SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

UGC Autonomous Institution
Approved by AICTE and permanently affiliated to JNTU,
Hyderabad, T.S.501 510.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

MODEL BASED TEACHING

MODEL BASED TEACHING

1. Chart
2. Working models
3. Animated Videos
4. Role Play
5. Poster presentation

S.No.	YEAR/SEM	SUBJECT	chart	model	Animated Videos	Role play	Poster
1.	II /I	Analog Electronics	✓	✓	✓	—	✓
2.	II /I	Data Structures	✓	✓	✓	✓	✓
3.	II /I	Computer Oriented Statistical Methods	✓	✓	✓	✓	✓
4.	II /I	Computer Organization and Architecture	✓	✓	✓	✓	✓
5.	II /I	Object Oriented Programming Using C++	✓	✓	✓	✓	✓
6.	II/II	Discrete Mathematics	✓	—	✓	✓	✓
7.	II/II	Digital Logic Design	✓	✓	✓		✓
8.	II/II	Operating Systems	✓	✓	✓	✓	✓
9.	II/II	Database management systems	✓	✓	✓	✓	✓
10.	II/II	Java Programming	✓	—	✓		✓
11.	III/I	Business Economics & Financial Analysis	✓	—	✓	✓	✓

12.	III/I	Software Engineering	✓	—	✓		✓
13.	III/I	Computer Networks	✓	✓	✓	✓	✓
14.	III/I	Web Technologies	—	—	✓		✓
15.	III/I	Principles of Programming Languages	✓	—	✓	✓	✓
16.	III/II	Machine Learning	—	✓	✓	✓	✓
17.	III/II	Compiler Design	✓	—	✓	—	✓
18.	III/II	Design and Analysis of Algorithms	—	✓	✓	—	✓
19.	III/II	Mobile Application Development	✓	—	✓	—	✓
20.	III/II	Information Technology Essentials	✓	—	✓	—	✓
21.	IV/I	Data Mining		—	✓		✓
22.	IV/I	Cloud Computing	✓	—	✓	—	✓
23.	IV/I	Internet of Things	—	✓	✓	—	✓
24.	IV/I	E-Commerce	—	✓	✓	—	✓
25.	IV/I	Cryptography and Network Security	✓	✓	✓	✓	✓
26.	IV/II	Organizational Behaviour	—	—	✓	✓	✓
27.	IV/II	Distributed Systems	—	—	✓	—	✓
28.	IV/II	Information Security Fundamentals	✓	—	✓	✓	✓

Course Name: Data structures
Class: II B.Tech. II Sem
Teacher:
Activity : Chart work
Title: BFS,DFS

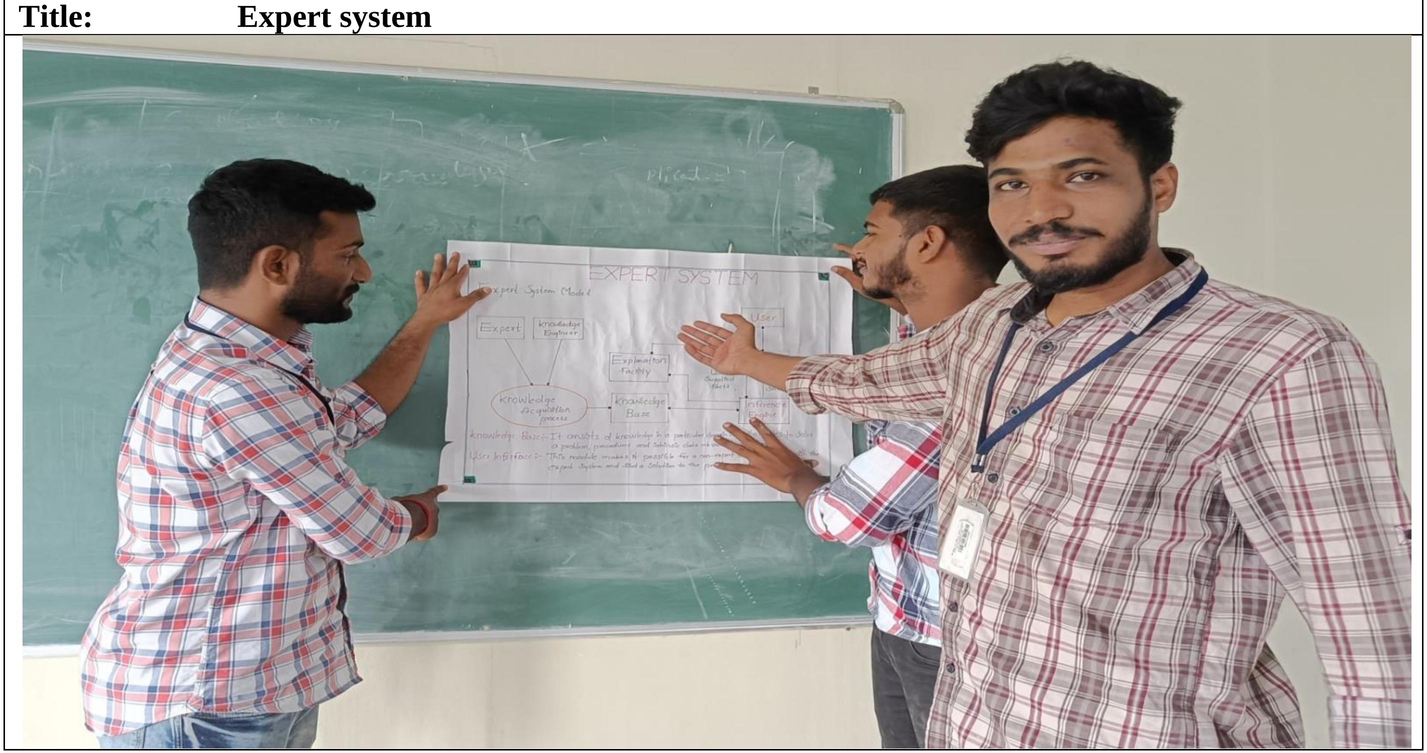
Course Name: Digital logic design
Class: III B.Tech. I Sem
Teacher: Mr. Ram Mohan
Activity : Chart work
Title: Toggle Flip Flop

