

# MANDATORY DISCLOSURE

## OF

### JAWAHARLAL INSTITUTE OF TECHNOLOGY (M.C.A.)

### BORAWAN

AS PER AICTE ,NEW DELHI  
( ENGINEERING COURSES )

“The information has been provided by the concerned institution and the onus of authenticity lies with the institution and not on AICTE.”

#### 1. NAME OF THE INSTITUTION

Address including telephone, Fax, e-mail.

JAWAHARLAL INSTITUTE OF TECHNOLOGY

“Vidya Vihar”, Borawan Tehsil Kasrawad Distt. Khargone

Ph. (07285) 277710,277888 Fax (07285)277710

Email: [principaljitborawan1@gmail.com](mailto:principaljitborawan1@gmail.com) ,

Home page: [www.jitechno.com](http://www.jitechno.com)

#### 2. Name and address of the Trust /Society / Trustee

Name of Trust :

JAWAHARLAL NEHRU CHARITABLE EDUCATIONAL TRUST

“Vidhya Vihar” , Borawan Tehsil Kasrawad Distt. Khargone

Ph. (07285) 277710,277888 Fax (07285)277710

Email: [principal\\_jit@rediffmail.com](mailto:principal_jit@rediffmail.com) ,

Details of Trust :

Sr.No	Name	Designation	Mobile Number
1	Arun Yadav	Chairman	9425087222
2	Ramesh Chandra Sharma	Member	9926600343
3	Gopal Patel	Member	9425089074
4	Mrs Damyanti Bai Yadav	Member	9826077725
5	Leeladhar Bhattad	Secretary	9425333350
6	Mrs Namrata Yadav	Member	9425087222

### **3. NAME & ADDRESS OF THE DIRECTOR/PRINCIPAL**

Principal – Dr. Atul Upadhyay

Address: Jawaharlal Institute of Technology, “Vidya Vihar” Borawan

Tehsil: Kasrawad Distt.: Khargone

Ph.:(07285) 277888, 277710 ( O )

Fax: (07285)277710

Email: [principal\\_jit@rediffmail.com](mailto:principal_jit@rediffmail.com)

### **4. Name of the Affiliating University**

RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA , BHOPAL(MP)

Airport By pass road, Gandhi Nagar, Bhopal - 36

### **5. GOVERNANCE**

Sr.No	Name	Designation	Background	Mobile Number
1	Arun Yadav	Chairman	Ex.President MPCC Ex Minister Govt.of India	9425087222
2	Ramesh Chandra Sharma	Member	Social Worker	9926600343
3	Gopal Patel	Member	Social Worker	9425089074
4	Mrs Damyanti Bai Yadav	Member	Social Worker	9826077725
5	Leeladhar Bhattad	Secretary		9425333350
6	Mrs Namrata Yadav	Member	Social Worker	9425087222

