

## 1\_Name and Address of Institution

### Contact Us

**LAKSHMI NARAIN COLLEGE OF TECHNOLOGY (MCA)**

KALCHURI NAGAR, RAISEN ROAD BHOPAL – 462022

MADHYA PRADESH (INDIA)

Website: [www.Lnct.ac.in](http://www.Lnct.ac.in)

DIRECTOR OFFICE
Dr. Sanjay Bajpai (Director)
Email: Lnctmca@Lnct.ac.in
M: 8878781787

EXAMINATION OFFICE
Dr. Virendra Tiwari
Email: virendrat@Lnct.ac.in
M: 94072 57089

ACCOUNTS OFFICE
Mr. Shubham Raghuwanshi
Email: accountsmca@Lnct.ac.in
M: 9977363402

ACADEMIC BRANCH
Mr. Gyan Singh
Email: officemca@Lnct.ac.in
M: 9406988284

SCHOLARSHIP SECTION
Mr. Mehtab Patel
Email: scholarships@Lnct.ac.in
M: 98934 43959

TRANSPORT INCHARGE
Mr. Nitin Rai
M: 8878781751

## 2\_Name and Address of the society and Trustees

### 1. Society

#### H.K. Kalchuri Educational Trust

H. K. Kalchuri Educational Trust was founded in 1993 by a group of visionaries Shri Jai Narayan Chouksey as Founder Secretary, Shri Suresh Chouksey as a Director, Smt. Poonam Chouksey as a Vice-Chairperson, and Mr. Jhalam Singh Patel as a Chairman.

The society first established Lakshmi Narain College of Technology, an Engineering College, in 1994 which is now located in a sprawling campus at Kalchuri Nagar, Raisen Road, Bhopal (M.P.).

### 2. Trustees

SN	Name	Address	Post	Core Business
1	Shri Jai Narayan Chouksey	31, Shyamla Hills, Bharat Bhawan Road, Bhopal (MP)	Chairman	Business
2	Smt Poonam Chouksey	31, Shyamla Hills, Bharat Bhawan Road, Bhopal (MP)	Vice Chairperson	Business
3	Shri Anupam Chouksey	31, Shyamla Hills, Bharat Bhawan Road, Bhopal (MP)	Secretary	Business

### 3. Governing Body

The college is governed by the Governing Body that deals with policies making and decisions taking and the executive committees to deal with day-to-day affairs. Seven sub-committees are formed for an in depth analysis of each issue/matter. Actual decision making rests with these committees which are later ratified/modified by the Executive Committees and Governing Body.

The Governing Body is the policy making body of the college and meets at least once in six months. All the actions taken by the administration is to be ratified by this Body.

Name	Designation
Shri Jai Narayan Chouksey	Chairman
Smt. Poonam Chouksey (Vice-Chairperson)	Member
Smt. Shweta Chouksey (Executive Director)	Member
Smt. Pooja Chouksey (Executive Director)	Member
Dr. Anupam Chouksey (Secretary)	Member
Dr. Sanjay Bajpai (Director MCA)	Member
Dr. Jayanti Mehra Jhariya (Staff Representative)	Member

## **4. Committees**

### **Sub Committees for the term 2021-2024**

#### **1. Legal Affairs Sub-Committee**

Shri Ravindra Kumar Tiwari : Chairman

Shri Jitendra Kumar Agrawal : Member

Shri Amit Pratap Singh : Member

Smt Neelu Singh : Member

#### **2. Staff Affairs Sub-Committee**

Shri Sanjay Bajpai : Chairman

Shri Virendra Tiwari : Member

Shri Ashish Jain : Member

Shri Rohit Singh : Member

#### **3. Campus Development Sub-Committee**

Smt Neelu Singh : Chairman

Shri Kamlesh Khatri : Member

Shri Ram Babu Lovewanshi : Member

Shri Shishir Kharpate : Member

#### **4. Purchase Sub-Committee**

Shri Virendra Kumar Tiwari : Chairman

Shri Jitendra Agrawal : Member

Shri Prerna Jha : Member

Shri Rashmi Agrawal : Member

### **5. Finance & Planning Sub-Committee**

Shri Amit Pratap Singh : Chairman

Ms Anuradha Soni : Member

Shri Ashish Jain : Member

Ms Shilpa : Member

### **6. Student Affairs & College Cultural Programmes Sub-Committee**

Ms Priyanka Gupta : Chairman

Shri Rohit Singh : Member

Shri Shishir Kharpate : Member

Ms Rashmi Agrawal : Member

### **7. Advisory Committee**

Shri Virendra Kumar Tiwari : Chairman

Shri Ravindra Kumar Tiwari : Member

Smt Neelu Singh : Member

Smt Jayanti Mehra : Member

**Chairman and Secretary will be Ex-Officio Members in all the Committees**

### **3\_Name and Address of Director**

**LAKSHMI NARAIN COLLEGE OF TECHNOLOGY (MCA), BHOPAL**

**KALCHURI NAGAR, RAISEN ROAD**

**BHOPAL – 462022**

**MADHYA PRADESH (INDIA)**

Website: [www.Lnct.ac.in](http://www.Lnct.ac.in)

<b>Dr. SANJAY BAJPAI</b>
Director, LNCT-MCA, Bhopal
E-125, Patel Nagar, Raisen Road, Bhopal-462022 (MP)
Email: Lnctmca@Lnct.ac.in sbajpai31@gmail.com
M: 8878781787

#### 4\_Affiliated University

Lakshmi Narain College of Technology (MCA) is affiliated to Rajiv Gandhi Proudoyogiki Vishwavidyalaya, Bhopal, generally known as RGPV.

url: [www.rgpv.ac.in](http://www.rgpv.ac.in)

#### 5\_Governance

##### I Members of the Board and their Background

##### Executive Council

The executive council of H.K. Kalchuri Educational Trust is the pivotal decision making body of the society for all the colleges run by it. All the members of the society are usually members of the Executive Council. The term of the office Bearers and members of EC is 3 years. The Executive Council is headed by a chairman, vice-chairperson, directors (2), secretary, and members (10).

The first college established by the society is Lakshmi Narain College of Technology which is now located in a sprawling campus at Kalchuri Nagar, Raisen Road, Bhopal (M.P).

SN	Name	Designation
1	Shri J. N. Chouksey	Chairman and Management, Trustee
2	Smt. PoonamChouksey	Vice-Chairperson, Trustee
3	SmtShwetaChouksey	Executive Director, Trustee

4	SmtPoojaChouksey	Executive Director, Trustee
5	Dr. AnupamChouksey	Secretary, Trustee
6	Dr. Sanjay Bajpai	Director (MCA), Member
7	Dr. JayantiMehraJhariya	Staff Representative, Member

## II Members of the Academic Advisory Body

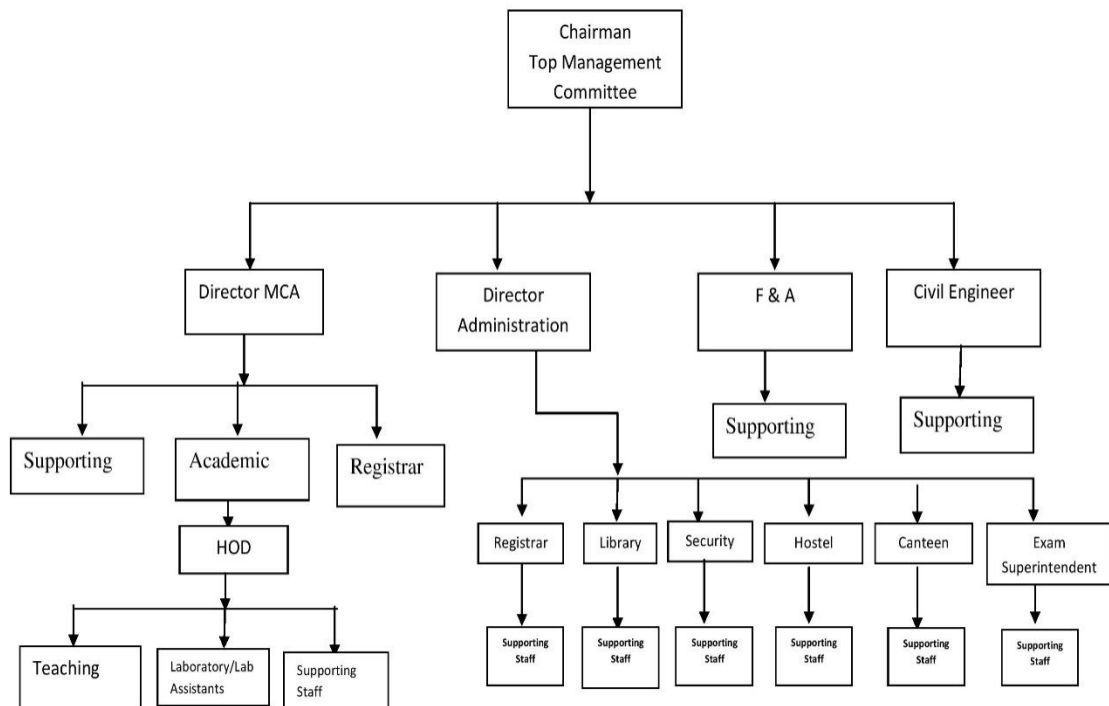
The following faculty members are deputed in the Academic Advisory Committee (AAC) to suggest and monitor the academic performance of students and faculty members.

SN	Name	Designation
1	Dr. Sanjay Bajpai	Chair Person
2	Dr. VirendraTiwari	Member
3	Dr. JayantiMehra	Member
4	Dr. Neelu Singh	Member

The committee is entrusted to look after all matters associated with the academic performance.

**III Frequency of the board meeting and Academic Advisory Body:** Twice a year.

## IV Organizational Chart and Processes



## V Grievance Redressal Mechanism for Faculty, Staff and Students

This cell is established with an aim and objective to provide the faculty, staff and students an easy and readily accessible mechanism for prompt disposal of their day to day grievances.

Procedure for redressal of grievances is as follows:

Complaints affecting one or more individual in respect of their

1. Promotion
2. Salary
3. Increments
4. Leave
5. Work Assignments
6. Work Load
7. Training
8. Disputes
9. Complaints

Different stages for Redressal of Grievances:

### **First Stage (Section/Department Level)**

The aggrieved employee/student represents his/her grievance either in person or in writing to the concerned officer in the department or mentor. Problem is resolved within 7 days with the consent of concerned officer/HOD.

### **Second Stage (Administrative Level)**

If the employee/student is not satisfied then he/she may request officer/HOD to forward his/her grievance to the grievance committee constituted at Administration level comprising the following:

- a. Director
- b. Head
- c. Coordinator Academics
- d. Mentor
- e. Member

Matter is put before the board with facts and proofs about the issue/grievance and recommendations of the grievance committee is communicated to the concerned employee/student within 7 days.

### **Third Stage (Academic and Staff Affairs Committee)**

If the employee/student is not satisfied with the reply given by the Grievance committee at second stage then he/she can represent the matter to the management at staff affairs committee. At this stage, grievance is forwarded to the Secretary of the management committee which is resolved by Secretary/Chairman and recommendations is communicated to the concerned employee/student within 7 days.

## **VI College Academic Council (CAC)**

**Members:** This is a committee consisting of the Director, Coordinator (Academics), and senior professors. As per need, Librarian, exams superintendent are special invitees.

**Functions:** Decisions on all academic matters such as implementation of academic calendar, timetables, Infrastructure, Amenities, Budgets, Student Attendance, Student Counseling, and co-curricular activities.

The composition of the Academic Advisory Board (College Academic Council)  
**Members:**

This is a committee consisting of

- 1) Director
- 2) One representative from the Management
- 3) Chief Coordinators- Academics PG Programs.
- 4) Training and Placement Officer
- 5) Head, Admission Cell
- 6) Librarian
- 7) Sports Officer

## **VII Establishment of Anti Ragging Committee**



Estd. 1998

# LAKSHMI NARAIN COLLEGE OF TECHNOLOGY-MCA

Approved by AICTE, New Delhi & An ISO 9001:2015 Certified Institute  
Recognized by Govt. of M.P., Affiliated to RGPV, Bhopal (M.P.)

LNCT-MCA/Adm/2022/238

Date: 26-09-2022

## Subject: Anti Ragging Committee

In view of commencing of new session of MCA first year students, some committees are hereby formed (Table no. 1A, 1B and 2A) along with the existing Anti Ragging Committee (Teaching, Non Teaching and Library / Admin Office) to ensure zero ragging in the Institute.

Dr. Jayanti Mehra (M. 9754157586) will be the overall head of all anti ragging committees of MCA Department.

*J. Mehra* 26/9/2022

Director MCA

## Enclosure:

1. Table 1A & 1B
2. Table 2A

## Copy To:

1. Office of Chairman/ Vice Chairperson/ Secretary
2. Director Administration
3. Director( MCA/MBA/T&P/ Research & Development)
4. Dean Student Welfare
5. Registrar LNCT
6. Overall Head of Anti Ragging Committees Dr. V.N. Bartaria (M. 9425025559) for needful action
7. Admission Cell /Library / Workshop / Store / Hostel Wardens/ Reception/Sports Officer/Transport/ Accounts
8. IT. Infra Head ( To Upload on College Website)
9. A.I Notice Board
10. Guard File

www.LNCT.ac.in



Kalchuri Nagar, Raisen Road, P.O. Koluva, Bhopal - 462022 (M.P.), INDIA



+91-755-6185300, 301, 0755-6685448, Fax : +91-755-6185305 [Lncrbhopal@LNCT.ac.in](mailto:Lncrbhopal@LNCT.ac.in)

### Anti Ragging Squad

For sudden inspection in campus and for submission of fortnightly report, an anti-ragging squad is formed Table (1A, 1B & 2A) this squad is supposed to enquire students regularly about any type of misconduct by other students according to guidelines. The committee has to submit report to undersigned on or before 10th and 25th of every month.

**Table 1A (Teaching Staff)**

Name	Department	Mobile No.	Email-Id
Dr. Jayanti Mehra (Squad Head)	MCA	9754157586	jayantimj@lnct.ac.in
Prof. Prerna Jha	MCA	7974992054	prernaj@lnct.ac.in
Prof. Dev Kumar Chouhan	MCA	9981186985	devc@lnct.ac.in
Prof. Rohit Singh	MCA	9926059546	rohitsu@lnct.ac.in
Prof. Ashish Jain	MCA	9039311858	ashishj@lnct.ac.in
Prof. Atul Tiwari	MCA	9699352707	atult@lnct.ac.in

**Table 1B (Non Teaching Staff)**

Name	Department	Mobile No.	Email-Id
Kamlesh Singh Sikheriya	MCA (Lab Asst.)	8269357756	kamleshss@lnct.ac.in

**Table 2A (Student Committee)**

Name	Semester	Mobile No.	Email-Id
Jivanshu Shrivastva	III	8349741522	jivanshumca80@gmail.com
Manu Verma	III	7222988250	manuverma36890@gmail.com
Darshana Bhikonde	III	6264558052	darshanabhikone2709@gmail.com
Poorvi Sharma	III	9993607121	poorvimili12@gmail.com
Dinkal	III	6261958787	dinkalkasrade22@gmail.com
Hritik Giri	III	9522347227	hritikgiri170@gmail.com

*S. J.* 26/9/2022

**Director MCA**

Director

Lakshmi Narain College of Technology (MCA)  
BHOPAL

## VIII Establishment of Internal Complaint Committee (ICC)



# LAKSHMI NARAIN COLLEGE OF TECHNOLOGY-MCA

Approved by AICTE, New Delhi & An ISO 9001:2015 Certified Institute  
Recognized by Govt. of M.P., Affiliated to RGPV, Bhopal (M.P.)

Estd. 1998

Ref. No.: LNCT-MCA/Adm/2022/

Date: 22/09/2022

### NOTICE

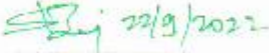
#### Subject: Formation of Internal Complaint Committee (ICC)

The following faculty members are deputed in the Internal Complaint committee (ICC) as per the section 4 of "Sexual Harassment of Women at Workplace", Prevention, Prohibition and Redressal Act, 2013.

1.	Dr. Neelu Singh	Chair Person
2.	Mr. Ashish Jain	Member
3.	Ms. Anuradha Soni	Member
4.	Mr. Dev Kumar Chcuhan	Member
5.	Mr. Ripusoodan Sharma	Member
6.	Ms. Kamlesh Khatri	Member
7.	Ms. Kamlesh Singh Sikheriya	Member
8.	Mr. Aditya Sharma	Student
9.	Ms. Diksha Dhote	Student
10.	Mr. Harsh Tiwari	Student
11.	Ms. Nidhi Dubey	Student

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The committee is entrusted to look after all matters associated with the women (student & staff) under above act.

  
(Dr. Sanjay Bajpai)  
Director  
LNCT-MCA, Bhopal

#### Copy to:

1. Honorable Chairman / Vice-Chairperson/Secretary
2. Director Administration
3. All above members
4. Registrar I NCT
5. Dean Academic / Student Welfare
6. Hostel Warden
7. All Notice Boards of the College
8. Master File: Director Office

Lakshmi Narain College of Technology (MCA)  
BHO PAL

  
(Dr. Sanjay Bajpai)  
Director  
LNCT-MCA, Bhopal


Director  
Lakshmi Narain College of Technology (MCA)  
BHO PAL



Kalchuri Nagar, Raisen Road, P.O. Kulia, Bhopal - 462022 (M.P.), INDIA



+91-755-6185300, 301, 0755-6685448, Fax : +91-755-6185305

 Lnctbhopal@LNCT.ac.in

## IX Establishment of Committee for SC/ST



Estd. 1998

# LAKSHMI NARAIN COLLEGE OF TECHNOLOGY-MCA

Approved by AICTE, New Delhi & An ISO 9001:2015 Certified Institute  
Recognized by Govt. of M.P., Affiliated to RGPV, Bhopal (M.P.)

Ref. No.: LNCT-MCA/Adm/2022/236

Date: 20/09/2022

### NOTICE

#### Subject: Formation of Institute Committee for prevention of Atrocities against SC/ST

The following faculty members are deputed in the institute committee for the prevention of atrocities against Schedule Caste and Schedule Tribes constituted according to the section 33, prevention of atrocities act. 1989 for Schedule Caste and Schedule Tribes.

1.	Dr. Virendra Kumar Tiwari	Professor
2.	Dr. Neelu Singh	Asso. Professor
3.	Mr. Rohit Singh	Asst. Professor
4.	Mr. Jitendra Agrawal	Asst. Professor
5.	Ms. Shilpa Jaiswar	Asst. Professor
6.	Mr. Aman Athnere	Student
7.	Mr. Ashish Pati	Student
8.	Mr. Kunal Singh	Student
9.	Mr. Mohit	Student

The committee is entrusted to look after all matter falling under the above act and associated with Schedule Caste and Schedule Tribe student or/and staff.

(Dr. Sanjay Bajpai)  
Director

LNCT-MCA, Bhopal  
Director

Lakshmi Narain College of Technology (MCA)  
BHOPAL

#### Copy to:

1. Honorable Chairman / Vice-Chairperson/Secretary
2. Director Administration
3. All above members
4. Registrar LNCT
5. Dean Academic / Student Welfare
6. Hostel Warden
7. All Notice Boards of the College
8. Master File: Director Office

(Dr. Sanjay Bajpai)  
Director

LNCT-MCA, Bhopal  
Director


Lakshmi Narain College of Technology (MCA)  
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Kalchuri Nagar, Raisen Road, P.O. Kolua, Bhopal - 462022 (M.P.), INDIA

+91-755-6185300, 301, 0755-6685448, Fax : +91-755-6185305 Lncitbhopal@LNCT.ac.in

## X Internal Quality Assurance Cell (IQAC)

	<p><b>Lakshmi Narain College of Technology (MCA)</b>          Approved by AICTE &amp; Affiliated to Rajiv Gandhi Proudyogiki Vishwavidyalaya          Kalchuri Nagar, PO Kolua, Raisen Road          Bhopal-462022 (Madhya Pradesh)          website: www.Lnct.ac.in</p>
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### Members of the Internal Quality Assurance Cell (IQAC)

SN	Role in IQAC	Composition	Name and Designation	Email/Contact No
1	Chairman	Head of the Institute	Dr. Sanjay Bajpai Director, LNCT-MCA	Lnctmca@Lnct.ac.in 9425642238
2	Member Secretary (Coordinator)	Coordinator of IQAC	Dr. Jayanti Mehra Asso. Professor	jayantimj@lnct.ac.in 9754157586
3	Members		Dr. Neelu Singh Asst. Professor	neelus@lnct.ac.in 9425378492
			Mr. Rohit Singh Asst. Professor	rohits@lnct.ac.in 9926059546
			Mr. Ashish Jain Asst. Professor	ashishj@lnct.ac.in 9039311858
4	Member	Management Representative	Dr. Anupam Chouksey Secretary, LNCT Group	anupamc@lnct.ac.in 9303132147
5	Members	Senior Administrative/ Technical Staff	Mr. Rohit Pathak TPO	placements@lnct.ac.in 8839413842
			Mr. Shubham Raghuvanshi Accounts Officer	accounts_mca@lnct.ac.in 9977363402
			Ms. Neena Sahni Librarian	library_mca@lnct.ac.in 9575958380
6	Members	Nominee from students	Mr. Ashutosh Patel Roll No: 0103CA211038	ashutoshpatel0002@gmail.com 9522981637
		Nominee from Alumni	Mr. Ravikant Mishra Sr. Systems Analyst, Capgemini, Pune	ravikant.a.mishra@capgemini.com 9970970173

## 6\_Programmes

- I. Name of the Programmes approved by AICTE: Lakshmi Narain College of Technology (MCA), Bhopal.
- II. Name of Programme Accredited by NBA: N/A
- III. Status of Accreditation of the Course: Applying
- IV. Total number of Courses: One
- V. No. of Courses for which applied for Accreditation: One
- VI. Status of Accreditation: Preliminary
- VII. Programme Details:

Name	Lakshmi Narain College of Technology (MCA), Bhopal		
Number of Seats	180		
Duration	Two Years		
Cut off marks/rank of admission during the last three years	2022-23	60.24%	
	2021-22	51.81%	
	2020-21	51.77%	
Fee (as approved by the state government)	Rs. 59000		
Placement Facilities	Training and Placement Cell		
Campus placement in last years with minimum salary, maximum salary and average salary	2022:	Minimum	2.40 LPA
		Maximum	9.00 LPA
		Average	4.16 LPA
	2021:	Minimum	1.72 LPA
		Maximum	15.00 LPA
		Average	3.81 LPA
	2020:	Minimum	2.67 LPA
		Maximum	5.50 LPA
		Average	3.63 LPA

## 7\_Faculty

### 1. Faculty List

SN	Title	Name	Designation	Experience
1.	Dr.	SANJAY BAJPAI	Director	24
2.	Dr.	VIRENDRA KUMAR TIWARI	Professor	17
3.	Dr.	RAVINDRA KUMAR TIWARI	Professor	17
4.	Dr.	JAYANTI MEHRA JHARIYA	Professor	13
5.	Dr.	AMIT PRATAP SINGH	Professor	12
6.	Dr.	NEELU SINGH	Associate Professor	16
7.	Mr.	ROHIT SINGH	Associate Professor	13
8.	Mr.	JITENDRA KUMAR AGRAWAL	Associate Professor	13
9.	Mr.	ATUL TIWARI	Associate Professor	12
10.	Mr.	ASHISH JAIN	Associate Professor	11
11.	Mr.	SHISHIR KHARPATE	Asst. Professor	11
12.	Mr.	DEV KUMAR CHOUHAN	Asst. Professor	10
13.	Ms.	RASHMI AGRAWAL	Asst. Professor	6
14.	Ms.	SHWETA ASATI	Asst. Professor	5
15.	Mr.	ROHIT RAGHUWANSHI	Asst. Professor	5
16.	Mr.	KARUNA VISHWAKARMA	Asst. Professor	4
17.	Ms.	PRERNA JHA	Asst. Professor	4
18.	Ms.	SHILPA	Asst. Professor	4
19.	Ms.	ANURADHA SONI	Asst. Professor	3
20.	Mr.	KAMLESH KHATRI	Asst. Professor	3
21.	Mr.	MAHESH KUMAR BAGWANI	Asst. Professor	2
22.	Mr.	PRAMOD KUMAR SAKET	Asst. Professor	2
23.	Mr.	RAVI SISODIYA	Asst. Professor	2
24.	Mr.	RIPUSOODAN SHARMA	Asst. Professor	2

2. Permanent Faculty: 24
3. Adjunct Faculty: Nil
4. Permanent Faculty: Student Ratio: 1:15
5. Number of faculty employed and left during last three years
  - a) Employed: 09
  - b) Left: 12

## 8\_Principal and Faculty Profiles

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Director

Name	Sanjay Bajpai
Date of Birth	30-06-1972
Unique ID	1-493065017
Education Qualifications	MCA, MTech, PhD



### • Work Experience

Teaching	24
Research	Nil
Industry	1.5
Others	Nil

- Area of Specialization: Data Security, Image Processing
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate  
Diploma Level: Post Graduate
- Research guidance (Number of Students): NIL
- No. of papers published in National/ International Journals/ Conferences: 23
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing): Completed
- Projects Carried out: Nil
- Patents (Filed & Granted): Nil
- Technology Transfer: Nil
- Research Publications (No. of papers published in National/International Journals /Conferences): 23
- No of Books published: 01

Name of Book	Publisher	ISBN	Year of Publication
Artificial Intelligence QB	Deepak Prakashan		2005

# Lakshmi Narain College of Technology(MCA), BHOPAL

## Profile of Faculty

Name	DR. VIRENDRA KUMAR TIWARI
Date of Birth	25-07-1974
Unique ID	1-774893452
Education Qualifications	MCA, PhD



### • Work Experience

Teaching	17 YEARS
Research	03 YEARS
Industry	NIL
Others	NIL

- Area of Specialization: Computer Network
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate Diploma Level: Post Graduate
- Research guidance (Number of Students): NIL
- No. of papers published in National/ International Journals/ Conferences: 30
- Master (Completed/Ongoing): COMPLETED
- Ph.D. (Completed/Ongoing): COMPLETED
- Projects Carried out: Nil
- Patents (Filed & Granted): 01 FILED
- Technology Transfer: Nil
- Research Publications (No. of papers published in National/International Journals /Conferences): National Journals: 01  
International Journals: 11  
National Conferences: 10  
International Conferences: 08
- No of Books published

Name of Book	Publisher	ISBN	Year of Publication
DATA ANALYTIC	AkiNik Publications <a href="https://www.akinik.com/products/1728/data-analytic">https://www.akinik.com/products/1728/data-analytic</a>	978-93-5570-285-2	2022

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# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	Dr Ravindra Tiwari
Date of Birth	10/08/1979
Unique ID	1-493065029
Education Qualifications	MCA, PhD



### • Work Experience

Teaching	17 years
Research	NIL
Industry	NIL
Others	NIL

- Area of Specialization: Data Mining
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate  
Diploma Level: Post Graduate
- Research guidance (Number of Students): 8
- No. of papers published in National/ International Journals/ Conferences: 21
- Master (**Completed**/Ongoing): Completed
- Ph.D. (Completed/Ongoing): Completed
- Projects Carried out: Nil
- Patents (Filed & Granted): NIL
- Technology Transfer: Nil
- Research Publications (No. of papers published in National/International Journals/Conferences): 21
- No of Books published

Name of Book	Publisher	ISBN	Year of Publication

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	Dr. Jayanti Mehra
Date of Birth	27/10/1979
Unique ID	1-10905046163
Education Qualifications	MCA, PhD



### • Work Experience

Teaching	13 Years
Research	5 Years
Industry	NIL
Others	02

- Area of Specialization: Data Mining
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate  
Diploma Level: Post Graduate
- Research guidance (Number of Students): NIL
- No. of papers published in National/ International Journals/ Conferences: 12
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing): Completed
- Projects carried out: NIL
- Patents (Filed & Granted): 02
- Technology Transfer: Developed the Computational Models for analysing web user Behaviour from web log data to find the users behaviours.
- Research Publications (No.of papers published in National/International Journals/Conferences): 12
- No of Books published: 02

Name of Book	Publisher	ISBN	Year of Publication
Machine Learning: A complete overview	AGPH Books (Academic Guru Publishing House)	978-93-94339-13-2	2022
Basic Principles of Digital Engineer	AGPH Books (Academic Guru Publishing House)	987-93-95936-52-1	2022

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	Dr. Amit Singh
Date of Birth	16/01/1979
Unique ID (Emp Id)	1-503369661
Education Qualifications	MCA, PhD



### • Work Experience

Teaching	12 Years
Research	NIL
Industry	NIL
Others	NIL

- Area of Specialization: Digital Forensics
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate Diploma Level: Post Graduate
- Research guidance (Number of Students): NIL
- No. of papers published in National/ International Journals/ Conferences: 12
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing): Completed
- Projects carried out: NIL
- Patents (Filed & Granted): NIL
- Technology Transfer: NIL
- Research Publications (No. of papers published in National/International Journals/Conferences): 08
- No of Books published: NIL

Name of Book	Publisher	ISBN	Year of Publication

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	Neelu Singh
Date of Birth	08-07-1983
Unique ID	1-9314490778
Education Qualifications	MCA, Ph.D



### • Work Experience

Teaching	16 Years
Research	4.5 Years
Industry	NIL
Others	NIL

- Area of Specialization: Data Mining in Network
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate  
Diploma Level: Post Graduate
- Research guidance (Number of Students): Nil
- No. of papers published in National/ International Journals/ Conferences: 03
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing): Completed
- Projects Carried out: Nil
- Patents (Filed & Granted): Nil
- Technology Transfer: Nil
- Research Publications (No. of papers published in National/International Journals/Conferences): '3' Paper Published and '1' Conferences
- No of Books published

Name of Book	Publisher	ISBN	Year of Publication
Basic Principles Of Digital Engineering	Academic Guru	978-93-95936-52-1	8/11/2022

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	ROHIT SINGH
Date of Birth	27/05/1980
Unique ID	1-7436563516
Education Qualifications	MCA



### • Work Experience

Teaching	13 YEARS
Research	NIL
Industry	2.5 YEARS
Others	NIL

- Area of Specialization: Data Structure
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate  
Diploma Level: Post Graduate
- Research guidance (Number of Students): NIL
- No. of papers published in National/ International Journals/ Conferences: 1
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing): NIL
- Projects Carried out: NIL
- Patents (Filed & Granted): NIL
- Technology Transfer: NIL
- Research Publications (No. of papers published in National/International Journals/Conferences): 2
- No of Books published

Name of Book	Publisher	ISBN	Year of Publication

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	JITENDRA AGRAWAL
Date of Birth	06-07-1984
Unique ID	1-493065057
Education Qualifications	MCA



### • Work Experience

Teaching	13 Yr
Research	Nil
Industry	Nil
Others	Nil

- Area of Specialization: Data Mining
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate  
Diploma Level: Post Graduate
- Research guidance (Number of Students): Nil
- No. of papers published in National/ International Journals/ Conferences:
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing): Ongoing
- Projects Carried out: Nil
- Patents (Filed & Granted): Nil
- Technology Transfer: Nil
- Research Publications (No. of papers published in National/International Journals /Conferences): Nil
- No of Books published

Name of Book	Publisher	ISBN	Year of Publication

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	ATUL TIWARI
Date of Birth	02/09/1983
Unique ID	1-7393537407
Education Qualifications	MCA



### • Work Experience

Teaching	12 YEARS
Research	NIL
Industry	7 MONTH
Others	NIL

- Area of Specialization: Programming, OS
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate  
Diploma Level: Post Graduate
- Research guidance (Number of Students): NIL
- No. of papers published in National/ International Journals/ Conferences: 2
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing): Ongoing
- Projects Carried out: NIL
- Patents (Filed & Granted): NIL
- Technology Transfer: NIL
- Research Publications (No. of papers published in National/International Journals/Conferences): 2
- No of Books published

Name of Book	Publisher	ISBN	Year of Publication

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	Ashish Jain
Date of Birth	13/02/1984
Unique ID	1-1451699533
Education Qualifications	MCA