TOGGLE FLIP FLOP (T- FLIP FLOP)
(NEGATIVE EDGE TRIGGERING)
BLOCK DIAGRAM:
TFF
CIRCUIT DIAGRAM:
TRUTH TABLE:
EXCITATION TABLE:
JACK KILBY FLIP FLOP
NEGATIVE EDGE TRIGGERING
BLOCK DIAGRAM
CIRCUIT DIAGRAM
EXCITATION

Course Name: Digital logic design
Class: III B.Tech. I Sem
Teacher: Mrs Jyothi
Activity : Chart work
Title: Number systems

NUMBER SYSTEM

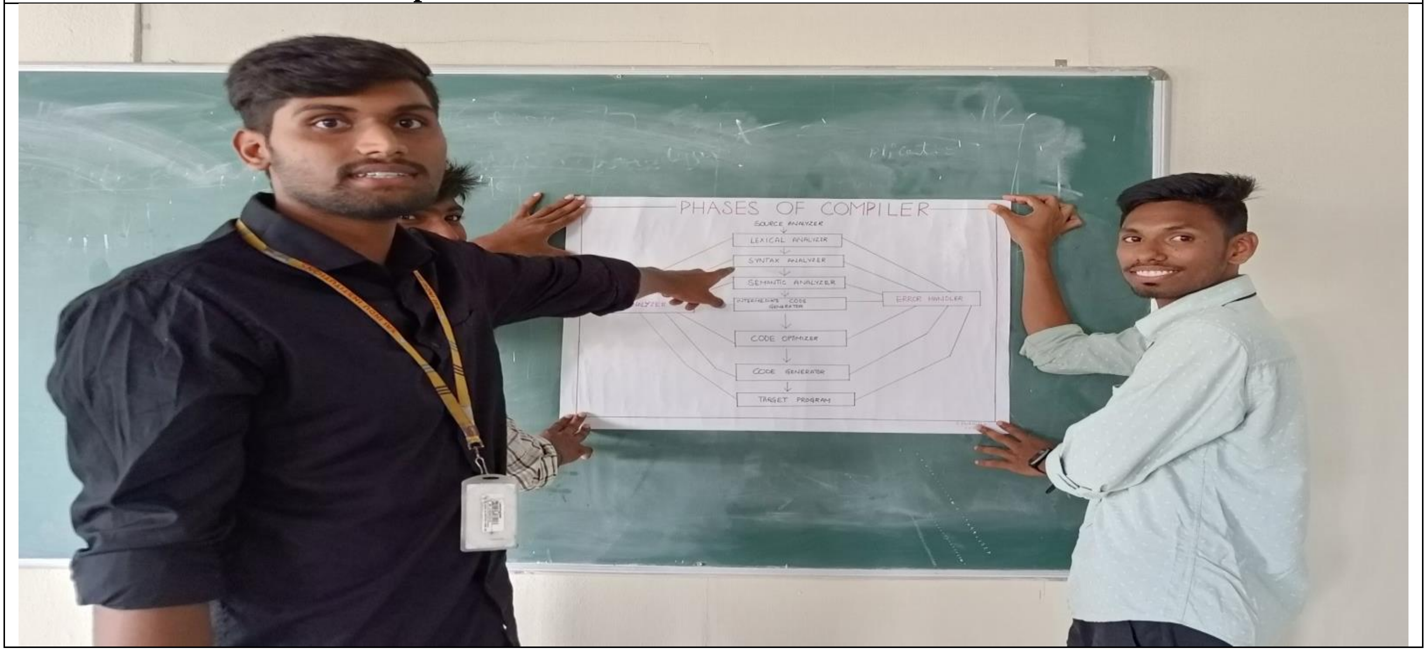
Course Name: Artificial-intelligence
Class: III B.Tech. II Sem
Teacher: Dr. Kishore Verma
Activity : Chart work
Title: Expert system


EXPERT SYSTEM
Expert System Model
Expert
Knowledge Engineer
User
Explanation Facility
Knowledge Acquisition process
Knowledge Base
Inference Engine

