



## 2.5 Evaluation Process and Reforms

### 2.5.1 Mechanism of internal assessment is transparent and robust in terms of frequency and mode

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# VISWAJYOTHI

COLLEGE OF ENGINEERING & TECHNOLOGY

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## ACADEMIC CALENDER

Days	Date	Description	Class	Days	Date	Description	Class	Days	Date	Description	Class
Mon	14		9	Thu	14	First CC Meeting for B.Tech S7/S5/S3	26	Sat	14		
Tue	15	Independence Day		Fri	15	Commencement of University Valuation Camp	e-1	Sun	15		
Wed	16		10	Sat	16		e-2	Mon	16		40
Thu	17		11	Sun	17			Tue	17		41
Fri	18	Course Selection and Mapping Begins for B.Tech S7/S5	12	Mon	18	Course Selection and Mapping Ends for B.Tech S3	e-3	Wed	18		42
Sat	19		13	Tue	19		e-4	Thu	19		43
Sun	20			Wed	20		e-5	Fri	20		44
Mon	21		14	Thu	21		e-6	Sat	21		45
Tue	22		15	Fri	22	See Narayana Guru Samadhi		Sun	22		
Wed	23		16	Sat	23		e-7	Mon	23	Mahanavami	
Thu	24	Course Selection and Mapping Ends for B.Tech S7/S5	17	Sun	24			Tue	24	Vijayadasami	
Fri	25		18	Mon	25		e-8	Wed	25		46
Sat	26			Tue	26	End of University Valuation Camp	e-9	Thu	26		47
Sun	27			Wed	27	Milad-I-Sherif		Fri	27	First Series test to be completed for B.Tech S7/S5	48
Mon	28	First Onam		Thu	28	Last date for corrections related to course selection and mapping (SS) on KTU portal	27	Sat	28		49
Tue	29	Thiruvonam		Fri	29		28	Sun	29		
Wed	30	Third Onam		Sat	30		29	Mon	30	Exam Registration begins for B. Tech S7	50
Thu	31	Fourth Onam						Tue	31		51





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## SEMESTER PLAN



### VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY, VAZHAKULAM

VISION: "Moulding professionals par excellence with integrity, fairness, and human values"

SEMESTER PLAN FOR S4, S6, S8 KTU B.Tech Classes (January 20th 2023 - June 2nd 2023)

No. of working days for the even semester		
Month	Days	
January	2	
February	20	
March	24	
April	17	
May	23	
June	2	
<b>Total</b>	<b>88</b>	

Semester	Actual Working Days
S8	72.5
S6	71.5
S4	72.5

No. of working Days lost	
Holds & Breaks	1
Droptees	2
Series Examinations	6
College Day	0.5
<b>Total</b>	<b>10.5</b>

Working Saturdays		
Month	Dates	
January	Nil	
February	Nil	
March	4th	
April	22nd	
May	6th & 20th	
June	Nil	

IMPORTANT DATES	
January 30th	Commencement of regular classes for S8
February 3rd	Course selection & course mapping begins
February 6th	Commencement of regular classes for S4 & S6
February 10th	First CC meeting for S4, S6, S8
February 15th	Course selection & course mapping ends
March 10th	First Assignment to be completed for S4, S6 & S8
March 17th, 20th, 21st	First series examination for S4, S6 & S8
March 20th - 31st	Drop, Droptees, Droptees
April 17th	Exam registration begins for S4, S6, S8
April 27th	Exam registration ends for S4, S6, S8
May 6th	Second assignment to be completed for S4, S6 & S8
May 12, 15-16	Second Series examination for S4, S6 & S8
May 20th	College Day
May 25th	Publish IA marks for S8
May 26th	Class ends & publish attendance for S8
June 1st	Publish IA marks for S4 & S6
June 2nd	Class ends & publish attendance for S4 & S6

January		February				March						April			May				June							
30	31	1-3	6	7-10	13-17	20-24, 27-28	1-4	6-10	13-16	17, 20, 21	22, 24, 27	28-31	3-5, 10-13	17-20, 22	24-28	2-6	8-11	12, 15-16	17-20	22-26	29-31	1	2			
Commencement of regular classes. Regular Class for S8		Regular Class for S8. Feb 3rd Course selection & course mapping begins				Commencement of regular classes (S4 & S6). Regular Class. February 10th 1st CC Meeting for S4, S6, S8. Feb 15th Course selection & Course mapping ends. Regular Classes.						Regular Classes. March 10th 1st Assignment to be completed for S4, S6, S8. Regular Classes.			First Series Examination for S4, S6, S8. 1st CC Meeting, 1st Series Exam, Sports Fest Droptees. March 25th Second class committee meeting.			Regular Classes. April 17th Exam registration begins for S4, S6, S8. Regular Classes. April 27th Exam registration ends for S4, S6, S8.			Regular Class. May 6th 1st Assignment to be completed. Regular classes. Second series examination for S4, S6, S8. May 12th 2nd class committee meeting. Regular Class. May 20th College Day. Regular Class. May 25th Publish IA marks for S8. May 26th Class ends Publish Attendance for S8.				Regular classes for S4, S6. Regular Class. Publish IA marks for S4, S6. Regular class. Class ends Publish Attendance for S4, S6.	
1	1	5	1	4	5	7	4	5	4	3	4	4	7	5	5	5	4	3	4	4	3	1	1			
1	2	5	6	10	15	22	26	31	35	38	42	46	53	58	63	68	72	75	79	83	86	87	88			

*[Signature]*  
Principal



**APPOINMENT OF INTERNAL EXAM COMMITTEE**



B Tech Programmes (CE, CSE, ECE, IT & ME) Accredited by NBA

11.03.2022

Ref. No. VJCET/PPL/KTU-Corr/2022/17-A

**Office Order**

With reference to the order from KTU on affiliation process 2022-23 and for the renewal of approval and as per the Chapter 4 and 6 in the First Statutes of University and UGC/AICTE the colleges under KTU were asked to constitute committees/bodies as prescribed by the UGC and AICTE. Based on this, the college has constituted the committees/ bodies. The faculty members are assigned duties in the Internal Examination Committee as mentioned below with immediate effect and till further orders.

Sl No.	Name	Designation	Composition
1	Ms. Ann Neetha Satu	Asst. Professor SSH	Convener
2	Dr. Sajah T. John	Associate Professor ME	Committee-in-charge
3	Ms. Ferny John	Asst. Professor AD	Member
4	Ms. Firu John	Asst. Professor CE	Member
5	Ms. Soumya Mathew	Asst. Professor CSE	Member
6	Ms. Jis Jose	Asst. Professor EEE	Member
7	Ms. Vinja Kurian	Asst. Professor ECE	Member
8	Ms. Ann Preetta Jose	Asst. Professor IT	Member
9	Mr. Nideesh K	Asst. Professor ME	Member
10	Ms. Ashly Jacob	Asst. Professor SSH	Member
11	Mr. Arish John A.	Asst. Professor MBA	Member

To

1. Manager, VJCET
2. Director, VJCET
3. Vice-Principal
4. HODs & Dean
5. All members of the committee



*Pritha*  
Principal  
VISWAJYOTHI COLLEGE OF  
ENGINEERING & TECHNOLOGY  
VAZHAKULAM



# VISWAJYOTHI

## COLLEGE OF ENGINEERING & TECHNOLOGY

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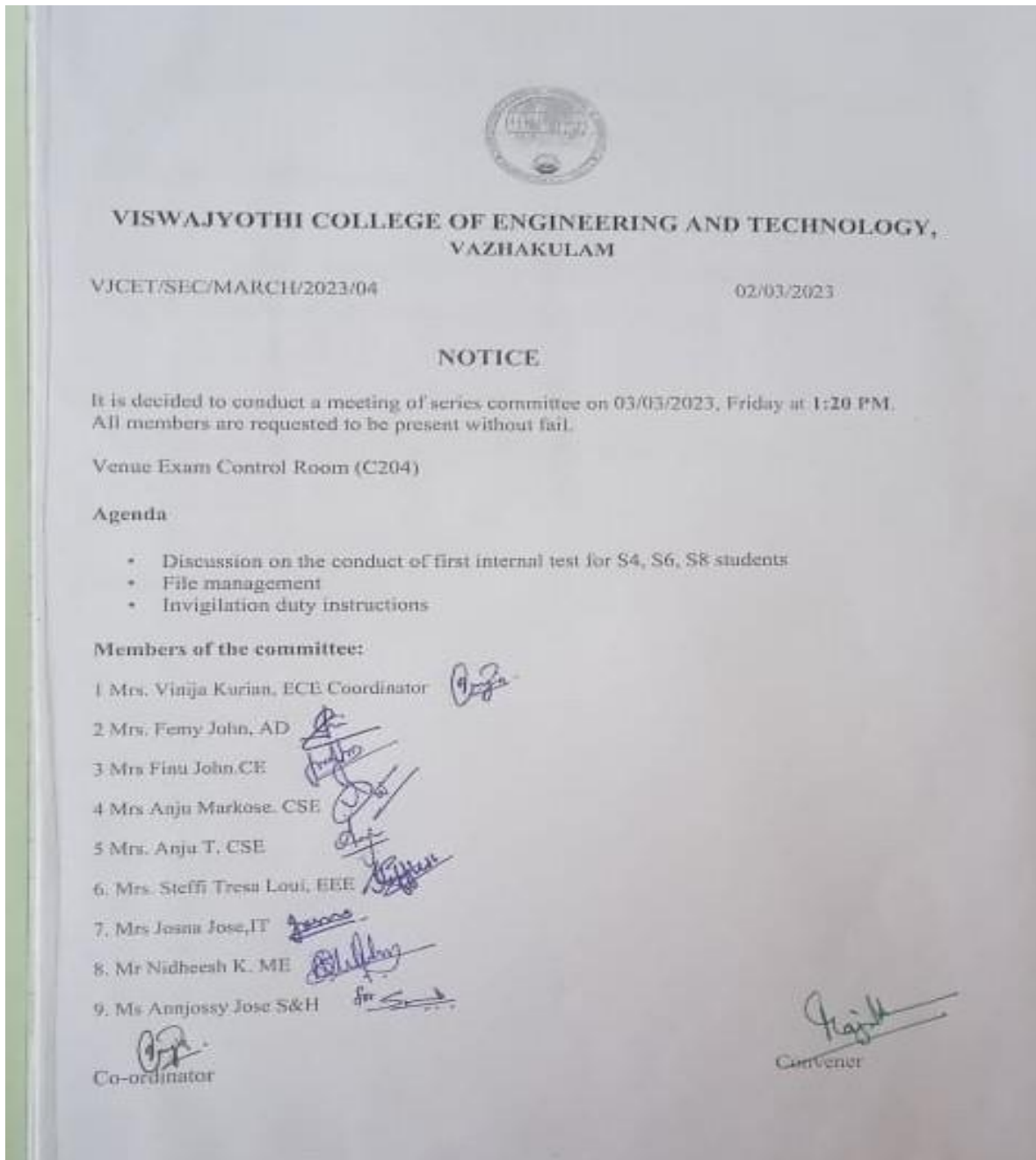
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## MINUTES OF INTERNAL EXAM COMMITTEE





# VISWAJYOTHI

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## NOTICE OF EXAM



VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM

Dt. 10/07/2023

### NOTICE

The *second* internal examination of all S2 classes is scheduled from **21<sup>st</sup> July 2023 (Friday)**. Detailed time table will be published on the notice board. **Uniform and ID card are compulsory for attending the internal examination. (Workshop uniform is not allowed). Mobile phones, Smart watches & Smart bands are completely banned from the examination halls. Copying or any other malpractice in the test is strictly prohibited.**

  
PRINCIPAL

Copy To:

- 1) Vice principal
- 2) All the H.O.D's for the information
- 3) Automation
- 4) All S2 B. Tech. classes.
- 5) Notice Boards
- 6) File
- 7) Hostels



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### TIMETABLE OF INTERNAL EXAM

VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY										
INTERNAL EXAMINATION II-JULY 2023										
TIMETABLE FOR SEMESTER II										
DATE & DAY	TIME	SUBJECT								
		AD	CE	CG	CSE	EEE	ECE	IT	ME	
21/07/2023 FRIDAY	9:30am - 11:30 am	VECTOR CALCULUS, DIFFERENTIAL EQUATIONS AND TRANSFORMS MAT 102	VECTOR CALCULUS, DIFFERENTIAL EQUATIONS AND TRANSFORMS MAT 102	VECTOR CALCULUS, DIFFERENTIAL EQUATIONS AND TRANSFORMS MAT 102	VECTOR CALCULUS, DIFFERENTIAL EQUATIONS AND TRANSFORMS MAT 102	VECTOR CALCULUS, DIFFERENTIAL EQUATIONS AND TRANSFORMS MAT 102	VECTOR CALCULUS, DIFFERENTIAL EQUATIONS AND TRANSFORMS MAT 102	VECTOR CALCULUS, DIFFERENTIAL EQUATIONS AND TRANSFORMS MAT 102	VECTOR CALCULUS, DIFFERENTIAL EQUATIONS AND TRANSFORMS MAT 102	VECTOR CALCULUS, DIFFERENTIAL EQUATIONS AND TRANSFORMS MAT 102
24/07/2023 MONDAY	9:30am - 11:30 am	ENGINEERING PHYSICS A PHT100	ENGINEERING CHEMISTRY CYT 100	ENGINEERING CHEMISTRY CYT 100	ENGINEERING PHYSICS A PHT100	ENGINEERING CHEMISTRY CYT 100	ENGINEERING PHYSICS A PHT100	ENGINEERING CHEMISTRY CYT 100	ENGINEERING CHEMISTRY CYT 100	ENGINEERING CHEMISTRY CYT 100
	1:45pm - 3:45 pm	PROGRAMMING IN C EST102	PROGRAMMING IN C EST102	PROGRAMMING IN C EST102	PROGRAMMING IN C EST102	PROGRAMMING IN C EST102	PROGRAMMING IN C EST102	PROGRAMMING IN C EST102	PROGRAMMING IN C EST102	PROGRAMMING IN C EST102
25/07/2023 TUESDAY	9:30am - 11:30 am	ENGINEERING MECHANICS EST 100	ENGINEERING GRAPHICS EST110	ENGINEERING MECHANICS EST 100	ENGINEERING GRAPHICS EST110	ENGINEERING GRAPHICS EST110	ENGINEERING MECHANICS EST 100	ENGINEERING MECHANICS EST 100	ENGINEERING MECHANICS EST 100	ENGINEERING MECHANICS EST 100
26/07/2023 WEDNESDAY	9:30am - 11:30 am	BASICS OF CIVIL & MECHANICAL ENGINEERING EST 120	BASICS OF CIVIL & MECHANICAL ENGINEERING EST 120	BASICS OF CIVIL & MECHANICAL ENGINEERING EST 120	BASICS OF ELECTRICAL & ELECTRONICS ENGINEERING EST 130	BASICS OF ELECTRICAL & ELECTRONICS ENGINEERING EST 130	BASICS OF ELECTRICAL & ELECTRONICS ENGINEERING EST 130	BASICS OF ELECTRICAL & ELECTRONICS ENGINEERING EST 130	BASICS OF CIVIL & MECHANICAL ENGINEERING EST 120	BASICS OF CIVIL & MECHANICAL ENGINEERING EST 120
	1:45pm - 3:45 pm	PROFESSIONAL COMMUNICATION HUT102	PROFESSIONAL COMMUNICATION HUT102	PROFESSIONAL COMMUNICATION HUT102	PROFESSIONAL COMMUNICATION HUT102	PROFESSIONAL COMMUNICATION HUT102	PROFESSIONAL COMMUNICATION HUT102	PROFESSIONAL COMMUNICATION HUT102	PROFESSIONAL COMMUNICATION HUT102	PROFESSIONAL COMMUNICATION HUT102

Principal



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### SEATING ARRANGMENT FOR INTERNAL EXAM

**VISWAJYOTHI COLLEGE OF ENGINEERING & TECHNOLOGY**  
Series Examination JULY 2023  
CHECKLIST 26-07-2023 FN

ROOM COUNT		1	2	3	4	5	6	7	8	9	10	11	12	13	14		
No of Branches		2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Class	BRANCH	Venue	D 208	D 209	D 224	D 301	D 305	D 308	D 310	D 400	D 401	D 412	D 420	D 421	CIV SEM HALL A	CIV SEM HALL B	
		Seating Capacity	38	40	42	44	44	40	44	40	42	42	42	42	42	36	36
		Occupied	31	32	35	34	34	33	35	32	34	33	34	34	34	27	36
Total	464.00	7	8	7	10	10	7	9	8	8	8	8	8	9	0	454	
1 SEMESTER	AI & DS	63									(1-13)	(25-37)	(38-60)	(51-63)	(14-24)	0	
	CE	32		14											(1-18)	0	
	CS & D	63				12	13	13	13	12						0	
	CSE A	61		20	21			20								61	
	CSE B	62	(22-41)	(1-21)			(42-61)				21	20	21			62	
	EEE	34													16	18	34
	ECE	63							22	20				21	(1-16)	(17-34)	0
	IT	62	19			22	21			(1-22)	(44-63)			(23-43)			0
	ME	24	(1-19)			(20-41)	(42-62)										24
			12	12													0
		(1-12)	(13-24)													0	

*Signature*  
25/7/2023





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## INVIGILATION DUTY LIST

VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY, VAZHAKULAM SECOND SEMESTER EXAMINATION OF 21 - JANUARY 2023 INVIGILATION DUTY LIST								
	Sl No.	Name	20-Jan-23		21-Jan-23		22-Jan-23	
			Wednesday		Friday		Monday	
			AM 1:45pm - 3:45 pm	PM 9:30am - 11:30 am	AM 1:45pm - 3:45 pm	PM 9:30am - 11:30 am	AM 1:45pm - 3:45 pm	PM 9:30am - 11:30 am
OFFICE INVIGILATION	AD 1	1	Dr. Melvin C Jose	X				
	AD 2	2	Dr. Anita Brigit Mathew		X			
	AD 3	3	Mrs. Silpa Joseph			X		
	AD 4	4	Mrs. Mary Nirmala George				X	
	AD 5	5	Mr. Sivadas T Nair		X			
CSC INVIGILATION	CE 6	1	Dr. Anoop C K	X				
	CE 7	2	Mrs. Tina Jose		X			
	CE 8	3	Mrs. Bijimol Joseph		X			
	CE 9	4	Mrs. Neema M Joseph				X	
	CE 10	5	Mrs. Amrutha S				X	
	CE 11	6	Mrs. Devina Vipinan				X	
	CE 12	7	Mr. Appu John			X		
	CE 13	8	Mrs. Soumya Rani P Thomas		X			
	CE 14	9	Ms. Meril Jose		X			
	CE 15	10	Mrs. Nayana Tom	X				
	CE 16	11	Mrs. Rani Maria Thomas			X		
	CE 17	12	Ms. Roziya Jose			X		
EMPLOYEES INVIGILATION	CS 18	1	Dr. S P Prodeep Kumar				X	
	CS 19	2	Mrs. Mayadevi P A				X	
	CS 20	3	Mrs. Ritty Jacob			X		
	CS 21	4	Mrs. Neenu Daniel		X			
	CS 22	5	Mr. Andrews Jose		X			
	CS 23	6	Mrs. Sabitha Raju		X			
	CS 24	7	Mrs. Arsha J K			X		
	CS 25	8	Mrs. Dona Jose					X
	CS 26	9	Mr. Joe Mathew Jacob				X	
	CS 28	11	Mrs. Remya Paul				X	
	CS 29	12	Mrs. Anu Jose			X		
	CS 30	13	Mrs. Cimira Mary Mathew	X				
	CS 31	14	Mrs. Lakshmi Suresh	X				
	CS 32	15	Mrs. Ierin Babu		X			
	CS 33	16	Mrs. Sonu Baby			X		
	CS 34	17	Mrs. Lathiya Sara Babu	X				
	CS 35	18	Mrs. Libay Ann Merin Baby				X	
	CS 36	19	Mrs. Remys Jose			X		

*[Signature]*  
11/1/23

*[Signature]*



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### CONSOLIDATED ATTENDANCE OF INTERNAL EXAM

VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY  
SERIES II OF S2 - JULY 2023  
CONSOLIDATED ATTENDANCE

FN

DATE: 26-07-2023

Sl. NO	BRANCH	ROLL NO. OF ABSENTEES
1	S2 AD	6,45,62
2	S2 CE	30
3	S2 CG	38,43,51,54
4	S2 CSE A	6
5	S2 CSE B	NIL
6	S2 EEE	32
7	S2 ECE	NIL
8	S2 IT	34,37
9	S2 ME	NIL

Staff Incharge

Principal



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### CONSOLIDATED MARKLIST OF INTERNAL EXAM

VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY, VAZHAKULAM  
Department of Computer Science And Engineering

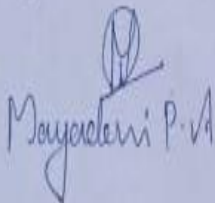
Semester: I Batch: A Tutor: MAYADEVI P A


SERIES TEST 1 JAN 2022  
2021 Admission

Sl. No	Subject	Faculty	No. of Students appeared	No. of students passed	% of Pass	Percentage of Pass		Percentage of Pass		Percentage of pass		Percentage of Pass	
						Boys	Girls	Boys (Boat)	Girls (Boat)	Boys (Bo)	Girls (Bo)	Boys	Girls
						(T)	(D)	(T)	(D)	(T)	(D)	(T)	(D)
1	LINEAR ALGEBRA AND CALCULUS	Jinta Jose	62	61	98.4	97.30%	100.00%	100.00%	100.00%	96.67%	100.00%	-	-
2	ENGINEERING CHEMISTRY	Ansu Ann Abraham	63	63	100.0	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	-	-
3	ENGINEERING MECHANICS	BLJIMOL	63	63	100.0	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	-	-
4	BASICS OF CIVIL ENGINEERING	Soumya Rani P. Thomas	63	63	100.0	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	-	-
5	BASICS OF MECHANICAL ENGINEERING	Eldhose Kurian	63	62	98.4	97.30%	100.00%	85.75%	100.00%	100.00%	100.00%	-	-

No. of Students passed in all subjects : 61

Class Pass Percentage : 96.83

Faculty Advisor  
Name: Mayadevi P. A  
Signature: 

  
HOD



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# INTERNAL QUESTION PAPER AND ANSWER KEY

Name.....  
Roll No.....

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**  
**Department of Information Technology**  
**SERIES TEST 1 –NOVEMBER, 2022**




**S5 IT**

**ITT 305 : DATA COMMUNICATION AND NETWORKING**  
**Class: IT**  
**Marks: 50**

Semester: S5  
Time: 2Hr

**Part A**  
*Answer ALL questions, each carries 4 marks.*

Sl. No	Blooms Taxonomy	CO	Questions	Marks
1	Knowledge	CO1	Compare Routers and Bridges.	4
2	Evaluation	CO4	Compare Stop & Wait and Go-Back-N flow control.	4
<b>Part B</b> <i>Answer any THREE full question, each carries 12 marks</i>				
3 a	Comprehension	CO1	Explain any two Guided media.	10
3 b	Comprehension	CO4	Explain features of WAN.	4
4 a	Evaluation	CO1	Compare OSI and TCP/IP reference models with suitable figures.	10
4 b	Comprehension	CO4	Calculate dmin i)(10000,01000) , ii) (10101,10110), iii) (101011,100100) . iv) (10110,11111)	4
5 a	Comprehension	CO4	List and explain ISO/OSI model with figure.	10
5 b	Application	CO1	List the advantages of Optical Fiber over twisted pair and coaxial cable.	4
6 a	Comprehension	CO1	Explain Transmission modes with figures.	10
6 b	Analysis	CO4	Describe the use of satellites in communication.	4

 Course Coordinator     
  Stream Coordinator     
  Program Coordinator



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www.vjcet.org

Name.....  
Roll No.....

VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM  
Department of Information Technology  
SERIES TEST 1 -JANUARY, 2022

S5 IT

Semester: S5  
Time: 2Hr

ITT 305 : DATA COMMUNICATION AND NETWORKING

Class: IT  
Marks: 50

Part A

Answer ALL questions, each carries 4 marks.

Sl. No	Blooms Taxonomy	CO	Questions	Marks
1	Knowledge	CO1	Routers and Bridges-2 marks each.	4
2	Evaluation	CO4	Stop & Wait and Go-Back-N flow control--2 marks each..	4
<b>Part B</b> Answer any THREE full question, each carries 12 marks				
3 a	Comprehension	CO1	Any two Guided media---5 marks each...	10
3 b	Comprehension	CO4	Explanation features of WAN-10 marks.	4
4 a	Evaluation	CO1	Compare OSI and TCP/IP reference models with suitable figures. 5 marks each...	10
4 b	Comprehension	CO4	Calculate dmin i)(10000,01000) , ii) (10101,10110), iii)(101011,100100) , iv) (10110,11111) 1 mark each...	4
5 a	Comprehension	CO4	List --4 marks ,ISO/OSI model with figure-4 marks -fig.-2 marks.	10
5 b	Application	CO1	List the advantages of Optical Fiber over twisted pair and coaxial cable-4 marks.	4
6 a	Comprehension	CO1	Transmission modes-7 marks +fig.-3 marks.	10
6 b	Analysis	CO4	Describe the use of satellites in communication-4 marks.	4



# VISWAJYOTHI

COLLEGE OF ENGINEERING & TECHNOLOGY

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## SAMPLE ANSWERSHEET

MAIN ANSWER SHEET

**VISWAJYOTHI COLLEGE OF ENGINEERING & TECHNOLOGY  
VAZHAKULAM**

 Series Test : I/H/HH Date: .....