### • Work Experience

Teaching	11 Yr
Research	01
Industry	NIL
Others	NIL

- Area of Specialization: JAVA, DBMS
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate  
Diploma Level: Post Graduate
- Research Guidance (Number of Students): NIL
- No. of papers published in National/ International Journals/ Conferences: 01
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing): Ongoing
- Projects Carried out: NIL
- Patents (Filed & Granted): 02
- Technology Transfer: NIL
- Research Publications (No. of papers published in National/International Journals/Conferences): 01
- No of Books published: Nil

Name of Book	Publisher	ISBN	Year of Publication

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	Shishir Kharpate
Date of Birth	13-04-1982
Unique ID	1-1480934723
Education Qualifications	MCA



### • Work Experience

Teaching	11 Yrs
Research	NIL
Industry	NIL
Others	Nil

- Area of Specialization: DBMS
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate  
Diploma Level: Post Graduate
- Research guidance (Number of Students): Nil
- No. of papers published in National/ International Journals/ Conferences: 02
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing): Nil
- Projects carried out: Nil
- Patents (Filed & Granted): Nil
- Technology Transfer: Nil
- Research Publications (No. of papers published in National/International Journals /Conferences): NIL
- No of Books published: Nil

Name of Book	Publisher	ISBN	Year of Publication

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	Dev Kumar Chouhan
Date of Birth	20-04-1984
Unique ID	1-9595199689
Education Qualifications	MCA



### • Work Experience

Teaching	10 Years
Research	04
Industry	01 Year
Others	Nil

- Area of Specialization: Operating System and Digital Organization
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate  
Diploma Level: Post Graduate
- Research guidance (Number of Students): Nil
- No. of papers published in National/ International Journals/ Conferences: 04
- Master (Completed/Ongoing): completed
- Ph.D. (Completed/Ongoing): Nil
- Projects carried out: Nil
- Patents (Filed & Granted): Nil
- Technology Transfer: Nil
- Research Publications (No. of papers published in National/International Journals /Conferences): NIL
- No of Books published: 1

Name of Book	Publisher	ISBN	Year of Publication
Basic Principles of Digital Engineering	AGPH	978-93-95936-52-1	2023

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	RASHMI AGRAWAL
Date of Birth	20-10-1985
Unique ID	1-9597364395
Education Qualifications	MCA



### • Work Experience

Teaching	6 Yr
Research	Nil
Industry	Nil
Others	Nil

- Area of Specialization: DBMS
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate Diploma Level: Post Graduate
- Research guidance (Number of Students): Nil
- No. of papers published in National/ International Journals/ Conferences:
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing): Nil
- Projects Carried out: Nil
- Patents (Filed & Granted): Nil
- Technology Transfer: Nil
- Research Publications (No. of papers published in National/International Journals /Conferences): Nil
- No of Books published Nil

Name of Book	Publisher	ISBN	Year of Publication

# Lakshmi Narain College of Technology(MCA), BHOPAL

## Profile of Faculty

Name	Shweta Asati
Date of Birth	18/01/1990
Unique ID	1-43374531491
Education Qualifications	MCA



### • Work Experience

Teaching	5 Yr
Research	Nil
Industry	Nil
Others	Nil

- Area of Specialization: Computer Network
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate  
Diploma Level: Post Graduate
- Research guidance (Number of Students): Nil
- No. of papers published in National/ International Journals/ Conferences: Nil
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing): Nil
- Projects Carried out: Nil
- Patents (Filed & Granted): Nil
- Technology Transfer: Nil
- Research Publications (No. of papers published in National/International Journals/Conferences): Nil
- No of Books published: Nil

Name of Book	Publisher	ISBN	Year of Publication

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	Rohit Raghuwanshi
Date of Birth	15-12-1990
Unique ID (Emp Id)	
Education Qualifications	MCA



### • Work Experience

Teaching	05 Years
Research	Nil
Industry	Nil
Others	Nil

- Area of Specialization: Java Programming
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate  
Diploma Level: Post Graduate
- Research guidance (Number of Students): Nil
- No. of papers published in National/ International Journals/ Conferences: NIL
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing): Nil
- Projects carried out: Nil
- Patents (Filed & Granted): Nil
- Technology Transfer: Nil
- Research Publications (No. of papers published in National/International Journals /Conferences): NIL
- No of Books published: Nil

Name of Book	Publisher	ISBN	Year of Publication

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	Karuna Vishwakarma
Date of Birth	07/03/1996
Unique ID	1-7468534330
Education Qualifications	MCA



### • Work Experience

Teaching	04 Yrs
Research	No
Industry	Nil
Others	Nil

- Area of Specialization: Computer Network
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate  
Diploma Level: Post Graduate
- Research guidance (Number of Students):
- No. of papers published in National/ International Journals/ Conferences:
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing): Nil
- Projects Carried out: Nil
- Patents (Filed & Granted): Nil
- Technology Transfer: Nil
- Research Publications (No. of papers published in National/International Journals/Conferences): Nil
- No of Books published: Nil

Name of Book	Publisher	ISBN	Year of Publication

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	Purna Jha
Date of Birth	03-01-1994
Unique ID	1-43362667624
Education Qualifications	MCA



### • Work Experience

Teaching	4 Yr
Research	Nil
Industry	Nil
Others	1 years

- Area of Specialization: Data Structure
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate  
Diploma Level: Post Graduate
- Research guidance (Number of Students): Nil
- No. of papers published in National/ International Journals/ Conferences: Nil
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing): Not Enrolled
- Projects Carried out: Nil
- Patents (Filed & Granted): Nil
- Technology Transfer: Nil
- Research Publications (No.of papers published in National/International Journals/Conferences): Nil
- No of Books published: Nil

Name of Book	Publisher	ISBN	Year of Publication

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	Shilpa
Date of Birth	29/10/1996
Unique ID	1-10765499221
Education Qualifications	MCA



### • Work Experience

Teaching	4 Yr
Research	Nil
Industry	Nil
Others	Social Media Incharge , Coordinator of Srishti 2023

- Area of Specialization: Cyber Security and Forensic.
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate  
Diploma Level: Post Graduate
- Research guidance (Number of Students): Nil
- No. of papers published in National/ International Journals/ Conferences: Nil
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing): Nil
- Projects Carried out: Nil
- Patents (Filed & Granted): 1
- Technology Transfer: Nil
- Research Publications (No. of papers published in National/International Journals /Conferences): Nil
- No of Books published: 02

Name of Book	Publisher	ISBN	Year of Publication
Machine Learning: A Complete Overview	Academic Guru Publishing House	987-93-94339-13-2	2022
Basic Principles Of Digital Engineering	Academic Guru Publishing House	987-93-95936-52-1	2022

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	Anuradha Soni
Date of Birth	19/06/1996
Unique ID	1-11293395688
Education Qualifications	MCA



### • Work Experience

Teaching	3 Yr
Research	Nil
Industry	Nil
Others	Nil

- Area of Specialization: DBMS
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate  
Diploma Level: Post Graduate
- Research guidance(Number of Students): Nil
- No. of papers published in National/ International Journals/ Conferences: Nil
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing): Nil
- Projects Carried out: Nil
- Patents (Filed & Granted): Nil
- Technology Transfer: Nil
- Research Publications (No.of papers published in National/International Journals/Conferences): Nil
- No of Books published: Nil

Name of Book	Publisher	ISBN	Year of Publication

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	Kamlesh khatri
Date of Birth	21-06-1995
Unique ID	1-11293395666
Education Qualifications	MCA



### • Work Experience

Teaching	3 Year
Research	Nil
Industry	Nil
Others	Nil

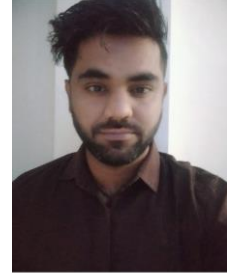
- Area of Specialization: PYTHON, JAVA
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate  
Diploma Level: Post Graduate
- Research guidance (Number of Students): Nil
- No. of papers published in National/ International Journals/ Conferences: Nil
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing): Nil
- Projects Carried out: Nil
- Patents (Filed & Granted): Nil
- Technology Transfer: Nil
- Research Publications (No. of papers published in National/International Journals/Conferences): Nil
- No of Books published: Nil

Name of Book	Publisher	ISBN	Year of Publication

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	Mahesh Kumar Bagwani
Date of Birth	23/07/1993
Unique ID	1-11888715878
Education Qualifications	MCA



### • Work Experience

Teaching	2 Yr
Research	Nil
Industry	1 Yr
Others	2 Yr

- Area of Specialization: Web Development, Cloud Computing
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate  
Diploma Level: Post Graduate
- Research guidance (Number of Students):
- No. of papers published in National/ International Journals/ Conferences:
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing):
- Projects Carried out: ecommerce website using mern stack, graphql integrated server integration using github oauth 2.0 and fetch repositories data using api
- Patents (Filed & Granted): NIL
- Technology Transfer: NIL
- Research Publications (No. of papers published in National/International Journals /Conferences): NIL
- No of Books published NIL

Name of Book	Publisher	ISBN	Year of Publication

# Lakshmi Narain College of Technology(MCA), BHOPAL

## Profile of Faculty

Name	Pramod Kumar Saket
Date of Birth	02/02/1997
Unique ID	1-11329060486
Education Qualifications	MCA



### • Work Experience

Teaching	2 Year
Research	Nil
Industry	Nil
Others	Nil

- Area of Specialization: RDBMS
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate Diploma Level: Post Graduate
- Research guidance (Number of Students): 00
- No. of papers published in National/ International Journals/ Conferences: 00
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing): Nil
- Projects Carried out: Nil
- Patents (Filed & Granted): Nil
- Technology Transfer: Nil
- Research Publications (No. of papers published in National/International Journals /Conferences): Nil
- No of Books published: Nil

Name of Book	Publisher	ISBN	Year of Publication

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	Ravi Sisodiya
Date of Birth	16/06/1998
Unique ID	1-10905046145
Education Qualifications	MCA



### • Work Experience

Teaching	2 Yrs
Research	NIL
Industry	NIL
Others	NIL

- Area of Specialization: DBMS
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate  
Diploma Level: Post Graduate
- Research guidance (Number of Students):NIL
- No. of papers published in National/ International Journals/ Conferences: NIL
- Master (Completed/Ongoing): COMPLETED
- Ph.D. (Completed/Ongoing): NIL
- Projects Carried out: NIL
- Patents (Filed & Granted):NIL
- Technology Transfer: NIL
- Research Publications (No. of papers published in National/International Journals /Conferences): NIL
- No of Books published: Nil

Name of Book	Publisher	ISBN	Year of Publication

# Lakshmi Narain College of Technology (MCA), BHOPAL

## Profile of Faculty

Name	Ripusoodan Sharma
Date of Birth	10/08/1995
Unique ID	1-11293395700
Education Qualifications	MCA



### • Work Experience

Teaching	2 Yrs
Research	NA
Industry	NA
Others	NA

- Area of Specialization: Cloud Computing
- Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate Diploma Level: Post Graduate
- Research guidance (Number of Students): NA
- No. of papers published in National/ International Journals/ Conferences: NA
- Master (Completed/Ongoing): Completed
- Ph.D. (Completed/Ongoing): NA
- Projects Carried out: NA
- Patents (Filed & Granted): NA
- Technology Transfer: NA
- Research Publications (No. of papers published in National/International Journals /Conferences):
- No of Books published: NA

Name of Book	Publisher	ISBN	Year of Publication

## 9\_Fee

1. Details of Fee as approved by State Fee Committee: **Rs. 59000** (Rs Fifty Nine Thousand only)
2. Time schedule for payment of Fee for the entire Programme: Before starting the academic session
3. No. of Fee waivers granted with amount and name of students

SN	NAME	AMOUNT
1	KUMARI ANSHIKA NIGAM	Rs. 53636
2	AAYUSHI KHANDELWAL	Rs. 53636
3	HIMANSHU PATHAK	Rs. 53636
4	MONU RAGHUVANSHI	Rs. 53636
5	VAIDEHI JOSHI	Rs. 53636
6	PALLVI CHOUHAN	Rs. 53636
7	ANOOP KUMAR TIWARI	Rs. 53636
8	ABHISHEK SINGH	Rs. 53636
9	PRIYA RAGHUWANSHI	Rs. 53636

4. Number of scholarships offered by the Institution, duration and amount: N/A
5. Criteria of Fee waivers/scholarship: **As per Government Norms**
6. Estimated cost of Boarding and Lodging in Hostels: **85000/-**

## 10\_Admission

1. Number of seats sanctioned with year of Approval

Year	Sanctioned Intake	Reference Number	Date
2020	180	Central/1-7006486099/2020/EOA	30/04/2020
2021	180	Central/1-9321150806/2021/EOA	25/06/2021
2022	180	Central/1-10972969933/2022/EOA	3/7/2022

2. Number of students admitted in last three years

Year	OBCXOP	URXOP	SCXOP	EWS	Total
2020	27	142	05	NIL	174
2021	53	129	7	18	207
2022	91	108	13	22	234

3. Number of Applications received during last two years for admission under Management Quota and number admitted: **NIL**

## 11\_Admission Procedure

### Admission Procedure: On the basis of graduation as per DTE

1. Mention the test being followed: N/A
2. Number of seats allotted to different Test Qualified candidate: N/A
3. Calendar for admission against Management/Vacant seats: N/A

## 12\_Criteria and Weightage for Admission

### Criteria and Weightages for Admission

1. Describe criterion for admission: On the basis of graduation as per DTE
2. Mention the minimum Level of acceptance: 50% in graduation for UR, 45% in graduation for SC/ST/OBC with Mathematics in either 12 or UG
3. Mention the cut-off Levels of percentage in test in last three years: N/A
4. Display marks scored in Test: N/A

## 13\_List of Applicants

### List of Applicants

List of candidate whose applications have been received along with percentile/percentages core for each of the qualifying examination: N/A

## 14\_Result of Admission under Mgmt Seats, Vcnt Seats

Results of Admission under Management seats/Vacant seats: N/A

## 15\_Infrastructure & Other Resources

### I Information of Infrastructure

1. Number of Class Rooms and size of each

SN	Room Id/Name	Room Type	Area in sqm
1	103	Class Room	79.90
2	104	Class Room	75.83
3	107	Class Room	76.26
4	108	Class Room	76.77
5	203	Class Room	80.65
6	204	Class Room	76.81
7	207	Class Room	76.12

8	208	Class Room	76.73
9	303	Class Room	75.00

2. Number of Tutorial Rooms and size of each

SN	Room Id/Name	Room Type	Area in sqm
1	301	Tutorial Room	75.00
2	304	Tutorial Room	75.00

3. Number of Laboratories and size of each

SN	Room Id/Name	Room Type	Area in sqm
1	002	Computer Laboratory	80.29
2	003	Computer Laboratory	76.75
3	006	Computer Laboratory	77.16
4	007	Computer Laboratory	77.17
5	105	Computer Laboratory	132.85
6	205	Computer Laboratory	132.31

4. Number of Drawing Halls with capacity of each: N/A

5. Number of Computer Centers and size of each

SN	Room Id/Name	Room Type	Area in sqm
1	004	Computer Center	151.45

6. Central Examination Facility

SN	Room Id/Name	Room Type	Area in sqm
1	001-C1	Exam Control Office	30.29

7. Online Examination Facility: Available, 100 MBPS
8. Barrier Free Built Environment for disabled and elderly persons: Ramp and Lift available
9. Occupancy Certificate: YES
10. Fire and Safety Certificate: YES
11. Hostel Facility: NO

## **II Library**

1. Number of Library Books: 18632
2. Number of Titles: 1411
3. Journals Available (National): 11
4. Journals Available (International): 04
5. Online Journal: DELNET
6. E-Library Facilities: YES
7. National Digital Library: YES
8. List of National/International Journal subscribed

**PROFORMA INVOICE**

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3	Journal of Android and IOS Applications and Testing	3	Print+Online	1	2000.00
4	Journal of Computer Based Parallel Programming	3	Print+Online	1	2000.00
5	Recent Trends in Artificial Intelligence & it's applications	3	Print+Online	1	2000.00
6	Research & Review: Machine Learning and Cloud Computing	3	Print+Online	1	2000.00
7	Journal of Innovations in Data Science and Big Data Management	3	Print+Online	1	2000.00
8	Journal of IOT Security and Smart Technologies	3	Print+Online	1	2000.00
9	Journal of Nanotechnology and Nano Engineering	3	Print+Online	1	2000.00
10	Recent trends in Data Mining and Business Forecasting	3	Print+Online	1	2000.00
11	Journal of Embedded Systems and Processing	3	Print+Online	1	2000.00
12	Journal of Discrete Mathematical Sciences and Cryptography	8	Print	1	9000.00
13	Journal of Information & Optimization Sciences	8	Print	1	9000.00
14	Journal of the Indian Institute of Science	4	Print	1	8000.00
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**Dr. Sangeeta Kaul**  
Director



**DELNET**

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E-mail: [info@delnet.in](mailto:info@delnet.in) and [sankaran2003@delnet.in](mailto:sankaran2003@delnet.in)  
Web: [www.delnet.in](http://www.delnet.in)

DELNET/IM-4036/mpLNCTMCA/MEM/2022

December 23, 2022

**Sub: DELNET Membership Renewal & Subscription to Proquest  
Engg/Tech. Collection 2023-2024**

Dear Ms. Sahni,

I would like to inform you that the membership subscription of DELNET by your institution is due for renewal on January 31, 2023. We are enclosing herewith an invoice no. 2022/57092 dated 22.12.2022 of ₹13,570 (Thirteen Thousand Five Hundred Seventy only) towards the DELNET Annual Institutional Membership Fee for the year 2023-24 along with invoice no. 2022/57093 dated 22.12.2022 of ₹68,235 (Sixty Eight Thousand Two Hundred Thirty Five only) towards the Proquest Engg/Tech. Collection for the year 2023-2024 (inclusive of GST). The GSTIN of DELNET is 07AAAAD2288Q1ZV.

Kindly arrange to send us the payment of ₹13,570 and ₹68,235 through a demand draft drawn in favour of "DELNET" and it should be made payable at "New Delhi" bank branch. Please note that the payment can also be sent to the following DELNET bank account through NEFT/Netbanking.

**Bank A/c Holder Name** : DELNET- Developing Library Network  
**Bank** : Central Bank of India  
**Address** : Khan Market, Lok Nayak Bhavan  
New Delhi- 110003  
**Account No.** : 1065410992  
**Account Type** : Saving Bank  
**IFS Code** : CBIN0280310

*Kindly inform us the bank UTR number and the date of transaction if the amount is remitted through the bank.*

We would also like to request you to kindly inform us the GSTIN of your institution, if any, so that we can update the same in our accounting system.

With kind regards,

Yours sincerely,

  
Sangeeta Kaul

Ms. Neema Sahni  
Librarian  
Lakshmi Narain College of Technology (MCA)  
Kalchini Nagar, Kaiser Road  
Bhopal-462021  
Madhya Pradesh

### III Laboratory and Workshop

1. List of Major Equipment/Facilities in each Laboratory

SN	Room Id/Name	Room Type	Facility Available
1	002	Computer Laboratory	PCs, Internet, Software, Projector
2	003	Computer Laboratory	PCs, Internet, Software
3	006	Computer Laboratory	PCs, Internet, Software
4	007	Computer Laboratory	PCs, Internet, Software
5	105	Computer Laboratory	PCs, Internet, Software, Projector
6	205	Computer Laboratory	PCs, Internet, Software, Projector

### IV Computing Facilities

1. Internet Bandwidth: 100 mbps
2. Number and configuration of System: 275, HP And Lenovo Processor Intel( i5-7500T) Ram (8 GB)
3. Total number of system connected by LAN: 275
4. Total number of system connected by WAN: 5
5. Major software packages available: C, C++, JAVA, PYTHON, JavaScript, NetBeans (Open Source), OS, MS Office (Microsoft Campus Agreement)
6. Special purpose facilities available (Conduct of online Meetings, Webinars etc): YES
7. Facilities for conduct of classes/courses in online mode: YES
8. Innovation Cell: YES
9. Social Media Cell: YES
10. Compliance of the National Academic Depository: N/A

**Tax Invoice**

<b>Aegis Infotech Private Limited</b> 4th Floor, Tulsi Chamber, 4/5-2, Old Palasia, Greater Kailash Road, Indore-452018 90390-22124 GSTIN/UIN: 23AAFCA9725J12K State Name : Madhya Pradesh. Code : 23 E-Mail : <a href="mailto:accounts@egisinfotech.com">accounts@egisinfotech.com</a> Consignee (Ship to) <b>H.K. Kalchuri Education Trust</b> Lakshmi Narain College of Technology, ( LNCT Campus) Kalchuri Nagar, Raisen Road, Bhopal-462021, Ph No 0755-3985400/01/02  Contact : 0755-3985400/01/02 Buyer (Bill to) <b>H.K. Kalchuri Education Trust</b> Lakshmi Narain College of Technology, ( LNCT Campus) Kalchuri Nagar, Raisen Road, Bhopal-462021, Ph No 0755-3985400/01/02  Contact : 0755-3985400/01/02	Invoice No. <b>AIL/810/2022-23</b> Delivery Note <b>AIL/DC/227/22-23</b> Reference No. & Date.	Dated <b>12-Jan-23</b> Mode/Terms of Payment Other References
	Buyer's Order No. LNCTGroup/MS/01/2022 Dispatch Doc No. Dispatched through Terms of Delivery	Dated <b>12-Jan-23</b> Delivery Note Date <b>12-Jan-23</b> Destination

Sl No.	Description of Services	HSN/SAC	PNR No.	Qushty	Rate	Per	Amount
1	<b>WINEDUALNUDSA PKOLVE 1Y ACDM ENT ELIC</b> Microsoft Agreement FYs-00001 SY-00001 SY-00002 77D-00161  SGST OUTWARD @ 8% CGST OUTWARD @ 8% Round Off	997331	KW5-00350	100 Nos	3,847.04	Nos	3,84,704.00
<b>Total</b>							<b>4,53,951.00</b>

Amount Chargeable (In words) **INR Four Lakh Fifty Three Thousand Nine Hundred Fifty One Only** E. & O.E

HSN/SAC	Taxable Value	Central Tax Rate	Central Tax Amount	State Tax Rate	State Tax Amount	Total Tax Amount
997331	3,84,704.00	9%	34,623.36	9%	34,623.36	69,246.72
<b>Total</b>			<b>34,623.36</b>		<b>34,623.36</b>	<b>69,246.72</b>

Tax Amount (In words) : **INR Sixty Nine Thousand Two Hundred Forty Six and Seventy Two paise Only**

Company's Service Tax No. : AACFAR26420048804 Company's PAN : AAPCA9725J Declaration I hereby declare that this invoice shows the actual price of the goods supplied and that all discounts are duly and correctly reflected in this invoice. I also declare that this invoice shows the actual price of the goods received and that all percentages are duly and correctly reflected in this invoice. I, the signatory, hereby declare that all the above mentioned details are correct and true to the best of my knowledge and belief.	Company's Bank Details A/c Holder's Name : <b>Aegis Infotech Private Limited</b> Bank Name : <b>HDFC Bank</b> A/c No. : <b>00862320011638</b> Branch & IFs Code : <b>Saket Nagar, Indore &amp; HDFC0003693</b> SWIFT Code :  for Aegis Infotech Private Limited Authorized Signatory
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SUBJECT TO INDORE JURISDICTION  
This is a Computer Generated Invoice

## V List of facilities available

1. Games and Sports Facilities: YES
2. Extra-Curricular Activities: YES
3. Soft Skill Development Facilities: YES

## VI Teaching Learning Process

1. Curricula and syllabus of the Programmes as approved by the University



# Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal(M.P.)

## Scheme of Examination (w.e.f. July-2020)

### First Semester- Master of Computer Application

S.No.	Subject Code	Subject Name	Periods per week			Credits	Maximum Marks (Theory Slot)			Maximum Marks (Practical Slot)		Total Marks
			L	T	P		End Sem. Exam.	Tests (Two)	Assignments/Quiz	End Sem. Practical/Viva	Practical Record/Quiz/Assignment/Presentation	
1.	MCA 101	Programming in C and data Structure	3	1	-	4	70	20	10	-	-	100
2.	MCA 102	Statistical Mathematics	3	1	-	4	70	20	10	-	-	100
3.	MCA 103	Operating System and Architecture	3	1	-	4	70	20	10	-	-	100
4.	MCA 104	Information Technology	3	1	-	4	70	20	10	-	-	100
5.	MCA 105	Communication Skills	3	1	-	4	70	20	10	-	-	100
6.	MCA 106	C and DS Lab	-	-	8	8	-	-	-	120	80	200
7.	MCA 107	Operating System Lab	-	-	2	2				30	20	50
		Total	15	5	10	30	350	100	50	150	100	750

L: Lecture - T: Tutorial - P: Practical



# Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal(M.P.)

## Scheme of Examination (w.e.f. 2020-2021)

### Second Semester- Master of Computer Application

S.No.	Subject Code	Subject Name	Periods per week			Credits	Maximum Marks (Theory Slot)			Maximum Marks (Practical Slot)		Total Marks
			L	T	P		End Sem. Exam.	Tests (Two)	Assignments/Quizzes	End Sem. Practical/Viva	Practical Record/Quiz/Assignment/Presentation	
1.	MCA 201	DBMS	3	1	-	4	70	20	10	-	-	100
2.	MCA 202	Computer Network	3	1	-	4	70	20	10	-	-	100
3.	MCA 203	Software Engineering and UML	3	1	-	4	70	20	10	-	-	100
4.	MCA 204	Algorithm Design	3	1	-	4	70	20	10	-	-	100
5.	MCA 205	Object oriented Programming with JAVA	3	1	-	4	70	20	10	-	-	100
6.	MCA 206	Java and OOPS Lab	-	-	8	8	-	-	-	120	80	200
7.	MCA 207	DBMS	-	-	2	2	-	-	-	30	20	50
		Total	15	5	10	30	350	100	50	150	100	750

**L: Lecture - T: Tutorial - P: Practical**



# Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal(M.P.)

## **Scheme of Examination** (w.e.f. 2020-2021)

### Third Semester- Master of Computer Application

S.No.	Subject Code	Subject Name	Periods per week			Credits	Maximum Marks (Theory Slot)			Maximum Marks (Practical Slot)		Total Marks
			L	T	P		End Sem. Exam.	Tests (Two)	Assignments/Quiz	End Sem. Practical/Viva	Practical Record/Quiz/Assignment/Presentation	
1.	MCA 301	Data Mining	3	1	-	4	70	20	10	-	-	100
2.	MCA 302	Artificial Intelligence	3	1	-	4	70	20	10	-	-	100
3.	MCA 303	Elective – I	3	1	-	4	70	20	10	-	-	100
4.	MCA 304	Elective-II	3	1	-	4	70	20	10	-	-	100
5.	MCA 305	Elective-III	3	1	-	4	70	20	10	-	-	100
6.	MCA 306	Minor Project	-	-	8	8	-	-	-	120	80	200
7.	MCA 307	Elective -1 Lab	-	-	2	2				30	20	50
		<b>Total</b>	<b>15</b>	<b>5</b>	<b>10</b>	<b>30</b>	<b>350</b>	<b>100</b>	<b>50</b>	<b>150</b>	<b>100</b>	<b>750</b>

**L: Lecture - T: Tutorial - P: Practical**

Elective – I

1. Python
2. Web Technology
3. Introduction to data Science and big data

Elective-II

1. Machine Learning
2. Soft Computing
3. Internet of Things

Elective-III

1. Computer Ethics
2. Advanced Databases
3. Distributed Systems



# Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal(M.P.)

## Scheme of Examination (w.e.f. 2020-2021)

### Fourth Semester- Master of Computer Application

S.No.	Subject Code	Subject Name	Periods per week			Credits	Maximum Marks (Theory Slot)			Maximum Marks (Practical Slot)		Total Marks
			L	T	P		End Sem. Exam.	Tests (Two)	Assignments/Quizzes	End Sem. Practical/Viva	Practical Record/Quiz/Assignment/Presentation	
1.	MCA 401	Elective –IV	3	1	-	4	70	20	10	-	-	100
2.	MCA 402	Elective-V	3	1	-	4	70	20	10	-	-	100
3.	MCA 403	Elective-VI	3	1	-	4	70	20	10	-	-	100
3.	MCA 403	Major Project	-	-	16	16	-	-	-	250	150	400
5.	MCA 404	Lab of Elective-IV ,V and VI	-	-	2	2				30	20	50
		Total	9	3	18	30	210	60	30	230	120	750

**L: Lecture - T: Tutorial - P: Practical**

#### **Elective – IV**

1. Advanced Python
2. Advanced Web Technology
3. Big data with Analytics

#### **Elective-V**

1. Deep Learning
2. Cloud Computing Technologies
- 3 Digital marketing

#### **Elective-VI**

1. Information Security
2. Block Chain and Cryptocurrency
3. Mobile Computing

**RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA, BHOPAL**

**MCA, First -Semester**

**MCA 101 Programming in C with Data Structure**

**UNIT I**

Fundamentals of C Programming : Structure of a C Program, Data types, Identifiers and keywords, Operators & expressions, Preprocessor directive, Input output, Casting, Precedence, Scope of variables Control Constructs and Iteration Constructs Functions: Defining and accessing; passing arguments, Function prototypes, Recursion, Storage classes

**UNIT II**

Arrays: Defining and processing, passing arrays to a function, Multi-dimensional arrays. Strings, operations on strings.  
Pointers : Pointer expression, pointer arithmetic Arrays of pointers, Function returning pointers, Pointer to function, malloc(), calloc(), free(), Structures, Unions. File handling and related functions

**UNIT III**

Overview of Data Structure: Need for Data Structure, Execution Time, Algorithm Analysis, Algorithm Complexity , Space Complexity , Time Complexity , Asymptotic Analysis, Asymptotic Notations  
Stack and Queue: Contiguous implementations of stack, various operations on stack, various polish notations-infix, prefix, postfix, conversion from one to another-using stack, evaluation of post and prefix expressions. Contiguous implementation of queue: Linear queue, its drawback, circular queue, Enqueue Operation , Dequeue Operation , linked implementation of stack and queue, isfull(), isempty()

**UNIT IV**

General List: list and it's contiguous implementation, it's drawback, singly linked list-operations on it, doubly linked list-operations, circular linked list; linked list using arrays.

**UNIT V**

Trees: definitions-height, depth, order, degree, parent and child relationship etc; Binary Trees-various theorems, complete binary tree, almost complete binary tree; Tree traversals-preorder, in order and post order traversals, their recursive and non-recursive implementations; expression tree- evaluation; linked representation of binary tree-operations. Threaded binary trees; forests, conversion of forest into tree. Heap-definition.

**BOOKS**

1. Kerninghan & Ritchie "The C programming language", PHI
2. Schildt "C:The Complete reference" 4th ed TMH
3. Kruse R.L. Data Structures and Program Design in C; PHI



## **MCA 102 Statistical Mathematics**

### **UNIT I      MATRICES AND EIGENVALUE PROBLEMS**

Matrices - Rank of a Matrix - Consistency of a system of linear equations - Solution of the matrix equation  $\Delta x = \bar{b}$  - Row - reduced Echelon Form - Eigenvalues and Eigenvectors - Properties - Cayley - Hamilton Theorem - Inverse of a matrix.

### **UNIT II      CALCULUS**

Functions of a single variable, limit, continuity, differentiability, Mean value theorems, indeterminate forms, L'Hospital's rule, Maxima and minima, Product and chain rule, Beta and gamma functions, Functions of multiple variables, limit, continuity, partial derivatives

### **UNIT III     TESTING OF HYPOTHESIS**

Sampling distributions - Tests based on small and large samples - Normal, Student's t, Chi-square and F distributions for testing of mean, variance and proportion and testing of difference of means variances and proportions - Tests for independence of attributes and goodness of fit.

### **UNIT IV PROBABILITY AND PROBABILITY DISTRIBUTION**

Probability - Axioms of Probability - Conditional Probability - Addition and multiplication laws of Probability, Probability mass function and Probability density functions Properties - Binomial, Poisson, Normal distributions and their properties.