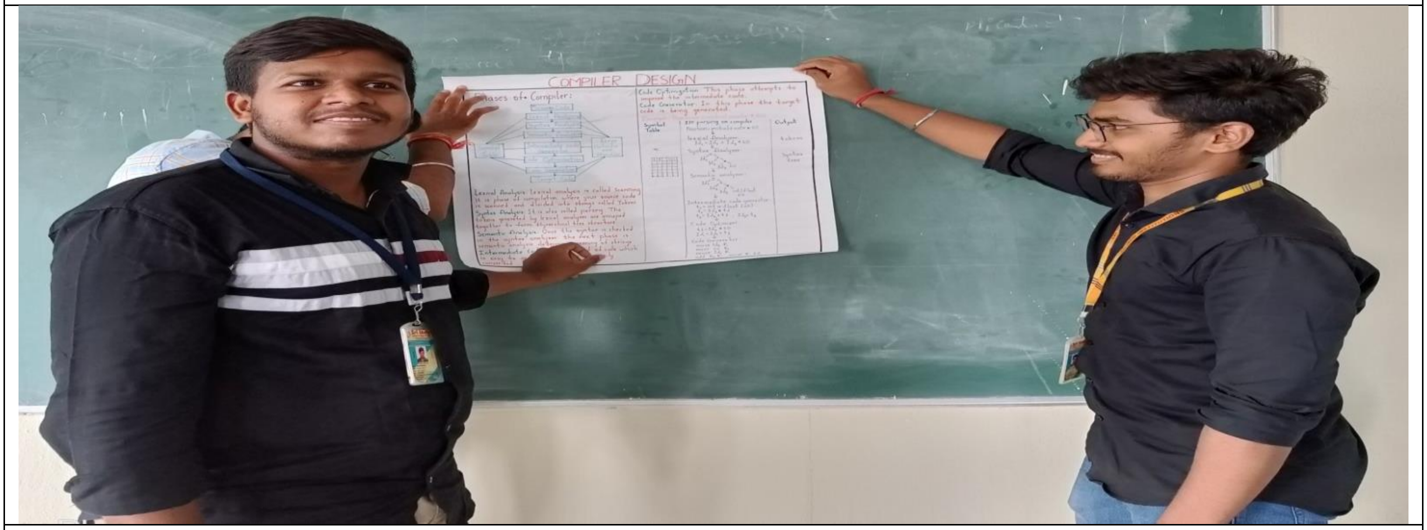
Course Name: Operating system
Class: III B.Tech. II Sem
Teacher: Dr. P. Epsiba
Activity : Chart work
Title: What is Operating Systems?

OPERATING SYSTEM

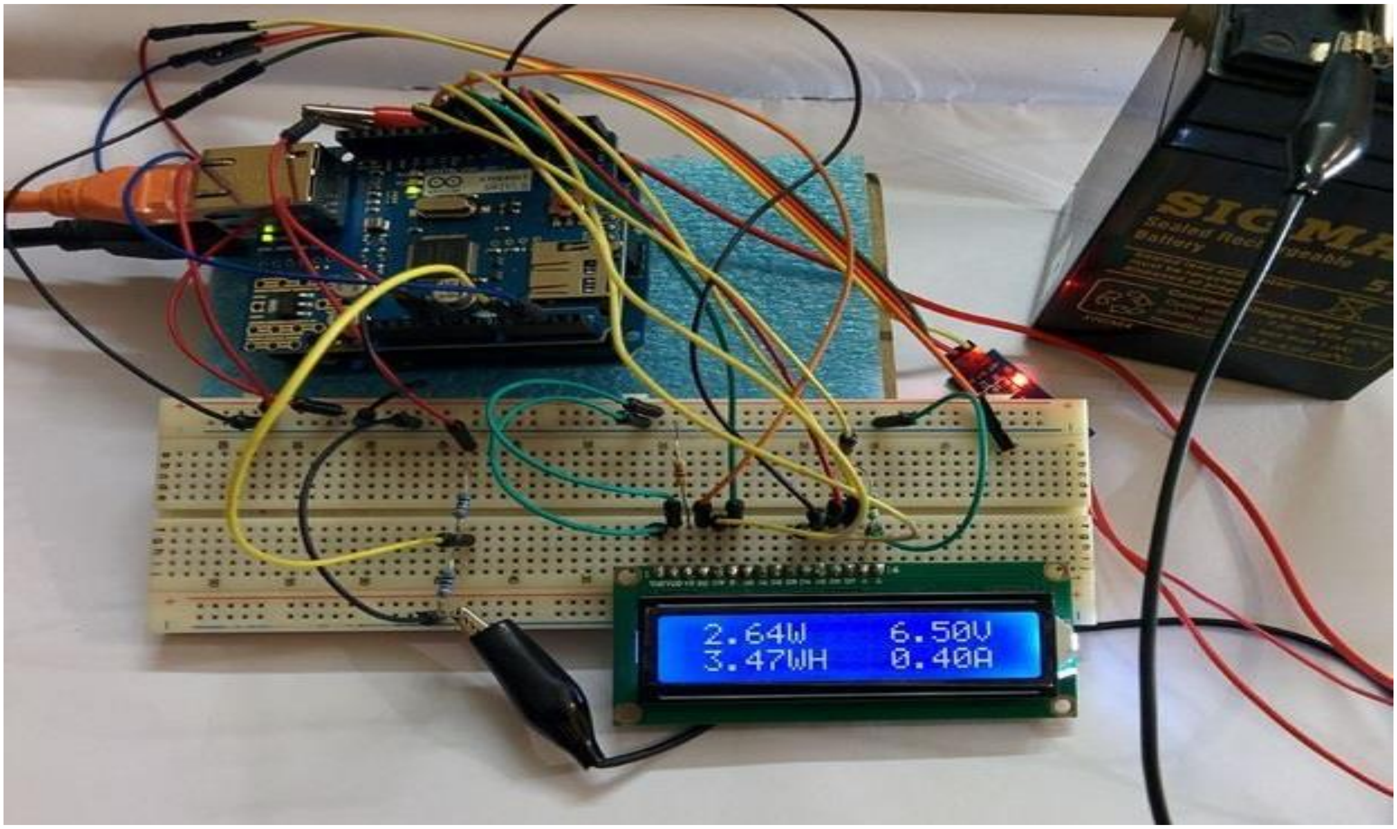
Course Name: Compiler Design
Class: III B.Tech. II Sem
Teacher: Mrs Kiranmai
Activity : Chart work
Title: Phases of compiler


PHASES OF COMPILER
SOURCE ANALYZER
LEXICAL ANALYZER
SYNTAX ANALYZER
SEMANTIC ANALYZER
INTERMEDIATE CODE GENERATOR
CODE OPTIMIZER
CODE GENERATOR
TARGET PROGRAM
ERROR HANDLER

