / 3.00 Hrs.	25	50	75

**Question Paper Pattern**

**(Theory)**

- Q.1 Multiple Choice Question (Ten) 10  
M
- Q.2 Solve any Five (2 marks each) 10  
M
- Q.3 Solve (5 marks each) 10  
M
- A
- B
- OR
- C
- D
- Q.4 Solve (5 marks each) 10 M
- A
- B

OR

C		
D		
Q.5	Write notes on any two. (5 marks each)	10 M
A		
B		
C		
D		

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### Question Paper Pattern

#### (Practical)

Q 1	Practical	50
Q 2	Oral	15
Q 3	Record book ( Print out)	10

#### Reference books for syllabus:

1. Mittal, R. L. Library Administration: Theory and Practice. Ess Ess Publications, New Delhi, 2007.
2. Sharma, C. K. Library Management. New Delhi, Atlantic Publishers and Distributors, 2005,
3. Ranganathan, S. R. Library Manual, New York, Asia Publishing, 1962.
4. Ranganathan, S. R. Library Cataloguing, New York, Asia Publishing, 1962.
5. Husain, Sabahat. Library Classification: Facets and Analysis. New Delhi, Tata McGraw Hill, 1993.
6. Ohdedar A. K.; Sengupta, B. Library Classification, Calcutta, The Word Press, 1977.
7. Mahajan S. G. Library Cataloguing. Pune, Pune Vidhyarthi gruha Prakashan, 2001.
8. Sutar, D. B. Granthalaya Aani Mahitishashtra, Kolhapur, Sneha D. Sutar, 2013.
9. Kumar, Krishna. Cataloguing. New Delhi, Har-Anand Publication, 1993.
10. Ranganathan, S. R. Colon Classification. 7<sup>th</sup> Ed. Banglore, Sharda Ranganathan Endowment for Library Science, 1987.
11. Khanna, J. K. ;Kapil, D. D. New Delhi, Colon Classification, 1982.

12. Kocher, R. S. ; Sudarshan, K. N. Library Automation, New Delhi, APH Publication Corporation, 1997.
13. Rajaraman, V. Fundamentals of Computers. New Delhi, Prentice Hall of India Ltd,1992.
14. Pandey V. C. Information and Communication Technology, New Delhi, Isha books
15. Phadake, D. N. Library Information Technology. Pune, Universal Prakashan, 2018.
16. Kumar, P. S. G. Information Technology Series.New Delhi, B. R. Publishing Corporation, 2004.
17. Leon A. and Leon, M. Fundamentals of Information Technology.
18. Phadake, D. N. Library Information Technology. Pune, Universal Prakashan, 2018.
19. Kumar, P. S. G. Information Technology Series. New Delhi, B. R. Publishing Corporation, 2004.
20. Leon A. and Leon, M. Fundamentals of Information Technology.
21. Sudhir Kumar Jena & K.C. Das ICT for Library Professionals. SSDN Publication New Delhi, 2013.
22. Sutar, D. B. Granthalaya Aani Mahitishashtra, Kolhapur, Sneha D. Sutar, 2013.
23. Guha B. Documentation and Information. Calcutta, World Press, 1975.
24. Kumar, Krishan . Reference Service.Vikas Publishing House, 1980.
- 25.G. Gopalan Handbook of Modern library and librarianship. Swastic Publication, Delhi. 2011
26. Abhijeet Bobade- Computer and Information Technology. Success Pub. Pune, 2011
27. Sudhir Kumarjena and Kailash Chandra das (2013) ICT for Library professionals. SSDN publishers & distributors, New Delhi
28. Miriam A. Drake: Encyclopaedia of Library and Information Science, ISBN: 97808224720803.
29. S. Saxena- Ms Office 2007 in a Nutshell, S. Chand (G/L) & Company Ltd
30. - Sharma S R, Jacob : Anthology of English Language and Communication Skills, Mark Publications
31. Shastri & Rameshchandra: Language and Communication Skills ABD Publications
32. R.K. Molla, Electronic colour separation, R.K. printing & Publishing company,USA.
33. Sabharwal D. P: Personality development, Navyug Publishers, 2016
34. Stephen Samuel wise: How to Face Life, PNH Pub. 2020

35. H.N. Prasad (2012). Information Needs and Users, B.R. Publishing Corporation, Delhi.
36. Mahendra Singh Saharan(2013). Electronic Services in Library and Information Science, Random Publishcation. New Delhi
- 37 Tanan Baum. Networking

**Other useful journals and Magazines:**

1. Dhyangangotri: Y.C.M.O.University, Nashik
2. The Canadian Journal of Library and Information Practice and Research
3. Library philosophy and Practice
4. DESIDOC Journal of Library & Information Technology
5. International Journal of Advanced Library and Information science
6. Journal of Emerging Trends in computing and Information sciences.
7. Journal of Information Literacy
8. PEARL Journal of library and Information science
9. International Journal of Digital Library services

**Beneficial Important links:**

1. [www.inflibnetlist.ac.in](http://www.inflibnetlist.ac.in)
2. <http://shodhganga.inflibnet.ac.in>
3. <https://ndl.iitkgp.ac.in/>
4. <https://www.nottingham.ac.uk/xpert/>
5. <https://www.canva.com/>
6. <https://sites.google.com/view/aundhcollegelibrary/home>
7. [http://www.unishivaji.ac.in/distedu/Course-Material-\(SIM\)](http://www.unishivaji.ac.in/distedu/Course-Material-(SIM))

## **Certificate course in Library Automation and Networking: w.e.f. 2020-21**

### **Syllabus designed Committee:**

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