### **UNIT V      Discrete Math**

Sets, subsets, power sets, Counting functions, countability, Basic proof techniques: induction, proof by contradiction, Basics of inductive, deductive, and propositional logic, Basic data structures: stacks, queues, graphs, arrays, hash tables, trees, Graph properties: connected components, degree, maximum flow/minimum cut concepts, graph coloring

### **REFERENCE BOOKS:**

1. B.S. Grewal, Higher Engineering Mathematics, Khanna Publishers, 43<sup>rd</sup> Edition, New Delhi, 2015.
2. James Stewart ,calculus,7<sup>th</sup> edition
3. Miller and M. Miller, Mathematical Statistics, Pearson Education Inc., Asia 7th Edition,New Delhi,
- 4.Richard Johnson, Miller and Freund's Probability and Statistics for Engineer, Prentice Hall of India Private Ltd., 8th Edition, New Delhi, 2011..
5. D.C.Agarwal ,Discrete Structure, 5<sup>th</sup>edition,Bhopal

## **MCA 103 Operating system and Architecture**

### **UNIT I**

Register Transfer Language and Micro-operations: Concept of bus, data movement among registers, a language to represent conditional data transfer, data movement from/to memory. Design of simple Arithmetic & Logic Unit & Control Unit, arithmetic and logical operations Along with register transfer, timing in register transfer.

Architecture of a simple processor: A simple computer organization and instruction set, instruction formats, addressing modes, instruction cycle, instruction execution in terms of microinstructions, interrupt cycle, concepts of interrupt and simple I/O organization, Synchronous & Asynchronous data transfer, Data Transfer Mode: Program Controlled, Interrupt driven, DMA (Direct Memory Access). Implementation of processor using the building blocks. Pin Diagram of 8086, Architecture of 8086.

### **UNIT II**

Introduction: Evolution of operating systems (History of evolution of OS with the generations of computers), Types of operating systems, Multitasking, Timesharing, Multithreading, Multiprogramming and, Real time operating systems, Different views of the operating system, System Programmer's view, User's view, Operating system concepts and structure, Layered Operating Systems, Monolithic Systems. Processes: The Process concept, The process control block, Systems programmer's view of processes, Operating system services for process management, Scheduling algorithms, First come first serve, Round Robin, Shortest run time next, Highest response ratio next, Multilevel Feedback Queues, Performance evaluation of scheduling algorithms stated above

### **UNIT III**

Memory Management : Memory management without swapping or paging, Concepts of swapping and paging, Page replacement algorithms namely, Least recently used, Optimal page replacement, Most recently used, Clock page replacement, First in First out (This includes discussion of Belady's anomaly and the category of Stack algorithms), Modeling paging algorithms, Design issues for paging system, Segmentation, Segmented Paging, Paged Segmentation

### **UNIT IV**

Inter-process Communication and Synchronization: The need for inter-process synchronization, Concept of mutual exclusion, binary and counting semaphores, hardware support for mutual exclusion, queuing implementation of semaphores, Classical problems in concurrent programming, Dining Philosopher's problem, Bounded Buffer Problem, Sleeping Barber Problem, Readers and Writers problem, Critical section, critical region and conditional critical region, Monitors and messages. Deadlocks: Concepts of deadlock detection, deadlock prevention, deadlock avoidance. Banker's Algorithm

### **UNIT V**

File System: File systems, directories, file system implementation, security protection mechanisms. Input/output: Principles of I/O Hardware: I/O devices, device controllers, direct memory access. Principles of I/O software: Goals interrupt handlers, device drivers, and device independent I/O software. User space I/O Software. Disks: Disk hardware, Disk scheduling

algorithms (namely First come first serve, shortest seek time first, SCAN, C-SCAN, LOOK and C-LOOK algorithms) Error handling, track-at-a-time caching, RAM Disks. Clocks: Clock hardware, memory-mapped terminals, I/O software.

BOOKS:

1. Milenkovic, M., "Operating Systems - concepts and Design" McGraw Hill International Edition Computer Science series 1992.
2. Galvin P., J.L. Abraham Silberschatz. "Operating System Concepts". John Wiley & Sons Company, 1989.
4. Tanenbaum, A.S. "Modern Operating System", Prentice Hall of India Pvt. Ltd. 1995.
3. William Stallings "Operating Systems" , Prentice Hall of India Pvt. Ltd.
4. M. Morris Mano, "Computer System Architecture", PHI, 3rd edition, 1993
5. Liu and Gibson, "8086/8088 Micro processor Assembly Language"



## **MCA 104 Information Technology**

### **UNIT I**

Introduction and basic concept of modern communication and technology: CDMA, WLL, GSM, VOIP, Bluetooth, WI-Fi, Communication Technology: 2G, 3G, 4G, And 5G. Communication over radio, microwave systems, Communication satellite, radar, fiber optics, ISDN-their properties, Geographic Information System (GIS), Components of a GIS- H/W,S/W, Data, people, methods, working and application of GIS.

### **UNIT II**

Information Security: Introduction, malicious programs, cryptography, digital signature, Firewall, Users Identification and Authentication, Security awareness and policies, Application areas requiring security. Mobile Commerce: Introduction, Growth, Success Stories of Mobile commerce, Technologies for mobile commerce, M-commerce in India, Digital Marketing.

### **UNIT III**

Artificial Intelligence: Concept of Artificial Intelligence, Introduction to branches of Artificial Intelligence: Machine Learning, Neural Network, Robotics, Natural Language Processing, Expert System, and Fuzzy Logic. Applications of all the branches of AI, General application of AI.

### **UNIT IV**

Introduction to IoT: Characteristics of IoT, physical design of IoT, Logical design of IoT, Functional blocks of IoT, home Automation, Industry applications, Surveillance and other IoT applications. Introduction to Virtual Reality (VR): Definition, Application of VR, Smart Systems, Embedded Systems.

### **UNIT V**

Computing and Cloud Computing: History of Centralized and Distributed Computing, Overview of Distributed Computing, Cluster computing, Grid computing. Introduction to Cloud Computing- Cloud issues and challenges – Properties – Characteristics – Service models, Deployment models. Cloud resources: Network and API – Virtual and Physical computational resources – Data-storage.

#### **Text Books**

1. Fundamental of Information Technology by Alex Leon & M.Leon, Vikas Publications, New Delhi
2. Security in Computing (Third Edition) by C.P. Pfleeger, S.L. Pfleeger, D.N. Shah, S. Ware, Prentice Hall 2002.
3. Recent Magazines of Computers and Communication.
4. Cloud Computing PHI by Rao M.N.
5. Internet of Things, McGrawHill by Raj Kamal

#### **Reference Books**

1. Introduction to Information Technology – ITL Education Solutions Ltd., Seventh Impression, Pearson Education 2008.
2. Concepts in Computing-Kenneth Hoganson, First Indian Edition, Jones & Bartlett Publishers, Inc. 2010
3. Computer Networks – Andrew S. Tanenbaum, 4<sup>th</sup> Edition, Pearson Education.

## **MCA 105 Communication Skills**

### **UNIT I**

Listening: Barriers of Listening skill-Approaches to Listening –How to improve Listening exercises. Speaking: Paralanguage: Sounds, stress, intonation- Art of conversation – Presentation skills – Public speaking- Expressing Techniques

### **UNIT II**

Reading: Kinds of Reading – Causes of reading difficulties – Reading strategies – exercises. Writing: Effective writing – Paragraph ,Essay, Reports, Letters, Articles, Notices, Agenda & Minutes.

### **UNIT III**

Communication: Modes of Communication- Barriers – Interpersonal skills , Negotiation skills Non- Verbal communication – Etiquettes

### **UNIT IV**

Group Dynamic skills: Group Discussion – Team building & Team work – Be a manager or leader – Decision making – creativity – Time & Stress management skills.

### **UNIT V**

Interview skills: Types of Interviews – Preparing for interview – Preparing a CV – Structuring the interview , Mock Interview \_ Quick Tips.

#### Reference Books:

1. Sanghi, Seema, Improve your communication skills. 2nd edition.
2. Burnard, Philip. Interpersonal skills Training: A source book of activities. 2005.
3. Ashley, Roderic. How to enhance your employability. 1998.
4. Dr. Alex, K. Soft sill: know yourself & Know the world. 2010.
5. Cornerstone. Developing softskills. 4th edition 2005.
6. Jones, Daniel. An outline of English phonetics.
7. Aggarwal, Rohini. Business communication and Organization & Management.
8. Grath. E.H. Basic Managerial skills for all.
9. Maxwell, John C. Developing the leader within you.
10. Sunitha, V. Personality Development & communicative English

### **MCA 106 C and DS Lab**

1. Program using control structure (if else.. Switch..)
2. Program using iterative structure ( for... While...)
3. Array Manipulation Program
4. String manipulation programs
5. Program using structures
6. Program for Stack
7. Implement Stack using Linked lists use it to convert infix expression to postfix expression.
8. Program for Queue using pointers
9. Linked List Using Arrays
10. Program for Linked list using pointers
11. Program using Dynamic allocation operator
12. File handling program
13. Program for Trees

### **MCA 107 Operating System Lab**

1. Program for CPU Scheduling Algorithms to find turnaround time and waiting time.  
a) FCFS b) SJF c) Round Robin (pre-emptive) d) Priority
2. Program for File Allocation Strategies - a) Sequential b) Indexed c) Linked Memory
3. Program to simulate the following contiguous memory allocation techniques a)  
Worst-fit b) Best-fit c) First-fit
4. Program for any one of Deadlock Management Techniques
5. Program to simulate disk scheduling algorithms a) FCFS b) SCAN c) C-SCAN
6. Program for Page Replacement Algorithms a) FIFO b) LRU c) LFU
7. Program to simulate producer-consumer problem using semaphores
8. Program to simulate the concept of Dining-Philosophers problem.



**RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA, BHOPAL**

**MCA, Second -Semester**

**MCA 201 Data Base Management System**

**UNIT I**

Introduction: Advantage of DBMS approach, various view of data, data independence, schema and subschema, primary concepts of data models, Database languages, transaction management, Database administrator and users, data dictionary, overall system architecture.

ER model: basic concepts, design issues, mapping constraint, keys, ER diagram, weak and strong entity sets, specialization and generalization, aggregation, inheritance, design of ER schema, reduction of ER schema to tables.

**UNIT II**

Domains, Relations and Keys: domains, relations, kind of relations, relational database, various types of keys, candidate, primary, alternate and foreign keys.

Relational Algebra & SQL: Features of good relational database design, Codd's rule, The structure, relational algebra with extended operations, modifications of Database, idea of relational calculus, basic structure of SQL, set operations, aggregate functions, null values, nested sub queries, derived relations, views, modification of Database, join relations, DDL in SQL.

PL/SQL programming: working with stored procedures, triggers, cursor

Database Integrity: general idea. Integrity rules, domain rules, attribute rules, relation rules, Database rules, assertions, triggers, integrity and SQL.

**UNIT III**

Functional Dependencies and Normalization: basic definitions, trivial and non trivial dependencies, closure set of dependencies and of attributes, irreducible set of dependencies, introduction to normalization, non loss decomposition, FD diagram, first, second, third Normal forms, dependency preservation, BCNF, multivalued dependencies and fourth normal form, Join dependency and fifth normal form.

**UNIT IV**

Transaction, concurrency and Recovery: basic concepts, ACID properties, Transaction states, implementation of atomicity and durability, concurrent executions, basic idea of serializability, basic idea of concurrency control, basic idea of deadlock, failure classification, storage structure types, stable storage implementation, data access, recovery and atomicity- log based recovery, deferred Database modification, immediate Database modification, checkpoints. Distributed Database: basic idea, distributed data storage, data replication, data fragmentation: horizontal, vertical and mixed fragmentation.

**UNIT V**

Emerging Fields in DBMS: object oriented Databases- basic idea and the model, object structure, object class, inheritance, multiple inheritance, object identity, data warehousing- terminology, definitions, characteristics, data mining and its overview, Database on www, multimedia

Databases-difference with conventional DBMS, issues, similarity based retrieval, continuous media data, multimedia data formats, video servers.

Storage structure and file organizations: overview of physical storage media, magnetic disk performance and optimization, basic idea of RAID, file organization, organization of records in files, basic concepts of indexing, ordered indices, basic idea of B-tree and B+-tree organization

Network and hierarchical models: basic idea, data structure diagrams, DBTG model, implementations, tree structure diagram, implementation techniques, comparison of the three models.

#### BOOKS

1. A Silberschatz, H.F Korth, Sudersan "Database System Concepts" -, MGH Publication.
2. C.J Date "An introduction to Database Systems" -6th ed.
3. Elmasri & Navathe "Fundamentals of Database systems" - III ed.
4. B.C. Desai. "An introduction to Database systems" BPB
5. Raghurama Krishnan "Database Systems" TMH

## **MCA 202-Computer Network**

### **UNIT I**

Introduction: Computer Network, Layered Network Architecture-Review of ISO-OSI Model., Transmission Fundamentals-, Communication Media-Conductive Metal (Wired Cable), Optical Fiber links, Wireless Communication-Radio links, Setellite Links, Communication Services & Devices, Telephone System., Integrated Service Digital Network (ISDN)., Cellular Phone., ATM. Network Security, Virtual Terminal Protocol, Overview of DNS, SNMP, email, WWW, Multimedia.

### **UNIT II**

Data Security and Integrity: Parity Checking Code, Cyclic redundancy checks (CRC), Hemming Code, Protocol Concepts -, Basic flow control, Sliding window protocol-Go-Back-N protocol and selective repeat protocol, Protocol correctness- Finite state machine

### **UNIT III**

Local Area Network: Ethernet : 802.3 IEEE standard, Token Ring : 802.5 IEEE standard, Token Bus : 802.4 IEEE standard, FDDI Protocol, DQDB Protocol, Inter Networking, Layer 1 connections- Repeater, Hubs, Layer 2 connections- Bridges, Switches, Layer 3 connections- Routers, Gateways.

### **UNIT IV**

Wide Area Network: Introduction, Network routing, Routing Tables, Types of routing, Dijkstra's Algorithm, Bellman-Ford Algorithm, Link state routing, Open shortest path first, Flooding, Broadcasting, Multicasting, Congestion & Dead Lock, Internet Protocols, Overview of TCP/IP, Transport protocols, Elements of Transport Protocol, Transmission control protocol (TCP), User data-gram protocol (UDP).

### **UNIT V**

Wireless Broadband Networks Technology Overview, Platforms and Standards: Wireless broadband fundamentals and Fixed Wireless Broadband Systems, Platforms-Enhanced Copper, Fibre Optic and HFC, 3G Cellular, Satellites, ATM and Relay Technologies, HiperLAN2 Standard, Global 3G CDMA Standard, CDMA Harmonization G3G Proposal for Protocol Layers

### **BOOKS**

1. A.S.Tanenbaum, "Computer Network", 4th addition, PHI
2. Forouzan "Data Communication and Networking 3ed", TMH
3. J.F.Hayes, "Moduling and Analysis of Computer Communication Networks", Plenum Press
4. D.E.Comer, "Internetworking with TCP/IP", Volume Ist & IInd, PHI
5. Willium Stalling, "Data & Computer communications", Maxwell Macmillan International Ed.
6. D.Bertsekas and R.Gallager, "Data Networks", 2nd Ed. ,PHI.
7. G.E. Keiser , "Local Area Networks ", McGraw Hill, International Ed.
8. Joh R. Vacca, "Wireless Broadband Networks Handbook 3G, LMDS and Wireless Internet" Tata McGraw-Hill, 2001

## **MCA 203 Software Engineering and UML**

### **UNIT I Introduction**

Software Engineering paradigms – Waterfall Life cycle model – Spiral Model – Prototype Model– Software Requirement - Requirements Elicitation Techniques – Initial Requirements Document – SRS Document – Requirements Change Management - Project Management

### **UNIT II Software Design**

Abstraction – Modularity – Software Architecture – Cohesion – Coupling – Various Design Concepts and notations – Development of Detailed Design & Creation of Software Design Document - Dataflow Oriented design – Designing for reuse – Programming standards.

### **UNIT III Software Metrics**

9

Scope – Classification of metrics – Measuring Process and Product attributes – Direct and Indirect measures – Reliability – Software Quality Assurance – Standards.  
Need of Software Estimation – Function Point – Risk Management

### **UNIT IV Software Testing And Maintenance**

9

Software Testing Fundamentals – Software testing strategies – Black Box Testing – White Box Testing – System Testing – Functional Testing – Structural Testing – Regression Testing - Testing Tools – Test Case Management –  
Challenges of Software Maintenance – Types of Maintenance. Software Maintenance Organization – Maintenance Report

### **UNIT V Unified Modeling Language**

Introduction to UML : Use Case Approach; Identification of Classes and Relationships, Identifying State and Behavior, Use Case Diagram, Class Diagram – State Diagram - Sequence Diagram – Activity Diagram – Deployment Diagrams Case Study - LMS

#### **Books:**

1. Roger S. Pressman, "Software Engineering: A Practitioner's Approach, Tata McGraw-Hill Education, 8<sup>th</sup> Edition, 2015.
2. I. Sommerville, "Software Engineering", Sixth Edition, Addison Wesley-Longman, 2004.
3. Pankaj Jalote, "An Integrated approach to Software Engineering", Second Edition, Springer Verlag, 1997.
4. Timothy C. Lethbridge and Robert Laganier, "Object – Oriented Software Engineering, Practical Software Development using UML and Java", Tata McGraw Hill Publishing Company Limited, Second Edition, 2004

## **MCA 204 Algorithm Design**

### **UNIT I LINEAR DATA STRUCTURES**

Introduction - Abstract Data Types (ADT) – Stack – Queue – Circular Queue - Double Ended Queue - Applications of stack – Evaluating Arithmetic Expressions - Other Applications - Applications of Queue - Linked Lists - Singly Linked List - Circularly Linked List - Doubly Linked lists – Applications of linked list – Polynomial Manipulation.

### **UNIT II NON-LINEAR DATA STRUCTURES**

Binary Tree – expression trees – Binary tree traversals – applications of trees – Huffman Algorithm - Binary search tree - Balanced Trees - AVL Tree - B-Tree - Splay Trees – Heap- Heap operations- -Binomial Heaps - Fibonacci Heaps- Hash set.  
Searching, Hashing and Sorting: requirements of a search algorithm; sequential search, binary search, indexed sequential search, interpolation search,  
Hashing-basics, methods, collision, resolution of collision, chaining; Internal sorting- Bubble sort, selection sort, insertion sort, quick sort, merge sort on linked and contiguous list, shell sort, heap sort, tree sort.

### **UNIT III GRAPHS**

Representation of graph - Graph Traversals - Depth-first and breadth-first traversal - Applications of graphs - Topological sort – shortest-path algorithms - Dijkstra's algorithm – Bellman-Ford algorithm – Floyd's Algorithm - minimum spanning tree – Prim's and Kruskal's algorithms. Basic idea of AVL tree- definition, insertion & deletion operations, basic idea of B-tree- definition, order, degree, insertion & deletion operations, B+-Tree- definitions, comparison with B-tree

### **UNIT IV ALGORITHM DESIGN AND ANALYSIS**

Algorithm Analysis – Asymptotic Notations - Divide and Conquer – Merge Sort – Quick Sort - Binary Search - Greedy Algorithms – Knapsack Problem – Dynamic Programming – Optimal Binary Search Tree - Warshall's Algorithm for Finding Transitive Closure.

### **UNIT V ADVANCED ALGORITHM DESIGN AND ANALYSIS**

Backtracking – N-Queen's Problem - Branch and Bound – Assignment Problem - P & NP problems – NP-complete problems – Approximation algorithms for NP-hard problems – Traveling salesman problem-Amortized Analysis

#### **Books**

1. Ullman "Analysis and Design of Algorithm" TMH
2. Goodman "Introduction to the Design & Analysis of Algorithms, TMH-2002.
3. Aho, "Data Structure & Algorithms

## **MCA 205 Object oriented Programming with JAVA**

### **UNIT I**

OOP concepts – Data abstraction, encapsulation, inheritance, benefits of inheritance, polymorphism,

The Java Environment: Setting Class path; Data types; Operators - precedence and associativity; Type conversion; Control and Iterative statements; Modular programming methods;

Object Oriented Programming in Java: Class; Objects; Packages; Scope and lifetime; Access Modifiers; Constructors; Copy constructor; this pointer; finalize () method; Arrays; Memory allocation and garbage collection

Inheritance : Inheritance basics, method overriding, dynamics method dispatch, abstract classes.

Interfaces : Defining an interface, implementing & applying interfaces, variables in interfaces, extending interfaces.

### **UNIT-II**

Multithreading and Exception Handling: Basic idea of multithreaded programming; The lifecycle of a thread; Creating thread with the thread class and runnable interface; Thread synchronization; Thread scheduling; Producer-consumer relationship; Daemon thread, Selfish threads; The try, catch and throw; throws Constructor and finalizers in exception handling;

Applets: Applet security restrictions; the class hierarchy for applets; Life cycle of applet; HTML Tags for applet.

### **UNIT-III**

Input/Output : Exploring Java I/O, Directories, stream classes The Byte stream : Input stream, output stream, file input stream, file output stream, print stream, Random access file, the character streams, Buffered reader, buffered writer, print writer, serialization.

JDBC: JDBC-ODBC bridge; The connectivity model; The driver manager; Navigating the resultset object contents; java.sql Package; The JDBC exception classes; Connecting to Remote database.

Collections: The collections framework, collection interfaces, collection classes.

### **UNIT-IV**

AWT Fundamentals: The class hierarchy of window fundamentals; The basic user interface components , Frame, Layout managers, flow layout etc.

The Java Event Handling Model: Java's event delegation model , Event class hierarchy; Adapter classes; Event classes action and different Events

SWINGS: Introduction, Hierarchy of swing components. Containers, Top level containers - JFrame, JWindow, JDialog, JPanel, JButton, JToggleButton, JCheckBox, JRadioButton, JLabel, JPasswordField, JTextArea, JList, JComboBox, JScrollPane.

### **UNIT-V**

Introduction of Web Designing: HTML basics

Servlets Overview, Servlet Lifecycle: init(), service(),destroy(), Generic Servlet,Servlet Request, and Servlet Response, http Servlet Request, http Servlet Response and http Servlet, Request-response, headers, GET, POST

JSP: JSP architecture, JSP tags and JSP expressions, Fixed Template Data ,Lifecycle of a JSP, Model View Controller (MVC), Data Sharing among servlets & JSP, Request, application, session and page scope, JSP implicit objects, isElignore attribute, buffer and auto flush attributes, info attribute ,errorPage and is errorPage attributes, is Thread safe Attribute, extends attribute, language attribute, Including files and applets in jsp Pages, using java beans components in JSP documents.

Struts Framework: Struts Architecture, Struts classes ActionForward, ActionForm, ActionServlet, Action classes, Understanding struts config. xml, Understanding Action Mappings, Struts flow with an example application.

#### BOOKS

1. Naughton & Schildt "The Complete Reference Java 2", Tata McGraw Hill
2. Deitel "Java- How to Program:" Pearson Education, Asia
3. Horstmann & Cornell "Core Java 2" (Vol I & II) , Sun Microsystems
4. Ivan Bayross "Java 2.0" : BPB publications 5. Ivor Horton's "Beginning Java 2, JDK 5 Ed., Wiley India. Note : Paper is to be set unit wise with internal choice.
5. Internet and World Wide Web – How to program by Dietel and Nieto PHI/Pearson Education Asia.
6. Jakarta Struts Cookbook, Bill Siggelkow, S P D O'Reilly for chap 8
- 7 An Introduction to web Design and Programming –Wang Thomson
- 8 Web Applications Technologies Concepts- Knuckles,John Wiley

#### **MCA 206 Java and OOPS lab**

- 1) Write a Java program to determine maximum from given 100 numbers.
- 2) Write a Java program to calculate the factorial of a given numbers.
- 3) [Java program to check whether a given character is alphabet or not.](#)
- 4) [Java program to find sum of all digits.](#)
- 5) Write a Java program to add two binary numbers.
- 6) Write a Java program for switch statement.
- 7) Write a Java program to print perfect numbers
- 8) Write a Java program to convert a decimal number to binary number.
- 9) Write a Java program for Parameterized Constructor.
- 10) Write a Java program using while loop, do while loop, "for" loop.
- 11) Write a Java program to check whether number is Armstrong or not.
- 12) Write a Java program for Hierarchical Inheritance.
- 13) Write a Java program for abstract class and for interface.
- 14) Write a Java program to declare, initialize and display the contents of an array of 5 integer values. Also show in Java how the length of array can be found.
- 15) Write a program to accept a string and count total capital and small letters in string.
- 16) Write a Java program to print following output:  
0,1,1,2,3.....(20 such items)
- 17) Write a Java program for method overloading and for method overriding.
- 18) Write a Java program to design a class Student that has three data member name ; Roll no; Marks in five subject and member function to assign streams on the basis of table given below

<u>Average marks</u>	<u>Stream</u>
1) 90% or more	Computer
2) 80-90%	Electronics
3) 75-80%	Mechanical
4) 70-75%	Chemical
5) 60-70%	Civil

## MCA 207 DBMS lab

### **PRACTICAL LIST**

1. Create the following Databases.

Salesmen

SNUM	SNAME	CITY	COMMISSION
1001	Piyush	London	12 %
1002	Sejal	Surat	13 %
1004	Miti	London	11 %
1007	Rajesh	Baroda	15 %
1003	Anand	New Delhi	10 %

SNUM : A unique number assigned to each salesman.

SNAME : The name of salesman.

CITY : The location of salesmen.

COMMISSION: The Salemen's commission on orders.

Customers

CNUM	CNAME	CITY	RATING	SNUM
2001	Harsh	London	100	1001
2002	Gita	Rome	200	1003
2003	Lalit	Surat	200	1002
2004	Govind	Bombay	300	1002
2006	Chirag	London	100	1001

2008 Chinmay Surat 300 1007

2007 Pratik Rome 100 1004

CNUM : A unique number assigned to each customer.

CNAME : The name of the customer.

CITY : The location of the customer.

RATING : A level of preference indicator given to this customer.

SNUM : The number of salesman assigned to this customer.

Orders

ONUM AMOUNT ODATE CNUM SNUM

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3001 18.69 10/03/97 2008 1007

3003 767.19 10/03/97 2001 1001

3002 1900.10 10/03/97 2007 1004

3005 5160.45 10/03/97 2003 1002

3006 1098.16 10/03/97 2008 1007

3009 1713.23 10/04/97 2002 1003

3007 75.75 10/04/97 2004 1002

3008 4723.00 10/05/97 2006 1001

3010 1309.95 10/06/97 2004 1002

3011 9891.88 10/06/97 2006 1001

ONUM : A unique number assigned to each order.

AMOUNT : The amount of an order.

ODATE : The date of an order.

CNUM : The number of customer making the order.

SNUM : The number of salesman credited with the sale.

### **Write queries :-**

1. Produce the order no, amount and date of all orders.
2. Give all the information about all the customers with salesman number 1001.
3. Display the following information in the order of city, sname, snum and commission.
4. List of rating followed by the name of each customer in Surat.
5. List of snum of all salesmen with orders in order table without any duplicates.
6. List of all orders for more than Rs. 1000.
7. List of names and cities of all salesmen in London with commission above 10%.
8. List all customers whose names begins with a letter 'C'.
9. List all customers whose names begins with letter 'A' to 'G'.
10. List all orders with zero or NULL amount.
11. Find out the largest orders of salesman 1002 and 1007.
12. Count all orders of October 3, 1997.
13. Calculate the total amount ordered.
14. Calculate the average amount ordered.
15. Count the no. of salesmen currently having orders.
16. List all salesmen with their % of commission.
17. Assume each salesperson has a 12% commission. Write a query on the order table that will produce the order number, salesman no and the amount of commission for that order.

18. Find the highest rating in each city in the form :  
For the city (city), the highest rating is : (rating)
19. List all in descending order of rating.
20. Calculate the total of orders for each day and place the result in descending order.
21. Show the name of all customers with their salesman's name.
22. List all customers and salesmen who shared a same city.
23. List all orders with the names of their customer and salesman.
24. List all orders by the customers not located in the same city as their salesman.
25. List all customers serviced by salespeople with commission above 12%.
26. Calculate the amount of the salesman commission on each order by a customer with rating above 100.
27. Find all pairs of customers having the same rating with out duplication.
28. List all orders that are greater than the average of October 4,1997.
29. Find the average commission of salesmen in London.
30. Find all orders attributed to salesmen in 'London' using both the subquery and join methods.
31. List the commission of all salesmen serving customers in 'London'.
32. Find all customers whose cnum is 1000 above than the snum of Sejal.
33. Count the no. of customers with the rating above than the average of 'Surat'.
34. Find all salesmen with customers located in their cities using ANY

and IN.

35. Find all salesmen for whom there are customers that follow them in alphabetical order.

36. Find all customers having rating greater than any customer in 'Rome'.

37. List all orders that has amount greater than atleast one of the orders from 6th October, 1997.

38. Find all orders with amounts smaller than any amount for a customer in 'London'.

39. Find all the customers who have greater rating than every customer in 'Rome'

40. Create a union of two queries that shows the names, cities and ratings of all customers. Those with rating of  $\geq 200$  should display 'HIGH RATING' and those with  $< 200$  should display 'LOW RATING'.

41. Produce the name and number of each salesman and each customer with more than one current order in the alphabetical order of names.

42. Create union of three queries. First select snum of all salesman in Surat, second, the cnum of all customers in 'Surat' and third, the onum of all orders of 3rd Oct. Retain duplicates between the last two queries but remove the duplicates between either of them and the first..

43. Remove all orders from customer Chirag from the orders table.

44. Set the ratings of all the customers of Piyush to 400.

45. Increase the rating of all customers in Rome by 100.

**RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA, BHOPAL**

**MCA, Third -Semester**

**MCA 301 Data Mining**

UNIT – I Motivation, importance, Data type for Data Mining : relation Databases, Data Warehouses, Transactional databases, advanced database system and its applications, Data mining Functionalities: Concept/Class description, Association Analysis classification & Prediction, Cluster Analysis, Outlier Analysis, Evolution Analysis, Classification of Data Mining Systems, Major Issues in Data Mining.

UNIT – II Data Warehouse and OLAP Technology for Data Mining: Differences between Operational Database Systems and Data Warehouses, a multidimensional Data Model, Data Warehouse Architecture, Data Warehouse Architecture, Data Warehouse Implementation, Data Cube Technology.

UNIT- III Data Preprocessing: Data Cleaning, Data Integration and Transformation, Data Reduction, Discretization and Concept Hierarchy Generation. Data Mining Primitives, Languages, and System Architectures, Concept Description: Characterization and Comparison, Analytical Characterization.

UNIT – IV Mining Association Rules in Large Databases: Association Rule Mining: Market Basket Analysis, Basic Concepts, Mining Single-Dimensional Boolean Association Rules from Transactional Databases: the Apriori algorithm, Generating Association rules from Frequent items, Improving the efficiency of Apriory, Mining Multilevel Association Rules, Multidimensional Association Rules, Constraint-Based Association Mining.

UNIT – V Classification & Prediction and Cluster Analysis: Issues regarding classification & prediction, Different Classification Methods, Prediction, Cluster Analysis, Major Clustering Methods, Applications & Trends in Data Mining: Data Mining Applications, currently available tools.

**BOOKS**

1. J. Han and M. Kamber, “Data Mining: Concepts and Techniques”, Morgan Kaufmann Pub. 2. Berson “Dataware housing, Data Mining & DLAP, @004, TMH. 3. W.H. Inmon “ Building the Datawarehouse, 3ed, Wiley India. 4. Anahory, “Data Warehousing in Real World”, Pearson Education. 5. Adriaans, “Data Mining”, Pearson Education. 6. S.K. Pujari, “Data Mining Techniques”, University Press, Hyderabad

## **MCA 302 Artificial Intelligence**

**UNIT I** General Issues and Overview of AI The AI problems, what is an AI technique, Characteristics of AI applications. Introduction to LISP programming: Syntax and numeric functions, Basic list manipulation functions, predicates and conditionals, input output and local variables, iteration and recursion, property lists and arrays.

**UNIT II** Problem Solving, Search and Control Strategies General problem solving, production systems, control strategies forward and backward chaining, exhaustive searches depth first breadth first search. Heuristic Search Techniques Hill climbing, branch and bound technique, best first search & A\* algorithm, AND / OR graphs, problem reduction & AO\* algorithm, constraint satisfaction problems.

**UNIT III** Knowledge Representations First order predicate calculus, skolemization, resolution principle & unification, interface mechanisms, horn's clauses, semantic networks, frame systems and value inheritance, scripts, conceptual dependency.