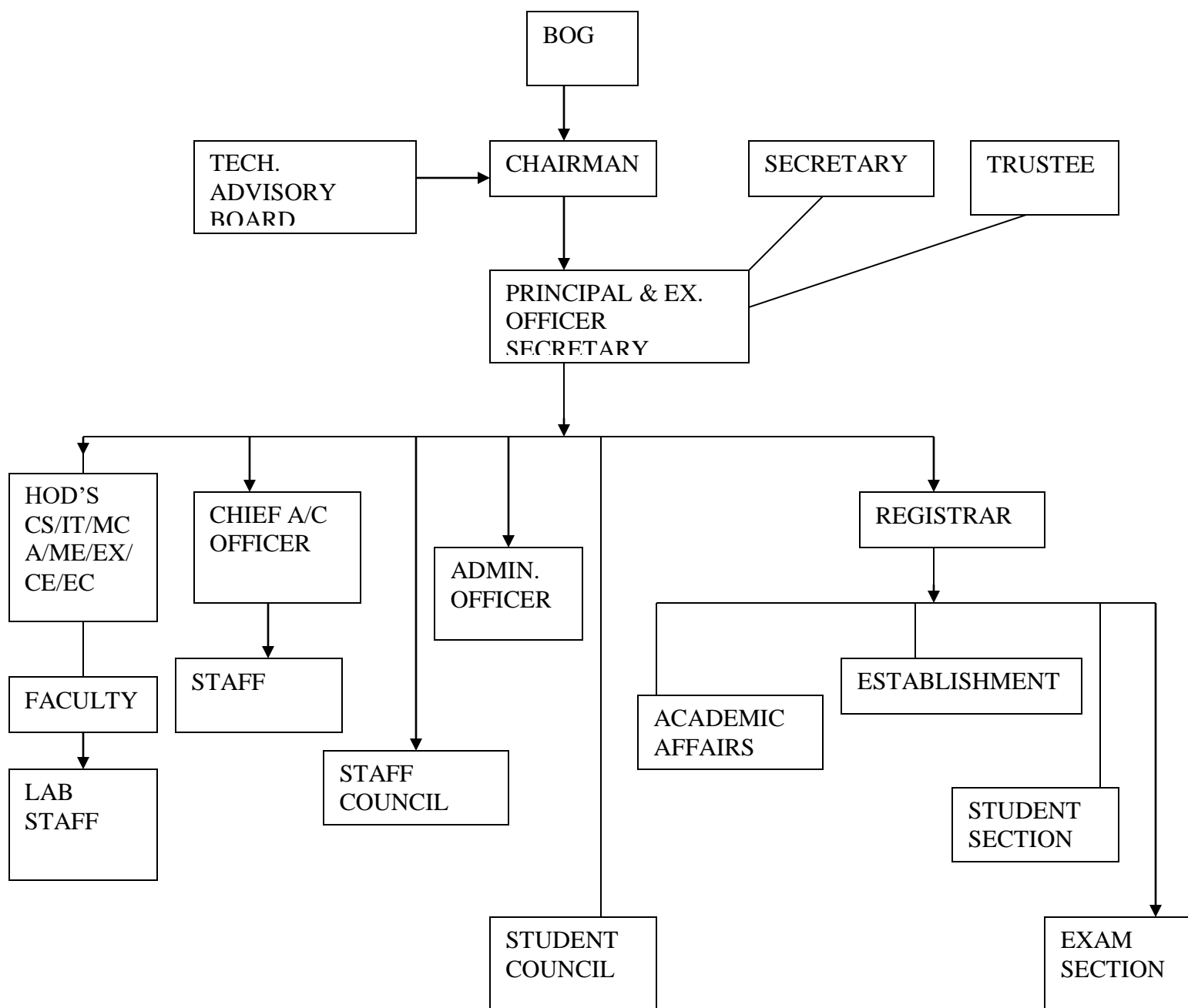
❖ **Members of Academic Advisory Body**

- |             |   |   |
|-------------|---|---|
| 1. Chairman | - | Principal JIT, ( Ex-officio )                           |
| 2. Member   | - | Dean Academic ( Ex-officio )                            |
| 3. Member   | - | Dr.Piyush Trivedi<br>Ex.V.C., RGPV, Bhopal              |
| 4. Member   | - | Director of Technical Education, MP Bhopal              |
| 5. Member   | - | Dr.Priyanka Jain<br>Educationist                        |
| 6. Member   | - | Dr. R.S. Tare<br>Professor , S.G.S.I.T.S. Indore M.P.   |
| 7. Member   | - | Dr.Sunil K.Somani<br>V.C., Mediacaps University, Indore |

❖ **Frequency of the Board Meetings and Academic Advisory Body :**

THREE MEETING / YEAR

❖ Organizational chart and processes



❖ **Nature and Extent of involvement of faculty and students in academic affairs/ improvements .**

Faculty & students are involved in various academic and administrative affairs as per the democratic and amicable way. There are Staff Council and student council for the representation and suggestions in various fields.

❖ **Mechanism/Norms & Procedure for democratic/good Governance**

All the bodies of Institute & every member perform in the interest of the institute. The organization work in hierarchy as per the organizational chart and norms of the Institute. It leads to the good governance and avoid delays. It also helps to maintain a disciplined environment.

❖ **Student Feedback on Institutional Governance/faculty performance**

Institute has a student feed back system in a confidential way regarding institutional governance and faculty performance at the end of every semester. Also through teacher guardian scheme regular performance of a faculty member is also assessed.