Subject with Code : PCN

Name of Candidate: P. B. Sauthy Roll No: 32

Semester & Branch: S5 I T

Qn. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Marks	3	2	3	3	3											45

50

*Vision Statement*  
"Moulding professionals par excellence with integrity, fairness and human values"

Bridges  
Bridges allows different network communications lines to combine together and also work independently even though they are not separated. There are multiple networks connected together and forms a bridge. They still works independently. Bridges helps to reduce the network traffic. As compared to routers its almost the same function but Router acts as point-to-point communication network by the use of mac address.



2) Stop & wait control

Here the flow of data is linear data flow. Whenever there is an error detected, the process stops and wait until the error is corrected and only after the flow is regular.

There is not returning back to the node in stop & wait control.

The performance time is longer.

Simple flow control

Go-Back-N flow control

Here it is an iterative flow of data. When the error is detected while execution, then the control goes back to the network and executes again and the error is corrected. During the transmission, when the error is detected, it goes back to the previous node and executed again after error is corrected.

Performance time is less.

Complex flow control.

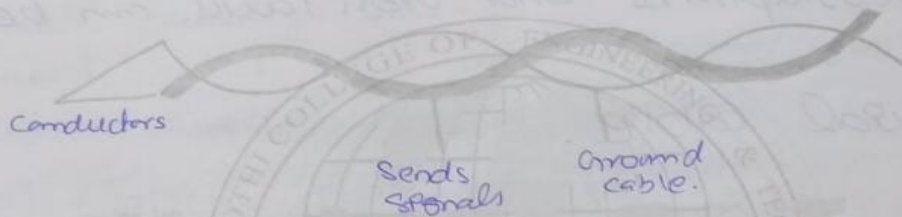


### PART - B

There are 3 Guided Media (wired) :-

- i) Twisted Pair Cable
- ii) Coaxial cable
- iii) Optical fiber cable.

#### i) Twisted Pair cable



• In Twisted pair cable two conducting wire (usually copper) are twisted together with each conductors covered or insulated with insulating material.

- They both are of conducting material
- One wire is used for transmitting signals to transmission medium.
- Other wire is grounded cable.

• Twisted Pair cable are of two types :-

- i) Shielded Twisted Pair (STP)
- ii) Unshielded Twisted Pair (UTP)

STP (Shielded Twisted Pair) are used for transmission of data to devices

UTP are used for communication purpose like telephone communications.





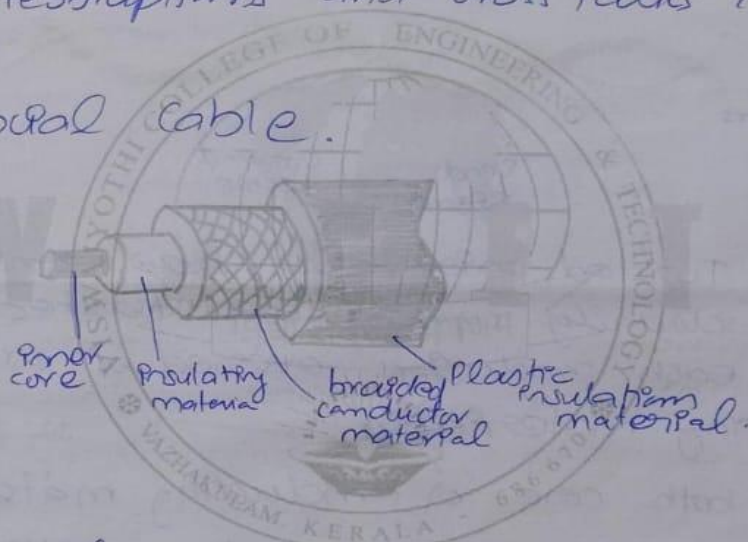
Unshielded twisted pairs are used for short ranged communication purposes.

There can be crosstalks or interruptions occurred while communication but twisted pairs cable avoids them.

The twisted cable helps the interruptions occurred to equally divide the interruptions to both the wires so the intensity of interruptions is splitted to signal receiving wire in grounded cable.

Thus interruptions and cross talks can be avoided.

PP) Coaxial cable.



The coaxial cable consists of mainly 4 layers. The inner core which helps in the communication process and transmission of data. It has an insulating material outside the inner core in order to prevent the interruptions from occurring. Then outer to the insulating material a braided mesh or a conducting material is coated. This layer not only helps in avoiding interruptions but also can be used for transmitting signals. The braided conductor material helps



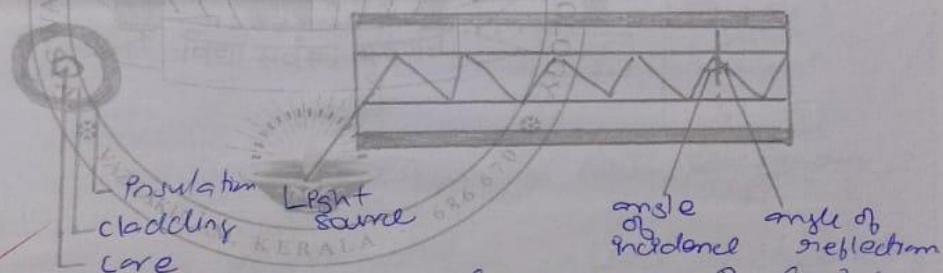
to remove the occurrence of intersuupts.  
As compared to the Twisted Pair, the  
coaxial cable is more costly and they are  
more efficient than Twisted pair cable.

But coaxial cable are much less expensive  
as compared to fiber-optic cable.

Coaxial cables are used for transmission  
of ~~network~~ data for ~~long~~ distances as compared  
to twisted pair cable as they are used inside  
the building itself.

The coaxial cable can be used for cable tv  
communication.

### iii) Optical fiber

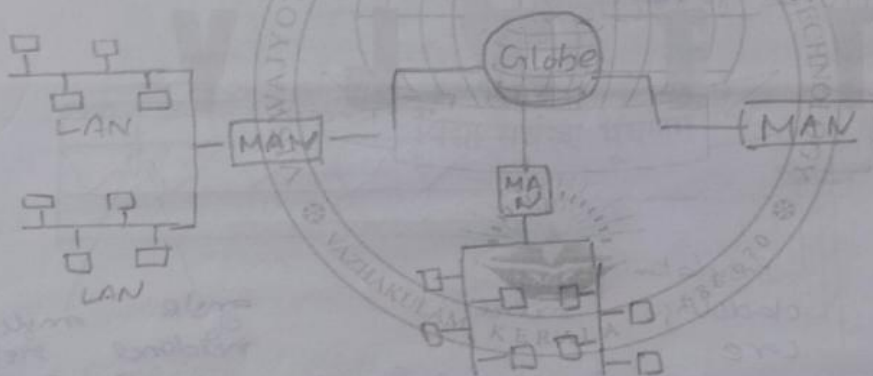


- Light emitting diode provide source of light
- Here the transmission of data is through light
- There are 3 layers - core, cladding, insulation
- Core is where the light transfers.
- Here the reflection principle is used for data communication
- On the cladding layer, it is less angle of refraction, thus less light gets reflected away from the core
- Expensive as compared to other two guided media but fastest data transfer also over sea



### b) WAN

- Wide Area Network (WAN)
- Here the WAN provides communication between all the MAN's (Metropolitan Area Networks).
- All the MAN is connected to the WAN.
- This covers the communication between the countries.
- Internet is an example for wide Area Network.
- All LAN is connected to LAN and all LAN are connected to form MAN and the combination of MAN thus forms WAN.



Diagrammatic representation of WAN



OSI/ISO model ~~reference model~~ reference model

- In this type of reference model the International Standardized of protocols formed the OSI model.
- This is an open system.
- The OSI model consist of 7 layers :-

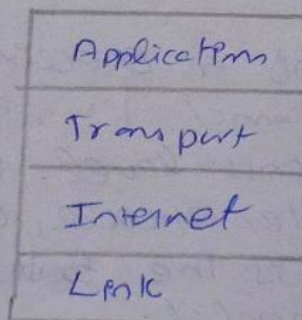
- This is the standard model of ~~OSI~~ reference model.
- The first 3 layers are called networking layers and last 3 layers are called User interface layers.
- This reference model is less complex as compared to TCP/IP.
- i) The Physical layer contains or receive data in the form of 0's and 1's. The bit representation is at this level. here the physical layer transmit, encode, group the received data. This is the bottom in the OSI stack model.



- ii) Data link layer - Here the data is given sender and receivers IP address in the header part, so that it can be linked to the corresponding destinations. It is end-to-end encrypted here & encryption is done in this layer.
- iii) Network layer - Here the IP address is checked and using it the packets are through the network. This layer consist of integration of networks so packets are assigned to the required destination through the IP address.
- iv) Transport layer :- here services are provided in order to transport the packet to the desired receiver.
- v) Sessional layer :- Here there is the process of encryption occurred, the services provided are session management, session encryption etc.
- vi) Presentation - The data is decoded and presented.
- vii) Application :- Here the user is now able to understand the data, the application is the top most layer in ISO/OSI reference model. Here it allows user interaction.

### TCP/IP reference model

- They are Transmission control Protocol

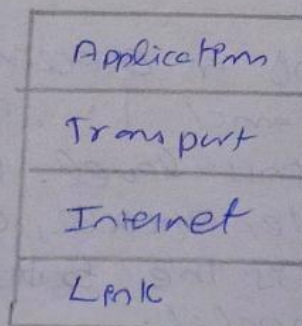


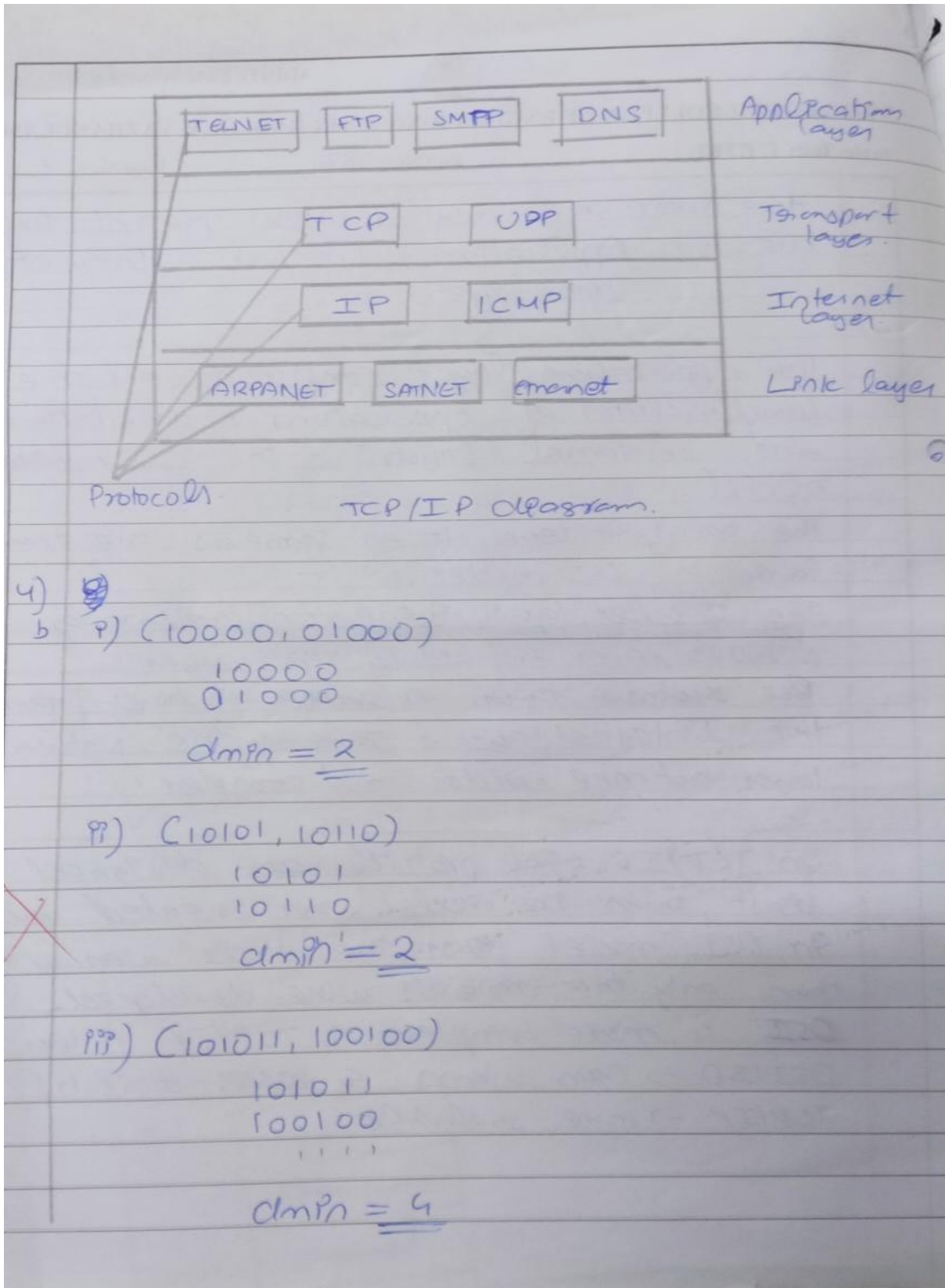


- ii) Data link layer - Here the data is given sender and receivers IP address in the header part, so that it can be linked to the corresponding destinations. It is end-to-end encrypted here & encryption is done in this layer.
- iii) Network layer - Here the IP address is checked and using it the packets are through the network. This layer consist of integration of networks so packets are assigned to the required destination through the IP address.
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- v) Sessional layer :- Here there is the process of encryption occurred, the services provided are session management, session encryption etc.
- vi) Presentation - The data is decoded and prepared.
- vii) Application :- Here the user is now able to understand the data, the application is the top most layer in ISO/OSI reference model. Here it allows user interaction.