**UNIT IV** Natural Language processing Parsing techniques, context free grammar, recursive transition nets (RNT), augmented transition nets (ATN), case and logic grammars, syntactic analysis. Game playing Minimax search procedure, alpha-beta cutoffs, additional refinements. Planning Overview an example domain the block world, component of planning systems, goal stack planning, non linear planning.

**UNIT V** Probabilistic Reasoning and Uncertainty Probability theory, bayes theorem and bayesian networks, certainty factor.

Expert Systems Introduction to expert system and application of expert systems, various expert system shells, vidwan frame work, knowledge acquisition, case studies, MYCIN.

Learning Rote learning, learning by induction, explanation based learning

### **BOOKS**

1. Elaine Rich and Kevin Knight "Artificial Intelligence" - Tata McGraw Hill.
2. "Artificial Intelligence" 4 ed. Pearson
3. Dan W. Patterson "Introduction to Artificial Intelligence and Expert Systems", Prentice India.
4. Nils J. Nilson "Principles of Artificial Intelligence", Narosa Publishing House.
5. Clocksin & C.S.Melish "Programming in PROLOG", Narosa Publishing House.
6. M.Sasikumar,S.Ramani etc. "Rule based Expert System", Narosa Publishing House

## **Elective –I MCA 303 (1) PYTHON PROGRAMMING**

### **UNIT I INTRODUCTION TO PYTHON:**

Python interpreter and interactive mode; values and types: int, float, boolean, string, and list; variables, expressions, statements, tuple assignment, precedence of operators, comments; modules and functions, function definition and use, flow of execution, parameters and arguments; Illustrative programs: exchange the values of two variables, circulate the values of n variables, distance between two points.

### **UNIT II CONTROL FLOW, FUNCTIONS**

Conditionals: Boolean values and operators, conditional (if), alternative (if-else), chained conditional (if-elif-else); Iteration: state, while, for, break, continue, pass; Fruitful functions: return values, parameters, local and global scope, function composition, recursion; Strings: string slices, immutability, string functions and methods, string module; Lists as arrays. Illustrative programs: square root, gcd, exponentiation, sum an array of numbers, linear search, binary search.

### **UNIT III LISTS, TUPLES, DICTIONARIES**

Lists: list operations, list slices, list methods, list loop, mutability, aliasing, cloning lists, list parameters; Tuples: tuple assignment, tuple as return value; Dictionaries: operations and methods; advanced list processing – list comprehension; Illustrative programs: Sorting and Searching

### **UNIT IV**

Classes and Inheritance: Object Oriented Programming, Class Instances, Methods Classes Examples, Why OOP, Hierarchies, Your Own Types – An Extended Example: Building a Class, Visualizing the Hierarchy, Adding another Class, Using Inherited Methods

### **UNIT V FILES, MODULES, PACKAGES**

Files and exception: text files, reading and writing files, format operator; command line arguments, errors and exceptions, handling exceptions, modules, packages; Illustrative programs: word count, copy file.

### **BOOKS**

1. ReemaThareja, "Python Programming using Problem Solving Approach", Oxford University Press, 2017
2. Allen B. Downey, "Think Python: How to Think Like a Computer Scientist", SecondEdition, Shroff O'Reilly Publishers, 2016 (<http://greenteapress.com/wp/thinkpython/>)
3. Guido van Rossum, Fred L. Drake Jr., "An Introduction to Python – Revised andUpdated forPython 3.2, Network Theory Ltd., Edition2011

## **Elective –I MCA 303 (2) Web Technology**

### **UNIT I**

Concept of Internet : Client/Server model, Internet and WWW, IP, URL, ISP, DNS; Web Design : Principles of effective Web Design, Page layout and linking, designing effective navigation for your website, planning and publishing websites, Responsive web design : Responsive vs adaptive web design

### **UNIT II**

HTML and Style Sheets : Working with HTML - Formatting and Fonts, Basic Tags, Hyperlinks, Tables, Images, Forms, XHTML, Meta tags. Style Sheets (CSS): Introduction, Need, basic syntax and structure, class, id, background Images, Colors and Properties, Manipulating Texts, Margins, Positioning.

### **UNIT III**

Javascript : Client side scripting with JavaScript, Data Types and Variables, Expressions, Operators and Statements, Objects and Arrays, Functions, loops, Classes, Modules, DOM, Forms and Validations.

### **UNIT IV**

XML : Introduction, Features, Anatomy, Declaration, Uses, Key Components, DTD and Schema, Markup Elements and Attributes, XML Objects, XML Scripting, Using XML with application, Transforming XML using XSL and XSLT, XPATH - Template Based Transformations.

### **UNIT V**

Introduction to AJAX: AJAX Components, The XMLHttpRequest Object, Using XSLT with AJAX; Webservices : Web Service architecture, introduction to webservices, Web Services VS other technologies, Web Services Benefits

#### **Books**

1. Jeffrey C. Jackson, "Web Technologies--A Computer Science Perspective", Pearson Education, 2006.
2. Developing Web Applications, Ralph Moseley and M. T. Savaliya, Wiley-India
3. Web Technologies, Black Book, dreamtech Press
4. Web Design, Joel Sklar, Cengage Learning
5. Internet and World Wide Web How to program, P.J. Deitel & H.M. Deitel Pearson.
6. Steven Holzner, "HTML Black Book", Dreamtech press.
7. Kogent Learning Web Technologies: HTML, Javascript Wiley India

## **Elective –I MCA 303 (3) Introduction to Data Science and Big Data**

### **UNIT I INTRODUCTION TO DATA SCIENCE AND BIG DATA**

Introduction to Data Science – Data Science Process – Exploratory Data analysis – Big data: Definition, Risks of Big Data, Structure of Big Data – Web Data: The Original Big Data – Evolution Of Analytic Scalability – Analytic Processes and Tools – Analysis versus Reporting – Core Analytics versus Advanced Analytics– Modern Data Analytic Tools – Statistical Concepts: Sampling Distributions – Re-Sampling – Statistical Inference – Introduction to Data Visualization.

### **UNIT II DATA ANALYSIS USING R**

Univariate Analysis: Frequency, Mean, Median, Mode, Variance, Standard Deviation, Skewness and Kurtosis – Bivariate Analysis: Correlation – Regression Modeling: Linear and Logistic Regression – Multivariate Analysis – Graphical representation of Univariate, Bivariate and Multivariate Analysis in R: Bar Plot, Histogram, Box Plot, Line Plot, Scatter Plot, Lattice Plot, Regression Line, Two-Way cross Tabulation.

### **UNIT III DATA MODELING**

Bayesian Modeling – Support Vector and Kernel Methods – Neuro – Fuzzy Modeling – Principal Component Analysis – Introduction to NoSQL: CAP Theorem, MongoDB: RDBMS VsMongoDB, Mongo DB Database Model, Data Types and Sharding – Data Modeling in HBase: Defining Schema – CRUD Operations

### **UNIT IV DATA ANALYTICAL FRAMEWORKS**

Introduction to Hadoop: Hadoop Overview – RDBMS versus Hadoop – HDFS (Hadoop Distributed File System): Components and Block Replication – Introduction to MapReduce – Running Algorithms Using MapReduce – Introduction to HBase: HBase Architecture, HLog and HFile, Data Replication – Introduction to Hive, Spark and Apache Sqoop.

### **UNIT V STREAM ANALYTICS**

Introduction To Streams Concepts – Stream Data Model and Architecture – Stream Computing – Sampling Data in a Stream – Filtering Streams – Counting Distinct Elements in a Stream – Estimating Moments – Counting Oneness in a Window – Decaying Window.

1. Bill Franks, "Taming the Big Data Tidal Wave: Finding Opportunities in Huge Data Streams with Advanced Analytics", John Wiley & sons
2. Rachel Schutt, Cathy O'Neil, "Doing Data Science", O'Reilly

## **Elective –II MCA 304(1) Elective –II Machine Learning**

**UNIT I** Introduction to machine learning, scope and limitations, regression, probability, statistics and linear algebra for machine learning, convex optimization, data visualization, hypothesis function and testing, data distributions, data preprocessing, data augmentation, normalizing data sets, machine learning models, supervised and unsupervised learning.

**UNIT II** Linearity vs non linearity, activation functions like sigmoid, ReLU, etc., weights and bias, loss function, gradient descent, multilayer network, backpropagation, weight initialization, training, testing, unstable gradient problem, auto encoders, batch normalization, dropout, L1 and L2 regularization, momentum, tuning hyper parameters.

**UNIT III** Convolutional neural network, flattening, subsampling, padding, stride, convolution layer, pooling layer, loss layer, dense layer 1x1 convolution, inception network, input channels, transfer learning, one shot learning, dimension reductions, implementation of CNN like tensor flow, keras etc.

**UNIT IV** Recurrent neural network, Long short-term memory, gated recurrent unit, translation, beam search and width, Bleu score, attention model, Reinforcement Learning, RL-framework, MDP, Bellman equations, Value Iteration and Policy Iteration, Actor-critic model, Q-learning, SARSA

**UNIT V** Support Vector Machines, Bayesian learning, application of machine learning in computer vision, speech processing, natural language processing etc, Case Study: ImageNet Competition

### **TEXT BOOKS RECOMMENDED:**

1. Christopher M. Bishop, "Pattern Recognition and Machine Learning", Springer-Verlag New York Inc., 2nd Edition, 2011.
2. Tom M. Mitchell, "Machine Learning", McGraw Hill Education, First edition, 2017.
3. Ian Goodfellow and Yoshua Bengio and Aaron Courville, "Deep Learning", MIT Press, 2016

### **REFERENCE BOOKS:**

1. Aurelien Geon, "Hands-On Machine Learning with Scikit-Learn and Tensorflow: Concepts, Tools, and Techniques to Build Intelligent Systems", Shroff/O'Reilly; First edition (2017).
2. Francois Chollet, "Deep Learning with Python", Manning Publications, 1 edition (10 January 2018).
3. Andreas Muller, "Introduction to Machine Learning with Python: A Guide for Data Scientists", Shroff/O'Reilly; First edition (2016).
4. Russell, S. and Norvig, N. "Artificial Intelligence: A Modern Approach", Prentice Hall Series in Artificial Intelligence. 2003.

## Elective –II MCA 304(2) SOFT COMPUTING

**UNIT I** Overview of Soft Computing, Difference between Soft and Hard computing, Brief descriptions of different components of soft computing including Artificial intelligence systems Neural networks, fuzzy logic, genetic algorithms. Artificial neural networks Vs Biological neural networks, ANN architecture, Basic building block of an artificial neuron, Activation functions, Introduction to Early ANN architectures (basics only)-McCulloch & Pitts model, Perceptron, ADALINE, MADALINE

**UNIT II** Artificial Neural Networks: Supervised Learning: Introduction and how brain works, Neuron as a simple computing element, The perceptron, Backpropagation networks: architecture, multilayer perceptron, backpropagation learning-input layer, accelerated learning in multilayer perceptron, The Hopfield network, Bidirectional associative memories (BAM), RBF Neural Network.

**UNIT III** Artificial Neural Networks: Unsupervised Learning: Hebbian Learning, Generalized Hebbian learning algorithm, Competitive learning, Self- Organizing Computational Maps: Kohonen Network.

**UNIT IV** Fuzzy Logic Crisp & fuzzy sets fuzzy relations fuzzy conditional statements fuzzy rules fuzzy algorithm. Fuzzy logic controller.

**UNIT V** Genetic algorithms basic concepts, encoding, fitness function, reproduction-Roulette wheel, Boltzmann, tournament, rank, and steady state selections, Convergence of GA, Applications of GA case studies. Introduction to genetic programming- basic concepts.

### BOOK

1. R. Rajasekaran and G. A and Vijayalakshmi Pa, *Neural Networks, Fuzzy Logic, and Genetic Algorithms: Synthesis and Applications*, Prentice Hall of India
2. D. E. Goldberg, *Genetic Algorithms in Search, Optimisation, and Machine Learning*, Addison-Wesley

### SUPPLEMENTARY READING

1. . L. Fausett, *Fundamentals of Neural Networks*, Prentice Hall
2. T. Ross, *Fuzzy Logic with Engineering Applications*, Tata McGraw Hill

## **Elective –II MCA 304(3) Internet of Things**

### **UNIT I**

Introduction: Definition, Characteristics of IOT, IOT Conceptual framework, IOT Architectural view, Physical design of IOT, Logical design of IOT, Application of IOT.

### **UNIT II**

Machine-to-machine (M2M), SDN (software defined networking) and NFV (network function virtualization) for IOT, data storage in IOT, IOT Cloud Based Services.

### **UNIT III**

Design Principles for Web Connectivity: Web Communication Protocols for connected devices, Message Communication Protocols for connected devices, SOAP, REST, HTTP Restful and Web Sockets. Internet Connectivity Principles: Internet Connectivity, Internet based communication, IP addressing in IOT, Media Accesscontrol.

### **UNIT IV**

Sensor Technology , Participatory Sensing, Industrial IOT and Automotive IOT , Actuator, Sensor data Communication Protocols ,Radio Frequency Identification Technology, Wireless Sensor NetworkTechnology.

### **UNIT V**

IOT Design methodology: Specification -Requirement, process, model, service, functional & operational view.IOT Privacy and security solutions, Raspberry Pi &arduino devices. IOT Case studies: smart city streetlights control & monitoring.

#### Reference Book:

1. Rajkamal, "Internet of Things", Tata McGraw Hill publication
2. Vijay Madiseti and ArshdeepBahga, "Internet of things(A-Hand-on-Approach)" 1st Edition ,UniversalPress
3. HakimaChaouchi "The Internet of Things: Connecting Objects", Wiley publication.
4. Charless Bell "MySQL for the Internet of things", Apresspublications.
5. Francis dacosta "Rethinking the Internet of things:A scalable Approach to connecting everything", 1st edition, Apress publications2013.
6. Donald Norris "The Internet of Things: Do-It-Yourself at

## **Elective –III MCA 305(1) Computer Ethics**

**UNIT-1 An Overview of Ethics:** Ethics: Definition of Ethics, The Importance of Integrity, The Difference between Morals, Ethics, and Laws. Ethics in the Business World: Why Fostering Good Business Ethics Is Important, Improving Corporate Ethics, Creating an Ethical Work Environment, Including Ethical Considerations in Decision Making. Ethics in Information Technology Ethics for IT Workers and IT Users: IT Technicians, IT Professionals: Are IT Workers Professionals, The Changing Professional Services Industry, Professional Relationships That Must Be Managed, Professional Codes of Ethics, Professional Organizations, Certification, Government Licensing, IT Professional Malpractice. IT Users, Common Ethical Issues for IT Users, Supporting the Ethical Practices of IT Users.

**UNIT II Computer and Internet Crime,** IT Security Incidents: A Major Concern, Why Computer Incidents Are So Prevalent, Types of Exploits, Types of Perpetrators, Federal Laws for Prosecuting Computer Attacks, Implementing Trustworthy Computing: Risk Assessment, Establishing a Security Policy, Educating Employees, Contractors, and Part-Time Workers, Prevention, Detection, Response. Privacy: Privacy Concerns Abound with New IRS Systems, Privacy Protection and the Law: Information Privacy, Privacy Laws, Applications, and Court Rulings. Key Privacy and Anonymity Issues: Identity Theft, Consumer Profiling, Treating Consumer Data Responsibly, Workplace Monitoring, Advanced Surveillance Technology.

**UNIT III Freedom of Expression:** First Amendment Rights, Obscene Speech, Defamation, Freedom of Expression: Key Issues, Controlling Access to Information on the Internet, Anonymity on the Internet, Defamation and Hate Speech, Corporate Blogging, Pornography. Intellectual Property: What Is Intellectual Property? Copyrights: Copyright Term, Eligible Works, Fair Use Doctrine, Software Copyright Protection, The Prioritizing Resources and Organization for Intellectual Property (PRO-IP) Act of 2008, General Agreement on Tariffs and Trade (GATT), The WTO and the WTO TRIPS Agreement (1994), The World Intellectual Property Organization (WIPO) Copyright Treaty (1996), The Digital Millennium Copyright Act (1998), Patents: Software Patents, Software Cross-Licensing Agreements, Defensive Publishing and Patent Trolls, Submarine Patents and Patent Farming. Trade Secrets: Trade Secret Laws, Employees and Trade Secrets, Key Intellectual Property Issues: Plagiarism, Reverse Engineering, Open Source Code, Competitive Intelligence, Cybersquatting

**UNIT IV Software Development:** Strategies for Engineering Quality Software, The Importance of Software Quality, Software Product Liability, Software Development Process, Capability Maturity Model Integration. Key Issues in Software Development, Development of Safety-Critical Systems, Quality Management Standards The Impact of Information Technology on Productivity and Quality of Life: The Impact of IT on the Standard of Living and Worker Productivity, IT Investment and Productivity, The Digital Divide, The Impact of IT on Healthcare Costs, Electronic Health Records, Use of Mobile and Wireless Technology in the Healthcare Industry, Telemedicine, Medical Information Web Sites for Laypeople

**UNIT V Social Networking:** What Is a Social Networking Web Site? Business Applications of Online Social Networking, Social Network Advertising, The Use of Social Networks in the Hiring Process, Social Shopping Web Sites, Social Networking Ethical Issues, Cyberbullying, Cyberstalking, Encounters with Sexual Predators, Uploading of Inappropriate Material, Online Virtual Worlds, Crime in Virtual Worlds, Educational and Business Uses of Virtual Worlds. Ethics of IT Organizations: Key Ethical Issues for Organizations, The Need for Nontraditional Workers, Contingent Workers, Advantages of Using Contingent Workers, Disadvantages of Using Contingent Workers, Deciding When to Use Contingent, Outsourcing, Offshore Outsourcing, Pros and Cons of Offshore Outsourcing, Strategies for Successful Offshore Outsourcing, Whistle-Blowing, Protection for Whistle-Blowers, Whistle-Blowing Protection for Private-Sector Workers, Dealing with a Whistle-Blowing Situation, Green Computing, ICT Industry Code of Conduct.

**Books :**

1. George W. Reynolds, ETHICS IN INFORMATION TECHNOLOGY, Third Edition, Course Technology, ISBN-13: 978-0-538-74622-9, Cengage Learning.
2. Deborah Johnson, Computer Ethics, Fourth Edition
3. Richard Spinello and Herman Tavani, CyberEthics, 2nd Edition

### **Elective –III MCA 305(2) Advanced DBMS**

**UNIT-I Objected Oriented and Object Relational Databases Modeling** Complex Data Semantics, Specialization, Generalization, Aggregation and Association, Objects, Object Identity and its implementation, Clustering, Equality and Object Reference, Architecture of Object Oriented and Object Relational databases, Persistent Programming Languages, Cache Coherence. Case Studies: Gemstone, O2, Object Store, SQL3, Oracle xxi, DB2.

**UNIT-II Deductive Databases** Data log and Recursion, Evaluation of Data log program, Recursive queries with negation. Parallel and Distributed Databases Parallel architectures, shared nothing/shared disk/shared memory based architectures, Data partitioning, Intra-operator parallelism, pipelining.

Distributed Data Storage – Fragmentation & Replication, Location and Fragment Transparency Distributed Query Processing and Optimization, Distributed Transaction Modeling and concurrency Control, Distributed Deadlock, Commit Protocols, Design of Parallel Databases, and Parallel Query Evaluation.

**UNIT-III Advanced Transaction Processing** Advanced transaction models: Savepoints, Nested and Multilevel Transactions, Compensating Transactions and Saga, Long Duration Transactions, Weak Levels of Consistency, Transaction Work Flows, Transaction Processing Monitors, Shared disk systems.

**UNIT-IV Active Database and Real Time Databases** Triggers in SQL, Event Constraint and Action: ECA Rules, Query Processing and Concurrency Control, Recursive query processing, Compensation and Databases Recovery, multi-level recovery.

**UNIT-V Image and Multimedia Databases** Modeling and Storage of Image and Multimedia Data, Data Structures – R-tree, k-d tree, Quad trees, Content Based Retrieval: Color Histograms, Textures, etc., Image Features, Spatial and Topological Relationships, Multimedia Data Formats, Video Data Model, Audio & Handwritten Data, Geographic Information Systems (GIS). WEB Database Accessing Databases through WEB, WEB Servers, XML Databases, Commercial Systems – Oracle xxi, DB2.

#### **BOOKS**

1. Elmarsi, "Fundamentals of Database Systems", 4 th Edition, Pearson Education
2. R. Ramakrishnan, "Database Management Systems", 1998, McGraw Hill International Editions
3. Elmagarmid.A.K. "Database transaction models for advanced applications", Morgan Kaufman.
4. Transaction Processing, Concepts and Techniques, J. Gray and A. Reuter, Morgan Kauffman..
5. S. Abiteboul, R. hull and V. Vianu, "Foundations of Databases", 1995, Addison – Wesley Publishing Co., Reading Massachusetts.
6. W. Kim, "Modern Database Systems", 1995, ACM Press, Addison – Wesley.
7. D. Maier, "The Theory of Relational Databases", 1993, Computer Science Press, Rockville, Maryland

### **Elective –III MCA 305(3) Distributed Systems**

**UNIT-I Introduction to Distributed Systems** : Goals of Distributed Systems, Hardware and Software concepts, the client server model, Remote procedure call, remote object invocation, message and stream oriented communications.

**UNIT-II Process and synchronization in Distributed Systems** : Threads, clients, servers, code migration, clock synchronization, mutual exclusion, Bully and Ring Algorithm, Distributed transactions.

**UNIT-III Consistency, Replication, fault tolerance and security:** Object replication, Data centric consistency model, client-centric consistency models, Introduction to fault tolerance, process resilience, recovery, distributed security architecture, security management, KERBEROS, secure socket layer, cryptography.

**UNIT-IV Distributed Object Based and File Systems** : CORBA, Distributed COM, Goals and Design Issues of Distributed file system, types of distributed file system, sun network file system,.

**UNIT-V Distributed shared memory,** DSM servers, shared memory consistency model, distributed document based systems : the world wide web, distributed co-ordination based systems: JINI Implementation: JAVA RMI, OLE, ActiveX, Orbix, Visbrokes, Object oriented programming with SOM

#### **BOOKS**

1. Andrew S. Tanenbaum, Maarten Van Steen “Distributed Systems Principles and Paradigms” Pearson Education Inc. 2002.
2. Lui “Distributed Computing Principles and Applications”.
3. Harry Singh “Progressing to Distributed Multiprocessing” Prentice-Hall Inc.
4. B.W. Lampson “Distributed Systems Architecture Design & Implementation”, 1985 Springer Verlag.
5. Parker Y. Verjies J. P. “Distributed computing Systems, Synchronization, control & Communications” PHI.
6. Robert J. & Thieranf “Distributed Processing Systems” 1978, Prentice Hall.
7. George Coulios, “Distribute System: Design and Concepts”, Pearson Education

**RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA, BHOPAL**

**MCA, Fourth –Semester**

**Elective –IV MCA 401 (1) Advanced Python**

**UNIT I**

Introduction to Python, use IDE to develop programs, Basic coding skills, working with data types and variables, working with numeric data, working with string data, Python functions, Boolean expressions, selection structure, iteration structure, working with lists, work with a list of lists, work with tuples, work with dates and times, get started with dictionaries

**UNIT II**

Classes in Python: OOPS Concepts, Classes and objects , Classes in Python, Constructors, Data hiding, Creating Classes, Instance Methods, Special Methods, Class Variables, Inheritance, Polymorphism, Type Identification, Custom Exception Classes, Iterators, generators and decorators.

**UNIT III**

I/O and Error Handling In Python :Introduction, Data Streams, Creating Your Own Data Streams, Access Modes, Writing Data to a File, Reading Data From a File, Additional File Methods, Handling IO Exceptions, Errors, Run Time Errors, The Exception Model, Exception Hierarchy, Handling Multiple Exceptions, Working with Directories.

**UNIT IV**

An Introduction to relational databases: SQL statements for data manipulation, Using SQLite Manager to work with a database, Using Python to work with a database, Creating a GUI that handles an event, working with components.

**UNIT V**

Implement Machine Learning algorithms: Usage of Numpy for numerical Data, Usage of Pandas for Data Analysis, Matplotlib for Python plotting, Seaborn for Statistical plots, interactive Dynamic visualizations, SciKit for Machine learning.

**TEXT BOOKS**

1. Michael Urban and Joel Murach, Python Programming, Shroff/Murach,2016
2. Haltermanpython
3. Mark Lutz, Programming Python, O`Reilly, 4th Edition,2010.

## **Elective –IV MCA 401 (2) Advanced Web Technology**

### **UNIT I**

Responsive web design and introduction to Bootstrap : Bootstrap grid, bootstrap components and plugins

### **UNIT II**

XML- Introduction to XML, Comparing XML with HTML, Describing the Structure of XML - Declaration, Elements, Attributes, Comments, CDATA, XML Entity References, Parsers ,Describing Document Type Definitions, Using XSLT with XML :xsl:template Element, xsl:apply-templates Element,xsl:import , xsl:include Element, Element,xsl:element Element, xsl:attribute Element, xsl:value-of Element, using Conditional Statements, Sorting Elements, XSLTfunctions, Creating Well-formed and Valid Documents.

### **UNIT III**

Introduction to Ajax – AJAX Web Application Model, Working of AJAX, Asynchronous Data Transfer with XMLHttpRequest - Creating the XMLHttpRequest Object, XMLHttpRequest Properties, XMLHttpRequest Methods, Using the XMLHttpRequest Object in Different Browsers, Reading a File Synchronously, Reading a File Asynchronously, Performing Tasks Using the XMLHttpRequest Object, Integrating PHP and AJAX-Sending Data from a Web Application to a Server, Validating a Field Using AJAX and PHP

### **UNIT IV**

Handling XML Data using PHP and AJAX-JavaScript, properties for Extracting with nodeValue, Accessing XML, Elements by Name, Accessing Attribute Values in XML Elements. Validating XML Documents in Ajax Applications Retrieving Data from a Database Using PHP and AJAX Consuming Web Services Using AJAX-Exploring Web Service Protocols-SOAP,Web Service Description Language, UDDI, REST, Consuming Web Services Using AJAX

### **UNIT V**

jQuery-JavaScript DOM objects their methods and properties-Window, History, Location Document, Form etc. Fundamentals of jQuery, Loading and using jQuery, using jQuery Library files, Callback functions, jQuery Selectors , jQuery Methods to Access HTML Attributes, jQuery Methods of traversing, jQuery Manipulators, jQuery Events, jQuery Effects, jQuery with AJAX

### **Books**

1. Bootstrap: Responsive Web Development
2. XML: A Beginner's Guide by Steven Holzner
1. AJAX For Beginners , Ivan Bayross and Sharanam Shah, SPD
2. Web Development with jQuery (WROX) by Richard York
3. Learning PHP, MySQL & JavaScript with j Query, CSS & HTML5 – by Robin Nixon ,SPD
4. Ajax in Action Dave Crane, Eric Pascarello, Darren James
5. Ajax for Dummies Steve Holzner,PhD, Wiley Publishing Inc.

## **Elective –IV MCA 401 (3) BIG DATA ANALYTICS**

### **UNIT I INTRODUCTION TO BIG DATA**

Evolution of Big data – Best Practices for Big data Analytics – Big data characteristics – Validating – The Promotion of the Value of Big Data – Big Data Use Cases- Characteristics of Big Data Applications – Perception and Quantification of Value -Understanding Big Data Storage – A General Overview of High-Performance Architecture – HDFS – MapReduce and YARN – Map Reduce Programming Model

### **UNIT II CLUSTERING AND CLASSIFICATION**

Advanced Analytical Theory and Methods: Overview of Clustering – K-means – Use Cases – Overview of the Method – Determining the Number of Clusters – Diagnostics – Reasons to Choose and Cautions .- Classification: Decision Trees – Overview of a Decision Tree – The General Algorithm – Decision Tree Algorithms – Evaluating a Decision Tree – Decision Trees in R – Naïve Bayes – Bayes' Theorem – Naïve Bayes Classifier.

### **UNIT III ASSOCIATION AND RECOMMENDATION SYSTEM**

Advanced Analytical Theory and Methods: Association Rules – Overview – Apriori Algorithm – Evaluation of Candidate Rules – Applications of Association Rules – Finding Association & finding similarity – Recommendation System: Collaborative Recommendation- Content Based Recommendation – Knowledge Based Recommendation- Hybrid Recommendation Approaches.

### **UNIT IV STREAM MEMORY**

Introduction to Streams Concepts – Stream Data Model and Architecture – Stream Computing, Sampling Data in a Stream – Filtering Streams – Counting Distinct Elements in a Stream – Estimating moments – Counting oneness in a Window – Decaying Window – Real time Analytics Platform(RTAP) applications – Case Studies – Real Time Sentiment Analysis, Stock Market Predictions. Using Graph Analytics for Big Data: Graph Analytics

### **UNIT V NOSQL DATA MANAGEMENT FOR BIG DATA AND VISUALIZATION 9**

NoSQL Databases : Schema-less Models : Increasing Flexibility for Data Manipulation-Key Value Stores- Document Stores – Tabular Stores – Object Data Stores – Graph Databases Hive – Sharding -- Hbase – Analyzing big data with twitter – Big data for E-Commerce Big data for blogs – Review of Basic Data Analytic Methods using R.

### **Books**

1. Anand Rajaraman and Jeffrey David Ullman, "Mining of Massive Datasets", Cambridge University Press,
2. David Loshin, "Big Data Analytics: From Strategic Planning to Enterprise Integration with Tools, Techniques, NoSQL, and Graph", Morgan Kaufmann/El sevier Publishers, 2013.
3. EMC Education Services, "Data Science and Big Data Analytics: Discovering, Analyzing, Visualizing and Presenting Data", Wiley publishers, 2015.

4. Bart Baesens, "Analytics in a Big Data World: The Essential Guide to Data Science and its Applications", Wiley Publishers.
5. Dietmar Jannach and Markus Zanker, "Recommender Systems: An Introduction", Cambridge University Press
6. Kim H. Pries and Robert Dunnigan, "Big Data Analytics: A Practical Guide for Managers "CRC Press,

MOOC REFERENCES:

1. [www.swayam.gov.in](http://www.swayam.gov.in): Big Data Computing
2. [www.coursera.org](http://www.coursera.org): Big Data Essentials: HDFS, MapReduce and Spark RDD
3. [www.udemy.com](http://www.udemy.com): Big Data and Hadop: Interactive Intense Course
4. [www.edx.org](http://www.edx.org): Big Data Fundamentals, Processing Big Data with Hadoop in Azure HDInsight

## **Elective –V MCA 402 (1) DEEP LEARNING**

### **UNIT I NEURAL NETWORK**

Building Intelligence Machine-Expressing Linear Perceptron as Neurons-Feed Forward Neural Networks - Activation function. Supervised and Unsupervised Learning:Single Layer Perceptron Perceptron Learning Algorithm – Least Mean Square Learning Algorithm - Multilayer Perceptron – Back Propagation Algorithm – XOR problem – Limitations of Back Propagation Algorithm- Implementing Neural Networks in TensorFlow.

### **UNIT II CONVOLUTION NEURAL NETWORK**

Introduction-Filter and Feature Maps-Full Description of CNN-Max Pooling- Full Architectural Description of CNN-Image Preprocessing Pipeline Enable More Roburst Models-Accelerating Training with Batch Normalization-Visualizing Learning with Convolution Network-Leveraging and Learning Convolution Filters - Predefined Convolutional Filters Network (PCFNet)- Transfer Learning with Convolutional Neural Networks.

### **UNIT III DEEP NETWORKS**

History of Deep Learning- A Probabilistic Theory of Deep Learning- Backpropagation and regularization, batch normalization- VC Dimension and Neural Nets-Deep Vs Shallow Networks - Convolutional Networks- Generative Adversarial Networks (GAN), Semi-supervised Learning

### **UNIT IV OPTIMIZATION AND GENERALIZATION**

Optimization in deep learning– Non-convex optimization for deep networks- Stochastic Optimization Generalization in neural networks- Spatial Transformer Networks- Recurrent networks, LSTM - Recurrent Neural Network Language Models- Word-Level RNNs & Deep Reinforcement Learning.