❖ **Grievance redressal mechanism for faculty, staff and students**

Through HOD / Councils

❖ **Establishment of Anti Ragging Committee :**

Anti Ragging Committee is formed as per AICTE guideline

❖ **Establishment of Online Grievance Redressal Mechanism**

Through online portal

❖ **Establishment of Grievance Redressal Committee in the Institution and appointment of OMBUDSMAN by the University.**

YES

❖ **Establishment of Internal Complaint Committee (ICC)**

YES as per AICTE guidelines

❖ **Establishment of Committee for SC /ST**

YES as per AICTE guidelines

❖ **Internal Quality Assurance Cell**

YES as per AICTE guidelines

## 6. PROGRAMMES

- AICTE Approved Programmes

### M.C.A. (2 YEARS)

S.N.	Branch	No of Seats	Year of Approval
1.	M.C.A.	45	2000

- For each Programme the following details are to be given

### M.C.A.

Name of the Programme	Seats	Course duration	Cut off marks for admission	Fees / year
M.C.A.	45	2 YDC	As per AICTE and DTE MP Norms	Tuition fee Rs 42000/- Caution Money (Refundable) Rs. 1500/- Bus. Fee Rs.12000/- Hostel fees Rs 12000/- Mess 1800 per Month

- Placement Facilities

Students from batch 2020 and 2021 has been placed. Many students are working in TCS, Infosys, HCL, and Wipro like MNC's from this institute. List of Companies for current year placements.

1	Byju's	10LPA	(All Branches)
2	Xento System Pune	3.2 LPA	CS/IT/MCA
3	Impetus Indore	4.0 LPA	CS/IT/MCA
4	Infosys	5 LPA & 3.2LPA	CS/IT
5	TCS	3.32 LPA	All Branch
6	Wipro	3.2LPA	CS/IT/MCA
	Innoeye Indore	3.2 LPA	All Branch
8	HCL	3.2 LPA	All Branch
9	Systemonex Bhopal	1.8 LPA	CS/IT/MCA
10	ISC Software Bhopal	3.01 LPA	CS/IT
11	Cubexo Software	1.8 LPA	

	Solution		
12	Enzigma Pune	3 LPA	CS /IT/ MCA
13	Potomac Open Campus Hiring	3.75 LPA	CS /IT/ MCA
14	M/S Naggaro	3.50 LPA	CS IT
15	Ksolves Indore	3	CS/IT/MCA
16	V2Solution (RGPV)	3.15 LPA	CS /IT/ MCA
17	CIS Indore	2.57	CS/IT/MCA
18	Think Future Bhopal	3.1	CS IT MCA
19	Chapter 247 Indore	2.45	CS IT MCA
20	Qubit AI Close Internship Hiring	3.0 LPA	CS IT MCA
21	InfoBeans Open	2.5 LPA	CS IT
22	Altimatrix	5 LPA	CS EC
23	Capgemini		CS/IT
24	Rishishwar Contruction Pvt. Ltd.	2.4 LPA	CE Diploma+ B.Tech.
25	Dhoot Transmission Aurangabad	1.5 LPA	ITI+Diploma + B.Tech ME/EX
26	Kinetic Taigene Pvt. Ltd.	1.56 LPA	Mechanical
27	Bhanwariyan Infra Pvt. Ltd.	1.44 LPA	EX +Civil
28	Eicher Pitampur Open Campus Hiring	1.56 LPA	Mechanical
29	Anand Group for Diploma batch 2020	2.4 LPA	Diploma ALL
30	VE Commercial Vehicles Limited ETB Pithampur	1.8 LPA	ME/EX/ITI
31	Volan Software and Technologies	2.4 LPA	CS/IT+ AMCAT Exam Qualified
32	EXTERN LABS	2.4 LPA	CS -IT MCA
33	KrishWeb Technologies Pvt. Ltd	1.8-4.2 LPA	CS -IT MCA
34	WebOsmotic	1.8 - 3 LPA	CS -IT MCA
35	Zone Media	3-4.2 LPA	CS -IT MCA
36	Zluck Solutions	1.8 LPA	CS -IT MCA
37	OpsHub Inc	07-08LPA	CS -IT MCA
38	CoodeIT Solutions Pvt Ltd	2.4-4LPA	CS -IT MCA
39	Provis Technologies Pvt. Ltd	2.4-5.2 LPA	CS -IT MCA
40	Multiverse Solutions	2.2 - 4 LPA	CS -IT MCA

	Private Limited		
41	Bridge Group Gurugram	3.5 LPA	CS/IT/MCA
42	Trivima solutions Pvt ltd	1.2	EC
43	Rudransh Associates	0.9-1.4	All Branch