### TCP/IP reference model

• They are Transmission control Protocol







## MARK SPLITUP

### Theory

Assessment Pattern			
Bloom's Category Levels	Continuous Assessment Tests		End Semester Examination
	1	2	
Level 1: Remember	10	10	20
Level 2: Understand	20	30	50
Level 3: Apply	20	10	30
Level 4: Analyse			
Level 5: Evaluate			
Level 6: Create			

Mark distribution			
Total Marks	Continuous Internal Evaluation (CIE)	End Semester Examination (ESE)	ESE Duration
150	50	100	3 hours

**Continuous Internal Evaluation Pattern:**

Attendance	: 10 marks
Continuous Assessment Test (2 numbers)	: 25 marks
Assignment/Quiz/Course project	: 15 marks

### Lab

INFORMATION TECHNOLOGY	
<b>Continuous Internal Evaluation Pattern:</b>	
Attendance	: 15 marks
Continuous Assessment	: 30 marks
Internal Test (Immediately before the second series test)	: 30 marks
<b>End Semester Examination Pattern:</b>	
The following guidelines should be followed regarding award of marks	
(a) Preliminary work	: 15 Marks
(b) Implementing the work/Conducting the experiment	: 10 Marks
(c) Performance, result and inference (usage of equipment and troubleshooting)	: 25 Marks
(d) Viva voce	: 20 Marks
(e) Record	: 5 Marks





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### SAMPLE ASSIGNMENT

## DATA COMMUNICATION ASSIGNMENT

- TOPICS :
- \* Types of Network
  - \* routers
  - \* bridges
  - \* gateways
  - \* switches

10  
10

ERIC PAUL EDAKKATTIL

SS IT

ROLL NO : 18

DATE : 26/10/2022



## NETWORKS

### PERSONAL AREA NETWORK (PAN)

It is the smallest and simplest type of network, PAN connects devices within the range of an individual and are no larger than about 10 meters. Most of them are wireless and provide short range connectivity with infrared technology

eg: Bluetooth connectivity.

- Benefits :
- Portability
  - Affordability
  - Reliability
  - Security.

### LOCAL AREA NETWORK (LAN)

It is a system where computers and other devices connect to each other in one location, the scope of a LAN can range from a few metres in a home to hundreds of metres in a large company office. LAN uses both wired and wireless connectivity options. WLAN use device like wireless routers and access points to interconnect b/w devices. Wired LANs are more secure because they require a physical cable to form a connection and are far less susceptible.

- Benefits :
- Resource sharing
  - Secure Data Storage
  - Fast communication
  - seamless communication.

### METROPOLITAN AREA NETWORK (MAN)

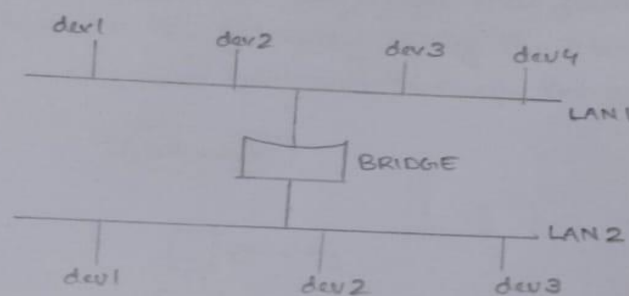
It is an interconnection of several LAN's throughout a city, town or municipality. It uses both wired or wireless connectivity options including fibre optics, ethernet cables, wifi or cellular.

- Benefits :
- municipal coverage
  - efficient networking standards
  - high speed connectivity



### BRIDGE

A bridge is a network device that connects multiple LAN's together to form a larger LAN. The process of aggregating networks is called network bridging. A bridge connects the different components so that they appear as parts of a single network.



### Uses:

- It connects 2 or more different LAN's that has a similar protocol.
- It helps in multiplying the network capacity of a single LAN
- They transmit data as data frames. On receiving a data frame, the bridge consults a database to decide whether to pass, transmit or discard the frame.
- It prevents a single faulty node from bringing down the entire network

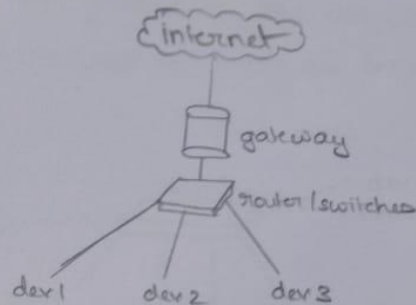
Bridges connects virtual LAN's to make a larger VLAN

No major hardware, software or architectural changes should be required for their installation.



### GATEWAY

A Gateway is a network node that forms a passage between 2 networks operating with different transmission protocol. The most common type of gateways, the network gateway operates at layer 3, i.e. network layer of the OSI model. It acts as the entry exit point for a network since all traffic that flows across the network should pass through the gateway. Only the internal traffic between the nodes of a LAN does not pass through the gateway.



### types of gateways :

- \* unidirectional gateways : they allow data to flow in only one direction. Changes made in the source node are replicated in the destination node but not vice versa.
- \* Bidirectional Gateway : they allow data to flow in both directions.

### features :

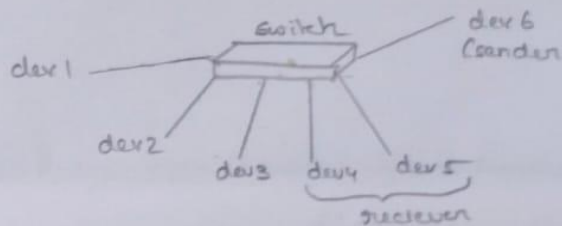
- \* It is located at the boundary of a network and manages all data that inflows or outflows from that network.
- \* It stores information about the routing paths of the communicating networks.
- \* It uses packet switching technique to transmit data across the networks.



### SWITCH

Switches are networking devices operating at layer 2 or a data link layer of the OSI model. They connect devices in a network and uses packet switching to send, receive or forward data packets or data frames over the network.

A switch has many ports to which computers are plugged in, when a data frame arrives at any port of a network switch, it examines the destination address, performs necessary checks and sends the frame to the corresponding device(s) it supports unicast, multicast as well as broadcast communications.



### Features:

- \* It operates in the layer 2 i.e. data link layer of the OSI model.
- \* It can be conceived as a multipoint network bridge.
- \* It uses MAC addresses to send data packets to selected destinations.
- \* The no. of ports is higher - 24/48
- \* It can perform some error checking before forwarding data.

### Types of switches:

- \* unmanaged switches
- \* managed switches
- \* LAN switch
- \* PoE switch



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### SAMPLE LABORATORY RECORD

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ENGINEERING & TECHNOLOGY**  
VAZHAKULAM, MUVATTUPUZHA - 686 670  
TEL- 0485 2262211, 2262255, 2262977




DATA ANALYTICS LAB  
**OBSERVATION RECORD**  
YEAR 2022-2023

Name BLESSON MANJAKUNNEL  
Branch INFORMATION TECHNOLOGY  
Semester 7 Roll No. 23  
Reg. No. VJC19IT023 of 2019-2023 Batch

*Certified that this is the Bonafide Record of work done  
by BLESSON MANJAKUNNEL*

Staff Member -in -Charge [Signature] 6/1/2023

Internal Examiner [Signature] 5.2.23



Head of the Department [Signature] 01/3/2023  
HEAD, INFORMATION TECHNOLOGY  
VISWAJYOTHI COLLEGE OF ENGG. & TECH.  
VAZHAKULAM P.O. MUVATTUPUZHA

External Examiner [Signature] 3/2/23  
Preenu

Vazhakulam  
Date 2/2/23



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### VISION

“Moulding professionals per excellence with integrity, fairness and human values”

### MISSION

1. We commit to develop the Institution into a Center of Excellence of International Standards.
2. We guide and mould our students in the attainment of intellectual and professional competence for successfully coping with the rapid and challenging advancements in technology and the ever changing world of business, industry and services.
3. We help and support our students in their personal growth shaping them into mature and responsible individuals.
4. We strive to cultivate a sense of social and civic responsibility in our students, empowering them to serve the humanity.
5. We promise to ensure a free environment where quest for the truth is encouraged.



### Department Vision:

To be a centre of excellence in IT learning and provide value based training to mould students as successful IT professionals.

### Department Mission:

1. To provide an intellectually stimulating and academically vibrant learning environment for students and train them in the basics and advanced concepts.
2. To provide a motivating and caring environment and prepare students to achieve their academic and career goals in a globally competitive market place.
3. To mould students into ethical and competent professionals who will contribute to the betterment of the community.

### Program Educational Objectives:

1. Graduates shall excel in programming and analytical skills enabling them to be professionally competent and find solutions to software based problems.
2. Graduates shall have social and ethical values making them socially more acceptable and in being instrumental in uplifting quality of life.
3. Graduates shall have positive attitude towards research and entrepreneurship.





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## INDEX

SL.NO.	DATE	NAME OF EXPERIMENTS	PAGE NO.	REMARKS
1	18/10/22	Descriptive Statistics	3	} <i>Prathy</i> 15/11/2022
2	18/10/22	Linear Regression	4	
3	18/10/22	Histogram	5	
CYCLE 2				
4	15/11/22	Sum and Average	7	} <i>Prathy</i> 23/11/2022
5	15/11/22	Area of a circle	8	
6	15/11/22	Longest among 3 numbers	9	
7	15/11/22	Odd or Even	10	
8	15/11/22	Prime Numbers	11	} <i>Prathy</i> 5/12/2022
9	15/11/22	Factors of a number	12	
10	23/11/22	Sum of n natural numbers	13	
11	23/11/22	Fibonacci series	14	
12	23/11/22	Palindrome	15	
13	23/11/22	Factorial function	16	
14	23/11/22	nCr	17	
15	23/11/22	Concatenate Strings	18	
16	23/11/22	Reversal of a string	19	} <i>Prathy</i> 6/12/2022
17	23/11/22	Data reshaping and merging	20	
18	23/11/22	Data Visualizations	21	
CYCLE 3				
19	6/12/22	Statistics in R	24	} <i>Prathy</i> 31/12/2022
20	6/12/22	Linear Regression	25	
21	6/12/22	Decision trees	26	} <i>Prathy</i> 6/1/2023
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<i>Certified</i>				
<i>Prathy</i> 6/1/2023				



### EXPERIMENT NUMBER 1

#### Data Analysis using EXCEL

#### 1.1 Descriptive Statistics

##### AIM

To find Descriptive statistics in Excel using Data Analysis ToolPack

##### Steps for Descriptive Statistics

1. On the Data tab, in the Analysis group, click Data Analysis.
2. Select Descriptive Statistics and click OK.
3. Select the input (example: A2:A15) as the Input Range.
4. Select any cell( C1) as the Output Range.
5. Make sure Summary statistics is checked.
6. Click OK.

##### Program

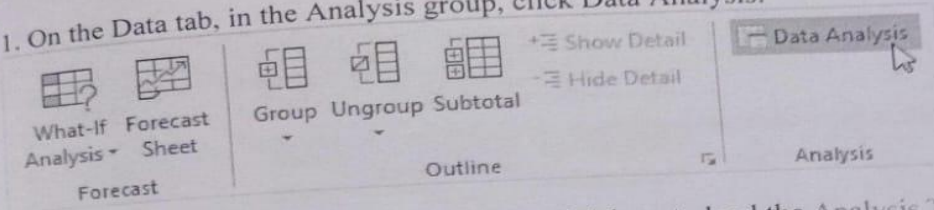
You can use the Analysis Toolpak add-in to generate descriptive statistics. For example, you may have the scores of 14 participants for a test.