### **UNIT V DEEP REINFORCEMENT LEARNING**

Markov Decision Processes-Explore versus Exploit-Policy versus Value Learning-Pole-Cart with Policy Gradients-Q Learning and Deep Q Networks-Improving and Moving Beyond DQN

### **BOOKS**

Nikiil Buduma, Nicholas Locascio, “Fundamentals of Deep Learning: Designing Next-Generation Machine Intelligence Algorithms”, First Edition, O’ReillyMedia, 2017

SudharsanRavichandiran, Hands on Deep Learning Algorithms with Python, FirstEdition, Packt Publishing Limited, 2019.

François Chollet, Deep Learning with Python, First Edition,Manning Publications Company, 2017.

Ian Goodfellow, YoshuaBengio and Aaron Courville, Deep Learning, First editionMIT Press, London, 2016

Rachel Schutt, Cathy O’Neil, “Doing Data Science”, O’Reilly

## **Elective –V MCA 402 (2) Cloud Computing Technologies**

### **UNIT I**

Cloud Computing Fundamentals: Cloud Computing definition, Types of cloud, Cloud services: Benefits and challenges of cloud computing, Evolution of Cloud Computing , NIST architecture of cloud computing, Applications cloud computing, Business models around Cloud – Major Players in Cloud Computing - Eucalyptus ,Nimbus ,Open Nebula, CloudSim, VMware.

### **UNIT II**

Types of Computing and Clouds: Cluster Computing, Grid Computing, Grid Computing Versus Cloud Computing, Key Characteristics of Cloud Computing, Cloud Models, Benefits of Cloud Models, Public Cloud, Private Cloud, Hybrid Cloud, Community Cloud, Shared Private Cloud, Dedicated Private Cloud, and Dynamic Private Cloud.

### **UNIT III**

Cloud Services and File System: Types of Cloud services: Software as a Service - Platform as a Service – Infrastructure as a Service - Database as a Service- Monitoring as a Service – Communication as services. Service providers- Google App Engine, Amazon EC2, Microsoft Azure, Sales force, Clarizen.

### **UNIT IV**

Virtualization: Basics of Virtualization, Types of Virtualization, Implementation Levels of Virtualization, Virtualization Structures, Tools and Mechanisms , Virtualization of CPU, Memory, I/O Devices and OS ,Virtualization for Data-center Automation, Introduction to MapReduce, GFS, HDFS, Hadoop Framework.

### **UNIT V**

Security in the Cloud: Security Overview – Cloud Security Challenges and Risks – Software-as-a-Service Security – Security Monitoring – Security Architecture Design – Data Security – Application Security – Virtual Machine Security - Identity Management and Access Control – Autonomic Security.

### **Books**

1. Cloud Computing "A Practical Approach" Anthony T. Velte, Toby J. Velte, Robert Elsenpeter. McGraw-Hill. Kai Hwang, Geoffrey C Fox, Jack G Dongarra,
2. "Distributed and Cloud Computing, From Parallel Processing to the Internet of Things", Morgan Kaufmann Publishers, 2012.
3. John W.Rittinghouse and James F.Ransome, "Cloud Computing: Implementation, Management, and Security", CRC Press, 2010.
4. Toby Velte, Anthony Velte, Robert Elsenpeter, "Cloud Computing, A Practical Approach", TMH, 2009.
5. Kumar Saurabh, " Cloud Computing – insights into New -Era Infrastructure", Wiley India, 2011.
6. Ronald L. Krutz, Russell Dean Vines, "Cloud Security – A comprehensive Guide to Secure Cloud Computing", Wiley – India,

## **Elective –V MCA 402 (3) Digital Marketing**

### **UNIT I**

Introduction to Digital Marketing:What is Digital Marketing,Why Digital Marketing,Digital Marketing platforms,Digital Marketing – Organic & Paid,Digital Marketing era and the way forward,Digital Marketing for students, professionals and businesses  
Search Engine Optimization (SEO):What is SEO,Growth of SEO in the recent years,Ecosystem of a search engine,What are the kinds of traffic

### **UNIT II**

On Page Optimisation (OPO):What is on-page optimization,HTML basics,CSS basics,Meta Tags usage,Using Javascript to our Advantage,Graphics Optimization,Contextual interlinking,Microformats & schemas,Improving demographic score  
Off-Page Optimization:Linking Strategies,Competitor Analysis,Sculpting,Link Baiting,Professional Article Exchange,Social Book Marking and Promotions,Directory submissions

### **UNIT III**

Search Engine Marketing (SEM):Introduction to SEM,SEM platforms – paid platforms,Introduction to Google AdWords,What is Google AdWords?,How is it different from other platforms?,Create an AdWords account,Key terminologies in Google AdWords,Google AdWords Account Structure,Ad approval process,Campaign creation process,Search & Display network,Keyword Match types,Keyword selection (Keyword planner),Display Planner,Ad Extensions,Different types of extensions,Creating location extensions,Creating call extensions,Create Review extensions,Ad creation process,Keyword Grouping,Bidding techniques – Manual / Auto,Site Targeting,Keyword targeting,Demographic Targeting / Bidding,CPC-based, CPA-based & CPM-based accounts

### **UNIT IV**

Mobile Ads:What is mobile ads?,Creating mobile ads?,What are the types of mobile ads?,AdWords for mobile  
Click to Call Campaigns:Create click to call campaign,Analyze the campaigns,Optimize the ads for mobile  
Youtube Advertising:What is youtube advertising?,Why should one advertise on youtube?,Creating youtube campaigns,Choose the audience for video ads,Instream ads,In-video ads,In-search ads,In-display ads,Measuring your YouTube ad performance,Drive leads and sales from YouTube ads  
Facebook Marketing:Facebook Paid Marketing,Running paid campaigns,Managing interests,Create custom audiences,Create multiple adverts,Power editor  
Billing in AdWords:Different types of billing,Postpay and Prepay [Automatic and Manual],Billing issues,Retry card,Troubleshooting issues,Primary card and back up card,Promo codes and working with them.  
Content Marketing:Blog Marketing,Article Marketing,Cross promotions,How to effectively market content,Call to action via content,Guest blogging,Content Marketing tools (Around 30 of them)

Email Marketing:Importance of email marketing,email Marketing platforms,Creating e-mailers,Tracking emailers,Open rates and CTR of emailers,Drive leads from emailers,What is opt-in lists,Create forms

Social Media Marketing:Social Media, Social networking & Social Media Marketing Defined,Blogging and microblogging,Social networking,Video Sharing

Social Shopping & Opinions:Social News and Social Bookmarking,Social events,wikis,Social Media Strategy

## **UNIT V**

Remarketing Campaigns:What is remarketing?,How do I create a remarketing campaign?,Remarketing campaigns,Creating custom combinations,Creating URL rule,Creating a remarketing tag

AdWords Editor: AdWords Editor,Creating optimized campaigns,Understanding AdWords Editor options,Easy optimization of accounts,Analysis of accounts using AdWords Editor, AdWords Editor shortcuts,Analysing existing accounts,Exporting accounts into different formats.

Getting Your Company Ready for Social Media: Content Management, Scheduling & Creating content, Managing content programs,Trademark Implications, Working with Tumblr  
Influencers: Who are they? How to find them, How to use them to benefit your brand.

## **Books**

1. Big Book of Digital Marketing, Publisher: Digital Firefly Marketing
2. Fifty Shades of Digital Marketing, Francesca James, Hannan Durham
3. Understanding Digital Marketing, Damian Ryan, Calvin Jones, Publisher: Kogan Page
4. Understanding Digital Marketing- Basics and Actions, Teresa Pineiro-Otero and Xabier Martinez-Rolan, Publisher: Springer International Publishing
5. Internet Marketing, Alex Trengove Jones, Anna Malczyk and Justin Beneke, Publisher: GetSmarter

### **Elective –VI MCA 403 (1) Information Security**

#### UNIT 1

Introduction : What is Information Security?, Critical Characteristics of Information, NISTISSC Security Model, Components of an Information System, Securing the Components, Balancing Security and Access, The SDLC, The Security SDLC.

#### UNIT 2

Security Investigation : Need for Security, Business Needs, Threats, Attacks, Legal, Ethical and Professional Issues, An Overview of Computer Security, Access Control Matrix, Security Policies, Integrity Policies and Hybrid Policies.

#### UNIT 3

Security Analysis : Risk Management : Identifying and accessing Risk, Accessing and Controlling Risk. Systems : Access Control Mechanism, Information Flow and Confinement Problem.

#### UNIT 4

Logical Design : Blueprint for Security, Information Security Policy, Standards and Practices, ISO 17799/BS7799, NIST Models, VISA International Security Model, Design of Security Architecture, Planning for Continuity.

#### UNIT 5

Physical Design : Security Technology, IDS, Scanning and Analysis Tools, Cryptography, Access Control Devices, Physical Security, Security and Personnel.

References -

1. Michael E Whitman and Herbert J Mattord, –Principles of Information Security, Vikas Publishing House, New Delhi, 2003
2. Micki Krause, Harold F. Tipton, – Handbook of Information Security Management, Vol 1-3 CRCPress LLC, 2004.
3. Stuart McClure, Joel Scrambray, George Kurtz, –Hacking Exposed, Tata McGraw- Hill, 2003
4. Matt Bishop, – Computer Security Art and Science, Pearson/PHI, 2002.

## **Elective –VI MCA 403 (2) Block Chain And Cryptocurrency**

### **UNIT – I OVERVIEW OF BLOCKCHAIN:**

Why Blockchain - The Structure of Blockchain - Data Structure of Blockchain - Data Distribution in Blockchain - Block Validation. Block Validators: Proof of Work – Proof of Stake - Proof of Activity - Proof of Elapsed Time - Proof of Burn.

### **UNIT – II CRYPTOCURRENCY**

Overview. Bitcoin: Bitcoin Working - Bitcoin Transactions - Bitcoin Mining - Value of Bitcoin - Community, Politics and Regulations – Advantages – Disadvantages. Ethereum: Overview – Decentralized Application. Components of Ethereum: Smart contracts – Ether - Ethereum Clients - Ethereum Virtual Machine – Etherscripter.

### **UNIT – III- HYPERLEDGER**

Introduction. Digital Tokens: Overview - Initial Coin Offering – OmiseGO – EOS – Tether. MetaMask: Wallet Seed - MetaMask Transactions. Mist: Overview - Mist wallet. Truffle: Features of Truffle – Development Truffle boxes - Community truffle box.

### **UNIT – IV SOLIDITY**

Smart Contracts - Contract and Interfaces - Hyperledger Fabric: Introduction - Fabric v/s Ethereum - HyperledgerIroha - Features of Iroha. HyperledgerSawtooth: Components of sawtooth - Proof of Elapsed time.

### **UNIT – V BLOCKCHAIN PLATFORMS**

Multichain - HydraChain. Future Blockchain: IOTA – Corda - Chain Core. Blockchain Framework: CoCo Framework – Tierion – BigchainDB

### **REFERENCES:**

1. Josh Thompson, 'Blockchain: The Blockchain for Beginnings, Guild to Blockchain Technology and Blockchain Programming', Create Space Independent Publishing Platform, 2017.
2. Arvind Narayanan, Joseph Bonneau, Edward Felten, Andrew Miller, and Steven Goldfeder. Bitcoin and cryptocurrency technologies: a comprehensive introduction. Princeton University Press, 2016.
3. Joseph Bonneau et al, SoK: Research perspectives and challenges for Bitcoin and cryptocurrency, IEEE Symposium on security and Privacy, 2015.
4. <https://www.blockchainexpert.uk/book/blockchain-book.pdf>

MOOC Website references (Example website references are only given; it's not an exhaustive list)

1. [www.coursera.org](http://www.coursera.org)
  - a. Blockchain and cryptocurrency explained
  - b. Blockchain revolution
  - c. Bitcoin and Cryptocurrency technologies
  - d. Blockchain basics
  - e. Introduction to Blockchain

- f. Introduction to Blockchain technologies
  - g. Blockchain foundations and use cases
- 2. [www.udemy.com](http://www.udemy.com)
  - a. Build a blockchain and cryptocurrency from scratch
  - b. The Basics of Blockchain
  - c. Blockchain advanced level

## **Elective –VI MCA 403 (3) Mobile Computing**

### **UNIT I: WIRELESS COMMUNICATION FUNDAMENTALS**

Introduction to Mobile Computing- Mobile Computing V/S Wireless Computing –Mobile Computing Applications- Characteristics of Mobile Computing- Structure of Mobile Computing Applications.  
Generations of Mobile Communication Technologies- Multiplexing – Spread spectrum- MAC Protocols –SDMA- TDMA- FDMA- CDMA

### **UNIT II: TELECOMMUNICATION SYSTEMS**

Introduction to Cellular Systems-GSM – System Architecture – Protocols – Connection Establishment – Frequency Allocation Routing – Mobility Management – Security – GPRS- Architecture - Handover

### **UNIT III: MOBILE NETWORK LAYER**

Mobile IP – DHCP – Proactive protocol-DSDV, Reactive Routing Protocols – DSR, AODV , Hybrid routing –ZRP, Wireless LAN – IEEE 802.11 Standards – Architecture – services – HIPERLAN – Ad- Hoc Network – Blue Tooth.

### **UNIT IV: Mobile AD-HOC Networks9 AD- HOC Basics**

Basic Concepts – Characteristics – Applications – Design Issues – Routing – Essential of Traditional Routing Protocols –Popular Routing Protocols – Vehicular Ad Hoc networks (VANET) – MANET Vs VANET – Security.

### **UNIT V: MOBILE PLATFORMS AND APPLICATIONS 9 Mobile**

Device Operating Systems – Special Constrains & Requirements – Commercial Mobile Operating Systems – Software Development Kit: Ios, Android, BlackBerry, Windows Phone – M Commerce – Structure – Pros & Cons – Mobile Payment System – Security Issues.

### **TEXT BOOKS:**

1. Jochen Schiller, "Mobile Communications", Second Edition, Prentice Hall of India / Pearson Education, 2003.
2. William Stallings, "Wireless Communications and Networks", Second Edition, Prentice Hall of India / Pearson Education, 2004.

## 2. Academic Calendar of the University



27/02/2023

**RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA**  
(University of Technology of Madhya Pradesh)  
**ACADEMIC CALENDAR FOR THE YEAR 2022-2023 [REVISED]**  
FOR DEGREE PROGRAMMES AND POST GRADUATE PROGRAMMES

S.No.	Particular	Ist Semester Schedule	IInd Semester Schedule
01.	Duration of Semester	July-December 2022	January-June 2023
02.	Commencement of Academic	17 <sup>th</sup> October 2022	17 <sup>th</sup> March 2023
03.	Student Induction Program (SIP) 21 Days Undergraduate	17 <sup>th</sup> October 2022	---
04.	I Sessional Exam/Mid/Sem.	26 <sup>th</sup> to 31 <sup>st</sup> December 2022	17 <sup>th</sup> April - 22 <sup>nd</sup> April 2023
05.	II Sessional Exam/Mid/Sem.	30 <sup>th</sup> Jan. - 05 <sup>th</sup> Feb. 2023	15 <sup>th</sup> May - 20 <sup>th</sup> May 2023
06.	Submission of Examination Form i. Without late fee ii. With Late Fee	30 <sup>th</sup> Jan. - 05 <sup>th</sup> Feb. 2023 06- 09 February 2023	10 <sup>th</sup> June - 21 <sup>st</sup> June 2023 22 <sup>nd</sup> June - 27 <sup>th</sup> June 2023
07.	Last date of Teaching	03 <sup>rd</sup> February 2023	22 <sup>nd</sup> June 2023
08.	Submission of internal marks to University	Upto 28 <sup>th</sup> February 2023	29 <sup>th</sup> May - 27 <sup>th</sup> June 2023
09.	End Semester Examination (i) Theory (ii) Practical Examination	14 - 25 February 2023 26 Feb. - 03 Mar. 2023	28 <sup>th</sup> June - 12 <sup>th</sup> July 2023 13 <sup>th</sup> July - 18 <sup>th</sup> July 2023
10.	Internship/End Sem. Break	--	19 <sup>th</sup> July - 31 <sup>st</sup> July 2023
11.	Date of Result Declaration	End of March 2022	End of August 2023

### Note:

- During Mid Semester Examination, classes in the remaining periods will be conducted as per schedule.
- Depending upon monthly progress of syllabus extra classes would be organized by department during official holidays.
- III Mid Semester examination is optional. Students intending to appear in the III Mid Semester exam will contact their respective HODs for the examination.
- In case of late admission of lateral admission students, the institutions are advised to conduct extra classes to complete the syllabus within stipulated time.
- \* Winter vacation applicable for students only.

**Controller (Exam)**  
Rajiv Gandhi Proudyogiki  
Vishwavidyalaya, Bhopal

27/02/2023



**RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA**  
(University of Technology of Madhya Pradesh)  
**ACADEMIC CALENDAR FOR THE YEAR 2022-2023 [REVISED]**  
FOR DEGREE PROGRAMMES AND POST GRADUATE PROGRAMMES

S. No.	Particular	III Semester Schedule	IV Semester Schedule
01.	Duration of Semester	July - December 2022	January - June 2023
02.	Commencement of Classes	16 <sup>th</sup> August 2022	17 <sup>th</sup> February 2023
03.	I Sessional Exam/Mid/Sem.	19 <sup>th</sup> - 24 <sup>th</sup> Sep. 2022	27 <sup>th</sup> March - 01 <sup>st</sup> April 2023
04.	II Sessional Exam/Mid/Sem.	16 <sup>th</sup> - 22 <sup>nd</sup> Nov. 2022	01 <sup>st</sup> May- 06 <sup>th</sup> May 2023
05.	Dussehra Holiday	02 <sup>nd</sup> - 09 <sup>th</sup> Oct. 2022	-----
06.	Submission of Examination Form i. Without late fee ii. With Late Fee	10 <sup>th</sup> - 26 <sup>th</sup> Dec. 2022	10 <sup>th</sup> June - 20 <sup>th</sup> June 2023
		27 <sup>th</sup> Dec. 2022 - 03 <sup>rd</sup> Jan. 2023	21 <sup>st</sup> June - 25 <sup>th</sup> June 2023
07.	Diwali Vacation	23 <sup>rd</sup> - 30 <sup>th</sup> Oct. 2022	-----
08.	Last date of Teaching	31 <sup>st</sup> December 2022	27 <sup>th</sup> May 2023
09.	Submission of Mid Semester & Sessional Marks to University	04 <sup>th</sup> - 09 <sup>th</sup> Jan. 2023	29 <sup>th</sup> May - 26 <sup>th</sup> June 2023
10.	End Semester Examination (i) Theory (ii) Practical Examination	10 <sup>th</sup> - 21 <sup>st</sup> Jan. 2023	27 <sup>th</sup> June - 11 <sup>th</sup> July 2023
		23 <sup>rd</sup> - 31 <sup>st</sup> Jan. 2023	12 <sup>th</sup> July - 17 <sup>th</sup> July 2023
11.	Submission of Practical marks to University	On the date of Practical Examination	On the date of Practical Examination
12.	Internship/Preparation Leave	-----	29 <sup>th</sup> May - 26 <sup>th</sup> June 2023
13.	Declaration of result	In the Month of February 2023	In the Month of August 2023

**Note:**

- During Mid Semester Examination, classes in the remaining periods will be conducted as per schedule.
- Depending upon monthly progress of syllabus extra classes would be organized by department during official holidays.
- III Mid Semester examination is optional. Students intending to appear in the III Mid Semester exam will contact their respective HODs for the examination.
- In case of late admission of lateral admission students, the institutions are advised to conduct extra classes to complete the syllabus within stipulated time.
- \* Winter vacation applicable for students only.

Controller (Exam)  
 Rajiv Gandhi Proudyogiki  
 Vishwavidyalaya, Bhopal

3. Academic Time Table with the name of the faculty members handling the course

LAKSHMI NARAIN COLLEGE OF TECHNOLOGY (MCA) - BHOPAL								
Time -Table					Session: 2022-23 w.e.f. 20/03/2023			
Code No.:FM0902-A			Scheme of Examination as per AICTE Flexible Curricula					
CLASS: MCA -II			SECTION: A			ROOM NO: 103		
DAY	I	II	III	IV	V	VI	VII	VIII
TIME	10:30-11:20	11:20-12:10	12:10-1:00	1:00-1:50	1:50-2:40	02:40-03:30	03:30-04:15	04:15-5:00
MON	MCA-201	MCA-202 Tutorial	MCA-203	MCA-204	LUNCH	MCA-205	MCA-206 LAB 004	
TUE	MCA-203 Tutorial	MCA-207 LAB 002		MCA-205		MCA-204	MCA-201	MCA-202
WED	MCA-205	MCA-204 Tutorial	MCA-203	MCA-202		MCA-201	MCA-206 LAB 004	
THUR	MCA-204	MCA-203	MCA-201 Tutorial	MCA-202		MCA-205	MCA-206 LAB 006	
FRI	MCA-204	MCA-203	MCA-207 LAB 003			MCA-205 Tutorial	MCA-202	MCA-201
Sr.No.	Subject					Faculty Name		
1	MCA-201-DBMS					Prof. Shilpa Jaiswar		
2	MCA-202-Computer Network					Prof Karuna Vishwakarma		
3	MCA-203-Software Engineering & UML					Prof. Dev Kumar Chouhan		
4	MCA-204-Algorithm Design					Prof. Atul Tiwari		
5	MCA-205-Object Oriented Programming with JAVA					Dr. Jayanti Mehra		
6	MCA-206-Lab Java Programming					Dr. Jayanti Mehra		
7	MCA-207-Lab DBMS					Prof. Shilpa Jaiswar		
						<b>Mentor: - Dr. Jayanti Mehra</b>		
	Prepared by		Approved by			Issued by		
LAKSHMI NARAIN COLLEGE OF TECHNOLOGY (MCA) - BHOPAL								
Time -Table					Session: 2022-23 w.e.f. 20/03/2023			
Code No.:FM0902-A			Scheme of Examination as per AICTE Flexible Curricula					

CLASS: MCA -II			SECTION: B			ROOM NO: 104		
DAY	I	II	III	IV	V	VI	VII	VIII
TIME	10:30-11:20	11:20-12:10	12:10-1:00	1:00-1:50	1:50-2:40	02:40-03:30	03:30-04:15	04:15-5:00
MON	MCA-206 LAB 007		MCA-202 Tutorial	MCA-201	LUNCH	MCA-205	MCA-203	MCA-204
TUE	MCA-202	MCA-201	MCA-203	MCA-204 Tutorial		MCA-205	MCA-206 LAB 004	
WED	MCA-206 LAB 002		MCA-202	MCA-201		MCA-205	MCA-203 Tutorial	MCA-204
THUR	MCA-207 LAB 002		MCA-205 Tutorial	MCA-201		MCA-202	MCA-207 LAB 004	
FRI	MCA-203	MCA-201 Tutorial	MCA-204	MCA-201		MCA-205	MCA-204	MCA-202
<b>Sr.No.</b>	<b>Subject</b>					<b>Faculty Name</b>		
1	MCA-201-DBMS					Prof. Anuradha Soni		
2	MCA-202-Computer Network					Prof. Kamlesh Khatri		
3	MCA-203-Software Engineering & UML					Prof. Rohit Singh		
4	MCA-204-Algorithm Design					Prof. Dev Kumar Chouhan		
5	MCA-205-Object Oriented Programming with JAVA					Prof. Ashish Jain		
6	MCA-206-Lab Java Programming					Prof. Ashish Jain		
7	MCA-207-Lab DBMS					Prof. Anuradha Soni		
						<b>Mentor: Prof Ashish Jain</b>		
	Prepared by		Approved by			Issued by		
<b>LAKSHMI NARAIN COLLEGE OF TECHNOLOGY (MCA) - BHOPAL</b>								
<b>Time -Table</b>					<b>Session: 2022-23 w.e.f. 20/03/2023</b>			
<b>Code No.:FM0902-A</b>				<b>Scheme of Examination as per AICTE Flexible Curricula</b>				
CLASS: MCA-II			SECTION: C			ROOM NO: 107		
DAY	I	II	III	IV	V	VI	VII	VIII
TIME	10:30-11:20	11:20-12:10	12:10-1:00	1:00-1:50	1:50-2:40	02:40-03:30	03:30-04:15	04:15-5:00
MON	MCA-205	MCA-203	MCA-206 LAB 002		LUNCH	MCA-201 Tutorial	MCA-204	MCA-202

TUE	MCA-205	MCA-202 Tutorial	MCA-207 LAB 003		MCA-201	MCA-204	MCA-203
WED	MCA-204	MCA-206 LAB 004		MCA-203 Tutorial	MCA-201	MCA-202	MCA-205
THUR	MCA-205	MCA-202	MCA-204 Tutorial	MCA-203	MCA-201	MCA-207 LAB 003	
FRI	MCA-202	MCA-206 LAB 004		MCA-203	MCA-205 Tutorial	MCA-201	MCA-204
<b>Sr.No.</b>	<b>Subject</b>				<b>Faculty Name</b>		
1	MCA-201-DBMS				Dr. Virendra Tiwari		
2	MCA-202-Computer Network				Prof Pramod Kumar Saket		
3	MCA-203-Software Engineering & UML				Prof. Kamlesh Khatri		
4	MCA-204-Algorithm Design				Prof. Ravi Sisodiya		
5	MCA-205-Object Oriented Programming with JAVA				Dr. Amit Singh		
6	MCA-206-Lab Java Programming				Dr. Amit Singh		
7	MCA-207-Lab DBMS				Dr. Virendra Tiwari		
					<b>Mentor:</b>	<b>Dr. Virendra Kumar Tiwari</b>	
	Prepared by		Approved by		Issued by		

<b>LAKSHMI NARAIN COLLEGE OF TECHNOLOGY (MCA) - BHOPAL</b>								
<b>Time -Table</b>					<b>Session: 2022-23 w.e.f. 20/01/2023</b>			
<b>Code No.:FM0902-A</b>			<b>Scheme of Examination as per AICTE Flexible Curricula</b>					
<b>CLASS: MCA -IV</b>			<b>SECTION: A</b>			<b>ROOM NO: 108</b>		
DAY	I	II	III	IV	V	VI	VII	VIII
TIME	10:30-11:20	11:20-12:10	12:10-1:00	1:00-1:50	1:50-2:40	02:40-03:30	03:30-04:15	04:15-5:00
MON	MCA-402	MCA-402 Tutorial	MCA-401	MCA-401 Tutorial	LUNCH	Library/SJ	MCA-405 LAB 004	
TUE	MCA-403 Tutorial	MCA-404 LAB 002		MCA-401		Library/RT	MCA-402	MCA-402 Tutorial

WED	MCA-401	MCA-403	MCA-403	MCA-402		Library/RS	MCA-405 LAB 004	
THUR	MCA-403	MCA-401	MCA-401 Tutorial	MCA-402		Library/SJ	MCA-405 LAB 006	
FRI	MCA-403	MCA-403 Tutorial	MCA-404 LAB 003			Library/RT	MCA-402	MCA-401
<b>Sr.No.</b>	<b>Subject</b>					<b>Faculty Name</b>		
1	MCA-401-E-IV (1) Advanced PYTHON					Dr. Ravindra Tiwari		
2	MCA-402-E-V (2) Cloud Computing Technologies					Prof. Ripusoodan Sharma		
3	MCA-403 E-VI (3) Mobile Computing					Prof. Shilpa		
4	MCA-404-Major Project					Prof. Ripusoodan Sharma		
5	MCA-405-Lab of Elective IV Advanced PYTHON					Dr. Ravindra Tiwari		
						<b>Mentor: Prof. Ripusoodan Sharma</b>		
	Prepared by		Approved by			Issued by		
<b>LAKSHMI NARAIN COLLEGE OF TECHNOLOGY (MCA) - BHOPAL</b>								
<b>Time -Table</b>				<b>Session: 2022-23 w.e.f. 20/01/2023</b>				
<b>Code No.:FM0902-A</b>			<b>Scheme of Examination as per AICTE Flexible Curricula</b>					
<b>CLASS: MCA -IV</b>			<b>SECTION: B</b>			<b>ROOM NO: 207</b>		
DAY	I	II	III	IV	V	VI	VII	VIII
TIME	10:30-11:20	11:20-12:10	12:10-1:00	1:00-1:50	1:50-2:40	02:40-03:30	03:30-04:15	04:15-5:00
MON	MCA-405 LAB 007		MCA-402 Tutorial	Library/AT	<b>LUNCH</b>	MCA-403	MCA-401	MCA-401 Tutorial
TUE	MCA-402	MCA-402 Tutorial	MCA-403	Library/AT		MCA-401	MCA-404 LAB 004	
WED	MCA-405 LAB 002		MCA-402	Library/MB		MCA-403	MCA-403 Tutorial	MCA-401
THUR	MCA-405 LAB 002		MCA-401 Tutorial	Library/MB		MCA-402	MCA-404 LAB 004	
FRI	MCA-403	MCA-403 Tutorial	MCA-401	MCA-401		MCA-402	MCA-402	Library/RA

Sr.No.	Subject	Faculty Name
1	MCA-401-E-IV (1) Advanced PYTHON	Prof. Rashmi Agrawal
2	MCA-402-E-V (2) Cloud Computing Technologies	Prof. Atul Tiwari
3	MCA-403 E-VI (3) Mobile Computing	Prof. Mahesh Bagwani
4	MCA-404-Major Project	Prof. Mahesh Bagwani
5	MCA-405-Lab of Elective IV Advanced PYTHON	Prof. Rashmi Agrawal
		<b>Mentor: Prof. Mahesh Bagwani</b>
	Prepared by	Approved by
		Issued by

**LAKSHMI NARAIN COLLEGE OF TECHNOLOGY (MCA) - BHOPAL**

**Time -Table**

**Session: 2022-23 w.e.f. 20/01/2023**

**Code No.:FM0902-A**

**Scheme of Examination as per AICTE Flexible Curricula**

**CLASS: MCA -IV**

**SECTION: C**

**ROOM NO: 208**

DAY	I	II	III	IV	V	VI	VII	VIII
TIME	10:30-11:20	11:20-12:10	12:10-1:00	1:00-1:50	1:50-2:40	02:40-03:30	03:30-04:15	04:15-5:00
MON	MCA-405 LAB 004		Library/NS	MCA-402 Tutorial	LUNCH	MCA-403	MCA-401	MCA-401 Tutorial
TUE	MCA-401	MCA-402 Tutorial	Library/NS	MCA-403		MCA-402	MCA-405 LAB 004	
WED	MCA-404 LAB 006		Library/PJ	MCA-402		MCA-403	MCA-403 Tutorial	MCA-401
THUR	MCA-404 LAB 006		Library/PJ	MCA-401 Tutorial		MCA-402	MCA-405 LAB 004	
FRI	MCA-403	MCA-403 Tutorial	Library/JA	MCA-401		MCA-402	MCA-402	Library/RA

Sr.No.	Subject	Faculty Name
1	MCA-401-E-IV (1) Advanced PYTHON	Dr. Neelu Singh
2	MCA-402-E-V (2) Cloud Computing Technologies	Prof. Prerna Jha
3	MCA-403 E-VI (3) Mobile Computing	Prof. Jitendra agrawal
4	MCA-404-Major Project	Prof. Prerna Jha
5	MCA-405-Lab of Elective IV Advanced PYTHON	Dr. Neelu Singh
		<b>Mentor: Dr. Neelu Singh</b>
	Prepared by	Approved by
		Issued by

#### 4. Teaching Load of each Faculty

SN	Prefix	Name	Teaching Load
1	Dr.	VIRENDRA KUMAR TIWARI	9
2	Dr.	RAVINDRA KUMAR TIWARI	15
3	Dr.	JAYANTI MEHRA JHARIYA	11
4	Dr.	AMIT PRATAP SINGH	11
5	Dr.	NEELU SINGH	14
6	Mr.	ROHIT SINGH	5
7	Mr.	JITENDRA KUMAR AGRAWAL	7
8	Mr.	ATUL TIWARI	14
9	Mr.	ASHISH JAIN	11
10	Mr.	SHISHIR KHARPATE	0
11	Mr.	DEV KUMAR CHOUHAN	10
12	Ms.	RASHMI AGRAWAL	14
13	Ms.	SHWETA ASATI	0
14	Mr.	ROHIT RAGHUWANSHI	0
15	Mr.	KARUNA VISHWAKARMA	5
16	Ms.	PRERNA JHA	13
17	Ms.	SHILPA	16
18	Ms.	ANURADHA SONI	9
19	Mr.	KAMLESH KHATRI	10
20	Mr.	MAHESH KUMAR BAGWANI	12
21	Mr.	PRAMOD KUMAR SAKET	5
22	Mr.	RAVI SISODIYA	5
23	Mr.	RIPUSOODAN SHARMA	12

#### 5. Internal Continuous Evaluation System and Place

Two mid semester exams are conducted in each semester in the college premises only.