## 7. FACULTY

### ❖ Branch wise faculty members:

M.C.A. - 05

### • Permanent Faculty: Student Ratio

05 : 80 i.e. 1 : 16



## 8. PROFILE OF DIRECTOR/PRINCIPAL



1. Name :- Dr. Atul Upadhyay
2. Date of Birth :- 23/06/1969
3. Educational Qualification:-
  - (i) M.Sc. Electronics & Communication.
  - (ii) Ph.D. Solid State Physics
  - (iii) M.B.A.
4. Work Experience :- ( Total 28 years )
  - (a) Teaching & Research :- Around 23 years.
  - (b) Principal/Directorship : Around 14 Yrs As Principal / Directorship of Engineering

### OTHERS :

- (a) Membership of Professional Bodies  
Board of Studies Member in RGPV, Bhopal  
ISTE Chapter

### . Area of Specializations

- (i) Solid State Physics.
- (ii) Electronics & Communication.

### 6. Subjects taught at Under Graduate Level

- (i) Applied Physics.
- (ii) Basic Electronics
- (iii) Material Science

### Post Graduate Level:-

- (i) Nuclear Physics.
- (ii) Modern Physics.
- (iii) Semiconductors.

### 7. Research guidance NIL

No. of papers published in  
National Level :- 07  
International Level :- 03

### 8. Projects Carried out :-

UGC project during PhD

### 9. Patents :- Nil

### 10. Technology Transfer :- Nil

### 11. Research Publications:

No. of papers published in

National Level :- 07  
International Level :- 03

\* Duration of Employment at this Institution.

Around 24 year (At present working as Principal)

12. No. of Books published with details NIL

## 9. FEE

### ❖ Details of fee, as approved by State fee Committee, for the Institution.

Sr. No.	Details	Amount
1.	Tuition Fee (MCA)	42000.00 (Per Year)
2.	Caution Money (Refundable)	1500.00 (Only 1 yr)
3.	Hostel Fees	12000.00 (Per Year)
4.	Hostel Caution Money	1500.00 (Only 1 yr)
5.	Mess Fees	1800.00 (Per Month)
6.	Bus Fees	12000.00 (Per Year)

### ❖ Time schedule for payment of fee for the entire programme.

SEMESTER WISE

### ❖ No. of Fee waivers granted with amount and name of students.

### ❖ Number of scholarship offered by the institute, duration and amount

### ❖ Criteria for fee waivers/scholarship.

1. The criteria for waivers in fee only real brothers & sisters or Brother / Sister are eligible to get Rs. 5,000/- concession in the college fees per year for either of the two.

❖ **Estimated cost of boarding and Lodging in Hostels.**

- |                  |                   |
|------------------|-------------------|
| 1. Caution Money | 1500/- (One Time) |
| 2. Room Rent     | 12000/- per Year  |
| 3. Mess Fees     | 1800/- per Month  |

## 10. ADMISSION

❖ **Number of seats sanctioned with the year of approval.**

**M.C.A.**

S.N.	Branch	No of Seats	Year of Approval
1.	M.C.A.	45	2000

❖ **Number of students admitted under various categories each year in the last three years.**

**M.C.A.**

S.N.	Branch	2018-19	2019-20	2020-21
1.	M.C.A.	32	45	41

## 11. ADMISSION PROCEDURE

❖ **Mention the admission test being followed, name and address of the Test Agency and its URL (website).**

Admission on Graduation Basis as per DTE MP norms.

URL : <https://dte.mponline.gov.in>

❖ **Number of seats allotted to different Test Qualified candidates separately [AIMCET/CET (State conducted test/University tests)/Association conducted test]**  
**AS PER GOVERNMENT NORMS**

## 12. CRITERIA AND WEIGHTAGES FOR ADMISSION

**AS PER GOVERNMENT NORMS**

❖ **Mention the minimum level of acceptance, if any.**  
**AS PER GOVERNMENT NORMS**

❖ **Mention the cut-off levels of percentage & percentile scores of the candidates in the admission test for the last three years.**  
**AS PER GOVERNMENT NORMS**

**13. LIST OF APPLICANTS**

- ❖ List of candidates whose applications have been received along with percentile/percentage score for each of the qualifying examination in separate categories for open seats. List of candidates who have applied along with percentage and percentile score for Management quota seats.

NOT APPLICABLE

**14. RESULTS OF ADMISSION UNDER MANAGEMENT SEATS/VACANT SEATS**

NOT APPLICABLE

- ❖ Score of the individual candidates admitted arranged in order of merit.

NOT APPLICABLE

- ❖ List of candidates who have been offered admission.