	A	B
1	Scores	
2	82	
3	93	
4	91	
5	69	
6	96	
7	61	
8	88	
9	58	
10	59	
11	100	
12	93	
13	71	
14	78	
15	98	
16		

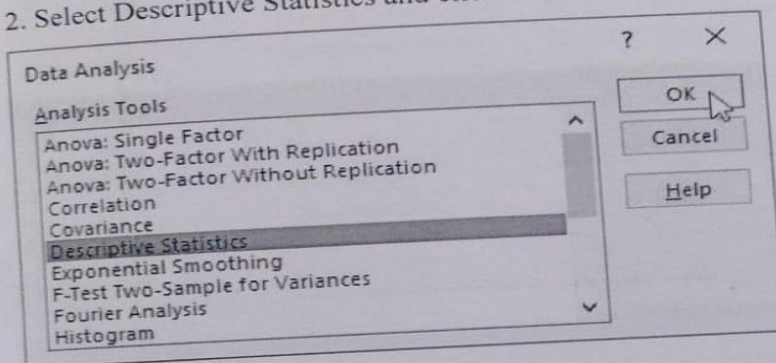
To generate descriptive statistics for these scores, execute the following steps.



1. On the Data tab, in the Analysis group, click Data Analysis.



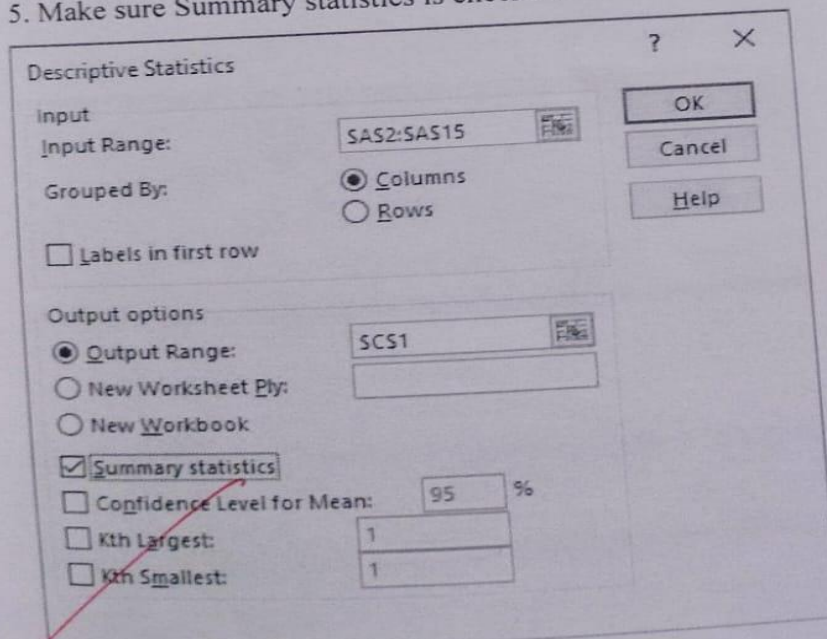
Note: can't find the Data Analysis button? Click here to load the Analysis ToolPak add-in.  
2. Select Descriptive Statistics and click OK.



3. Select the range A2:A15 as the Input Range.

4. Select cell C1 as the Output Range.

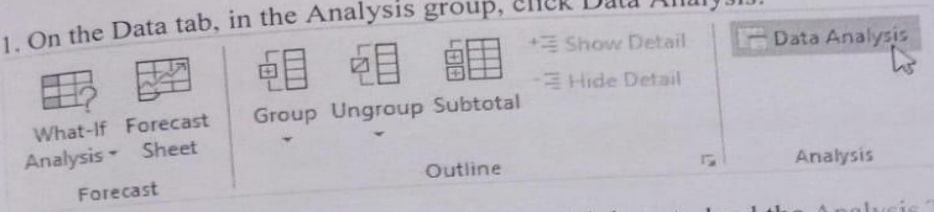
5. Make sure Summary statistics is checked.



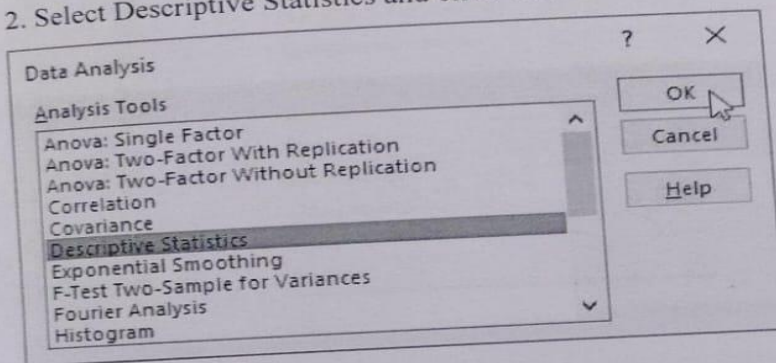
6. Click OK.



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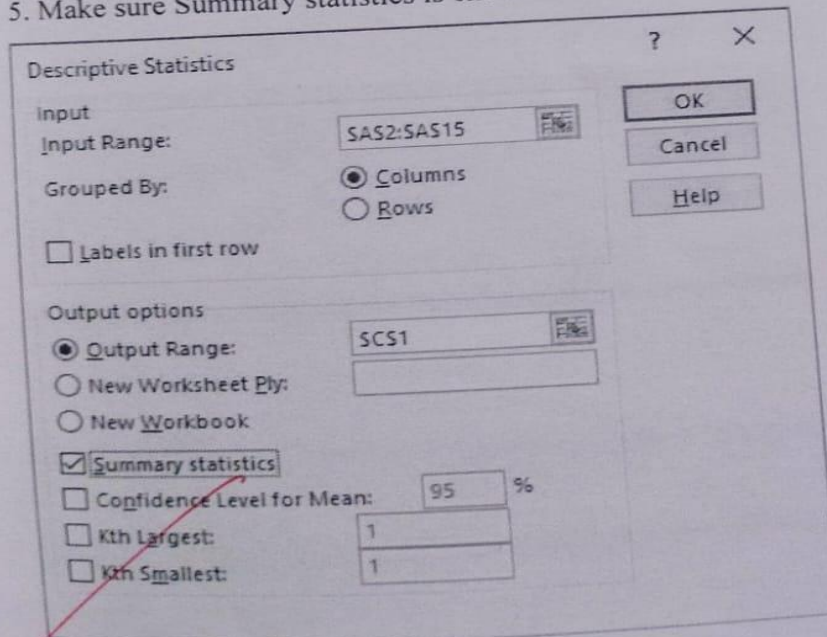
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4. Select cell C1 as the Output Range.

5. Make sure Summary statistics is checked.



6. Click OK.



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UT

A	B	C	D	E
		Column1		
82		Mean	81.21428571	
93		Standard Error	4.045318243	
91		Median	85	
69		Mode	93	
96		Standard Deviation	15.13619489	
61		Sample Variance	229.1043956	
88		Kurtosis	-1.426053506	
58		Skewness	-0.402108004	
59		Range	42	
100		Minimum	58	
93		Maximum	100	
71		Sum	1137	
78		Count	14	



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### SEMINAR AND PROJECT REVIEW MARKSHEET

S7 IT - Seminar ITQ413  
 2019 - 2023 Batch

Sl.No.	Name	Topic	Guide
1	AISWARYA UNNIKRISHNAN	Secure E Commerce Scheme	Ms. Anju Susan George
2	AKASH S KUMAR	Mobile fire Evacuation System for Large Public Buildings Based on Artificial Intelligence and IoT	
3	ALAN SIBY	Artificial Intelligence for Enhanced Mobility and 5G connectivity in UAV - Based Critical Missions	
4	ALEENA JOSEPH	Toward Effective Response to Natural Disasters : A Data Science Approach	
5	ALEENA WILSON	Educational Data Mining to support Programming Learning using Problem Solving Data	
6	ALEN SALU	Artificial Intelligence and IoT Enabled Disesse Diagnosis Model for Smart Healthcare Systems	
7	ALEN SHAJAN	Privacy Preserving Framework for Block chain based stock Exchange Platform	
8	ALFIN DAVIS	Web Scraping aproached and their performance on modern websites	
9	ALLAN JOHN SCOTT	DAENet: making strong Anonymity Scale in a Fully Decentralized Network	
10	ALLEN BENNY	A Moving Target Defense Strategy for IoT Cybersecurity	
11	AMJITHKUMAR P G	Performance Evaluation oc Containerization in Edge Cloud Computing Stacks for Industrial Applications	
12	ANJALY SAJI	Smart IoT based security system for residence	
13	ANNA SUSAN JOSE	Towards development of a virtual reality for children with Autism spectrum Disorder	
15	ASWIN KRISHNA R	Supporting Intelligence in Disaggregated open radio Access Networks : Architectural Principles, AI/ML workflow and use cases	
16	ATHIRA BABU	Intelligent internet of things for smart home optimal convection	
17	BASIL BIJU	A framework to make voting system transparent using block chain Technology	
18	BENNET JOY	Real time speech Emotion Analysis for Smart Home Assistant	
19	BENNO BABY	A CNN based Smart waste Management system using Tensor FlowLite and LoRa-GPS Shieldin IoT Environment	
20	BEN RAJ	AI world cup: Robot soccer Based Competitions	
21	BERTIN PETER	Google Glass	
22	BINTO TOM JOSEPH	Low latency streaming for Path - Walking VR systems	
23	BLESSON MANJAKUNNEL	An Improved Deep Network Based cene Classification Method for Self Driving Cars	
24	CYRIAC PAUL BISSY	Automated Disaster Monitoring from social Media posts using AI - Based Location Intelligence and Settlement Analysis	
25	DANY TOMY	Data Smells: categories, Causes, and consequences and detection of Suspicious Data in AI based Systems	
26	DEYON SEBASTIAN	Enhanced security in cloud computing using Neural Network and Encryption	
27	DHANESH KUMAR K D	Supply Chain Inventory Sharing using Ethereum Blockchain and Smart Contracts	
28	DILIS DENNY	Blockchain enabled fog resource access and granting	
29	EMMA TERESA JOSEPH	Lotus SQL: SQL Engine for High Performance Big Data Systems	
30	IVINE JAEMON	Computer generated Holography	
31	JAFRETTA JAMES	Image Processing Fake Currency Detection	
32	JERIL JOSE	A deep learning based framework for phishing website Detection	
33	JESSON JOSE	Online Measuring of Robot positions using Inertial measurement units, Sensor fusion and Artificial Intelligence	
34	JIBIN BENNY	Object Detection for Automotive RADAR point Clouds	
35	JOBIN P JOSEPH	Secure Blockchain platform for Supporting AI - Enable IoT Applications	
36	JOE SAJU GEORGE	Machine Learning and Deep Learning Approches for Cybersecurity	
37	JOHAN MATHEW	Quantum Computing	

*JS*

*Anju*  
 (16/11/23)



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38	KEVIN KURIAN T	Internet of Things and	Ms. Josna Jose
39	KEVIN VINOD	A large scale Simulator for NB-IoT	
40	LEONA MARIA JOSE	Fake Document Generation for Cyber Deception by Manipulating Text Comprehensibility	
41	MILAN K BIJU	The Key Application Software Service in Science Cloud Computing	
42	MRIDULA ANN OOMMEN	Indoor/ outdoor semantic segmentation using Deep learning for visually impaired Wheelchair users	
43	NANDHU PRAKASH	An AI - powered Threat Detector for Intelligent Surveillance Cameras	
44	NAVEEN SIBI	Enabling customizable services for multimodal smart mobility with City platforms	
45	NEVIN SHAJU	A cough Based Deep Learning Framework for Detecting Covid 19	
46	RICHARD PETER	Real time Traffic Signs and Road Objects Detection Based on Mobile GPU Platform	
47	RONEY SAJEE	Block Chain Based peer to peer business transaction for international trade	
49	ROZELLA MARIA TREESA BOBAN	EMS: An Energy management scheme for Green ToT Environments	
50	SIVAPRASAD P R	Automated Detection of Covid - 19 infection using chest X - Ray Images through transfer learning	
51	SMRUTHI BABU	Zero trust Architecture (ZTA)	
52	SREELAKSHMI K S	Dynamic crosswalk scene understanding for the visually impaired	
53	SREEVISAKH MARATH SURAJ	Blockchain and AI- Empowered Healthcare Insurance Fraud Detection : An Analysis, Architecture and Future Prospects	
54	SUSMI SHAJI	Detecting Brain Tumor by using machine learning and image processing techniques	
55	SWATHY KRISHNA P. KAIMAL	Blue Brain Technology	
56	THOMAS PAULSON	Drone Navigation using Region and Edge Exploitation Based Deep CNN	

*JS*

*Josna*  
(17011-27)



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SEMNR 2019 - 23 BATCH  
INTERNAL MARK