#### 6. Student's assessment of Faculty, System in place

Feedback of faculties is taken by the students in the mid of the academic session in the class rooms.

### VII Special Purpose

1. Software: C, C++, JAVA, PYTHON, JavaScript, NetBeans (Open Source), OS, MS Office (Microsoft Campus Agreement)
2. Academic Calendar and framework



**LNCT Group of Colleges**  
**Lakshmi Narain College of Technology (MCA), Bhopal**  
**ACADEMIC CALENDAR**

**II Semester: M.C.A**  
**SESSION 2022-23**

<b><u>Applicable to II Semester: M. C. A.</u></b>			
<b><u>Semester Classes Commence from 20/03/2023</u></b>			
	<b><u>Month</u></b>	<b><u>Working Days</u></b>	<b><u>Holiday Dates</u></b>
<b>Academic working days and Holidays</b>	Mar' 23	09	25,30
	Apr' 23	21	4,7,14,22
	May' 23	25	5,27
	Jun' 23	24	24,29
	Jul' 23	10	-
	<b>TOTAL</b>	<b>89</b>	

**::IMPORTANT DATES**

<b>LAST DATE OF FEE SUBMISSION WITHOUT LATE FEE</b>	<b>WITH LATE FEE AS DECLINED</b>	<b>LAST DATE OF REGISTRATION THROUGH ERP PORTAL</b>
<b>20<sup>th</sup> March, 2023</b>	<b>27<sup>th</sup> March, 2023</b>	<b>27<sup>th</sup> March, 2023</b>

- The College will remove the name of students, who have not completed online registration. Such students will not be allowed to appear in university examinations. Link will be available on student portal up to 27<sup>th</sup> March, 2023 only.
- Book Bank (If applicable) Issue Dates:** Books will be issued from the library only after submission of fee on 21<sup>st</sup> & 22<sup>nd</sup> March, 2023. Books will not be issued after the specified dates. Library books should be returned within five days after the end of university examinations.
- Mid Semester Exam I & Mid Semester Exam II:** Dates to be announced later.
- Extra-Curricular Activities:** Sports, Quiz, Academic and Cultural Events: Dates will be notified from time to time.
- Internship/Industrial Training:** Internship has to be completed before the start of Semester.

Note:

- 100% Course coverage to be ensured by 12<sup>th</sup> July, 2023
- Attendance is to be maintained as per University norms, Students will be debarred from Mid-Semester Tests, Participation in activities, Examination and representing College or University if attendance is not maintained.
- Mid Semester/Sessional Marks Award — as per Rules applicable.

  
 Director  
 MCA

**LNCT Group of Colleges**  
**Lakshmi Narain College of Technology (MCA), Bhopal**



**ACADEMIC CALENDAR**

**IV Semester: M.C.A**

**SESSION 2022-23**

<u>Applicable to IV Semester: M. C. A.</u>			
<u>Semester Classes Commence from 25/02/2022</u>			
	<u>Month</u>	<u>Working Days</u>	<u>Holiday Dates</u>
Academic working days and Holidays	Jan' 23	07	26,28
	Feb' 23	22	18,25
	Mar' 23	23	8,22,25,30
	Apr' 23	21	4,7,14,22
	May' 23	07	5
	<b>TOTAL</b>	<b>80</b>	

**::IMPORTANT DATES**

LAST DATE OF FEE SUBMISSION WITHOUT LATE FEE	WITH LATE FEE AS DECIDED	LAST DATE OF REGISTRATION THROUGH ERP PORTAL
23 <sup>rd</sup> January, 2023	31 <sup>st</sup> January, 2023	31 <sup>st</sup> January, 2023

- I. The College will remove the name of students, who have not completed online registration. Such students will not be allowed to appear in university examinations. Link will be available on student portal up to 31<sup>st</sup> January, 2023 only.
- II. **Book Bank (If applicable) Issue Dates:** Books will be issued from the library only after submission of fee on 23<sup>th</sup> & 24<sup>th</sup> January, 2023. Books will not be issued after the specified dates. Library books should be returned within five days after the end of university examinations.
- III. **Mid Semester Exam I & Mid Semester Exam II:** Dates to be announced later.
- IV. **Extra-Curricular Activities:** Sports, Quiz, Academic and Cultural Events: Dates will be notified from time to time.
- V. **Internship/Industrial Training:** Internship has to be completed before the start of Semester.

**Note:**

1. 100% Course coverage to be ensured by 10<sup>th</sup> May, 2023.
2. Attendance is to be maintained as per University norms. Students will be debarred from Mid-Semester Tests, Participation in activities, Examination and representing College or University if attendance is not maintained.
3. Mid Semester/Sessional Marks Award — as per Rules applicable.

**Director  
MCA**

## 16\_Enrollment and Placement Details of Students Last 3 Yrs

### Lakshmi Narain College of Technology(MCA), Bhopal

#### Admission List for the year 2020

##### Admitted under TFW

Student Name	Father	Mother	Eligible Category	Alloted Category
DEEPESH SINGH	DEVENDRA SINGH	SITA	URXOP	URXOP
ANKIT SINGH MEHRA	GOVIND SINGH MEHRA	GANGA DEVI MEHRA	URXOP	URXOP
SURENDRA LODHI	KEDAR NATH LODHI	ANGOORI	OBCNCCOP	URXOP
CHINKEE GUPTA	MANOJ GUPTA	ANURADHA GUPTA	URXF	URXOP
SIDDHANT BHARGAV	MOHAN BHARGAV	SHASHI BHARGAV	URXOP	URXOP
DHEERAJ CHANDIL	GIREESH KUMAR CHANDIL	MEENA CHANDIL	URNCCOP	URXOP
ANANT SHARMA	MANOJ SHARMA	SHASHI SHARMA	URXOP	URXOP
MENKA FAGUL	ATUL JAIN	MAMTA JAIN	URXF	URXOP

##### Admitted other than TFW

Name	Father	Mother	Eligible Category	Alloted Category
HIMANSHU GUPTA	RAM BHAJAN GUPTA	MAYA GUPTA	AIUR	URXOP
AMARNATH DIXIT	SOMNATH DIXIT	RATNA DIXIT	AIUR	URXOP
UDAY GUPTA	ANIL PRAKASH GUPTA	PRITI GUPTA	AIUR	URXOP
SATYAM RATHORE	NARESH RATHORE	SAROJ RATHORE	OBCXOP	OBCXOP
GAZAL KHAN	RASHID KHAN	PARVEEN KHAN	OBCXF	OBCXOP

PUJA JAIN	MR.SATISJH KUMAR JAIN	MRS. GITA JAIN	URXF	URXOP
SHIVANGI TYAGI	NARESH KUMAR TYAGI	DEEPA TYAGI	URXF	URXOP
SHUBHAM TIWARI	SURESH PRASAD TIWARI	PUSHPA TIWARI	URXOP	URXOP
ROHIT DUBEY	R.K DUBEY	INDRA DUBEY	URXOP	URXOP
SUNEEL KUMAR PATEL	AMBIKA	GAYATRI	OBCXOP	OBCXOP
MUSKAN SHAHEEN	SHAIKH FAREED	ZAKIYA SULTANA	OBCXF	OBCXOP
SHIVANI TIWARI	VINAY TIWARI	LATA TIWARI	URXF	URXOP
TANYA POTDAR	VIRENDRA POTDAR	ANITA POTDAR	URXF	URXOP
DEVAYUSH BAJAJ	HEMANT BAJAJ	PRITI BAJAJ	AIUR	URXOP
PRIYANSHI PATIL	DEEPAK PATIL	VIJAYA PATIL	OBCXF	OBCXOP
VIBHA TIWARI	JAGDISH PRASAD TIWATI	MEERA DEVI	URXF	URXOP
AKANKSHA AHIRWAR	KHUSHILAL AHIRWAR	TULSA AHIRWAR	SCXF	SCXOP
SONALI GUPTA	RAVINDRA GUPTA	PUSHPA GUPTA	URXF	URXOP
JAGRUTI BHANE	SURESH	KALPANA	OBCXF	OBCXOP
JAYSHREE RATHOD	NARENDRA RATHOD	SUNITA RATHOD	URXF	URXOP
SUPRIYA TIWARI	SUDHIR KUMAR TIWARI	PINKI TIWARI	AIUR	URXOP
SANTOSH MAHAJAN	ARUN MAHAJAN	USHA BAI MAHAJAN	OBCXOP	OBCXOP
ASHISH PATIL	BHAULAL PATIL	VANDNA PATIL	OBCXOP	OBCXOP
SUMIT RAI	KAILASH RAI	ASHA RAI	AIUR	URXOP
HUSAIN	SAIFUDDIN	TASNEEM	AIUR	URXOP
MUSKAN RAGHUWANSHI	TEJRAM RAGHUWANSHI	PREETI RAGHUWANSHI	AIUR	URXOP

ABHISHEK	PRAMOD	KRISHNA BAI	OBCXOP	OBCXOP
SHUBHAM KUMAR THAKUR	GOPAL PRASAD THAKUR	SHRADDHA THAKUR	AIUR	URXOP
POOJA SINGH	PURAN SINGH	SHANTI SINGH	AIUR	URXOP
PRIYANKA SARKAR	PRABHASH CHANDRA SARKAR	ANJALI SARKAR	AIUR	URXOP
SYED MOHAMMAD SUHAIL	SYED MOHAMMAD IRSHAD	ROSHANARA	AIUR	URXOP
PULKEET SINGH	NEET RAJ SINGH	REKHA SINGH	AIUR	URXOP
AMARNATH PANDEY	HARINATH PANDEY	SHOSHINTA DEVI	AIUR	URXOP
SHIVANI YADAV	RAJA YADAV	NEELAM YADAV	URXF	URXOP
ANUJ KUMAR JAIN	ANOOP KUMAR JAIN	MANJU JAIN	AIUR	URXOP
PINKI RAGHUVANSHI	RAMSINGH RAGHUVANSHI	SUNITA RAGHUVANSHI	AIUR	URXOP
YASH SHRIVASTAVA	RAMESH SHRIVASTAVA	NISHA SHRIVASTAVA	AIUR	URXOP
PARTH DUBEY	ALKESH	PRITI	AIUR	URXOP
SANJANA MOTWANI	ROOPCHAND MOTWANI	SUDHA MOTWANI	AIUR	URXOP
SRASHTI GUPTA	RINKU GUPTA	SANNO GUPTA	AIUR	URXOP
NIRALI KORI	RAJENDRA KUMAR KORI	NITA KORI	SCXF	SCXOP
FARUKH ALI	NASIR ALI	HASEENA BEE	AIUR	URXOP
JYOTI KUMARI	NAGESHWAR RAY	MANJU DEVI	AIUR	URXOP
SANDEEP SAHU	ASHARAM	KUSUM BAI	OBCXOP	OBCXOP
SHRADDHA VYAS	RAMESH KUMAR	JAGRATI	AIUR	URXOP
DIVYA SHUKLA	SURENDRA SHUKLA	MANJU SHUKLA	AIUR	URXOP

PAWAN KUMAVAT	BHANWAR LAL	SAMPAT KUMAVAT	URXOP	URXOP
SANDEEP KUMAR PATEL	HARISHANKER PRASAD SINGH	CHANDMUNI DEVI	AIUR	URXOP
SHWETA MISHRA	HARISHANKAR	MADHURI	URXF	URXOP
ALOK SINGH CHOUHAN	R P SINGH CHOUHAN	MEENA CHOUHAN	AIUR	URXOP
AAKASH SHRIVAS	HARISH KUMAR SHRIVAS	SEEMA SHRIVAS	OBCXOP	OBCXOP
GAURAV KUMAR SINGH	MANOJ KUMAR SINGH	SHOBHA DEVI	AIUR	URXOP
ABHAY KUMAR	DUGESHWAR PRASAD	KHILESHWARI DEVI	AIUR	URXOP
ANKUR SHARMA	LATE KRISHNA MOHAN	KIRAN SHARMA	AIUR	URXOP
KOMAL KUMARI	NAVIN CHANDRA BHARTIYA	GEETA DEVI	AIUR	URXOP
PRIYANSHU TIWARI	RAJENDRA TIWARI	RASHMI TIWARI	AIUR	URXOP
GEETANJALI	SANTOSH RAO DESHMUKH	ASHA DESHMUKH	OBCXF	OBCXOP
ANKUR VADHWANI	HARISH VADHWANI	JYOTI VADHWANI	URXOP	URXOP
CHANDAN SINGH RATHORE	SHER SINGH RATHORE	MEERA RATHORE	AIUR	URXOP
SALMAN ASLAM	SM ASLAM	RAZIA ASLAM	AIUR	URXOP
RATNESH JAIN	RAJENDRA JAIN	SANGITA JAIN	AIUR	URXOP
AKASH SINGH YADAV	LALLAN SINGH YADAV	SANTOSHI YADAV	OBCXOP	OBCXOP
MANU SINGH	DINESH KUMAR SINGH	SUNITA SINGH	AIUR	URXOP
PARUL SINGH RATHOUR	ASHOK SINGH RATHOUR	LAXMI SINGH RATHOUR	OBCXF	OBCXOP

SHUBHANGI KHEDKAR	KAILASH KHEDKAR	SUNITA KHEDKAR	OBCXF	OBCXOP
PRAKASH KUMAR SINGH	BIRENDRA SINGHH	MANJU DEVI	AIUR	URXOP
KHUSHBOO SAHU	BHAGIRATH SAHU	VIMLA SAHU	URXF	URXOP
KISHAN KUMAR	DEVCHANDRA GUPTA	VEENA DEVI	AIUR	URXOP
AMAN KUMAR	SUDHIR KUMAR SINGH	ANITA SINGH	AIUR	URXOP
MARIYA KHAN	MAJID KHAN	RANI KHAN	AIUR	URXOP
SATYAM PARIHAR	SURESH PARIHAR	URMILA PARIHAR	URXOP	URXOP
NACHIKETA PUROHIT	DINESH KUMAR PUROHIT	MANJU DEVI	AIUR	URXOP
ATISH KUMAR SHARMA	S.K SHARMA	MANJU SHARMA	AIUR	URXOP
MAKRAND BARSE	MANNULAL	GEETA BAI	SCXOP	SCXOP
DIVYANSHU	MANOJ KUMAR	VIMALA KUMARI	AIUR	URXOP
RAJESH PRAMANIK	KANHU KISHORE PRAMANIK	BELA PRAMANIK	AIUR	URXOP
RISHABH SAXENA	RAJEEV SAXENA	MEENU SAXENA	AIUR	URXOP
SEHRISH KHAN	HAFIZ KHAN	MAIMUNA KHAN	URXF	URXOP
GAURAV KUMAR	SARAOJ PRASAD SINGH	KIRAN DEVI	AIUR	URXOP
PRIYANKA JATAV	JAGDISH JATAV	SUDHA JATAV	SCXF	SCXOP
ASHISH BAGHEL	AJAD SINGH BAGHEL	ANGURI	AIUR	URXOP
CHANDRSHEKHAR PANDEY	NARESH PANDEY	RAMBHA DEVI	AIUR	URXOP
BISWAJEET KUMAR GUPTA	ANIL KUMAR GUPTA	SUNITA GUPTA	AIUR	URXOP
ABHIJIT KUMAR	SUNIL PRASAD YADAV	RANJU DEVI	AIUR	URXOP

ABHISHEK RAJPUT	AJMER SINGH RAJPUT	NARMADA RAJPUT	URXOP	URXOP
RAJEEV KUSHWAH	RAJENDRA SINGH KUSHWAH	VAIJANTI KUSHWAH	AIUR	URXOP
SNEHA CHOURASIYA	RAJENDRA CHOURASIYA	KANTA CHOURASIYA	OBCXF	OBCXOP
SACHIN KUMAR JIAN	KESARIMAL JAIN	PREMLATA JAIN	AIUR	URXOP
SHIVENDRA GUPTA	ARVIND KUMAR GUPTA	SHRADDHA GUPTA	AIUR	URXOP
PRAGYA PATEL	SURESH PATEL	GANGOTRI PATEL	OBCXF	OBCXOP
SUBRAT KUMAR HATAI	SAMARENDRA HATAI	SUMANA HATAI	AIUR	URXOP
SHARDA KUMARI	HRISHANKAR THAKUR	RATAN DEVI	AIUR	URXOP
SWEETY KUMARI	PAWAN KUMAR BHAGAT	SULEKHA DEVI	AIUR	URXOP
SATYAWAN RAM	DINDAYAL RAM	TARA DEVI	AIUR	URXOP
GEETIKA SAHANI	GIRISH CHANDRA SAHANI	SANJU SAHANI	OBCXF	OBCXOP
NANDITA VAISHNAVI	CHOKEDAS VAISHNAVI	MARISHA VAISHNAVI	AIUR	URXOP
KARISHMA GUPTA	SANTOSH GUPTA	MAMTA GUPTA	AIUR	URXOP
ADARSH DUBEY	DEVENDRA	ANURADHA	AIUR	URXOP
MANISHA GANDHI	MANOJ PODDAR	REKHA DEVI	AIUR	URXOP
RUPESH KUMAR	GULJARILAL MANDAL	KRISHNA DEVI	AIUR	URXOP
AMIT PRATAP	RAMESH YADAV	RAMAWATI DEVI	AIUR	URXOP
MANSI GUPTA	MAHESH GUPTA	NEETU GUPTA	AIUR	URXOP
PRATYUSH MANGLAM	RAKESH KUMAR SINGH	SUNITA DEVI	AIUR	URXOP
ISHITA SHARMA	MANISH SHARMA	SAVITA SHARMA	AIUR	URXOP

KRATI KULSHRESTHA	ANIL KULSHRESTHA	NEETA KULSHRESTHA	URXF	URXOP
ALOK KUMAR	JITENDRA JHA	ANITA DEVI	AIUR	URXOP
BIKRAM KC	THAMMAN BHADUR K.C.	BASANTA K.C.	AIUR	URXOP
SHABNAM KUMARI	SURAJ SINGH	CHUNCHUN SINGH	AIUR	URXOP
ANUBHAV ANAND	RAM RANJAN KUMAR	PINKI	AIUR	URXOP
PRASHANT KUMAR	JAYNANADAN KUMAR	NUTAN DEVI	AIUR	URXOP
SHRUTI SINGH	HIRDIYANAND SINGH	SHEELA SINGH	AIUR	URXOP
POORNIMA K.B.	BHASURAN BHASKARAN	PUSHPA	AIUR	URXOP
SUPRIYA KUMARI	ANIL JHA	USHA DEVI	AIUR	URXOP
MEENAKSHI PILLAI	RAJESH PILLAI	RAJSHREE PILLAI	AIUR	URXOP
ABHINAY PRAKASH	RAM PRAKASH YADAV	KAMLAVATI DEVI	AIUR	URXOP
RUCHI MALVIYA	NARMADA PRASHAD MALVIYA	MEENA MALVIYA	AIUR	URXOP
SURBHI PATEL	RAJENDRA SINGH	SAVITA	AIUR	URXOP
MOHIT MAHALE	DURGADAS MAHALE	DURGA MAHALE	OBCXOP	OBCXOP
NIBHA	JAY KISHOR PANDEY	LATA PANDEY	AIUR	URXOP
SHASHANKSHEKHAR	MANOJ KUIMAR PANDEY	SEEMA PANDEY	AIUR	URXOP
NEHA	DESHRAJ	MAYA	AIUR	URXOP
SHAKTIMAN SINGH	SHIVJI SINGH	SUMAN DEVI	AIUR	URXOP
GOURAV PRAJAPATI	GAYA PRASAD PRAJAPATI	RAJ KUMARI	OBCXOP	OBCXOP

NAMIRA SAYYED	SAYYED ASHRAF ALI	SHABANA SAYYED	AIUR	URXOP
MADHURA MILIND AGNIHOTRI	MILIND AGNIHOTRI	MANISHA AGNIHOTRI	AIUR	URXOP
RAUSHAN KUMAR	MANOJ SINGH	SUNITA DEVI	AIUR	URXOP
KOMAL PURWAR	KRISHNA KUMAR PURWAR	SANDHYA PURWAR	AIUR	URXOP
AMISHA DUBEY	SHAILESH DUBEY	SHARMILA DUBEY	URXF	URXOP
KUSHAL DONGRE	YASHWANT DONGRE	LALITA DONGRE	AIUR	URXOP
AVANTIKA GUPTA	ASHOK GUPTA	MEENA GUPTA	AIUR	URXOP
DEEPALI SAHU	SHIVPRASAD SAHU	SHASHI SAHU	OBCXF	OBCXOP
VISHAL HUNDET	SANJEEV HUNDET	INDRA HUNDET	AIUR	URXOP
SANPREET SINGH VIRDI	GURMEET SINGH VIRDI	NARIENDER KAUR VIRDI	URXOP	URXOP
KHUSHBU SURYAWANSHI	JAGDISH	HEMLATA	AIUR	URXOP
SATYAM KUMAR	SHREEKRISHAN VERMA	SANGITA	AIUR	URXOP
RAVI RANJAN KUMAR	MANOJ PRASAD	DHARMSHEELA DEVI	AIUR	URXOP
NEERAJ KUMAR SINGH	OMPRAKASH SINGH	ANITA DEVI	AIUR	URXOP
AYUSH SINGH BAGHEL	YOGRAJ SINGH BAGHEL	VANDANA SINGH BAGHEL	AIUR	URXOP
VISHAKHA GHAN	VIVEK GHAN	ACHALA GHAN	AIUR	URXOP
SOHIT SEN	DEEPAK	ANITA	AIUR	URXOP
BRADHI SONI	HARI SHANKAR	KAMLESH	OBCXF	OBCXOP
SHIVAM NEMA	MANOJ NEMA	MANJU NEMA	AIUR	URXOP
SUMIT MISHRA	RAJKUMAR	SADHNA	URXOP	URXOP
HARSH DUBEY	RAJENDRA	ABHHA	AIUR	URXOP

KRISHNANAND JHA	RADHA NANAD JHA	BABY	AIUR	URXOP
AYUSH JAIN	MUNNA LAL JAIN	KANCHANMALA JAIN	AIUR	URXOP
SURAJ GAUR	SHESHNATH GAUR	SARITA DEVI	AIUR	URXOP
GAURAV SHRIVASTAVA	SANJAY SHRIVASTAVA	RAJNI KUMARI	AIUR	URXOP
AASHISH VASNIK	CHANDRA VASNIK	ANUSUIYA VASNIK	SCXOP	SCXOP
PRIYAM NIGUM	SANJEEV NIGUM	SANGEEDA NIGUM	AIUR	URXOP
SHUBHAM NEMA	SATISH NEMA	SANDHYA NEMA	AIUR	URXOP
SAGAR	CHITRANJAN	SUNITA	OBCXOP	OBCXOP
MANASVI GUPTA	RAM KUMAR GUPTA	ANITA GUPTA	URXF	URXOP
MANISH KUMAR BURMAN	SANTOSH KUMAR BURMAN	NIRMALA BURMAN	URXOP	URXOP
HEMANT KUMAR VISHWAKARMA	ABHIRAM VISHWAKARMA	ANITA VISHWAKARMA	OBCXOP	OBCXOP
EKTA SEJKAR	BHAIYALAL SEJKAR	SANGEETA	AIUR	URXOP
SHARAD SONI	MAHESH PRASAD SONI	SAVITRI SONI	OBCXOP	OBCXOP
SAKSHI JAIN	SANJAY JAIN	SUSHMA	URXF	URXOP
ANKIT SAHU	HARPRASAD SAHU	GEETA	OBCXOP	OBCXOP
AJAY KUMAR MANJHEE	PREM CHANDRA MANJHEE	USHA DEVEE	OBCXOP	OBCXOP
SHUBHAM SHARMA	GOPAL SHARMA	SHARDA SHARMA	AIUR	URXOP

SUPRIYA	VINOD	RITU	AIUR	URXOP
SURUCHI SHRIVASTAVA	VIJAY KUMAR	VINEETA	AIUR	URXOP
ALKA ASNANI	PITAMBAR DAS ASNANI	JYOTI ASNANI	AIUR	URXOP
PUJA RANI	BHUPENDRA PD YADAV	REETA DEVI	AIUR	URXOP
NEHA CHAUDHARY	PUNAM CHAUDHARY	SHIVRATAN CHAUDHARY	AIUR	URXOP

**Lakshmi Narain College of Technology(MCA), Bhopal**

**Admission List for the year 2021**

**Admitted under TFW**

Name	Father	Mother	Eligible Category	Alloted Category
<b>TUSHAR MISHRA</b>	<b>VIKAS MISHRA</b>	<b>BINDU MISHRA</b>	<b>URXOP</b>	<b>URXOP</b>
<b>JIVANSHU SHRIVASTAVA</b>	<b>SURESH CHANDRA SHRIVASTAVA</b>	<b>RAJVANTI</b>	<b>URXOP</b>	<b>URXOP</b>
<b>DEEPAK SINGH PARIHAR</b>	<b>MAHENDRA SINGH PARIHAR</b>	<b>SAROJ SINGH</b>	<b>URXOP</b>	<b>URXOP</b>
<b>PIYUSH CHOUDHARI</b>	<b>DINESH</b>	<b>ASHA BAI</b>	<b>OBCXOP</b>	<b>URXOP</b>
<b>TIKESH</b>	<b>UMASHANKAR</b>	<b>REKHA</b>	<b>OBCXOP</b>	<b>URXOP</b>
<b>AMAN DEEP SHARMA</b>	<b>JAGBHAN SHARMA</b>	<b>MANDVI SHARMA</b>	<b>URXOP</b>	<b>URXOP</b>
<b>POORVI SHARMA</b>	<b>SANTOSH SHARMA</b>	<b>KAMLESH SHARMA</b>	<b>URXF</b>	<b>URXOP</b>
<b>KUNAL SINGH</b>	<b>MANOHAR MOHBE</b>	<b>MAYA DEVI</b>	<b>SCXOP</b>	<b>URXOP</b>
<b>DIVYA DUBEY</b>	<b>GULAB</b>	<b>SARITA</b>	<b>URXF</b>	<b>URXOP</b>

**Admitted other than TFW**

Name	Father	Mother	Eligible Category	Alloted Category
<b>NARAYANI KUMARI</b>	<b>DINESH PRASAD RAY</b>	<b>AJANTI RAY</b>	<b>AIUR</b>	<b>URXOP</b>

<b>TANVIRAJ</b>	<b>RAMASHRAY SINGH</b>	<b>SANGITA SHARMA</b>	<b>AIUR</b>	<b>URXOP</b>
<b>SHIVAM GUPTA</b>	<b>DILIP KUMAR GUPTA</b>	<b>ASHA GUPTA</b>	<b>AIUR</b>	<b>URXOP</b>
<b>VIVEK TRIPATHI</b>	<b>VINOD TRIPATHI</b>	<b>ARCHANA TRIPATHI</b>	<b>URXOP</b>	<b>URXOP</b>
<b>KRATIKA DIXIT</b>	<b>ALOK DIXIT</b>	<b>SEEMA DIXIT</b>	<b>AIUR</b>	<b>URXOP</b>
<b>SYEDA SAMREEN</b>	<b>SYED SHARIQUE ALI</b>	<b>SYEDA SHADAB AKHTER</b>	<b>URXF</b>	<b>URXOP</b>
<b>ASHISH SHARMA</b>	<b>MAN MOHAN SHARMA</b>	<b>CHANCHAL SHARMA</b>	<b>AIUR</b>	<b>URXOP</b>
<b>ADITYA SHARMA</b>	<b>SHYAMSUNDER</b>	<b>PREETI</b>	<b>URXOP</b>	<b>EWS</b>
<b>PANDEY GAURAV VIBHUTINARAYAN</b>	<b>VIBHUTINARAYAN</b>	<b>REKHADEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>ASHISH TRIPATHI</b>	<b>RAM LAUTAN TRIPATHI</b>	<b>MAMTA TRIPATHI</b>	<b>URXOP</b>	<b>EWS</b>

<b>ANUJ KUMAR SHARMA</b>	<b>SHIV SHANKAR SHARMA</b>	<b>SHIYA DULARY SHARMA</b>	<b>URXOP</b>	<b>URXOP</b>
<b>ANANT KAUSHIK</b>	<b>ASHOK KUMAR KAUSHIK</b>	<b>MANISHA KAUSHIK</b>	<b>URXOP</b>	<b>URXOP</b>
<b>SALONI GUPTA</b>	<b>MOHAN LAL GUPTA</b>	<b>SHASHI GUPTA</b>	<b>AIUR</b>	<b>URXOP</b>
<b>SAKSHI KUMARI</b>	<b>PRAMOD KUMAR SAH</b>	<b>MIRA DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>ANAS KHAN</b>	<b>KAMMU KHAN</b>	<b>RAZIYA BANO</b>	<b>URXOP</b>	<b>URXOP</b>
<b>MANISH PANDIT</b>	<b>BINOD KUMAR PANDIT</b>	<b>KALYANI PANDIT</b>	<b>AIUR</b>	<b>URXOP</b>
<b>NIDHI PANDEY</b>	<b>AJAY PANDEY</b>	<b>ANJU PANDEY</b>	<b>AIUR</b>	<b>URXOP</b>
<b>GOSAVI POOJA SHYAM</b>	<b>SHYAM GOSAVI</b>	<b>PRATIBHA</b>	<b>AIUR</b>	<b>URXOP</b>
<b>RITIKA BHASIN</b>	<b>MANOJ BHASIN</b>	<b>VIMMI BHASIN</b>	<b>URXF</b>	<b>EWS</b>

<b>RUPALI SINGH</b>	<b>SHARAD KUMAR SINGH</b>	<b>KANAK SINGH</b>	<b>URXF</b>	<b>URXOP</b>
<b>SHIRAZ BEG</b>	<b>PERVEJ BEG</b>	<b>NAGINA BEGUM</b>	<b>URXOP</b>	<b>URXOP</b>
<b>PRABHAT KUMAR DEHARIYA</b>	<b>SURESH KUMAR DEHARIYA</b>	<b>SEEMA DEHARIYA</b>	<b>SCXOP</b>	<b>SCXOP</b>
<b>MO SAOOD KHAN</b>	<b>MO MASOOD KHAN</b>	<b>SALEHA BEE</b>	<b>URXOP</b>	<b>URXOP</b>
<b>NAVED SIDDIKI</b>	<b>KUDDUSH SIDDIKI</b>	<b>SAHISTA SIDDIKI</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>ADITYA GOSWAMI</b>	<b>DHARMENDRA GOSWAMI</b>	<b>MANJU</b>	<b>URXOP</b>	<b>URXOP</b>
<b>PRIYANSH KHARE</b>	<b>VEERENDRA KHARE</b>	<b>SADHANA KHARE</b>	<b>AIUR</b>	<b>URXOP</b>
<b>AVESH SHRIVAS</b>	<b>VINAY SHRIVAS</b>	<b>GEETA SHRIVAS</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>DISHA KALBHOR</b>	<b>DEVENDRA KALBHOR</b>	<b>PRAMILA KALBHOR</b>	<b>OBCXF</b>	<b>OBCXOP</b>
<b>KAPIL PANDYA</b>	<b>KIRIT PANDYA</b>	<b>JYOTI PANDYA</b>	<b>URXOP</b>	<b>EWS</b>