NOT APPLICABLE

- ❖ Waiting list of the candidates in order of merit to be operative from the last date of joining of the first list candidates.

NOT APPLICABLE

- ❖ List of the candidates who joined within the date, vacancy position in each category before operation of waiting list.

NOT APPLICABLE

## **15. INFORMATION ON INFRASTRUCTURE AND OTHER RESOURCES AVAILABLE**

- **Number of Classrooms and size of each**  
02 Numbers of Average Size 75.00 Sq.meter
- **Number of Tutorial rooms and size of each**  
01 Numbers of Average Size 50.00 Sq.meter
- **Number of laboratories and size of each**  
02 Numbers of Laboratories having Average Size 80.16 Sq.meter
- **Number of Computer Centres with capacity of each**  
Labs are furnish with 550 MBPS Internet Facility  
Total        -        45 Computers with latest configuration

### **Central Examination Facility, Number of rooms and capacity of each.**

21 Rooms and 1350 students capacity at a time with 02 students on each desk.

- **Barrier Free Built Environment for disable and elderly persons**  
YES
- **Hostel Facility**  
YES  
02 Boys Hostel and 01 Girls Hostel Available in Campus

**LIBRARY**

Sl. No	Course(s)	Number of titles of the books	Number of volumes	Journals	
				National	International
01	M.C.A.	416	4568	28	

**List of Equipment****M.C.A.**

S.No.	Item	Qty
01	Lenovo INTEL CORE i3 8 thGen. 4 GB 500GB HDD ALL IN ONE	30
02	INTEL CORE I3 4GB 1 TB HDD	15

## LIST OF EXPERIMENTAL SETUP IN EACH LABORATORY/WORKSHOP

### M.C.A.

#### List Of Lab experiment

#### SUB: COMPUTER GRAPHICS & MULTIMEDIA

1. Write a program to perform DDA Algorithm for line.
2. Write a program to perform a BRESENHEMS Algorithm for line
3. Write a program to perform a Bresenhems Algorithm for a Circle.
4. Write a program to perform a Midpoint Circle Algorithm for Circle.
5. Write a program to Translate an object(Ractangle, Triangle) in 2D & 3D.
6. Write a program to Rotate an object(Ractangle, Triangle) in 2D & 3D by a given Angle.
7. Write a program to Scale an object(Ractangle, Triangle) in 2D & 3D by given Scaling factors in x and y direction.
8. Write a program to Reflection of an object (Ractangle, Line Triangle ) in 2D & 3D about
  - A. x axis
  - B. y axis
  - C. a line
9. Write a program to draw a Beizer curve.
10. Write a program to draw a Bspline curve.
11. Write a program to clip a point.
12. Write a program to clip a line using different Algorithm.
13. Write a program to clip a polygon using Algorithm.
14. Perform a animation of an object using Flash.

## LIST OF EXPERIMENT

SUBJECT-CP(iii) (VB/VC++)

NOTE-ALL EXPERIMENTS MUST BE WELL COMMENTED.

- 1 Write a program to check the events like click, mousemove, Mousedown etc.
- 2 Write a program to add two no's(take i/p from the user and Display message)
- 3 Write to illustrate the use of option implicit & option explicit.
- 4 Write a program to perform the work of calculator.
- 5 Make a database connection with Adodc,DataControl,Rdodc.
- 6 Write a program add ,delete, & copy items in combobox & List box
- 7 Write a program by using the checkbox & option button
- 8 Write a program to illustrate the use of Timer control.
- 9 Write a program that contains the use of all the math & String function.
- 10 Make a function & subroutine
- 11 Make a data report by using dataEnvironment.
- 12 Write a short note on use of each control.
- 13 Make a use of local window, watch window & immediate Window.
- 14 Explain IDE.

### Data structure

1. Write a program to find Fibonacci series.
2. Write a program to find Factorial of given number.
3. Write a program to form a pyramid  
1  
12  
123  
1234  
12345
4. Write a program to form a triangle.  
\*  
\* \* \*  
\* \* \* \* \*  
\* \* \* \* \* \* \*
- 5 Write a program to multiply of two given matrices.
- 6 Write a program to find the length of given string.
- 7 Write a program to concatenation of a given string.
- 8 Write a program to insert & delete an element into an array.
- 9 Write a program to form a linked list.
- 10 Write a program to swap the two variables using pointer.
- 11 Write a program to perform a Push & Pop into the stack
- 12 Write a program to perform a Queue & perform Insertion Deletion into the Queue.