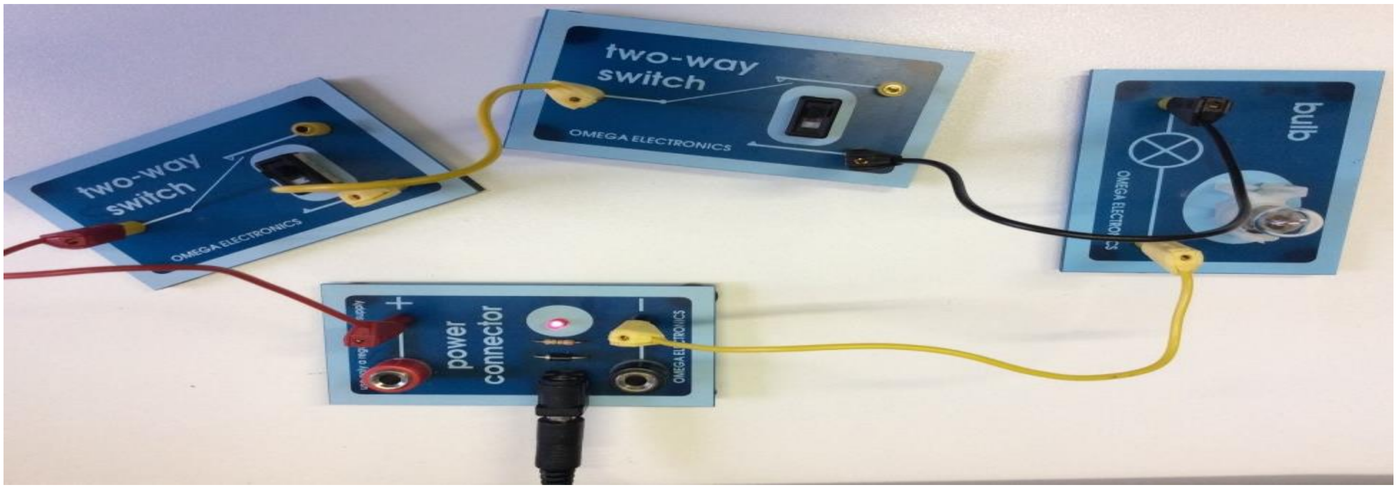
Course Name: Compiler Design
Class: III B.Tech. II Sem
Teacher: Mrs Swarnalatha
Activity : Chart work


COMPILER DESIGN
Phases of Compiler

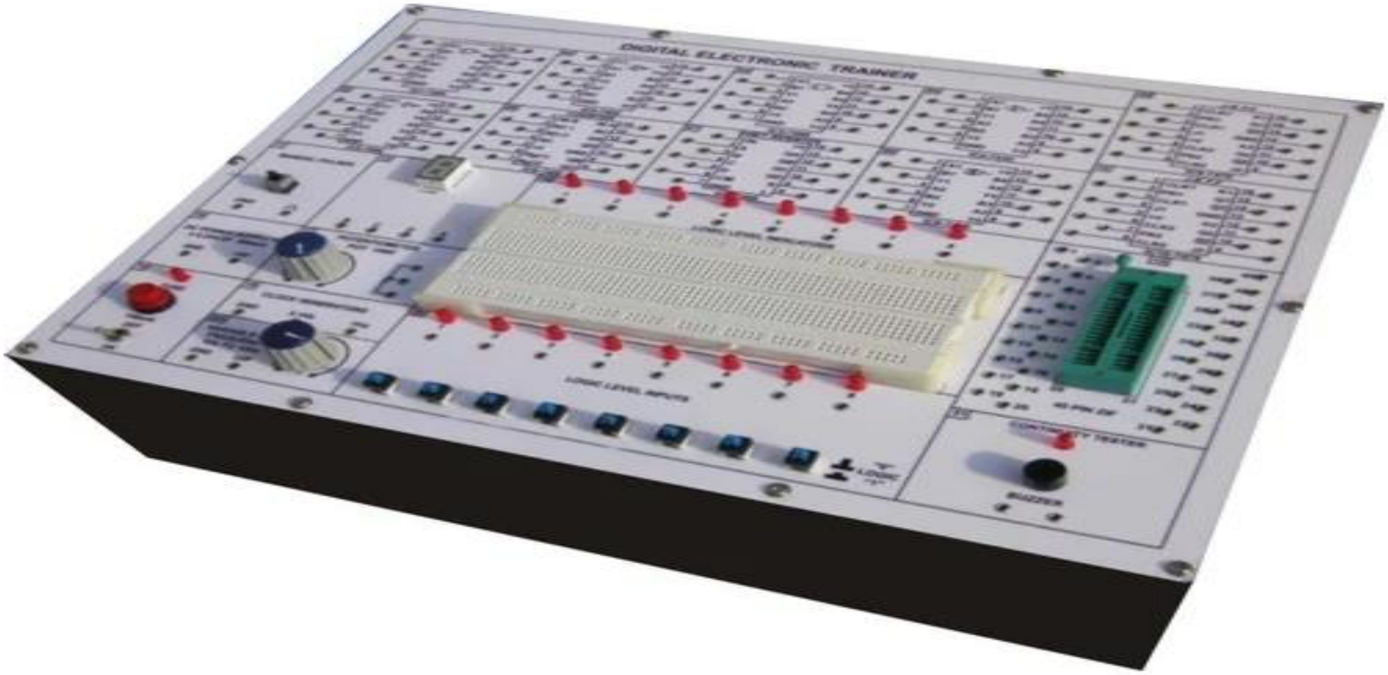
Course Name: Analog Electronics
Class: II B.Tech. I Sem
Teacher: Mr. Ram Mohan Rao
Activity : Working Models