<b>MANU VERMA</b>	<b>N K VERMA</b>	<b>MANJEET VERMA</b>	<b>OBCXF</b>	<b>OBCXOP</b>
<b>RAHUL KUMAR</b>	<b>JAYRAM SHAH</b>	<b>GITA DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>MARIYAM KHAN</b>	<b>ANWAR HUSSAIN</b>	<b>FOZIYA HUSSAIN</b>	<b>URXF</b>	<b>URXOP</b>
<b>KALPANA SINGH</b>	<b>BINAY KUMAR SINGH</b>	<b>REETA SINGH</b>	<b>AIUR</b>	<b>URXOP</b>
<b>SANSKAR SAHU</b>	<b>SANJAY KUMAR SAHU</b>	<b>VANDANA SAHU</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>SONAM GUPTA</b>	<b>ASHOK GUPTA</b>	<b>RADHA GUPTA</b>	<b>AIUR</b>	<b>URXOP</b>
<b>AKSHAT MOURYA</b>	<b>SUBHASH SINGH MOURYA</b>	<b>SUREKHA MOURYA</b>	<b>AIUR</b>	<b>URXOP</b>
<b>SAURAV KUMAR</b>	<b>RAMESH PATHAK</b>	<b>SHIVDULARI DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>ASHISH KUMAR</b>	<b>RAKESH KUMAR</b>	<b>SUMAN SRIVASTAVA</b>	<b>AIUR</b>	<b>URXOP</b>

<b>PURUSHOTAM TELANG</b>	<b>RAVI TELANG</b>	<b>MAHANANDA TELANG</b>	<b>SCXOP</b>	<b>SCXOP</b>
<b>NITIN SINGH RAJPUT</b>	<b>CHANDAN SINGH RAJPUT</b>	<b>MITHILESH SINGH</b>	<b>AIUR</b>	<b>URXOP</b>
<b>RAJSHREE KUMARI</b>	<b>KISHOR PRASAD</b>	<b>MANJU DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>NITIN KUMAR</b>	<b>RATNESH SINGH</b>	<b>MEERA DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>DURGA PRASAD</b>	<b>SURESH PRASAD</b>	<b>MATIYA BAI</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>SACHIN KUMAR</b>	<b>ARJUN SAW</b>	<b>URMILA DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>RAM PRAKASH KUSHWAH</b>	<b>RAMBHAROS KUSHWAH</b>	<b>SHYAM BAI</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>SHRUTI SAXENA</b>	<b>PRAVEEN SAXENA</b>	<b>PRAMILA SAXENA</b>	<b>URXF</b>	<b>EWS</b>
<b>RIYA SHARMA</b>	<b>ANIRUDH KUMAR SHARMA</b>	<b>INDU SHARMA</b>	<b>URXF</b>	<b>URXOP</b>

<b>RAMAN KUMAR</b>	<b>SATISH PODDAR</b>	<b>ANOKHA DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>PRERANA JOSHI</b>	<b>PRADEEP JOSHI</b>	<b>VANDNA JOSHI</b>	<b>URXF</b>	<b>URXOP</b>
<b>JAY MONDAL</b>	<b>TARUN MONDAL</b>	<b>PARVATI MONDAL</b>	<b>URXOP</b>	<b>URXOP</b>
<b>ABHISHEK KUMAR DUBEY</b>	<b>SUNIL DUBEY</b>	<b>RENU DUBEY</b>	<b>AIUR</b>	<b>URXOP</b>
<b>ROHIT KUMAR SINGH</b>	<b>ANUP KUMAR SINGH</b>	<b>LALITA DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>NEERAJ MAHAPATRA</b>	<b>GHANSHYAM MAHAPATRA</b>	<b>NALINI MAHAPATRA</b>	<b>AIUR</b>	<b>URXOP</b>
<b>AMIT SONDHIYA</b>	<b>UMESH SONDHIYA</b>	<b>SHANTI SONDHIYA</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>NITYA KUMARI</b>	<b>DINESH CHOUDHARY</b>	<b>MAMTA DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>PRABHAT KUMAR MISHRA</b>	<b>VIJAY KUMAR MISHRA</b>	<b>VINITA MISHRA</b>	<b>AIUR</b>	<b>URXOP</b>

<b>SHEKHAR TRIVEDI</b>	<b>RAJESH TRIVEDI</b>	<b>REKHA TRIVEDI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>PANKAJ KUMAR VERMA</b>	<b>BHARAT MAHTO</b>	<b>BHARTI DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>RAHUL NAMDEV</b>	<b>PURUSHOTTAM NAMDEV</b>	<b>JYOTI NAMDEV</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>PREETI WAKODKAR</b>	<b>ANAND RAO WAKODKAR</b>	<b>KALPANA WAKODKAR</b>	<b>URXF</b>	<b>URXOP</b>
<b>KRISHAN KUMAR JHA</b>	<b>PANKAJ JHA</b>	<b>MANORMA JHA</b>	<b>AIUR</b>	<b>URXOP</b>
<b>SHAILESH KUMAR YADAV</b>	<b>VISHUN DEV YADAV</b>	<b>BASMATI YADAV</b>	<b>AIUR</b>	<b>URXOP</b>
<b>REEMA RANI KUILA</b>	<b>SUBASH CHANDRA KUILA</b>	<b>LAXMI KUILA</b>	<b>AIUR</b>	<b>URXOP</b>
<b>KOMAL SHIKHA</b>	<b>SATYENDRA PRASAD CHOUDHARY</b>	<b>ANUPMA CHOUDHARY</b>	<b>AIUR</b>	<b>URXOP</b>

<b>HARSHAL CHOUHARY</b>	<b>RAMCHANDRA CHOUHARY</b>	<b>VANDANA CHOUHARY</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>PRACHI GARG</b>	<b>PURSHOTTAM</b>	<b>SUNANDA</b>	<b>URXF</b>	<b>URXOP</b>
<b>SHLOK PURWAR</b>	<b>ANIL KUMAR GUPTA</b>	<b>MAMTA GUPTA</b>	<b>AIUR</b>	<b>URXOP</b>
<b>AKSHAY MAHAJAN</b>	<b>VINOD MAHAJAN</b>	<b>YOGITA MAHAJAN</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>MOHNISH SONI</b>	<b>HARISH KUMAR SONI</b>	<b>SHAKUNTALA SONI</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>ARUN RAGHUWANSHI</b>	<b>RAMAKANT RAGHUWANSHI</b>	<b>ANUSUIYA RAGHUWANSHI</b>	<b>URXOP</b>	<b>URXOP</b>
<b>ARUN SINGH BAGHEL</b>	<b>SHIVPAL SINGH</b>	<b>SARITA SINGH</b>	<b>URXOP</b>	<b>URXOP</b>
<b>PRAFULL TIWARI</b>	<b>KAMLESH TIWARI</b>	<b>SANGEETA TIWARI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>TANU MISHRA</b>	<b>MANOJ KUMAR MISHRA</b>	<b>BHARTI MISHRA</b>	<b>AIUR</b>	<b>URXOP</b>

<b>BHUPESH DHANWANI</b>	<b>RAM CHANDRA DHANWANI</b>	<b>SAPNA DHANWANI</b>	<b>URXOP</b>	<b>URXOP</b>
<b>ABHISHEK AME</b>	<b>SANTOSH KUMAR</b>	<b>ARCHANA</b>	<b>URXOP</b>	<b>URXOP</b>
<b>ANKIT</b>	<b>BASANT SWAMI</b>	<b>SAVITA SWAMI</b>	<b>URXOP</b>	<b>URXOP</b>
<b>EKTA SHUKLA</b>	<b>SURYA PRAKASH SHUKLA</b>	<b>SANDHYA SHUKLA</b>	<b>AIUR</b>	<b>URXOP</b>
<b>KAVISHA PATEL</b>	<b>ASHOK KUMAR PATEL</b>	<b>NEERAJ PATEL</b>	<b>OBCXF</b>	<b>OBCXOP</b>
<b>KARAN GIRI</b>	<b>CHATUR GIRI</b>	<b>CHANDRAKAL A GIRI</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>RITIK SIMHAL</b>	<b>RAJESH SIMHAL</b>	<b>UMA SIMHAL</b>	<b>URXOP</b>	<b>EWS</b>
<b>AZAD SINGH</b>	<b>SHAMBHU NATH SINGH</b>	<b>REETA SINGH</b>	<b>URXOP</b>	<b>URXOP</b>
<b>PANKAJ PATEL</b>	<b>KESHAV PRASAD PATEL</b>	<b>KAMLA PATEL</b>	<b>OBCXOP</b>	<b>OBCXOP</b>

<b>SATYAM SINGH YADAV</b>	<b>AMAR SINGH</b>	<b>KAUSHALYA</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>SNEHA KUMARI</b>	<b>DILIP CHOUDHARY</b>	<b>MUNNI KUMARI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>DEVENDRA KUMAR PANDEY</b>	<b>SURENDRA PRASAD PANDEY</b>	<b>NIRMALA PANDEY</b>	<b>URXOP</b>	<b>EWS</b>
<b>VISHAKHA SHARMA</b>	<b>MANISH SHARMA</b>	<b>SEEMA SHARMA</b>	<b>URXF</b>	<b>URXOP</b>
<b>POOJA JUJJHAR</b>	<b>LAKESH</b>	<b>ABHA</b>	<b>OBCXF</b>	<b>OBCXOP</b>
<b>SHWETA SHARMA</b>	<b>KRISHNA KUMAR SHARMA</b>	<b>KAVITA SHARMA</b>	<b>URXF</b>	<b>URXOP</b>
<b>AAMISH</b>	<b>MO AYYUB</b>	<b>RIZWANA</b>	<b>AIUR</b>	<b>URXOP</b>
<b>HARSHIT</b>	<b>VIPIN DALAL</b>	<b>PRAMILA</b>	<b>AIUR</b>	<b>URXOP</b>
<b>ABHINAV RATHORE</b>	<b>KAILASH RATHORE</b>	<b>KIRAN RATHORE</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>SHUBHAM KUMAR</b>	<b>UMESH PRASAD</b>	<b>KIRAN DEVI</b>	<b>AIUR</b>	<b>URXOP</b>

<b>ANJALI SINGH</b>	<b>MAHESHPAL SINGH</b>	<b>SHARDA</b>	<b>URXF</b>	<b>URXOP</b>
<b>DIKSHA DHOTE</b>	<b>DIGAMBAR</b>	<b>DURGA</b>	<b>OBCXF</b>	<b>OBCXOP</b>
<b>DRONA GUPTA</b>	<b>ASHOK KUMAR GUPTA</b>	<b>REKHA GUPTA</b>	<b>AIUR</b>	<b>URXOP</b>
<b>DARSHANA BHIKONDE</b>	<b>MANOHAR</b>	<b>HARSHLATA</b>	<b>OBCXF</b>	<b>OBCXOP</b>
<b>RAJAT RAJ</b>	<b>RANJIT PRASAD</b>	<b>BABITA DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>MAYANK SHRIKHANDE</b>	<b>SANJAY SHRIKHANDE</b>	<b>SANGEETA SHRIKHANDE</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>BUSHRA KASHMIRI</b>	<b>SHEIKH RAHIM</b>	<b>SABANA BEE</b>	<b>URXF</b>	<b>URXOP</b>
<b>ARUN VISHNOI</b>	<b>RAJU VISHNOI</b>	<b>GANGA VISHNOI</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>VED PRAKASH TIWARY</b>	<b>SHATRUGHAN TIWARY</b>	<b>INDU DEVI</b>	<b>AIUR</b>	<b>URXOP</b>

<b>UTKARSH SHRIVASTAVA</b>	<b>S K SHRIVASTVA</b>	<b>ALPANA SHRIVASTVA</b>	<b>URXOP</b>	<b>URXOP</b>
<b>AYUSH GUPTA</b>	<b>ABHINAV GUPTA</b>	<b>REKHA GUPTA</b>	<b>URXOP</b>	<b>URXOP</b>
<b>CHANDRA PRAKASH GUPTA</b>	<b>CHANDRA SHEKHAR SAH</b>	<b>ANAMIKA DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>PRAVEEN KUMAR</b>	<b>CHANDRADEEP PRASAD</b>	<b>SUMITRA DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>NIDHI SHARMA</b>	<b>NARENDRA SHARMA</b>	<b>MAMTA SHARMA</b>	<b>URXF</b>	<b>EWS</b>
<b>MUKUL RAJAK</b>	<b>RAMESH KUMAR RAJAK</b>	<b>SITA RAJAK</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>RAJEEV KUMAR DWIVEDI</b>	<b>RAJENDRA PRASAD DWIVEDI</b>	<b>MAMTA DWIVEDI</b>	<b>URXOP</b>	<b>EWS</b>
<b>NITISH KUMAR</b>	<b>BHARATESHAWA R SINGH</b>	<b>LILAWATI DEVI</b>	<b>AIUR</b>	<b>URXOP</b>

<b>ROSHNI VARMA</b>	<b>SANTRAM VARMA</b>	<b>SEETA VARMA</b>	<b>URXOP</b>	<b>URXOP</b>
<b>ADITYA ARYAN</b>	<b>JANARDAN KUMAR</b>	<b>ASHA DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>KHUSHBU VADURKAR</b>	<b>GENDRAM VADURKAR</b>	<b>MEERA VADURKAR</b>	<b>URXF</b>	<b>URXOP</b>
<b>VIKAS YADAV</b>	<b>MOTILAL YADAV</b>	<b>KRISHNAWAT I DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>DEEPAK TIWARI</b>	<b>RAM DAYAL TIWARI</b>	<b>NIRMALA TIWARI</b>	<b>URXOP</b>	<b>EWS</b>
<b>MAYUR MAHAJAN</b>	<b>PRAKASH MAHAJAN</b>	<b>NIRMALA MAHAJAN</b>	<b>URXOP</b>	<b>EWS</b>
<b>HEENA PARWEEN</b>	<b>MD SHAFIQL HAQUE</b>	<b>MANOWARA KHATOON</b>	<b>AIUR</b>	<b>URXOP</b>
<b>ABHISHEK DHAKAD</b>	<b>SAMANDER SINGH DHAKAD</b>	<b>MAMTA BAI DHAKAD</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>JAYA KUMARI</b>	<b>TUNG NATH TIWARI</b>	<b>KUSUM DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>GANESH GAHUKAR</b>	<b>SANJAY GAHUKAR</b>	<b>SANGITA GAHUKAR</b>	<b>OBCXOP</b>	<b>OBCXOP</b>

<b>ANURAG TIWARI</b>	<b>SHATRUGHAN TIWARI</b>	<b>MITHLESH TIWARI</b>	<b>URXOP</b>	<b>URXOP</b>
<b>DEEPAK KUMAR LODHI</b>	<b>KARAN SINGH LODHI</b>	<b>GIRJA BAI</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>SAHIL KOLI</b>	<b>KAMLESH KOLI</b>	<b>PUSHPA KOLI</b>	<b>SCXOP</b>	<b>SCXOP</b>
<b>ARUN ADHIKARI</b>	<b>NANDARAM ADHIKARI</b>	<b>JAMUNA ADHIKARI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>SHAIKH SOHEL</b>	<b>SAIKH SULEMAN</b>	<b>MUMTAZ SHAIKH</b>	<b>URXOP</b>	<b>URXOP</b>
<b>SONAM SINGH</b>	<b>DHIRENDRA KUMAR SINGH</b>	<b>SANGITA DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>KM ROSHNI TRIPATHI</b>	<b>ALOK KUMAR</b>	<b>KIRAN TRIPATHI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>HARSHA DHOTE</b>	<b>SURESH DHOTE</b>	<b>VANDANA DHOTE</b>	<b>OBCXF</b>	<b>OBCXOP</b>
<b>ASHISH THEPE</b>	<b>SANJAY</b>	<b>MANGLA</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>PRIYANSHU GAWANDE</b>	<b>BHAGWAN RAO GAWANDE</b>	<b>DEVAKI GAWANDE</b>	<b>OBCXOP</b>	<b>OBCXOP</b>

<b>KOUSTUBH PARSAI</b>	<b>PRAMOD KUMAR PARSAI</b>	<b>SUSHMA PARSAI</b>	<b>URXOP</b>	<b>EWS</b>
<b>SHIVANSH SHUKLA</b>	<b>MANOJ SHUKLA</b>	<b>REKHA SHUKLA</b>	<b>URXOP</b>	<b>URXOP</b>
<b>HIMANCHAL VISHWAKARMA</b>	<b>RAJESH VISHWAKARMA</b>	<b>SONA VISHWAKARM A</b>	<b>OBCXOP</b>	<b>OBCXO P</b>
<b>RISHANGI KISHORE</b>	<b>BRAJ KISHORE SINGH</b>	<b>SAVITA SINGH</b>	<b>AIUR</b>	<b>URXOP</b>
<b>ADITYA SHARMA</b>	<b>HARISH PRASAD SHARMA</b>	<b>SUMAN SHARMA</b>	<b>URXOP</b>	<b>EWS</b>
<b>JWALA MAKODE</b>	<b>RAMESH MAKODE</b>	<b>LALITA MAKODE</b>	<b>OBCXF</b>	<b>OBCXO P</b>
<b>RISHABH PANDEY</b>	<b>SATYASUDAN PANDEY</b>	<b>SADHANA</b>	<b>URXOP</b>	<b>EWS</b>
<b>AANSHI JAIN</b>	<b>MUKESH JAIN</b>	<b>NEELAM JAIN</b>	<b>URXF</b>	<b>URXOP</b>
<b>ASHUTOSH KUMAR</b>	<b>NAGENDRA KUMAR</b>	<b>RIBHA KUMARI</b>	<b>AIUR</b>	<b>URXOP</b>

<b>KAILASH MISHRA</b>	<b>PRAKASH NARAYAN MISHRA</b>	<b>PUSHPA MISHRA</b>	<b>URXOP</b>	<b>EWS</b>
<b>NITESH UPADHYAY</b>	<b>NARAYAN PRASAD UPADHYAY</b>	<b>SAVITRI UPADHYAY</b>	<b>AIUR</b>	<b>URXOP</b>
<b>ASHUTOSH PATEL</b>	<b>RAMSAKHA PATEL</b>	<b>SUSHILA</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>EKTA PATIDAR</b>	<b>RAGHUVVEER PATIDAR</b>	<b>RANI PATIDAR</b>	<b>OBCXF</b>	<b>OBCXOP</b>
<b>DEEPESH KUMAR SINGH</b>	<b>K P SINGH</b>	<b>ANITA SINGH</b>	<b>URXOP</b>	<b>URXOP</b>
<b>PALASH DANGARH</b>	<b>MANOHAR DANGARH</b>	<b>MANJU DANGARH</b>	<b>URXOP</b>	<b>EWS</b>
<b>MOHIT</b>	<b>PRADEEP YADAV</b>	<b>JYOTI</b>	<b>SCXOP</b>	<b>SCXOP</b>
<b>AKSHAT SONI</b>	<b>DINESH SONI</b>	<b>VISHAKHA SONI</b>	<b>OBCNCCO P</b>	<b>OBCXOP</b>
<b>SACHIN VERMA</b>	<b>ROSHAN LAL VERMA</b>	<b>URMILA VERMA</b>	<b>SCXOP</b>	<b>SCXOP</b>

<b>HEMANT PATIL</b>	<b>DEVIDAS PATIL</b>	<b>MEERA BAI PATIL</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>ASHWANI KUMAR DWIVEDI</b>	<b>OMPRAKASH DWIVEDI</b>	<b>SAROJ DWIVEDI</b>	<b>URXOP</b>	<b>URXOP</b>
<b>HRITIK GIRI</b>	<b>ASHOK GIRI</b>	<b>LAXMI GIRI</b>	<b>URXOP</b>	<b>URXOP</b>
<b>PREM CHANDRA VISHWAKARMA</b>	<b>JAY PRAKASH</b>	<b>USHA DEVI</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>OMDEV YADAV</b>	<b>C L YADAV</b>	<b>MUNNI DEVI</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>SHRUTI SHRIVASTAVA</b>	<b>JITENDRA SHRIVASTAVA</b>	<b>RANJANA SHRIVASTAVA</b>	<b>AIUR</b>	<b>URXOP</b>
<b>KHUSHBOO</b>	<b>MD ASLAM</b>	<b>ANJUM</b>	<b>AIUR</b>	<b>URXOP</b>
<b>GOURAV SHARMA</b>	<b>SUBHASH SHARMA</b>	<b>MEENA SHARMA</b>	<b>URXOP</b>	<b>URXOP</b>
<b>KETAN MAHAJAN</b>	<b>NAMDEV MAHAJAN</b>	<b>SARLA</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>SHWETA MISHRA</b>	<b>HARISHANKAR</b>	<b>MADHURI</b>	<b>URXF</b>	<b>URXOP</b>

<b>VIJAY</b>	<b>RAVINDRA</b>	<b>SUREKHA</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>RAHUL MOHNANI</b>	<b>BHARAT MOHNANI</b>	<b>MADHU MOHNANI</b>	<b>URXOP</b>	<b>URXOP</b>
<b>VINIT RAJ</b>	<b>VINAY KUMAR</b>	<b>NILAM DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>RIYA PALIWAL</b>	<b>SHIVDUTT PALIWAL</b>	<b>SUSHMA PALIWAL</b>	<b>URXF</b>	<b>URXOP</b>
<b>KARISHMA KUMARI</b>	<b>RAM PRASAD SINGH</b>	<b>SONAMATI DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>DEEPAK KUMAR</b>	<b>NARENDRA KUMAR</b>	<b>PINKU DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>VISHAL DHANGAR</b>	<b>MANNALAL</b>	<b>SHUSHILA BAI</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>SATYAM GUPTA</b>	<b>RAMESH CHANDRA GUPTA</b>	<b>KIRAN GUPTA</b>	<b>URXOP</b>	<b>EWS</b>
<b>RAVINA</b>	<b>SUDHAKAR</b>	<b>SUNITA</b>	<b>OBCXF</b>	<b>OBCXOP</b>
<b>VIVEK SINGH BAIS</b>	<b>KUBER SINGH BAIS</b>	<b>ASHA SINGH BAIS</b>	<b>OBCXOP</b>	<b>OBCXOP</b>

<b>RAVI KUMAR</b>	<b>MANOJ KUMAR SINGH</b>	<b>SUNITA DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>DINKAL</b>	<b>KHUSHYAL</b>	<b>ANURADHA</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>PRATAP PRAJAPATI</b>	<b>SANTOSH</b>	<b>ASHA</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>GAURAV</b>	<b>RAJENDRA MATHURIYA</b>	<b>GEETA BAI</b>	<b>URXOP</b>	<b>URXOP</b>
<b>GOPAL KUMAR</b>	<b>KAUSHLENDRA SHARMA</b>	<b>GITA DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>PRACHI PATIL</b>	<b>KAILASH PATIL</b>	<b>REKHA PATIL</b>	<b>AIUR</b>	<b>URXOP</b>
<b>BITTU KUMAR</b>	<b>GANESH KUMAR SINGH</b>	<b>RINKU DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>SHUBHAM RAGHUVANSHI</b>	<b>RAMKARAN</b>	<b>SAROJ RAGHUVANSHI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>ASHMAL IMAM</b>	<b>MUZAFFER IMAM</b>	<b>SHABANA IMAM</b>	<b>AIUR</b>	<b>URXOP</b>
<b>VISHAL PARMAR</b>	<b>BHARAT SINGH PARMAR</b>	<b>NEHA PARMAR</b>	<b>OBCXOP</b>	<b>OBCXOP</b>

<b>PIYUSH DWIVEDI</b>	<b>VIDYA PRASAD DWIVEDI</b>	<b>RAMA DWIVEDI</b>	<b>URXOP</b>	<b>URXOP</b>
<b>RAKSHA SAXENA</b>	<b>MR.BRIJENDRA SAXENA</b>	<b>MRS.NEERAJ BALA SAXENA</b>	<b>URXF</b>	<b>EWS</b>
<b>ROSHNI GUPTA</b>	<b>SURESH KUMAR GUPTA</b>	<b>PARVATI GUPTA</b>	<b>URXF</b>	<b>URXOP</b>
<b>AMAN ATHNERE</b>	<b>SUKHDEV</b>	<b>SUNITA</b>	<b>SCXOP</b>	<b>SCXOP</b>
<b>SOURABH SAHU</b>	<b>MANIRAM SAHU</b>	<b>LAXMI BAI</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>BHAVISHYA KUMAR</b>	<b>MEGHRAJ SINGH</b>	<b>PUSHPA BAI</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>POORVI SOLANKI</b>	<b>SUNIL</b>	<b>SEEMA</b>	<b>OBCXF</b>	<b>OBCXOP</b>
<b>GOURAV RATHORE</b>	<b>RAJENDRA RATHORE</b>	<b>AARTI RATHORE</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>VARSHA TAMRAKAR</b>	<b>MAHESH</b>	<b>SUNEETA</b>	<b>OBCXF</b>	<b>OBCXOP</b>
<b>KULDEEP DUBEY</b>	<b>LAXMI NARAYAN</b>	<b>CHANDA</b>	<b>URXOP</b>	<b>URXOP</b>

<b>NEHA SHARMA</b>	<b>ASHOK KUMAR SHARMA</b>	<b>ARCHANA SHARMA</b>	<b>URXF</b>	<b>URXOP</b>
<b>KHUSHBOO PATEL</b>	<b>RAKESH PATEL</b>	<b>MAMTA PATEL</b>	<b>OBCXF</b>	<b>OBCXOP</b>
<b>KU ANJALI RAGHUWANSHI</b>	<b>KAILASH RAGHUWANSHI</b>	<b>HEMLATA RAGHUWANSHI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>AJIT KUMAR YADAV</b>	<b>LALIT YADAV</b>	<b>REENA DEVI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>HARSH TIWARI</b>	<b>AJAY TIWARI</b>	<b>SASHI TIWARI</b>	<b>AIUR</b>	<b>URXOP</b>
<b>YASH JADHAV</b>	<b>SUDHIR JADHAV</b>	<b>NANDA JADHAV</b>	<b>URXOP</b>	<b>URXOP</b>
<b>ASHISH PATIL</b>	<b>PRAKASH PATIL</b>	<b>NISHA PATIL</b>	<b>SCXOP</b>	<b>SCXOP</b>
<b>NIDHI DUBEY</b>	<b>UMESH KUMAR</b>	<b>MEENA DUBEY</b>	<b>URXF</b>	<b>URXOP</b>
<b>ANIKET SINGH RANA</b>	<b>RAMESH SINGH</b>	<b>KAMLA</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
<b>AJAY LAWANIYA</b>	<b>MUKESH LAWANIYA</b>	<b>PUSHPA DEVI</b>	<b>AIUR</b>	<b>URXOP</b>

<b>NITIN</b>	<b>LAXMI PRASAD SAHU</b>	<b>MUNNI</b>	<b>OBCXOP</b>	<b>OBCXOP</b>
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**Lakshmi Narain College of Technology(MCA), Bhopal**

**Admission List for the year 2022**

**Admitted under TFW**

<b>Name</b>	<b>Father</b>	<b>Mother</b>	<b>Eligible Category</b>	<b>Alloted Category</b>
KUMARI ANSHIKA NIGAM	ASEEM NIGAM	PRATIBHA NIGAM	URXF	URXOP
AAYUSHI KHANDELWAL	YOGESH KHANDELWAL	SWATI KHANDELWAL	URXF	URXOP
HIMANSHU PATHAK	SUNIL PATHAK	REEMA PATHAK	URXOP	URXOP
MONU RAGHUVANSHI	MAHESH RAGHUVANSHI	MAMTA RAGHUVANSHI	URXOP	URXOP
VAIDEHI JOSHI	VINOD JOSHI	VEENA JOSHI	URXF	URXOP
PALLAVI CHOUHAN	KESHAV CHOUHAN	MADHURI CHOUHAN	OBCXF	URXOP
ANOOP KUMAR TIWARI	GAYATRI PRASAD TIWARI	SAVITRI DEVI	URXOP	URXOP
ABHISHEK SINGH	PANKAJ SINGH	NEHA SINGH	URXOP	URXOP
PRIYA RAGHUWANSHI	DINESH RAGHUWANSHI	PUSHPA RAGHUWANSHI	URXF	URXOP

**Admitted other than TFW**

Name	Father	Mother	Eligible Category	Alloted Category
DHARMENDRA YADAV	KAILASH YADAV	DHANWANTI	OBCXOP	OBCXOP
SWAPNIL PATEL	INDRA KUMAR PATEL	MANJU PATEL	OBCXOP	OBCXOP
NIKHIL RAJ	ASHOK KUMAR	NITA SINGH	AIUR	URXOP
SUDHA TRIPATHI	SHRISH KUMAR TRIPATHI	SUSHILA DEVI	URXF	URXOP
GOVIND SINGH TOMAR	BHUPENDRA SINGH TOMAR	SUSHMA SINGH TOMAR	URXOP	URXOP
ANKIT KUMAR	MANOJ KUMAR GUPTA	PRITI DEVI	AIUR	URXOP
ABDUL FAISAL	QUDDUSUL HAQUE	NAZMA KHATOON	URXOP	URXOP
AMAN JAIN	MANOJ JAIN	SANDHYA JAIN	URXOP	URXOP
NIKITA UPHAR	NEERAJ KUMAR	BABITA KUMARI	AIUR	URXOP
AMRIT SINHA	AMAR KUMAR SINHA	SARITA SINHA	AIUR	URXOP
ANTRA GUPTA	RAJESH GUPTA	SADHNA GUPTA	URXF	URXOP
KETAN PANDEY	MUKESH PANDEY	NISHA PANDEY	URXOP	URXOP
SIDDHARTH RAJ	SUBHASH SINGH	BABITA DEVI	AIUR	URXOP
AMAN JAIN	VINAY KUMAR JAIN	SUMAN JAIN	AIUR	URXOP

ANJALI SHARMA	AJAY	MEENA	AIUR	URXOP
TANU MALVIYA	DEVENDRA MALVIYA	ANITA MALVIYA	OBCXF	OBCXOP
ISHANK NAMDEO	SUDHIR NAMDEO	DEEPTI NAMDEO	OBCXOP	OBCXOP
ANUSHKA SINGH	SANJAY SINGH	GEETA SINGH	AIUR	URXOP
ANJALI SINHA	SUNIL KUMAR SINHA	ANAMIKA	AIUR	URXOP
YASHIKA NARWARE	SURYABHAN NARWARE	UJJAWALA NARWARE	OBCXF	OBCXOP
KRISHNA AGRAWAL	SANJAY AGRAWAL	SANGEETA AGRAWAL	URXOP	URXOP
ARBAZ KHAN	IQBAL KHAN	ANGOORI BEE	URXOP	URXOP
VIVEK KUMAR	KAMESHWAR PRASAD	PRATIMA DEVI	AIUR	URXOP
MD. EKRAM ALAM	MD. HASHIM	RIZWANA KHATOON	AIUR	URXOP
MAHI TIWARI	RAJESH TIWARI	KALPANA TIWARI	URXF	URXOP
MEGHA PALIWAL	DEVENDRA PALIWAL	RANI PALIWAL	URXF	URXOP
PRACHI CHOUBEY	PRADEEP CHOUBEY	MADHU CHOUBEY	URXF	URXOP
SEJAL CHOURSIYA	PRADEEP CHOURSIYA	SUNITA CHOURSIYA	OBCXF	OBCXOP
TANUSHREE PAL	AJAY PAL	SAVITA PAL	OBCXF	OBCXOP

SHIVAM SAXENA	NARMADA SAXENA	NEETU	URXOP	EWS
NISHITA CHHIPA	NARENDRA CHHIPA	NEETA CHHIPA	OBCXF	OBCXOP
VIKAS KUMAR	VIVEKANAND KUMAR	GITA SINHA	AIUR	URXOP
PRAGATI GUPTA	RAKESH KUMAR GUPTA	JAY KUMARI GUPTA	AIUR	URXOP
VISHAL KUMAR GOPE	MADAN GOPE	SAROJANI DEVI	AIUR	URXOP
KHUSHI NAGAR	PRADEEP NAGAR	RANJANA NAGAR	URXF	URXOP
SHASHIKANT	MURLI PRASAD	LAXMI DEVI	AIUR	URXOP
AYUSH KATIYAR	PRADEEP KATIYAR	RAMAKANTI KATIYAR	URXOP	URXOP
AMISHA PATEL	CHAIN SINGH PATEL	MALTI PATEL	OBCXF	OBCXOP
SATYAM NARAYAN	NARAYAN PRASAD	SANJU DEVI	AIUR	URXOP
AYUSH TIWARI	MANOJ	ANJANA	URXOP	URXOP
VAISHNAVI CHANDEL	KRISHNAPAL SINGH CHANDEL	VIMLA CHANDEL	URXF	URXOP
KU. MAHAK RATHORE	SHRI MUKESH RATHORE	SMT CHANDA RATHORE	OBCXF	OBCXOP
SHABANA	ASLAM KHAN	AYESHA	AIUR	URXOP