- 13 Write a program for Bubble Sorting.
- 14 Write a program to Perform Selection Sort.
- 15 Write a program for Quick Sorting.

## LIST OF EXPERIMENT

SUBJECT : DBMS

NOTE-ALL EXPERIMENTS MUST BE WELL COMMENTED.

1. Write SQL statement to Create a table.
2. Write SQL statement to Insert values in the table.
3. Write SQL statement to Delete the table.
4. Write SQL statement to Update the table.
5. Write SQL statements that use Group by, Order by and Where clause.
6. Write SQL statements that use Date functions.
7. Write SQL statements that use Arithmetic, String functions.
8. Write SQL statements by using Natural Join.
9. Write SQL statements by using Equi Join.
10. Write SQL statements by using Self Join.
11. Case study of Oracle.

## OPERATING SYSTEM

- Q.1 Enter 5 processes & their arrival times & then schedule them according to FCFS scheduling algorithm.
- Q.2 Enter 5 processes & their burst-time & then print them according to SJF scheduling algorithm.
- Q.3 Enter 5 processes, their burst-time at a time quantum of 4 ms. Then print their sequence according to round-robin scheduling algorithm.
- Q.4 Enter 5 processes & their burst-time then display a gantt chart for FCFS scheduling algorithm using graphics.
- Q.5 Write a program that ensures, after allocation of needed resources to a process system remain in safe state using banker's algorithm.
- Q.6 What are the features of different operating systems you have studied.

Practical Questions

Subject : DBMS

Note: All Experiments should be well commented.

1. Write SQL Statement to create Employee and Dept table.
  2. Write SQL Statement to set relation between Employee and Dept table.
  3. Write SQL Statement to insert values in Employee and Dept table.
  4. Write SQL Statement to update values in Employee and Dept table.
  5. Write SQL Statement to delete records from Employee and Dept table.
  6. Write SQL Statement to find average salary of all the employees in each dept.
  7. Write SQL Statement to find all the employees that have salary greater than 8000.
  8. Write SQL Statement to display all the employee names with their department names.
  9. Write SQL Statement to display information about all employees with their department details.
  10. Write SQL Statement to find the employee whose salary is greater than average salary of his department.
- 
1. Write a program to implement FCFS Scheduling Algorithm.
  2. Write a program to implement SJF Scheduling Algorithm.
  3. Write a program to implement Round-Robin Scheduling Algorithm.
  4. Write a program that displays Gantt's chart of given processes for FCFS Scheduling Algorithm using graphics programming.
  5. Write a program to implement Banker's Algorithm.
  6. Case study of different Operating Systems like DOS, Windows, Linux.
    1. Simulate CPU scheduling algorithm using Queuing System.
      - A. FCFS(First come first serve)
      - B. SJF (Shortest job first)
      - C. Priority Algorithm
    2. Simulate multiplexer/concentrator using queuing system
    3. Simulate congestion control algorithm using queuing system.
    4. Simulate Disk Scheduling Algorithm.
    5. Prepare a model & write a program for inventory control.
    6. Prepare a model & write a program for population control.
    7. Prepare a model & write a program for energy management.

OPERATING SYSTEMS

### ASSIGNMENT-1

- Q.1 Define Operating System & its types.
- Q.2 What is the main advantages of multi-programming?
- Q.3 Write Short notes on :-
- Basic concepts of CPU scheduling.
  - Scheduling criteria.
  - Scheduling algorithm
  - Storage Structure
  - System Calls
- Q.4 Consider the following set of processes with the length of the CPU-Burst time given in milliseconds: -

PROCESS	BURST-TIME	PRIORITY
P1	10	3
P2	1	1
P3	2	3
P4	1	4
P5	5	2

The processes are assumed to have arrived in the order P1, P2, P3, P4, P5 all at time 0.

- Draw four gantt charts illustrating the execution of these processes using FCFS, SJF, a non-preemptive priority (a smaller priority no. implies a higher priority) & RR (quantum=1) scheduling.
- What is the waiting time of each process for each of the scheduling algorithm in part a.

### ASSIGNMENT-2

- Q.1 Define the term process and it's various steps with diagram.
- Q.2 Describe process scheduling.
- Q.3 How co-operating processes can communicate with each other describe its methods.
- Q.4 Explain bakery algorithm.
- Q.5 What do you understand by busy-waiting & what is it's solution?