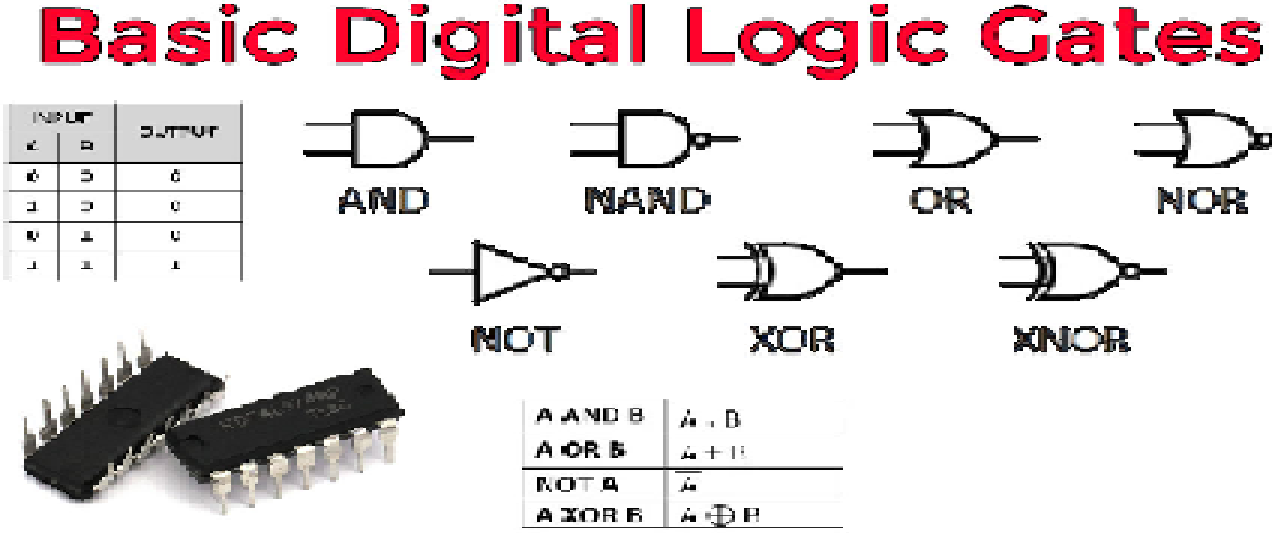

2.64W 6.50V
3.47WH 0.40A
SIGMA
Sealed Rechargeable Battery

Course Name: Basic electrical engineering
Class: II B.Tech. I Sem
Teacher: Mr. Sai Ram
Activity : Working Models


two-way switch
OMEGA ELECTRONICS
two-way switch
OMEGA ELECTRONICS
bulb
OMEGA ELECTRONICS
power connector
OMEGA ELECTRONICS

Course Name: Digital System Design
Class: II B.Tech. I Sem
Teacher: Mr. R. Ram Mohan Rao
Activity : Working Models


DIGITAL ELECTRONIC TRAINER
LOGIC LEVEL INPUTS
BUZZER



INPUT		OUTPUT
A	B	
0	0	0
1	0	0
0	1	0
1	1	1

A AND B	$A \cdot B$
A OR B	$A + B$
NOT A	$\overline{A}$
A XOR B	$A \oplus B$

In the course, Digital Logic Design, while explaining about the basics of logic gates and its functions to the students of II Year CSE, the physical device of Logic Gates Trainer Kit was demonstrated to the students to get them a better understanding about the working of the gates and its Truth Table. Similarly the students also practiced with trainer kit to experience practically how the gates are to be operated and also verified the Logic gates Truth Table.

Course Name: **Computer network**
Class: **III B.Tech. I Sem**
Teacher: **Mrs Navya**
Activity : **Working Models**

Course Name: Operating System (R20CSE2202)
Class: II B.Tech. I Sem
Teacher: Dr. P. Epsiba
Activity : Animated Videos

S.No.	**Unit**	**Topics**	**You tube links for Animated Videos for Operating Systems**
1	1	Structures of OS	https://www.youtube.com/watch?v=XXPBl20J22w
2	1	System Calls	https://www.youtube.com/watch?v=lhToWeuWWfw
3	1	Operating System Services	https://www.youtube.com/watch?v=TQWERtMoKbI
4	2	fork() and exec() System Calls	https://www.youtube.com/watch?v=IFEFVXvjiHY
5			
6	2	Priority based scheduling algorithm	https://www.youtube.com/watch?v=yKD3pcFvGmY&list=PLBlnK6fEyqRitWSE_AyyySWfhRgyA-rHk&index=11
7	2	Round Robin Scheduling algorithm	https://www.youtube.com/watch?v=7TpxxTNrcTg&list=PLBlnK6fEyqRitWSE_AyyySWfhRgyA-rHk&index=15
8	3	Process Management	https://www.youtube.com/watch?v=OrM7nZcxXZU
9	3	Semaphores	https://www.youtube.com/watch?v=LIzTbA3cAWY
10	3	Deadlock	https://www.youtube.com/watch?v=MYgmmJJfdBg
11	3	Deadlock Handling Methods	https://www.youtube.com/watch?v=OnyOoF_L7zw
12	4	Logical Vs Physical Address	https://www.youtube.com/watch?v=j9rxq-212eU
13	4	Paging	https://www.youtube.com/watch?v=MZvXqIkev7A
14	4	Paging Hardware For Paging Technique In Os	https://www.youtube.com/watch?v=KvqetrhakpY
15	4	Segmentation	https://www.youtube.com/watch?v=vzbcrCRslng