Roll No.	Name	JEJ	ASG	JJ	Average(40)	Co - Ord (20)	Guide(20)	Report (20)	Internal mark (100)	Attendance Percentage	Attendance Mark
1	AISWARYA UNNIKRISHNAN	30	30	30	30	20	15	20	85	100	10
2	AKASH S KUMAR	34	34	30	33	19	16	20	88	88	9
3	ALAN SIBY	32	32	33	32	19	16	20	87	88	9
4	ALEENA JOSEPH	30	30	29	30	20	16	20	86	100	10
5	ALEENA WILSON	32	32	36	33	20	15	20	88	100	10
6	ALEN SALU	33	33	36	34	18	16	20	88	88	9
7	ALEN SHAJAN	30	29	32	30	18	15	20	83	88	9
8	ALFIN DAVIS	30	30	31	30	15	16	20	78	88	9
9	ALLAN JOHN SCOTT	28	28	27	28	14	14	17	70	75	8
10	ALLEN BENNY	31	31	31	31	20	16	20	87	100	10
11	AMJITHKUMAR P G	30	32	35	32	19	17	20	88	88	9
12	ANJALY SAJI	35	36	30	34	19	17	20	90	88	9
13	ANNA SUSAN JOSE	31	33	31	32	20	17	20	89	100	10
14	ARUN TOMY	27	25	29	27	8	14	18	67	75	8
15	ASWIN KRISHNA R	32	32	32	32	19	17	20	92	88	9
16	ATHIRA BABU	32	34	29	32	20	17	20	89	100	10
17	BASIL BIJU	31	31	32	31	19	16	20	86	100	10
18	BENNET JOY	31	32	31	31	17	14	20	79	88	9
19	BENNO BABY	35	36	34	35	19	18	20	89	88	9
20	BEN RAJ	30	30	30	30	18	16	20	84	88	9
21	BERTIN PETER	30	33	28	30	17	17	20	84	75	8
22	BINTO TOM JOSEPH	31	34	30	32	18	15	20	85	100	10
23	BLESSON MANJAKUNNEL	29	30	31	30	17	15	19	81	88	9
24	CYRIAC PAUL BISSY	31	31	25	29	18	17	20	80	75	8
25	DANY TOMY	30	30	25	28	19	16	20	83	88	9
26	DEYON SEBASTIAN	22	22	22	22	20	15	20	77	100	10
27	DHANESH KUMAR K D	33	35	33	34	19	16	19	82	88	9
28	DILIS DENNY	26	28	25	26	20	17	20	83	100	10
29	EMMA TERESA JOSEPH	32	31	34	32	17	16	20	85	75	8
30	IVINE JAIMON	30	32	29	30	20	17	20	87	100	10
31	JAFRETTA JAMES	28	28	29	28	20	15	20	83	100	10
32	JERIL JOSE	37	29	26	31	18	16	17	82	100	10
33	JESSON JOSE	29	28	29	29	19	15	20	80	100	10
34	JIBIN BENNY	26	28	25	26	15	15	18	74	75	8
35	JOBIN P JOSEPH	30	30	34	31	15	15	18	79	75	8
36	JOE SAJU GEORGE	28	31	29	29	20	15	20	80	100	10
37	JOHAN MATHEW	28	29	30	29	8	14	16	67	75	8
38	KEVIN KURIAN T	30	30	30	30	16	15	18	79	88	9
39	KEVIN VINOD	32	31	35	33	17	17	17	78	88	9
40	LEONA MARIA JOSE	36	34	37	36	19	15	19	89	88	9
41	MILAN K BIJU	27	29	26	27	15	15	16	73	75	8
42	MRIDULA ANN OOMMEN	36	35	37	36	19	18	20	93	88	9
43	NANDHU PRAKASH	33	32	36	34	20	16	19	89	100	10
44	NAVEEN SIBI	28	30	29	29	19	15	16	79	100	10
45	NEVIN SHAJU	31	30	31	31	17	15	18	81	88	9
46	RICHARD PETER	30	32	28	30	16	15	15	76	88	9
47	RONEY SAJEE	33	36	34	34	18	18	19	89	88	9
48	ROSHAN ELDHO ROY	38	38	38	38	18	19	20	90	70	8
49	ROZELLA MARIA TREESA ROBAN	32	31	34	32	17	15	20	84	100	10
50	SIVAPRASAD P R	28	28	26	27	16	16	18	77	88	9
51	SMRUTHI BABU	29	28	30	29	20	15	20	84	100	10
52	SREELAKSHMI K S	38	36	38	37	19	16	20	92	88	9
53	SREEVISHAKH MARATH SUBAI	29	29	30	29	8	17	17	68	75	8
54	SUSMI SHAJI	28	28	28	28	18	15	18	79	75	8
55	SWATHY KRISHNA P, KAIMAL	35	34	35	35	18	18	20	91	75	8
56	THOMAS PAULSON	30	28	32	30	16	15	17	78	100	10

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Department of Information Technology  
SS - ITD 416 PROJECT PHASE II (Interim Evaluation-2)

Project Groups

Roll no	Name	Group	Topic	Guide	Application of engineering knowledge (10)	Involvement of individual members (5)	Results and inferences upon execution (5)	Documentation and presentation (5)	Total (25)
18	Bennet Joy	1	Personal Assistance for Disabled People	Anitta K Mathew	8	4	3	4	19
37	Johan Mathew				8	3	3	3	17
39	Kevin Vinod				8	4	3	3	18
17	Basil Biju	2	Student attendance system using FaceRecognition.	Shilpa Sugathan	7.5	3	3	3	16.5
21	Bertin Peter				7.5	4	3	3	17.5
24	Cyriac Paul Bissy				7	3	3	3	16
46	Richard Peter				7.5	4	3	3	17.5
2	Akash S Kumar	3	Machine Learning Enhanced Web App for Smart Investments	Juliet A Murali	8	4	4	4	20
27	Dhaneesh K.D				8	4	4	4	20
35	Jobin P Joseph				9	4	4	4	21
38	Kevin Kurian T				9	4	4	4	21
10	Allen Benny	4	Phishing Website Detection Using Ensemble Method	AnnPreetha Jose	7	4	3	3	17
14	Arun Tomiy				5.5	3	3	3	14.5
34	Jibin Benny				5.5	3	3	3	14.5
30	Ivine jaimon				7	4	3	3	17
8	Alfin Davis	5	Blockchain Based Charity Donation Scheme to Handle Financial Irregularities	Nidhin R	5	3	3	3	14
9	Alfan john Scott				5	3	3	2	13
48	Roshan Roy Eldo				6	3	3	3	15
53	Sreevisakh				5	3	3	2	13
6	Alen Salu	6	Housing Rental System Based on Blockchain Technology	Josna Jose	7.5	4	3	3	17.5
56	Thomas Paulson				7.5	3	3	3	16.5
41	Milan K biju				7	4	3	3	17
28	Dilus Denny				7.5	4	3	3	17.5
13	Anna Susan Jose				7	4	3	3	17
40	Leona Maria	7	Deep Learning Based Mobile Application Design for Smart Parking	Salini Dev P V	7	3	3	3	16
51	Simruthi Babu				7.5	3	3	3	16.5
55	Swathy Krishna				7.5	3	3	3	16.5
7	Allen Shajan				8.5	4	3.5	3	19
15	Aswin Krishna R	8	Disease Prediction Using Machine Learning	AnnPreetha Jose	8.5	4	4	4	20.5
22	Binto Tom Joseph				8.5	4	4	4	20.5
43	Nandhu Prakash				8.5	4	4	4	20.5
					8.5	4	4	4	20.5

*[Signature]*  
HEAD, INFORMATION TECHNOLOGY DEPARTMENT  
VISWAJYOTHI COLLEGE OF ENGG. & TECHNOLOGY  
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25	Dany Tony	9	Cyberbullying Detection Using Deep Learning Approach	Nidhin R	8.5	3	4	3	18.5
26	Devon Sebastian				8	3	3	3	17
32	Jerd Jose				8.5	3	4	3	18.5
44	Naveen Sibi				8	3	4	3	18
1	Aiswarya Umnikrishnan	10	Tourism Management System	Tiny Molly V	8.5	3	3	3	17.5
29	Emma Theresa				8.5	3	3	3	17.5
42	Mridula Ann Gomen				8.5	3	3	3	17.5
3	Alan Siby	11	Plant Disease Detection and Classification by Deep Learning	Juliet A Murali	8	3	3	4	18
16	Athira Babu				8	4	4	4	20
49	Rozella Maria Treasa Boban				8	4	4	4	20
20	Ben Raj	12	Blockchain Based Counterfeit Medicine Authentication System	Jesline Joseph	8	4	4	4	20
36	Joe Saju				8	3	4	3	18
45	Nevin Shaju				8	4	4	3	19
50	Sivaprasad				8	3	3	3	17
11	AnjithKumar P.U	13	Theft/Intrusion Detection Using Computer Vision	Jesline Joseph	8	4	4	4	20
23	Blesson Manjakunnel				8	4	4	4	20
33	Jesson Jose				8	3	4	3	18
47	Roney Sajee				8	3	4	3	18
4	Aleena Joseph	14	Deep Learning Based Respiratory Sound Analysis for Detection of Chronic Obstructive Pulmonary Disease	Anju Susan George	9	4	4	4.5	21.5
19	Benno Baby				9	4.5	4.5	4.5	22.5
52	Sreelakshmi K.S				9	4.5	4.5	4.5	22.5
5	Aleena Wilson	15	Driver Drowsiness Prediction System	Josna Jose	8	3	4	3	18
12	Anjali Saji				8	3	4	3	18
31	Jeffretta James				8	3	3	2	16
54	Susmi Shaji				8	3	3	2.5	16.5

Anju Susan George - *Anju*  
Jesline Joseph - *JS*  
Juliet A Murali - *Juliet*

*Anju*  
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## INFORMATION TECHNOLOGY

CODE	COURSE NAME	CATEGORY	L	T	P	CREDIT
ITT305	DATA COMMUNICATION AND NETWORKING	PCC	3	1	0	4

**Preamble:** The syllabus is prepared with a view to equip the Engineering Graduates to learn basic concepts in data communication and computer networking, and to fine-tune performance parameters used in data transmission.

**Prerequisite:** Nil

**Course Outcomes:** After completion of the course the student will be able to

CO No.	Course Outcome (CO)	Bloom's Category Level
CO 1	Discuss the basic concepts used in data communication and computer networking	Level 2 : Understand
CO 2	Identify the concepts of data transmission and apply signal encoding techniques in data transmission.	Level 3 : Apply
CO 3	Compare different transmission mode, multiplexing, and Spread Spectrum techniques.	Level 2 : Understand
CO 4	Describe the design issues and protocols in data link layer.	Level 2 : Understand
CO 5	Summarize the routing algorithms and congestion control techniques in network layer.	Level 2 : Understand

**Mapping of Course Outcomes with Program Outcomes** 3/2/1: High/Medium/Low

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO 1	3	2	1	-	-	-	-	-	-	-	-	2
CO 2	3	3	2	1	2	-	-	-	-	-	-	2
CO 3	2	3	1	2	2	-	-	-	-	-	-	2
CO 4	2	3	3	2	1	-	-	-	-	-	-	2
CO 5	2	2	2	1	1	-	-	-	-	-	-	2

### Assessment Pattern

Bloom's Category Levels	Continuous Assessment Tests		End Semester Examination
	1	2	
BL 2: Understand	30	30	60
BL 3: Apply	20	20	40
BL 4: Analyse			
BL 5: Evaluate			
BL 6: Create			



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Vision

**“Moulding Professionals par excellence  
with integrity, fairness and human values”**

Mission

- We commit to develop the institution into a Centre of Excellence of International Standards.
- We guide and mould our students in the attainment of intellectual and professional competence for successfully coping with the rapid and challenging advancements in technology and the ever changing world of business, industry and services.
- We help and support our students in their personal growth shaping them into mature and responsible individuals.
- We strive to cultivate a sense of social and civic responsibility in our students, empowering them to serve humanity.
- We promise to ensure a free environment where quest for the truth is encouraged.

## COURSE DIARY

### LABORATORY / PRACTICAL / WORKSHOP

Year : 20.22..... - 20.23.....