Q.6 Consider the following snapshot of a system

	Allocation	Max	Available
	A B C D	A B C D	A B C D
P0	0 0 1 2	0 0 1 2	1 5 2 0
P1	1 0 0 0	1 7 5 0	
P2	1 3 5 4	2 3 5 6	
P3	0 6 3 2	0 6 5 2	
P4	0 0 1 4	0 6 5 6	

Answer the following questions using the banker's algorithm:-

- What is the content of the matrix need?
- Is the system in a safe state?
- If a request from process P1 arrives for (0,4,2,0) can the request be granted immediately.

Q.7 Describe the methods for handling deadlock.

## PRACTICAL QUESTIONS

### OPERATING SYSTEM

- Enter 5 processes & their arrival times & then schedule them according to FCFS scheduling algorithm.
- Enter 5 processes & their burst-time & then print them according to SJF scheduling algorithm.
- Enter 5 processes, their burst-time at a time quantum of 4 ms. Then print their sequence according to round-robin scheduling algorithm.
- Enter 5 processes & their burst-time then display a gantt chart for FCFS scheduling algorithm using graphics.
- Write a program that ensures, after allocation of needed resources to a process system remain in safe state using banker's algorithm.
- What are the features of different operating systems you have studied.

### COMPUTER NETWORK– V

- Explain different hardware components attached to motherboard.
- Define Networking and its types.

- Q.3 Describe various functions of each layer of OSI model.
- Q.4 Describe TCP/IP protocol.
- Q.5 What are the various tools used for making & testing cables.
- Q.6 Explain Transmission media.
- Q.7 What are different DOS commands used for installation & to support files of different Operating Systems.
- Q.8 Explain the different networking terms such as routers, repeaters, gateways & bridges.
- Q.9 Define Intranet, Extranet, DNS & Proxy Server.
- Q.10 Differentiate Hub & Switch also compare FAT & NTFS.
- Q.11 What are the installation steps for different operating systems like linux, windows98, xp.

## SOFTWARE ENGINEERING LAB

Paper: Software Engineering Lab Tool

Required: Rational Rose Enterprise Edition List of Experiments:

1. Write down the problem statement for a suggested system of relevance.
2. Do requirement analysis and develop Software Requirement Specification Sheet (SRS) for suggested system.
3. To perform the function oriented diagram: Data Flow Diagram (DFD) and Structured chart.
4. To perform the user's view analysis for the suggested system: Use case diagram.
5. To draw the structural view diagram for the system: Class diagram, object diagram.
6. To draw the behavioral view diagram : State-chart diagram, Activity diagram
7. To perform the behavioral view diagram for the suggested system : Sequence diagram, Collaboration diagram
8. To perform the implementation view diagram: Component diagram for the system.
9. To perform the environmental view diagram: Deployment diagram for the system.
10. To perform various testing using the testing tool unit testing, integration testing for a sample code of the suggested system.

## **THEORY OF COMPUTATION**

1. Design a Program for creating machine that accepts three consecutive one.
2. Design a Program for creating machine that accepts the string always ending with 101.
3. Design a Program for Mode 3 Machine
4. Design a program for accepting decimal number divisible by 2.
5. Design a program for creating a machine which accepts string having equal no. of 1's and 0's.
6. Design a program for creating a machine which count number of 1's and 0's in a given string.
7. Design a Program to find 2's complement of a given binary number.
8. Design a Program which will increment the given binary number by 1.
9. Design a Program to convert NDFA to DFA.
10. Design a Program to create PDA machine that accept the well-formed parenthesis.
11. Design a PDA to accept WCWR where w is any string and WR is reverse of that string and C is a Special symbol.
12. Design a Turing machine that's accepts the following language  $a^n b^n c^n$  where  $n > 0$

## **LAB (LINUX)**

1. To Study basic & User status Unix/Linux Commands.
2. Study & use of commands for performing arithmetic operations with Unix/Linux.
3. Create a file called wlcc.txt with some lines and display how many lines, words and characters are present in that file.
4. Append ten more simple lines to the wlcc.txt file created above and split the appended file into 3 parts. What will be the names of these split files? Display the contents of each of these files. How many lines will be there on the last file?
5. Given two files each of which contains names of students. Create a program to display only those names that are found on both the files.
6. Create a program to find out the inode number of any desired file.
7. Study & use of the Command for changing file permissions.
8. Write a pipeline of commands, which displays on the monitor as well as saves the information about the number of users using the system at present on a file called usare.ux.
9. Execute shell commands through vi editor.
10. Installation, Configuration & Customizations of Unix/Linux.
11. Write a shell script that accepts any number of arguments and prints them in the reverse order.
12. Write a shell script to find the smallest of three numbers that are read from the keyboard.
13. Write a shell script that reports the logging in of a specified user within one minute after he/she logs in. The script automatically terminates if the specified user does not login during a specified period of time.
14. Installation of SAMBA, APACHE, TOMCAT.
15. Implementation of DNS, LDAP services,
16. Study & installation of Firewall & Proxy server