SHREYANSH GOSWAMI	SANJEEV GOSWAMI	SANGEETA	AIUR	URXOP
SHIVAM JAIN	SUNEEL KUMAR JAIN	MEENA JAIN	URXOP	URXOP
JAGRATI MISHRA	SHRIKANT MISHRA	RANI MISHRA	URXF	URXOP
MD AFTAB ALAM	MD MOKIM	SAIDUN NISHA	AIUR	URXOP
ANUSHKAR PATHAK	SUDHIR PATHAK	MAMTA PATHAK	URXOP	URXOP
SATYAM GUPTA	MANOJ KUMAR GUPTA	BHARTI GUPTA	URXOP	URXOP
RITIK KUMAR	DEEPAK SINGH	BIBHA DEVI	AIUR	URXOP
SHIVANI JAIN	SATISH JAIN	ANITA JAIN	URXF	URXOP
PRAKHAR NEMA	RAJESH KUMAR NEMA	ANITA NEMA	OBCXOP	OBCXOP
GAUTAM SINGH PARIHAR	MANOJ SINGH PARIHAR	JANKI PARIHAR	URXOP	URXOP
MAYURI TELANG	SUDHANSHU TELANG	NISHA TELANG	URXF	URXOP
ROSHNI RATHORE	DHARMENDRA RATHORE	SANGEETA RATHORE	OBCXF	OBCXOP
PANKAJ VISHWAKARMA	GURUSHARAN VISHWAKARMA	VIPTA VISHWAKARMA	OBCXOP	OBCXOP

SHRETA RATHORE	JITENDRA RATHORE	SUNITA RATHORE	OBCXF	OBCXOP
YUKTI MAHOVIYA	MANOJ MAHOVIYA	SUNITA MAHOVIYA	OBCXF	OBCXOP
NUPUR SHIVANI	BIJAY KUMAR BANDHU	SARITA DEVI	AIUR	URXOP
ANJALI JETHWANI	DHARMENDRA JETHWANI	ASHA JETHWANI	URXF	EWS
UTKARSH PATKAR	PRATIPAL PATKAR	SANGITA PATKAR	OBCXOP	OBCXOP
LALITRAJ SHRIVASTAVA	DEVENDRA SHRIVASTAVA	DEEPA SHRIVASTAVA	URXOP	URXOP
ANMOL BAGHEL	JEEVAN BAGHEL	GANGA BAGHEL	URXF	EWS
DIPALI	JITENDRA	BHAVANA	OBCXF	OBCXOP
UTSAV SHRIVASTAVA	NARESH KUMAR SHRIVASTAVA	MANI SHRIVASTAVA	URXOP	EWS
ANSHUL KUSHWAH	THAN SINGH KUSHWAH	SEEMA KUSHWAH	OBCXOP	OBCXOP
MAHENDRA SINGH	PRAMENDRA SINGH	SEETA BAI	OBCXOP	OBCXOP
ARPIT SINGH	AJEET SINGH	MANOJ SINGH	AIUR	URXOP
CHANCHAL RAGHUVANSHI	VIJAY RAGHUVANSHI	KALPANA RAGHUVANSHI	OBCXF	OBCXOP

ALFAIZ	SAMI KHAN	AFROZ BEE	OBCXOP	OBCXOP
NAMANDEEP SINGH	TAJINDER SINGH	PARVINDER KOUR	URXOP	EWS
HARIOM PATIDAR	ASHOK PATIDAR	NIRMALA BAI	OBCXOP	OBCXOP
DEVENDRA PATIDAR	GOVERDHAN PATIDAR	SANTOSH BAI	OBCXOP	OBCXOP
SUDARSHAN KOLHE	RAMESH KOLHE	SUNANDA KOLHE	OBCXOP	OBCXOP
MOHINI CHAUHAN	KOMAL SINGH CHAUHAN	VEDVATI CHAUHAN	URXF	URXOP
SACHIN PATIDAR	KAMAL PATIDAR	MAMTA PATIDAR	OBCXOP	OBCXOP
ROHIT MEENA	MAHARAJ SINGH MEENA	LAXMI MEENA	OBCXOP	OBCXOP
MOHD SUHAIL MADNI	ABDUL SAUD MADNI	IMTIYAZ MADNI	AIUR	URXOP
ANSHUL SHARMA	HARI PRASAD SHARMA	SUMAN SHARMA	URXOP	EWS
AYUSHI JADHAV	SURESH JADHAV	SANDHYA JADHAV	URXF	URXOP
PRINCE RAJ	GOPAL KUMAR	PINKI KUMARI	AIUR	URXOP
TARUN KUSHWAH	RAJMAL KUSHWAH	SUNITA KUSHWAH	OBCXOP	OBCXOP
PRAVEEN MODI	NARENDRA MODI	NEETA MODI	OBCXOP	OBCXOP
ASHMIKA GUPTA	RAJESH GUPTA	LATA GUPTA	URXF	URXOP

KULDEEP TOMAR	BHUPENDRA SINGH TOMAR	ARCHANA SINGH TOMAR	URXOP	URXOP
PRIYANSHU RATHORE	MUNNA LAL RATHORE	MAMTA RATHORE	OBCXOP	OBCXOP
UJJWAL TYAGI	SANJAY TYAGI	MALTI TYAGI	URXOP	URXOP
HARSHIT GUPTA	RAJKUMAR GUPTA	MAMTA DEVI	AIUR	URXOP
SHUBHAM MAHATMA	SANTOSH MAHATMA	GUDIYA MAHATMA	SCXOP	SCXOP
SHRADHA SINGH	SUNIL KUMAR SINGH	SEEMA SINGH	URXF	URXOP
AJAY RAJPUT	UMESH RAJPUT	SUSHILA RAJPUT	URXOP	URXOP
AYUSH NAMDEO	RAJESH KUMAR NAMDEO	PRITI NAMDEO	OBCXOP	OBCXOP
RITIKA CHOURASIYA	PRADEEP CHOURASIYA	ALKA CHOURASIYA	OBCXF	OBCXOP
LAKSHYA AGNIHOTRI	RAMKISHAN AGNIHOTRI	SUMAN AGNIHOTRI	URXOP	URXOP
SOURABH VERMA	SANTOSH	SUSHILA	OBCXOP	OBCXOP
HIMANSHU VISHWAKARMA	RAJENDRA VISHWKARMA	RAJNI VISHWAKARMA	OBCXOP	OBCXOP
SHANTANU RAJ	RANJEET KUMAR TIWARI	SUPRIYA TIWARI	AIUR	URXOP

POOJA	RAMESH CHANDRA	MAMTA DEVI	OBCXF	OBCXOP
ANURAG YADAV	RAJESH YADAV	SAVITRI YADAV	OBCXOP	OBCXOP
RUDRA PRATAP YADAV	KANCHHEDI LAL YADAV	MULAYAM	OBCXOP	OBCXOP
SHRUTI SHARMA	VIVEK SHARMA	GAYATRI SHARMA	URXF	URXOP
SOURABH DABADIYA	ASHOK DABADIYA	MAYA DABADIYA	OBCXOP	OBCXOP
NIKETAN SAHU	MANOHAR LAL SAHU	JYOTI SAHU	OBCXOP	OBCXOP
SNEHA YADAV	RAJKUMAR YADAV	MOHINI YADAV	OBCXF	OBCXOP
RAVI DHAKAD	MOHANLAL DHAKAD	KAILASHBAI DHAKAD	OBCXOP	OBCXOP
SAGAR MANDLOI	SUKHDEV MANDLOI	SUBHADRA MANDLOI	OBCXOP	OBCXOP
ROHIT GUPTA	SHIVNATH GUPTA	NEETA GUPTA	URXOP	EWS
YUVRAJ MISHRA	PRABHA SHANKER MISHRA	SUNITA MISHRA	URXOP	URXOP
SACHIN NAHAR	HOKAM SINGH NAHAR	SEEMA NAHAR	OBCXOP	OBCXOP
PRACHI PALIYA	NARENDRA PALIYA	SHANTI PALIYA	URXF	URXOP
SONALI BAMNE	RAM KISHORE BAMNE	USHA BAMNE	SCXF	SCXOP

SHIVANSH SHRIVASTAVA	UMASHANKAR SHRIVASTAVA	VIMLESH SHRIVASTAVA	URXOP	URXOP
ANKITA SAKWAR	RAJENDRA SAKWAR	ANITA SAKWAR	SCXF	SCXOP
VAISHNAVI GUPTA	SHRIBHAGVAN GUPTA	SINITA	URXF	URXOP
SURYANSH KAPOOR	RAVI SHANKAR KAPOOR	HEMLATA KAPOOR	URXOP	URXOP
HARSH SONI	MANOJ KUMAR SONI	KAVITA SONI	OBCXOP	OBCXOP
AAYUSH PATLE	LAXMI PRASAD PATLE	DURGESHWARI PATLE	OBCXOP	OBCXOP
PRADEEP MOURYA	RAM BAHADUR MOURYA	NIRMALA	AIUR	URXOP
HARSHITA VERTHI	NAMDEO VERTHI	KAVITA VERTHI	OBCXF	OBCXOP
AYUSHI KESHARWANI	ANUPAM KESHARWANI	NEELAM KESHARWANI	URXF	EWS
TEJASVINI SAGAR	DINKAR SAGAR	SANGEETA SAGAR	OBCXF	OBCXOP
ATUL KUSHWAHA	KEMLA PPRASAD KUSHWAHA	MAMTA KUSHWAHA	OBCXOP	OBCXOP
ASHUTOSH SINGH THAKUR	ROOP SINGH THAKUR	SAVITRI THAKUR	URXOP	URXOP

SHIVAM YADAV	RAKESH YADAV	MAMTA	OBCXOP	OBCXOP
NIKITA	SHANKAR RAO	SUSHILA	OBCXF	OBCXOP
PRANJAL GUPTA	RAJESH GUPTA	ALKA GUPTA	URXOP	URXOP
SHASWAT KUMAR	LAKSHMI KANT MURTI	KANCHAN DEVI	AIUR	URXOP
DHEERAJ BANKEY	REWASHANKAR BANKEY	MANISHA BANKEY	OBCXOP	OBCXOP
DIVYANSHI SONI	RAJESH SONI	VANDANA SONI	OBCXF	OBCXOP
SUMIT KUMAR MISHRA	SATYANARAYAN MISHRA	SHEELA RANI MISHRA	URXOP	EWS
AKSHAT TRIPATHI	SANTOSH KUMAR TRIPATHI	MAMTA TRIPATHI	URXOP	URXOP
SHUBHAM KASHYAP	RAM AYODHYA SINGH	MANTU DEVI	AIUR	URXOP
NANDANI BHAWSAR	ABHAY BHAWSAR	RANI BHAWSAR	OBCXF	OBCXOP
DIKSHA SAHU	GANESH SAHU	RANI SAHU	OBCXF	OBCXOP
PRAKUNJ KHANDEKAR	PRAKASH KHANDEKAR	SANGEETA KHANDEKAR	OBCXOP	OBCXOP
MAHIMA VERMA	RAJESH VERMA	MAMTA VERMA	OBCXF	OBCXOP
MAHIMA PURANIK	SANJAY PURANIK	MOHINI PURANIK	URXF	EWS
PUNIT PUSHPATODE	YASHWANT PUSHPATODE	REKHA PUSHPATODE	OBCXOP	OBCXOP

VARSHA PIPRIYA	RAMESH PIPRIYA	LAXMI PIPRIYA	SCXF	SCXOP
DIKSHA PATEL	HEMANT PATEL	JANKI PATEL	OBCXF	OBCXOP
KAILASH	SUNIL KUMAR	NITYA RANI	URXOP	URXOP
DEVANSH SHARMA	DEVI PRASAD SHARMA	SUSHMA SHARMA	URXOP	URXOP
ANUJ SONI	SANTOSH SONI	GANGA SONI	OBCXOP	OBCXOP
SHEETAL SABLE	SATISH SABLE	SANDHYA SABLE	OBCXF	OBCXOP
ANUSHKA SAHU	MANISH SAHU	ARCHANA SAHU	OBCXF	OBCXOP
RAJUL CHHIROLYA	RAMSHANKAR CHHIROLYA	RAGINI CHHIROLYA	URXF	URXOP
ATUL	GANGACHARAN SHARMA	VIMLA	URXOP	EWS
RAJ KUMAR	SANJAY KUMAR MISHRA	RAKHI DEVI	AIUR	URXOP
HARSH KUMAR	SUBHAS CHANDRA JHA	AMAR LATA JHA	AIUR	URXOP
NEHA JAIN	TAPESH	NEENA	URXF	URXOP
ANKUR TAMRKAR	PURUSHOTTAM TAMRKAR	SARITA TAMRKAR	OBCXOP	OBCXOP
SAURAV SRIVASTAVA	TRIPURARI LAL	VEENA DEVI	AIUR	URXOP
SUYASH KUMAR LAUWANSHI	SUMER SINGH LAUWANSHI	DURGA LAUWANSHI	OBCXOP	OBCXOP

ISHIKA RAI	IMRAT RAI	NEETU RAI	OBCXF	OBCXOP
AYUSHI BISEN	KUNWAR LAL BISEN	MEERA BISEN	OBCXF	OBCXOP
SHASHI RANJAN	MADAN MOHAN SINGH	MALA DEVI	AIUR	URXOP
DEVENDRA KUMAR KORI	CHHAILBIHARI KORI	KESHAR BAI	SCXOP	SCXOP
NIHAR RAJPUT	SANTOSH SINGH RAJPUT	LAXMI RAJPUT	URXOP	URXOP
DILRAJ PANDEY	R K PANDEY	RAJKUMARI PANDEY	AIUR	URXOP
ABHISHEK TIWARY	LALBHADUR TIWARY	AMBA DEVI	AIUR	URXOP
ASTHA THAKUR	MANGLESH THAKUR	ANJULATA THAKUR	OBCXF	OBCXOP
PARAG PATWA	UMA CHARAN PATWA	SEEMA PATWA	OBCXOP	OBCXOP
PRATEEK PRAJAPATI	SANTOSH	REKHA	OBCXOP	OBCXOP
ABHISHEK SHARMA	RAM MAHESH SHARMA	ARCHANA SHARMA	URXOP	EWS
TANISH JAIN	PREMCHAND	MAMTA	URXOP	URXOP
MINAL AMLANI	UMESH AMLANI	PREETI AMLANI	AIUR	URXOP
SANYOG RAJ SAXENA	RAJENDRA KUMAR SAXENA	SUDHA SAXENA	URXOP	EWS

SHADAB HUSSAIN	MD SHAMIM	AZHARI KHATOON	AIUR	URXOP
HARSHA JAIN	MAHAVEER JAIN	MADHU JAIN	URXF	URXOP
AISHWARYA BHARDWAJ	BRIJRAJ BHARDWAJ	NIKUNJLATA BHARDHAJ	URXF	URXOP
PRINCE MAHOBIYA	BHUPENDRA SINGH MAHOBIYA	SANGEETA MAHOBIYA	SCXOP	SCXOP
GAURAV SUHANEY	RAKESH KUMAR SUHANEY	RANJANA SUHANEY	URXOP	EWS
MILIND RATHORE	MANOJ RATHORE	MADHAVI RATHORE	OBCXOP	OBCXOP
SWATI DUBEY	MR RAMESH KUMAR DUBEY	MRS BINDU DUBEY	URXF	EWS
MAYUR GURJAR	LEELADHAR GURJAR	JAYSHREE GURJAR	OBCXOP	OBCXOP
LAHAR SONI	RAKESH SONI	SARITA SONI	OBCXF	OBCXOP
SUHAIL KHAN	MUHAMMAD SAMAD	SALMA BANO	AIUR	URXOP
GUNJAN KUMAR	PREM RANJAN PANDEY	RINKI PANDEY	AIUR	URXOP
MARIYAM NAEEM	SYED NAEEM UR RAHMAN	ABIDA NAEEM	URXF	URXOP

DEVANSH DUBEY	CHITRANJAN DUBEY	RAJNI DUBEY	URXOP	URXOP
AKANKSHA KHARE	MAHESH KHARE	MAMTA KHARE	AIUR	URXOP
ALOK KUMAR	UMAKANT CHAUBE	SUSHILA DEVI	AIUR	URXOP
PARTHIV DUBEY	VINOD DUBEY	SANGEETA DUBEY	URXOP	EWS
ANURAG SHARMA	HIMESH	RANJEETA	URXOP	URXOP
ANJALI YADAV	MAHESH	SUSHMA	OBCXF	OBCXOP
SNEHA CHATURVEDI	RAM SUSHIL CHATURVEDI	RAJKALI CHATURVADI	URXF	URXOP
PRIYANSH RAJPUT	HARGOVIND SINGH	NEELIMA RAJPUT	URXOP	EWS
MOHIT SHENDRE	VIJAY SHENDRE	RANJANA BAI	OBCXOP	OBCXOP
RIYA TIWARI	YOGENDRA TIWARI	ARPITA TIWARI	URXF	URXOP
VIPIN ..	BHAGWAN	LALITA	URXOP	URXOP
ARIN SHARMA	DEVENDRA SHARMA	REKHA SHARMA	URXOP	URXOP
DURGESH KUMAR	BHARAT SINGH	USHA BAI	URXOP	URXOP
MONIKA	TIKAMCHAND	KAMALA	OBCXF	OBCXOP
SHIVANI YADAV	PRADEEP YADAV	UMA YADAV	OBCXF	OBCXOP

NEHA SINGH CHOUHAN	BHOPAL SINGH CHOUHAN	UMA SINGH CHOUHAN	URXF	URXOP
NITISH JAISWAL	ASHOK JAISWAL	SHARDA DEVI	OBCXOP	OBCXOP
MUSKAN BHATIA	ANOOP BHATIA	SONAL BHATIA	AIUR	URXOP
JOYA KHAN	ABDUL RAHMAN KHAN	LAIKA KHAN	OBCXF	OBCXOP
SHUBHANGINEE	SUKHRAM	SARITA	OBCXF	OBCXOP
DEEPANSHU KHARE	SANJAY KHARE	SANGEETA KHARE	URXOP	EWS
PRIYESH GAJBHIYE	ANIL GAJBHIYE	ARCHANA GAJBHIYE	SCXOP	SCXOP
PRIYANSHU NIMAWAT	LALIT	SANGEETA	OBCXOP	OBCXOP
GIRISH TIWARI	MIRDUL TIWARI	MOHNI TIWARI	URXOP	EWS
DIPAK SONI	SHANTARAM SONI	ASHA SONI	OBCXOP	OBCXOP
GIRIRAJ PATIDAR	SHYAMLAL PATIDAR	LALITA PATIDAR	OBCXOP	OBCXOP
SHRADDHA SINGHAI	SUNIL	MEENA	URXF	EWS
MUSKAN SHIVHARE	RAKESH SHIVHARE	BABITA SHIVHARE	OBCXF	OBCXOP
NITIN SUMAN	SANTOSH SUMAN	BENI SUMAN	OBCXOP	OBCXOP

SHIVAM RAYKHERE	HARIOM RAYKHERE	SUNITA RAYKHERE	OBCXOP	OBCXOP
BHAVNA VISHWAKARMA	DHAN SINGH	MALTI VISHWAKARMA	OBCXF	OBCXOP
ROOPAM RODE	SANJAY RODE	SEEMA RODE	OBCXOP	OBCXOP
NEERAJ KALAWAT	BUNDEL SINGH KALAWAT	RANI KALAWAT	SCXOP	SCXOP
HIMANSHU SAHU	SURESH SAHU	BABLI SAHU	OBCXOP	OBCXOP
SUSHEEL KUSHWAHA	LALTA PRASAD	MANORAMA	OBCXOP	OBCXOP
PARAS SAHU	BRINDAVAN SAHU	LEELA VATI	OBCXOP	OBCXOP
KHUSHI LOKHANDE	RAVI LOKHANDE	KIRTI	SCXF	SCXOP
SHRUTI TALAJ	ISHWAR TALAJ	MANJU TALAJ	OBCXF	OBCXOP
RITIK AHIRWAR	PREM AHIRWAR	VANDANA AHIRWAR	SCXOP	SCXOP
DIKSHA BUNDELA	LAKHAN LAL BUNDELA	LEELAVATI BUNDELA	OBCXF	OBCXOP
SWAPNIL RAI	SANTOSH RAI	SUNITA RAI	OBCXOP	OBCXOP
POONAM SHARMA	KAMLESH	SHAKUN	URXF	EWS
RAHUL SHARMA	SANJAY SHARMA	NEETA SHARMA	URXOP	EWS

PRATEEK SILAWAT	PREM NARAYAN SILAWAT	RITA SILAWAT	SCNCCOP	SCXOP
GAYATRI PACHORE	KISHORE PACHORE	ANITA	SCXF	SCXOP
SONALI MANEKAR	SUKHDEV	URMILA	SCXF	SCXOP

## 17\_Research Projects, Consultancy Works

1. Number of projects carried out, funding agency, Grant received: 03
2. Publications (if any) out of research in last three years out of masters project: 10
3. Industry linkage: N/A
4. MoUs with Industries:


## Memorandum of Understanding


The Lakshmi Narain College of Technology - MCA, Bhopal (M.P.) and Ypsilon IT Solutions Pvt. Ltd., Indore (Madhya Pradesh), Jointly enter a Memorandum of Understanding for the Training, Project Collaboration, Workshops, Expertise Sharing and other allied Academic and Research activities on terms mutually agreeable to both.



### Lakshmi Narain College of Technology-MCA Bhopal

(AICTE Approved, e- Governed World Class Institution of M.P.)

  
Dr. Anupam Chouksey  
Secretary (LNCT Group)

  
Dr. Sanjay Bajpai  
Director, LNCT-MCA, Bhopal



Ypsilon IT Solutions Pvt. Ltd., Indore (Madhya Pradesh)

  
Mr. Pranay Parwal  
CEO

## Memorandum of Understanding

The Lakshmi Narain College of Technology - MCA, Bhopal (M.P.) and DataNutts IT Solutions, Bhopal (Madhya Pradesh), Jointly enter a Memorandum of Understanding for the Training, Project Collaboration, Workshops, Expertise Sharing and other allied Academic and Research activities on terms mutually agreeable to both.



### Lakshmi Narain College of Technology-MCA Bhopal

(AICTE Approved, e- Governed World Class Institution of M.P.)

Dr. Anupam Chouksey  
Secretary (LNCT Group)

Dr. Sanjay Bajpai  
Director, LNCT-MCA, Bhopal



### DataNutts IT Solutions, Bhopal (Madhya Pradesh)

Ms. Monika Joshi  
Director

# MEMORANDUM OF UNDERSTANDING (MoU)

BETWEEN

<<Lakshmi Narain College of Technology (MCA)(LNCT(MCA))>>

AND

<< Indeyes Infotech Pvt Ltd >>

This Memorandum of Understanding (hereinafter called as the 'MoU') is entered into on this the 27th Sept. 2021 by and between.

<< Lakshmi Narain College of Technology (MCA), Bhopal>>, the First Party represented herein by its Principal of Institution << Lakshmi Narain College of Technology (MCA)>>, And << Indeyes Infotech Pvt Ltd>>. The Second party, and represented herein by its Director <Mr Abhigyanam Giri>

WHEREAS:

A) First Party is a Higher Educational Institution named: << Lakshmi Narain College of Technology (MCA)>>.

B) First Party & Second Party believe that collaboration and co-operation between themselves will promote more effective use of each of their resources, and provide each of them with enhanced opportunities.

C) The Parties intent to cooperate and focus their efforts on cooperation within area of Skill Based Training, Education, Placement, Industrial Visit, Expert Lecture.

D) << Indeyes Infotech Pvt Ltd>>, - the Second Party is engaged in << Software development, Design, Manufacture & Sale of various types of microcontroller based development boards, iot kits, sensors & other accessories >>.

NOW THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES SET FORTH IN THIS MOU, THE PARTIES HERETO AGREE AS FOLLOWS:

## CLAUSE 1

### CO-OPERATION

- 1.1 Both Parties are united by common interests and objectives, and they shall establish co-operation.
- 1.2 First Party and Second Party co-operation will facilitate effective utilization of the intellectual capabilities.
- 1.3 The parties shall co-operate with each other and shall as promptly as is responsibly practical, relevant agreement.

## CLAUSE 2

### SCOPE OF THE MoU

- 2.1 Industrial Training & Visits: Industry and Institution interaction will provide an insight into the latest developments / requirements of the industries; the Second Party to permit the Faculty and Students of the

**Lakshmi Narain College of Technology(MCA) (LNCT(MCA)), Bhopal**  
**AND**  
**Sofcon India Pvt. Ltd.**

This Memorandum of Understanding (hereinafter called as the 'MoU') is entered into on this the 20<sup>th</sup> day of September 2021. by and between.

**Lakshmi Narain College of Technology (MCA), Bhopal** the First Party represented herein by its Director **Lakshmi Narain College of Technology (MCA), Bhopal** and **Sofcon India Pvt. Ltd.** The Second party, and represented herein by its Centre Head Mr. Chetan Chouhan

WHEREAS:

- A) First Party is a Higher Educational Institution named: **Lakshmi Narain College of Technology (MCA), Bhopal,**
- B) First Party & Second Party believe that collaboration and co-operation between themselves will promote more effective use of each of their resources, and provide each of them with enhanced opportunities.
- C) The Parties intent to cooperate and focus their efforts on cooperation within area of Skill Based Training, Education, Placement, Industrial Visit, Expert Lecture.
- D) **Sofcon India Pvt. Ltd.,** - the Second Party is engaged in skill development.

NOW THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES SET FORTH IN THIS MOU, THE PARTIES HERETO AGREE AS FOLLOWS:

**CLAUSE 1**

**CO-OPERATION**

- 1.1 Both Parties are united by common interests and objectives, and they shall establish co-operation.
- 1.2 First Party and Second Party co-operation will facilitate effective utilization of the intellectual capabilities.
- 1.3 The parties shall co-operate with each other and shall as promptly as is responsibly practical, relevant agreement.

**CLAUSE 2**

**SCOPE OF THE MoU**

- 2.1 Industrial Training & Visits: Industry and Institution interaction will provide an insight into the latest developments / requirements of the industries; the Second Party to permit the Faculty and Students of the First Party to visit its group companies and also involve in Industrial Training Programs for the First Party. This will provide confidence & smooth transition for students work. Also the Second party may register on the AICTE Internship Portal for the benefit of students.

## MEMORANDUM OF UNDERSTANDING (MoU)

BETWEEN

**Lakshmi Narain College of Technology (MCA)**

AND

**Technical Systems, 238 Zone-II, MP Nagar, Bhopal**

This Memorandum of Understanding (hereinafter called as the 'MoU') is entered into on this the 22 nd day of September 2021 by and between,

**Lakshmi Narain College of Technology (MCA), Bhopal**, the First Party represented herein by its Principal of Institution **Lakshmi Narain College of Technology (MCA), Bhopal**. The Second party, and represented herein by its Dr. Anand Jain, Proprietor, **Technical Systems, Bhopal**

WHEREAS:

A) First Party is a Higher Educational Institution named: **Lakshmi Narain College of Technology (MCA)**

B) First Party & Second Party believe that collaboration and co-operation between themselves will promote more effective use of each of their resources, and provide each of them with enhanced opportunities.

C) The Parties intent to cooperate and focus their efforts on cooperation within area of Skill Based Training, Education, Placement, Industrial Visit, Expert Lecture.

D) **Technical Systems**, the Second Party is engaged in Test & Measuring, Scientific and Laboratory Equipments..

NOW THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES SET FORTH IN THIS MOU, THE PARTIES HERETO AGREE AS FOLLOWS:

### CLAUSE 1

### CO-OPERATION

- 1.1 Both Parties are united by common interests and objectives, and they shall establish co-operation.
- 1.2 First Party and Second Party co-operation will facilitate effective utilization of the intellectual capabilities.
- 1.3 The parties shall co-operate with each other and shall as promptly as is responsibly practical, relevant agreement.



**DIRECTOR**  
**Lakshmi Narain College of Technology (MCA)**  
**BHOPAL**



**TECHNICAL SYSTEMS**  
**Bhopal**

**MEMORANDUM OF UNDERSTANDING (MoU)**

**BETWEEN**

**Lakshmi Narain College of Technology (MCA) (LNCT(MCA)), Bhopal  
AND  
VEDISOFT Software and Education Services Pvt. Ltd., Bhopal**

This Memorandum of Understanding (hereinafter called as the 'MoU') is entered into on this the 22<sup>nd</sup> day of September 2021 by and between.

**Lakshmi Narain College of Technology (MCA) , Bhopal**, the First Party represented herein by its Director of Institution **Lakshmi Narain College of Technology (MCA), Bhopal** , And **VEDISOFT Software and Education Services Pvt. Ltd., Bhopal** . The Second party, and represented herein by its Director Rohit Ahuja,

**WHEREAS:**

A) First Party is a Higher Educational Institution named: **Lakshmi Narain College of Technology(MCA) , Bhopal**,

B) First Party & Second Party believe that collaboration and co-operation between themselves will promote more effective use of each of their resources, and provide each of them with enhanced opportunities.

C) The Parties intent to cooperate and focus their efforts on cooperation within area of Skill Based Training, Education, Placement, Industrial Visit, Expert Lecture.

D) **VEDISOFT Software and Education Services Pvt. Ltd., Bhopal** - the Second Party is engaged in **Software and Education**.

NOW THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES SET FORTH IN THIS MOU, THE PARTIES HERETO AGREE AS FOLLOWS:

**CLAUSE 1**

**CO-OPERATION**

- 1.1 Both Parties are united by common interests and objectives, and they shall establish co-operation.
- 1.2 First Party and Second Party co-operation will facilitate effective utilization of the intellectual capabilities.
- 1.3 The parties shall co-operate with each other and shall as promptly as is responsibly practical, relevant agreement.

**CLAUSE 2**

**SCOPE OF THE MoU**

2.1 Industrial Training & Visits: Industry and Institution interaction will provide an insight into the latest developments / requirements of the industries; the Second Party to permit the Faculty and Students of the First Party to visit its group companies and also involve in Industrial Training Programs for the First

## 18\_Best Practices Adopted

1. **Name of Institution:** Lakshmi Narain College of Technology (MCA), Bhopal
2. **Title of Best Practice:** Mentor System
3. **Author:** Dr. Sanjay Bajpai (9425642238)
4. **Background of Best Practice:** Basic purpose of mentor system is to monitor and record the overall activities of students and help in solving their problems. There are many problems which students cannot share with everyone. Some of the problems can be shared with parents, some of them with friends and some of them with teachers. The mentor is such a person with whom students can share their all types of problems. Parents are updated regularly of their ward about their achievements, attendance, academic performance and shortcomings also, if any, so that parents can feel proud in case of positive feedback and can guide their ward to improve in case of negative feedback. Students are guided and motivated to take part in curricular activities of their interest. Lacunas of students are identified by regular contact and it is tried to overcome with those lacunas. Generally, good students keep on participating in all the activities and keep on improving further and other students who are lagging behind keeps on rolling back and do not try to come forward due to hesitation and shyness. Such students are identified by the mentors and forced to participate in activities by motivating and convincing. Extra classes and extra activities are organized as suggested by the mentor for the identified students to bring them at par with other students.
5. **Challenges in Implementation:** Some of the students do not share their correct home address and/or correct mobile numbers of their parents. Have the fear that they will be scolded by their parents and do not want to diminish their image in-front of their parents. Some of the students are shy in nature or introverted and do not open-up easily with the mentor, so it becomes difficult to know lacunas of students.
6. **Ways of Implementation:** One faculty member is made the mentor of one class in which he is teaching. The mentor keeps the record of attendance of all the students and informs to parents of each student every fortnight about their attendance so that parents are acquainted with the attendance and mentor can also know the valid reasons for short attendance. Mentor acts as a friend, philosopher, and a teacher to the students. He behaves with the students in such a way so that mentor gains the confidence of students and they can share all their problems to him/her.

7. **Outcome of Best Practices:** Students get a SPOC (Single Point of Contact) to get solve their problems. Students also have a fear that they are being monitored so they think before doing any wrong thing. Students get disciplined and also motivated to participate in curricular activities. All the students get almost at equal level and no one is far behind of other students. Parents are also relaxed and convinced that their ward is safe and have faith that they will be informed immediately of any good/bad wrong doing.