Course Name: Data Structures
Class: II B.Tech. I Sem
Teacher: Mrs Rangamma
Activity : Animated Videos

S.No.	Unit	Topics	You tube links for Animated Videos for Operating Systems
1	1	Linked list	Introduction to Linked List - YouTube
2	2	Hash Table&Hash Function	Hash Tables and Hash Functions - YouTube
3	3	AVL Tree	AVL Tree Animations | Data Structure | Visual How - YouTube
4	4	Merge Sort	Merge Sort | Manim Animation [4K] - YouTube
5	5	Boyer moore algorithm	BOYER MOORE ALGORITHM FOR PATTERN MATCHING - YouTube

Course Name: Computer Networks
Class: III B.Tech. I Sem
Teacher: Mr. Sandeep
Activity : Animated Videos

S.No.	Unit	Topics	You tube links for Animated Videos for Operating Systems
1	1	The TCP/IP reference models	The TCP/IP Protocol Suite - YouTube
2	2	Error detection and correction	Error Detection - YouTube
3	3	Quality of Service	Quality of Service (QoS) | Flow Characteristics | Reliability | Delay | Jitter | Computer Networks - YouTube
4	4	TCP and UDP protocols	TCP vs UDP Comparison - YouTube
5	5	SNMP	SNMP - Simple Network Management Protocol - YouTube

Course Name: Web Technologies
Class: III B.Tech. II Sem
Teacher: Dr. Narashima Chary
Activity : Animated Videos

S.No.	Unit	Topics	You tube links for Animated Videos for Operating Systems
1	1	string operators	2. What is data? Different types of data? Structured | Semi-structured | Unstructured data - YouTube
2	2	XML	What is XML | XML Beginner Tutorial | Learn XML with Demo in 10 min - YouTube
3	3	Lifecycle of a servlet	Life Cycle Of A Servlet - 5 Stages with detailed explanation | Web Technologies | - YouTube
4	4	JSP Processing,	JSP Tutorial | Life cycle of JSP | Advanced Java | Mr.Venkatesh - YouTube
5	5	Javascript	JavaScript Animation Tutorial | Animation In JavaScript | JavaScript Tutorial | Simplilearn - YouTube

Course Name: Compiler design
Class: IV B.Tech. I Sem
Teacher: Mrs. Kiranmai
Activity : Animated Videos

S.No.	Unit	Topics	You tube links for Animated Videos for Operating Systems
1	1	Finite Automata,	finite automata - YouTube
2	2	LR Parsing	Introduction to LR Parser | Syntax Analyzer | Lec 58 | #Compiler Design - YouTube
3	3	Implementing L-Attributed SDD's	04 Module 5 Examples of S attributed and L attributed SDT - YouTube
4	4	Stack Allocation of Space,	6 STACK ALLOCATION OF SPACE 2 - YouTube
5	5	Data-Flow Analysis	DATAFLOW ANALYSIS || BASIC TERMINOLOGY || PROPERTIES || FEATURES || ADVANTAGES - YouTube

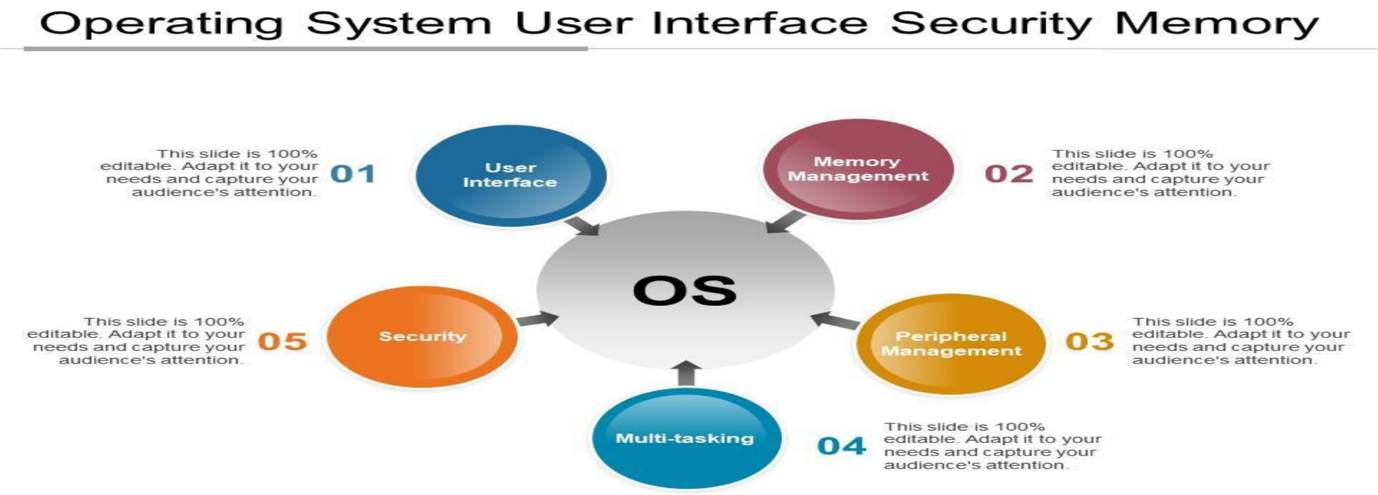
Course Name: Distributed Systems
Class: IV B.Tech. II Sem
Teacher: Mr. Krishna
Activity : Animated Videos