SEM : ODD / EVEN

ITL411 DATA ANALYTICS

LABORATORY/WORKSHOP

Subject	:	ITL411 DATA ANALYTICS LAB
Class & Branch	:	57, IT
Faculty	:	Ms. JOSNA JOSE
Date of Commencement	:	20/09/2022



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### Course Plan

Topics to be Covered			
No	Date & Day	Hr	Module I
1	20-09-2022 Tuesday(1)	1	Introduction: - Types of Computer Networks, Network Software - Protocol Hierarchies, Connection oriented and Connection less hierarchies
2	22.9.2022 Thursday (3)	2	Connection oriented and Connection less hierarchies
3	23.9.2022 Friday(6)	3	Reference Models - ISO-OSI Reference Model.
4	27.9.2022 Tuesday(1)	4	TCP/IP Reference Model – Comparison of OSI and TCP/IP reference models
5	28.9.2022 Wednesday(3)	5	Physical Layer: - Guided Transmission Media– Twisted Pair, Coaxial and Fiber Optics,
6	29.9.2022 Thursday (3)	6	Wireless Transmission- Radio and Microwave transmission,
7	30.9.2022 Friday(6)	7	Communication Satellites – GEO, MEO, LEO.
8	11.10.2022 Tuesday(1)	8	Comparison of Network hardware - Repeaters, Routers, Bridges, Gateways, and Hub.
<b>Total</b>		<b>8</b>	
Topics to be Covered			
No	Date & Day	Hr	Module II
9	12.10.2022 Wednesday(3)	1	Data and signals, Analog Signals, Digital Signals
10	13.10.2022 Thursday (3)	2	Transmission Impairments
11	14.10.2022 Friday(6)	3	Data Rate Limits: Channel Capacity, Nyquist Bit Rate, Shannon Capacity
12	18.10.2022 Tuesday(1)	4	Performance parameters - Bandwidth, Throughput, Delay & Jitter.
13	19.10.2022 Wednesday(3)	5	Digital-To-Digital Conversion: Line Coding Schemes: Unipolar, Polar, Bipolar -
14	20.10.2022 Thursday (3)	6	Block Coding, Scrambling
15	21.10.2022 Friday(6)	7	Analog-To-Digital Conversion
16	25.2022 Tuesday(1)	8	Pulse Code Modulation
17	26.10.2022 Wednesday(3)	9	Delta Modulation
18	27.10.2022 Thursday (3)	10	Digital-To-Analog Conversion: ASK, FSK, PSK
<b>Total</b>		<b>10</b>	

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### Course Plan

No	Date & Day	Hr	Topics to be Covered Module III
19	28.10.2022 Friday(6)	1	Transmission Modes,
20	29.10.2022 Tuesday(1)	2	Parallel and Serial Transmission
21	1.11.2022 Tuesday (1)	3	Asynchronous, Synchronous, Isochronous Transmission
22	2.11.2022 Wed- (6)	4	Multiplexing - TDM, FDM, WDM
23	3.11.2022 Thur- (3)	5	Spread spectrum-The concept of spread spectrum
24	4.11.2022 Friday (6)	6	frequency hopping spread spectrum – direct sequence spread spectrum
25	10.11.2022 Thur- (3)	7	code division multiple access
	<b>Total</b>	<b>7</b>	

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S. J. /  
01/11/22



### Course Plan

No	Date & Day	Hr	Topics to be Covered Module IV
6	11.11.2022 Friday (6)	1	Data Link Layer – design issues
7	15.11.2022 Tuesday (1)	2	Error Detection: Parity Check, Checksum,
8	16.11.2022 Wed (6)	3	CRC
9	17.11.2022 Thur- (3)	4	Error Correction: Hamming code
0	18.11.2022 Friday (6)	5	Flow Control: Stop-and-Wait, –
1	22.11.2022 Tuesday (1)	6	Go-Back-N, and Selective-Repeat
2	23.11.2022 Wed (6)	7	Random Access: ALOHA, CSMA, CSMA/CD, CSMA/CA,
3	24.11.2022 Thur- (3)	8	Controlled Access: Reservation, Polling, Token Passing,
4	29.11.2022 Tuesday (1)	9	Ethernet- Ethernet Cabling, Encoding, Frame Format
5	30.11.2022 Wed (6)	10	Binary Exponential Back Off Algorithm.
		10	
	<b>Date &amp; Day</b>	<b>Hr</b>	<b>MODULE V Topics to be Covered</b>
	1.12.2022 Thur- (3)	1	Network Layer Design Issues
	02.12.2022 Friday (6)	2	Routing Algorithm – Optimality principle - Flooding
	06.12.2022 Tuesday (1)	3	Distance vector routing, Link state routing
	07.12.2022 Wed (6)	4	Multicast Routing
	08.12.2022 Thur- (3)	5	Congestion Control Algorithms – General principles
	15.12.2022 Thur- (3)	6	Congestion prevention policies – Choke packets –
	16.12.2022 Friday (6)	7	Random Early Detection





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### Course Plan

37	17.12.2022 Saturday	8	Leaky bucket algorithm.
38	20.12.2022 Tuesday (1)	9	Basic functions of Transport layer.
39	21.12.2022 Wed (6)	10	Basic functions of Application layer
	<b>Total</b>	<b>10</b>	
<b>No</b>	<b>Date &amp; Day</b>	<b>Hr</b>	
40	22.12.2022 Thur- (3)	1	Revision of Module I&Module II
41	23.12.2022 Friday (6)	2	Previous Year University Question paper Discussion
42	3.1.2023 Tuesday (1)	3	Revision of Module III& IV
43	4.1.2023 Wed- (6)	4	Previous Year University Question paper Discussion
44	5.1.2023 Thur- (3)	5	Revision of Module V
45	6.1.2023 Friday (6)	6	Previous Year University Question paper Discussion
46	7.1.2023 Saturday	7	Previous Year University Question paper Discussion
	<b>Total</b>	<b>45 + 7</b>	
		<b>52</b>	

SWAJYOTHI COLLEGE OF ENGINEERING & TECHNOLOGY



# VISWAJYOTHI

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Vazhakulam P.O., Muvattupuzha  
Ernakulam Dist., Kerala - 686 670  
Tel: 0485 2262211 / 44  
Email: vjcet@vjcet.org  
www.vjcet.org

<b>Details of Tutorials</b>		
No.	Date	Description
1.	11/10/22.	Network Topology - Ring Star Mesh Bus. Two-dimensional parity checks - Constellation diagram for ASK, BPSK, QPSK.  <i>Handwritten notes:</i> 31/10/2023 (1700-21) 31/10/2022 (1700-21)



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[www.vjcet.org](http://www.vjcet.org)

Date of submission	Date of return after evaluation	Description
30-9-22	1-10-2022	Routers, Bridges, Repeaters, Gateways.
23-11-22 <i>Done 31/10/2023 CDD-IP</i>	2-12-2022	Basic fns of Transport & Application layer. <i>Done 09/10/2023 CDD-IP</i>

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 Email: vjcet@vjcet.org  
 www.vjcet.org

NAME	Date	Period													
		3	4	3	3	3	6	1	3	5	3	6	3	3	6
AAGUS BIJU		x	x	x	A	x	x	A	x	x	x	x	x	A	x
ADARSH REJI		x	x	x	x	x	x	x	x	x	x	x	x	x	x
AGNAL ROY		x	x	x	x	x	x	x	x	x	x	x	x	x	x
AINA SHIBU		x	x	x	x	x	x	x	x	x	x	x	x	x	x
AKSHARA JOSHY		x	x	x	A	x	x	x	x	x	x	x	x	x	x
ALAN SAJO PAUL		x	x	x	x	x	x	x	x	x	x	x	x	x	x
ALEENA BIJU		x	x	x	x	x	x	x	x	x	x	x	x	x	x
ALEETA ROSE		x	x	x	x	x	x	x	x	x	x	x	x	x	x
ALEN BIBU		x	x	x	x	x	x	x	x	x	x	x	x	x	x
AMAN H.		x	x	x	x	x	x	x	x	x	x	x	x	x	x
ANANDHU SUNIL		x	x	x	x	x	x	x	x	x	x	x	x	x	x
ANAND P SASIDHARAN		x	x	x	x	x	x	x	x	x	x	x	x	x	x
ANJALY ABRAHAM		x	x	x	x	x	x	x	x	x	x	x	x	x	x
ANTONY CIJO		x	x	x	x	x	x	x	x	x	x	x	x	x	x
ANU BABY		x	x	x	x	x	x	x	x	x	x	x	x	x	x
BASIL BALJU		x	x	x	x	x	x	x	x	x	x	x	x	x	x
ELDHO PETER REJI		x	x	x	x	x	x	x	x	x	x	x	x	x	x
ERIC PAUL		x	x	x	x	x	x	x	x	x	x	x	x	x	x
JEEVAN BENNY		x	x	x	x	x	x	x	x	x	x	x	x	x	x
JESWIN ANTONY		x	x	x	x	x	x	x	x	x	x	x	x	x	x
JOANA ELSUM MANUEL		x	x	x	x	x	x	x	x	x	x	x	x	x	x
JOHN MATHEW		x	x	x	x	x	x	x	x	x	x	x	x	x	x
JOSE JOSEPH		x	x	x	x	x	x	x	x	x	x	x	x	x	x
JOSNA JOSEPH		x	x	x	x	x	x	x	x	x	x	x	x	x	x
JUDITH BIJU		x	x	x	x	x	x	x	x	x	x	x	x	x	x
KARTHIK		x	x	x	x	x	x	x	x	x	x	x	x	x	x
KRISHNAND		x	x	x	x	x	x	x	x	x	x	x	x	x	x
LIJO JOSEPH		x	x	x	x	x	x	x	x	x	x	x	x	x	x
MICHAEL RAJU		x	x	x	x	x	x	x	x	x	x	x	x	x	x
VIKHIL JOY		x	x	x	x	x	x	x	x	x	x	x	x	x	x
OBEDH K JOBY		x	x	x	x	x	x	x	x	x	x	x	x	x	x
P.B. SRUTHY.		x	x	x	x	x	x	x	x	x	x	x	x	x	x
PIOUS RAJU		x	x	x	x	x	x	x	x	x	x	x	x	x	x
PILU TDJO		x	x	x	x	x	x	x	x	x	x	x	x	x	x
RIYA VINCENT		x	x	x	x	x	x	x	x	x	x	x	x	x	x



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Viswajyothi College of Engineering and Technology, Vazhakulam P.O

Examination Register

Class : 55 IT

Paper : ITT395 DATA COMMUNICATION & NETWORKING

Roll No	Name	AM (10)	Series 1(50)	Series 2(50)	Assignment 1(15)	Assignment 2(15)	Makeup Test(60)	Attendance %	AM(10)	Test Marks(28)	Assignment (15)	Sessional Mark(50)
01	AAGUS BIJU	10.0	17.0	24.0	15.0	15.0	.0	97.0	10.0	10.3	15.0	35.
02	ADARSH E REJI	10.0	43.0	43.0	15.0	15.0	.0	87.0	10.0	21.5	15.0	17.
03	AGNAL ROY	10.0	39.0	38.0	15.0	15.0	.0	92.0	10.0	19.3	15.0	44.
04	AHA SHIBU	10.0	36.0	38.0	15.0	15.0	.0	92.0	10.0	18.5	15.0	44.
05	AKSHARA JOSHY	10.0	43.0	20.0	15.0	15.0	.0	87.0	10.0	15.8	15.0	41.
06	ALAN SAJO PAUL	10.0	27.0	20.0	14.0	15.0	.0	100.0	10.0	11.8	14.5	36.
07	ALEENA BIJU	10.0	43.0	40.0	15.0	15.0	.0	97.0	10.0	20.8	15.0	46.
08	ALEETA ROSE	10.0	37.0	25.0	15.0	15.0	.0	87.0	10.0	15.5	15.0	41.
09	ALEN RIBU	9.0	24.0	23.0	15.0	15.0	.0	82.0	9.0	11.8	15.0	36.
10	AMAN H	10.0	34.0	22.0	15.0	15.0	.0	90.0	10.0	14.0	15.0	39.
11	ANANDHU SUNIL	10.0	29.0	21.0	15.0	15.0	.0	92.0	10.0	12.5	15.0	38.
12	ARAND P SASIDHARAN	10.0	21.0	20.0	15.0	15.0	.0	87.0	10.0	10.3	15.0	35.
13	ANJALY ABRAHAM	8.5	4.0	28.0	15.0	15.0	.0	85.0	8.5	8.0	15.0	32.
14	ANTONY CIJO	10.0	30.0	16.0	15.0	15.0	.0	100.0	10.0	11.5	15.0	37.
15	ANU BABY	10.0	36.0	35.0	15.0	15.0	.0	100.0	10.0	17.8	15.0	43.
16	BASIL BAJU	10.0	41.0	27.0	15.0	15.0	.0	97.0	10.0	17.0	15.0	42.
17	ELDHO PETER (BEJI)	10.0	32.0	27.0	15.0	15.0	.0	85.0	10.0	14.8	15.0	40.
18	ERIC PAUL EDAKKATIL	10.0	42.0	29.0	15.0	15.0	.0	92.0	10.0	17.8	15.0	43.
19	JELVAN BENNY	10.0	31.0	29.0	15.0	15.0	.0	87.0	10.0	15.0	15.0	40.
20	JESWIN ANTONY M	10.0	40.0	29.0	15.0	15.0	.0	92.0	10.0	17.3	15.0	42.
21	JOANA ELSUM MANUEL	10.0	42.0	40.0	15.0	15.0	.0	92.0	10.0	20.5	15.0	46.
22	JOHN MATHEW	10.0	24.0	20.0	15.0	15.0	.0	97.0	10.0	11.0	15.0	36.
23	JOSE JOSEPH	10.0	16.0	22.0	15.0	15.0	.0	90.0	10.0	9.5	15.0	35.
24	JOSNA JOSEPH	10.0	44.0	40.0	15.0	15.0	.0	90.0	10.0	21.0	15.0	46.
25	JUDITH BIJU ABBANAM	10.0	44.0	35.0	15.0	15.0	.0	90.0	10.0	19.8	15.0	45.
26	KARTHIK	10.0	38.0	30.0	15.0	15.0	.0	90.0	10.0	17.0	15.0	42.
27	KRISHNANAND S	10.0	38.0	30.0	15.0	15.0	.0	97.0	10.0	10.0	15.0	35.
28	KRISHNANAND S	10.0	15.0	25.0	15.0	15.0	.0	87.0	10.0	10.3	15.0	35.
29	LJOJO JOSEPH	10.0	24.0	17.0	15.0	15.0	.0	90.0	10.0	12.5	15.0	38.
30	MICHAEL RAJU	10.0	33.0	17.0	15.0	15.0	.0	92.0	10.0	14.8	15.0	40.
31	MIKHIL JOY	10.0	39.0	20.0	15.0	15.0	.0	97.0	10.0	10.3	15.0	35.
32	NIKHIL JOY	10.0	31.0	10.0	15.0	15.0	.0	97.0	10.0	10.3	15.0	35.
33	OBEDH K JOBY	10.0	31.0	10.0	15.0	15.0	.0	95.0	10.0	20.8	15.0	46.
34	P B BRUTHY	10.0	46.0	37.0	15.0	15.0	.0	97.0	10.0	12.5	15.0	38.
35	PIOUS RAJU	10.0	37.0	13.0	15.0	15.0	.0	100.0	10.0	18.8	15.0	44.
36	PIOUS RAJU	10.0	37.0	13.0	15.0	15.0	.0	100.0	10.0	18.8	15.0	44.
37	RILU TOJO	10.0	44.0	31.0	15.0	15.0	.0	85.0	10.0	19.8	15.0	45.
38	RILU TOJO	10.0	44.0	31.0	15.0	15.0	.0	85.0	10.0	19.8	15.0	45.
39	RIYA VINCENT	10.0	43.0	36.0	15.0	15.0	.0	92.0	10.0	13.5	15.0	39.
40	ROMAL JOSEPH	10.0	34.0	20.0	15.0	15.0	.0	95.0	10.0	5.5	15.0	31.
41	ROMAL JOSEPH	10.0	34.0	20.0	15.0	15.0	.0	95.0	10.0	5.5	15.0	31.
42	RON THOMAS	10.0	12.0	10.0	15.0	15.0	.0	97.0	10.0	15.0	15.0	40.
43	RON THOMAS	10.0	12.0	10.0	15.0	15.0	.0	97.0	10.0	15.0	15.0	40.
44	SARA THERESA	10.0	40.0	20.0	15.0	15.0	.0	92.0	10.0	14.3	15.0	39.
45	SABA	10.0	40.0	20.0	15.0	15.0	.0	92.0	10.0	14.3	15.0	39.
46	SAVIO JOSEPH	10.0	37.0	20.0	15.0	15.0	.0	87.0	10.0	14.5	15.0	40.
47	SABU	10.0	37.0	20.0	15.0	15.0	.0	87.0	10.0	14.5	15.0	40.
48	SHANO THOMAS	10.0	40.0	18.0	15.0	15.0	.0	92.0	10.0	16.3	15.0	41.
49	SHANO THOMAS	10.0	40.0	18.0	15.0	15.0	.0	92.0	10.0	16.3	15.0	41.
50	SIVAPRIYA V JAYAN	10.0	42.0	23.0	15.0	15.0	.0	92.0	10.0	16.3	15.0	41.
51	SIVAPRIYA V JAYAN	10.0	42.0	23.0	15.0	15.0	.0	92.0	10.0	16.3	15.0	41.
Total Mark												1631.
Avg												40.
Max Mark												47.
Min Mark												31.