## **LAB (PYTHON)**

1. To write a Python program to find GCD of two numbers.
2. To write a Python Program to find the square root of a number by Newton's Method.
3. To write a Python program to find the exponentiation of a number.
4. To write a Python Program to find the maximum from a list of numbers.
5. To write a Python Program to perform Linear Search
6. To write a Python Program to perform binary search.
7. To write a Python Program to perform selection sort.
8. To write a Python Program to perform insertion sort.
9. To write a Python Program to perform Merge sort.
10. To write a Python program to find first n prime numbers.
11. To write a Python program to multiply matrices.
12. To write a Python program for command line arguments.
13. To write a Python program to find the most frequent words in a text read from a file.
14. To write a Python program to simulate elliptical orbits in Pygame.
15. To write a Python program to bouncing ball in Pygame.

## **CLOUD COMPUTING**

1. Installation and configuration of Hadoop/Euceliptus etc.
2. Service deployment & Usage over cloud.
3. Management of cloud resources.
4. Using existing cloud characteristics & Service models .
5. Cloud Security Management. 6. Performance evaluation of services over cloud .



## Computing Facilities

- \* Internet Bandwidth - 550 MBPS
- \* Number and Configuration of System - 45 Latest Configuration
- \* Total number of System connected with LAN : YES 45
- \* Total number of System connected with WAN : NO
- \* Major software packages available

Major software packages available

S.N.	NAME OF SOFTWARE	VERSION
1.	M.S. Windows 95	95
2.	MS Visual Basic 5.0	5.00
3.	M.S. Visual Studio 6.0	6.0
4.	Fortran 77 DOS	
5.	MS office 97	97
6.	Windows ME	
7.	Macromedia Dreamviewver 4 & Flash 5	
8.	Shreelipi 2.0	2.00
9.	Cobol ANSI	
10.	Dr. Soloman's AVTK	
11.	Norton Antivirus	2001
12.	Red hat Linux 7.1	7.1
13.	MS – NT Workstation	
14.	Oracle 8i	8.16
15.	Visual C++ 5.0	5.00
16.	Borland Turbo C++	
17.	Windows 98	98

**\* Special purpose facilities available**

1. L.C.D.
2. Plotter
3. Web cam
4. Scanner
5. Printer
6. Zip Drive
7. Modem
8. CD Writers

**\* Innovation Cell : YES**

**\* Social Media Cell : YES**

**List of Facilities available**

- **Games and Sports Facilities:-**

Institute has its own spacious play ground amidst campus for Cricket, Football & Hockey. Apart from it there are indoor Badminton court , Table Tennis Hall & Volley Ball Court with a special attachment of Health Club. The institute has a sprinting track of 200 Mts. & GYM.

- **Extra Curriculum Activities**

Institute has regular cultural, literary & technical events.

- **Soft Skill Development Facilities**

Software Development, Computer Language, Computer Tools Training , Seminars, Infrastructure & Manpower Available, Audio Visual Infrastructure etc.

### **Teaching Learning process**

Classroom Teaching , Tutorial Coaching , Seminars , Guest Lecturers & Visiting Faculty Lecturers, Group Discussions , Quiz competition , Online classes, Webinars, seminars and likewise practices.

- **Curricula and syllabi for each of the programmes as approved by the University.**

YES

- **Academic Calendar of the University**

YES

- **Academic Time Table**

YES

- **Teaching Load of each Faculty**

Average 20 Lecturers Per Head

- **Internal Continuous Evaluation System and place**

Mid Term Examination system, Assignments, Lab Work, Internal Viva before Practical Examination.

- **Students' assessment of Faculty, System in place.**

- 1) Feed Back System
- 2) Teacher Guardian Scheme

### **16. ENROLLMENT OF STUDENTS IN THE LAST 3 YEARS**

2020 – 2021 : 38

2019 – 2020 : 41

2018 – 2019 : 33