S.No.	Unit	Topics	You tube links for Animated Videos for Operating Systems
1	1	System models	SYSTEM MODELS FOR DISTRIBUTED&CLOUD COMPUTING VIDEO-5 - YouTube
2	2	OSI layer	OSI Model Explained | OSI Animation | Open System Interconnection Model | OSI 7 layers | TechTerms - YouTube
3	3	Distributed debugging	Debugging Distributed Systems by Donny Nadolny - YouTube
4	4	Atomic commit protocols,	Distributed Transactions: Two-Phase Commit Protocol - YouTube
5	5	Replication	data replication in distributed database | Distributed systems | Lec-68 | Bhanu Priya - YouTube

Course Name: Computer Organization & Architecture
Class: II B.Tech. I Sem
Teacher: Dr. P. Epsiba
Activity : Role play

Students role-play parts of a digital computer to accomplish a given task, and follow a given set of rules (their program). Student roles include: a processor, a cache memory controller, main memory, mass storage devices, system buses and input/output devices. Student activities include displaying a multimedia movie, exploring cache memory, and processing an image. Preliminary testing indicates that the Classroom Computer allows students to understand the basic operations of a digital computer

Course Name: **Operating systems**
Class: **II B.Tech. II Sem**
Teacher: **Dr. P. Epsiba**
Activity : **Poster Presentation**



Operating System User Interface Security Memory

OS

01 User Interface
This slide is 100% editable. Adapt it to your needs and capture your audience's attention.

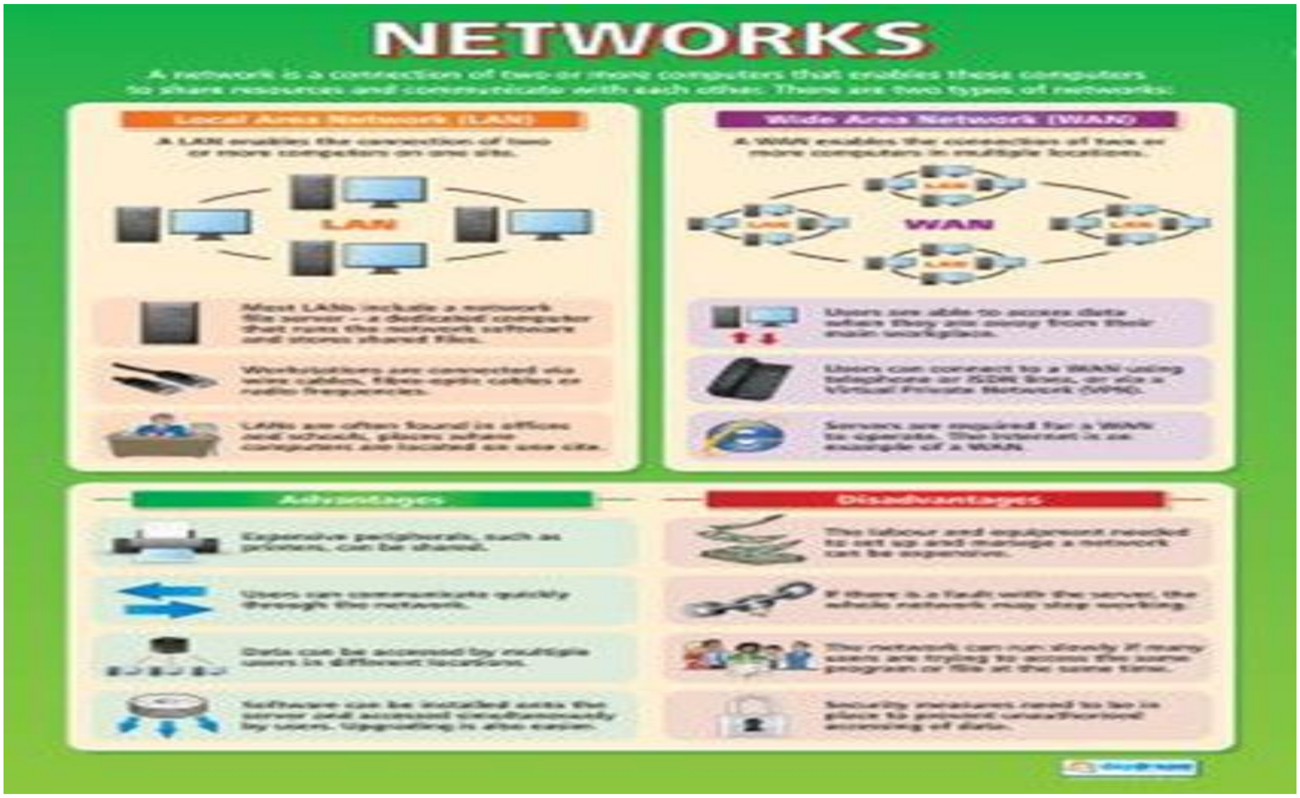
02 Memory Management
This slide is 100% editable. Adapt it to your needs and capture your audience's attention.

03 Peripheral Management
This slide is 100% editable. Adapt it to your needs and capture your audience's attention.

04 Multi-tasking
This slide is 100% editable. Adapt it to your needs and capture your audience's attention.

05 Security
This slide is 100% editable. Adapt it to your needs and capture your audience's attention.

Course Name: **Computer Network**
Class: **III B.Tech. I Sem**
Teacher: **B.Navya**
Activity : **Poster Presentation**