*Handwritten signature and date: 06/02/2023 (11:00 AM)*



<u>Subject Coverage</u>				
No.	Date & Day (Period)	Cumulative Hrs.	Topics to be Covered	Mode of Instruction
1	22/9/22 3	1	Mod - I Data Communication	Chalk, Talk PPT
2	26/9/22 Wed, 3	2	Types of computer n/w	"
3	28/9/22 Fri, 6	3	Connection oriented & less	"
4	29/9/22 Sat - 3	4	OSI Architecture	"
5	12/10/22 Wed, 3	5	TCP/IP Architecture	"
6	13/10/22 Thur, 3	6	Physical Layer - Guided Media	"
7	14/10/22 Fri, 6	7	Wireless Transmission -	"
8	18/10/22 Tue, 1	8	Communication Satellite	"
9	19/10/22 Wed, 3	9	N/w hardware	"
10	19/10/22 Wed, 5	9	Module - IV Data link layer	"
11	20/10/22 Thur, 3	2	Error correction & Detection	"
12	21/10/22 Fri, 6	3	Parity check	"
13	26/10/22 Wed, 3	4	Hamming distance	"



<u>Subject Coverage</u>			
Date & Day (Period)	Cumulative Hrs.	Topics to be Covered	Mode of Instruction
30/11/22 Wed, 3	1	<u>Mod-III</u> Transmission Modes	Charulka, Table PPT
1/12/22 Thurs 3	2	Asynchronous, Synchronous etc	"
2/12/22 Fri 6	3	Multiplexing	"
6/12/22 Tue, 1	4	Spread Spectrum	"
7/12/22 Wed 3	5	Frequency hopping, direct	"
8/12/22 Thurs 3	6	CDMA	"
15/12/22 Thurs 3	6	<u>Mod-V</u>	
20/12/22 Tue, 1	1	N/w layer design issues	"
22/12/22 Wed, 3	2	Routing alg. - optimality	"
31/1/23 Tue, 1	3	Distance Vector alg.	"
4/1/23 Wed, 3	4	Link state alg.	"
4/1/23 Wed 6	5	Multicast, Congestion control	
6/1/23 Wed 6	6	Choke packets	
6/1/23 Fri 3	7	Leaky bucket alg.	



Subject Coverage				
No.	Date & Day (Period)	Cumulative Hrs.	Topics to be Covered	Mode of Instruction
40	7/10/23 Sat 3			Chavith, Tull
41	7/11/23 Sat 3	8 8	Random early detection	PPT
42	10/1/23 Tue, 1	9 20	Univ. Qn. Paper discussion	"
43	11/1/23 Wed 3		"	"
44			Total hrs. planned: 45	
45			Total hrs. taken: 43	
46				
47				<del>3/10/2023 C. J. D. - J. P.</del>
48				
49				
50				
51				
52				





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Phone: 0485 - 2262211, 2262255, 2262977, 2262244, 2262311, 94963 35522  
Email: vjcet@vjcet.org vjcvklm@gmail.com Website: www.vjcet.ac.in

Vision

**"Moulding Professionals par excellence  
with integrity, fairness and human values"**

Mission

- We commit to develop the institution into a Centre of Excellence of International Standards.
- We guide and mould our students in the attainment of intellectual and professional competence for successfully coping with the rapid and challenging advancements in technology and the ever changing world of business, industry and services.
- We help and support our students in their personal growth shaping them into mature and responsible individuals.
- We strive to cultivate a sense of social and civic responsibility in our students, empowering them to serve humanity.
- We promise to ensure a free environment where quest for the truth is encouraged.

### COURSE DIARY

#### LABORATORY / PRACTICAL / WORKSHOP

Year : 20.22..... - 20.23.....

SEM : ODD / EVEN

ITL411 DATA ANALYTICS ..... LABORATORY/WORKSHOP

Subject	: ITL411 DATA ANALYTICS LAB
Class & Branch	: SF, IT
Faculty	: Ms. JOSNA JOSE
Date of Commencement	: 20/09/2022



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 Tel: 0485 2262211 / 44  
 Email: vjcet@vjcet.org  
 www.vjcet.org

Class : ST, IT

Subject with Code No : ITL411 DATA ANALYTICS LAB

Attendance

Class No.	NAME	Date		Attendance															
		20/09/20	27/09/20	04/10/20	11/10/20	18/10/20	25/10/20	01/11/20	08/11/20	15/11/20	22/11/20	29/11/20	06/12/20	13/12/20	20/12/20	27/12/20			
		Lab Period*		5	6	7	5	6	7	5	6	7	5	6	7	AJ	AN	AN	AN
36	JDE SAJU GEORGE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
37	JOHAN MATHEW	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
38	KEVIN KURIAN T	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
39	KEVIN VINOD	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
40	LEONA MARIA JOSE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
41	MILAN K BITU	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
42	MRIDULA ANN COMHEN	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
43	NANDHU PRAKASH	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
44	NAVEEN SIBI	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
45	NEVIN SHAJU	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
46	RICHARD PETER	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
47	RONNY SAJEE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
48	ROSHAN ELOHO ROY	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
49	ROZELLA MARIA TRESSA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
50	SIVAPRASAD P R	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
51	SHRUTHI BABU	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
52	SREELAKSHMI KS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
53	GREEVISAKH MARATH SORAT	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
54	SUSMI SHAJI	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
55	SWATHY KRISHNA P KANN	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
56	THOMAS PAULSON	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
57																			
58																			
59																			
60																			
61																			
62																			
63																			
64																			
65																			
66																			
67																			
68																			
69																			
70																			

\* Two hour lab can be considered as one of lab period



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VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY, VAZHAKULAM  
DEPARTMENT OF INFORMATION TECHNOLOGY  
DAILY EVALUATION SHEET

Roll No.	Name	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	DAILY EVALUATION
29	EMMA TERESA JOSEPH	21	21	25	24	25	28	23	20	24	23
30	VIVE JAMON	27	28	28	27	28	28	28	30	28	28
31	JAFRETTA JAMES	24	25	22	28	29	28	27	25	26	26
32	JERU JOSE	29	30	27	25	26	28	27	25	26	27
33	JESSON JOSE	24	24	22	28	29	28	27	25	26	26
34	JIBIN BENNY	20	20	26	24	27	21	28	25	26	24
35	JOBIN P JOSEPH	29	28	28	29	28	29	27	29	28	28
36	JOE SAJU GEORGE	26	28	28	30	28	29	27	29	28	28
37	JOHAN MATHEW	19	24	23	22	23	21	22	21	20	21
38	KEVIN KURIAN T	24	25	22	28	28	28	27	25	26	26
39	KEVIN VINOD	22	28	26	28	28	30	26	27	28	27
40	LEONA MARIA JOSE	27	25	28	28	29	28	27	30	30	28
41	MILAN K BIJU	28	24	25	29	25	21	24	24	24	25
42	MRIDULA ANN COMMEN	25	27	30	30	25	30	15	20	21	24
43	NANDHU PRAKASH	28	29	22	26	27	28	21	29	29	27
44	NAVEEN SIBI	18	20	26	24	25	30	24	23	26	23
45	NEVIN SHAJU	25	28	28	27	28	30	28	28	28	27
46	RICHARD PETER	17	29	18	29	20	15	28	23	20	23
47	RONEY SAJEF	29	28	27	26	26	27	27	27	26	27
48	ROSHAN FIDHO ROY	22	26	25	26	26	28	27	23	23	25
49	ROZELLA MARIA TRESA BOBAN	28	29	27	28	29	28	27	29	29	28
50	SHYPRASAD P R	19	21	26	22	19	22	27	26	26	27
51	SMRUTHI BABU	27	29	22	24	26	28	25	27	27	26
52	SHEELAKSHMI K S	30	29	28	28	29	28	29	30	30	29
53	SREEVISHAKH MARATH SURAJ	20	27	22	25	24	26	25	26	28	25
54	SUSMI SHAJI	27	29	22	24	25	28	25	27	26	26
55	SWATHY KRISHNA P KAIMAL	24	25	22	28	29	28	27	25	26	26
56	THOMAS PAULSON	24	25	22	28	29	28	27	25	26	26

Daily Experiment Performance Evaluation

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### TEACHING RECORD

Periods / Week  
 Total Expected

Date	Experiments Planned	No. of Periods Planned	No. of Periods Taken	Date	Experiments Covered
20/10/20	Data Analysis Using EXCEL	3	3	20/10/20	Descriptive Statistics Linear Regression Histograms
21/10/20	R Programming - Basic concepts 1,2	3	3	21/10/20	R Programming Basics Data structure, Control flow
22/10/20	R- Functions, Packages	3	3	22/10/20	R Functions, Packages
23/10/20	Data reshaping & Merging- R Text Data Analysis using data	3	3	18/10/20	Data Reshaping & Merging Text data Analysis
25/10/20	Data visualization in R	3	3	18/10/20	Data Visualization in R
26/10/20	Statistics using R- Mean, Mode, Median	3	3	21/11/20	Statistics Using R- Mean Mode, Median
27/10/20	Linear Regression & Logistic regression	3	3	21/11/20	Linear Regression and Logistic Regression
28/10/20	Decision Tree based classification	3	3	22/11/20	Decision Tree Based classification
29/10/20	K-Means clustering	3	3	22/11/20	K Means Clustering
30/10/20	Installation and Configuration of Hadoop	3	3	29/11/20	Installation of Hadoop and its Configuration
31/10/20	Manipulation of HDFS File using commands	3	3	29/11/20	Manipulation of HDFS Files
01/11/20	Implementation of MapReduce Programs	3	3	06/12/20	Implementation of MapReduce Programs
02/11/20	Interactive Data Visualization with Tableau	3	3	08/12/20	Interactive Data Visualization with Tableau

L100 20/10/20

21/11/20  
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