NETWORKS

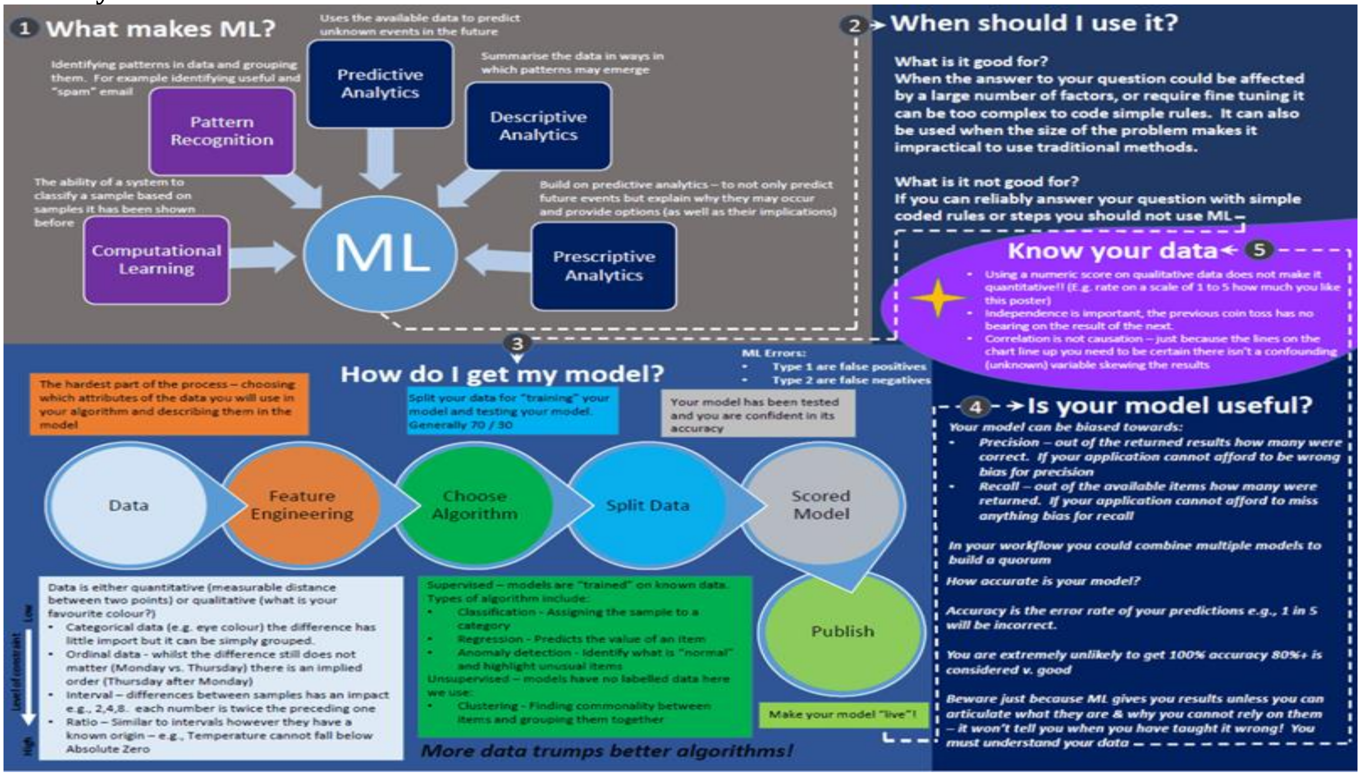
Local Area Network (LAN)

Wide Area Network (WAN)

Advantages

Disadvantages

Course Name: ML
Class: III B.Tech. II Sem
Teacher: Dr. Kishore Varma
Activity : Poster Presentation



1 What makes ML?

Predictive Analytics: Uses the available data to predict unknown events in the future

Descriptive Analytics: Summarise the data in ways in which patterns may emerge

Pattern Recognition: Identifying patterns in data and grouping them. For example identifying useful and "spam" email

Computational Learning: The ability of a system to classify a sample based on samples it has been shown before

Prescriptive Analytics: Build on predictive analytics – to not only predict future events but explain why they may occur and provide options (as well as their implications)

ML

2 When should I use it?

What is it good for?
When the answer to your question could be affected by a large number of factors, or require fine tuning it can be too complex to code simple rules. It can also be used when the size of the problem makes it impractical to use traditional methods.

What is it not good for?
If you can reliably answer your question with simple coded rules or steps you should not use ML

3 How do I get my model?

Data → Feature Engineering → Choose Algorithm → Split Data → Scored Model → Publish

Feature Engineering: The hardest part of the process – choosing which attributes of the data you will use in your algorithm and describing them in the model

Split Data: Split your data for "training" your model and testing your model. Generally 70 / 30

Scored Model: Your model has been tested and you are confident in its accuracy

Publish: Make your model "live"!

ML Errors:
- Type 1 are false positives
- Type 2 are false negatives

Data is either quantitative (measurable distance between two points) or qualitative (what is your favourite colour?)
- Categorical data (e.g. eye colour) the difference has little import but it can be simply grouped.
- Ordinal data - whilst the difference still does not matter (Monday vs. Thursday) there is an implied order (Thursday after Monday)
- Interval – differences between samples has an impact e.g., 2,4,8. each number is twice the preceding one
- Ratio – Similar to intervals however they have a known origin – e.g., Temperature cannot fall below Absolute Zero

Supervised – models are "trained" on known data. Types of algorithm include:
- Classification - Assigning the sample to a category
- Regression - Predicts the value of an item
- Anomaly detection - Identify what is "normal" and highlight unusual items

Unsupervised – models have no labelled data here we use:
- Clustering - Finding commonality between items and grouping them together

More data trumps better algorithms!

4 Is your model useful?

Your model can be biased towards:
- *Precision – out of the returned results how many were correct. If your application cannot afford to be wrong bias for precision*
- *Recall – out of the available items how many were returned. If your application cannot afford to miss anything bias for recall*

In your workflow you could combine multiple models to build a quorum

How accurate is your model?

Accuracy is the error rate of your predictions e.g., 1 in 5 will be incorrect.

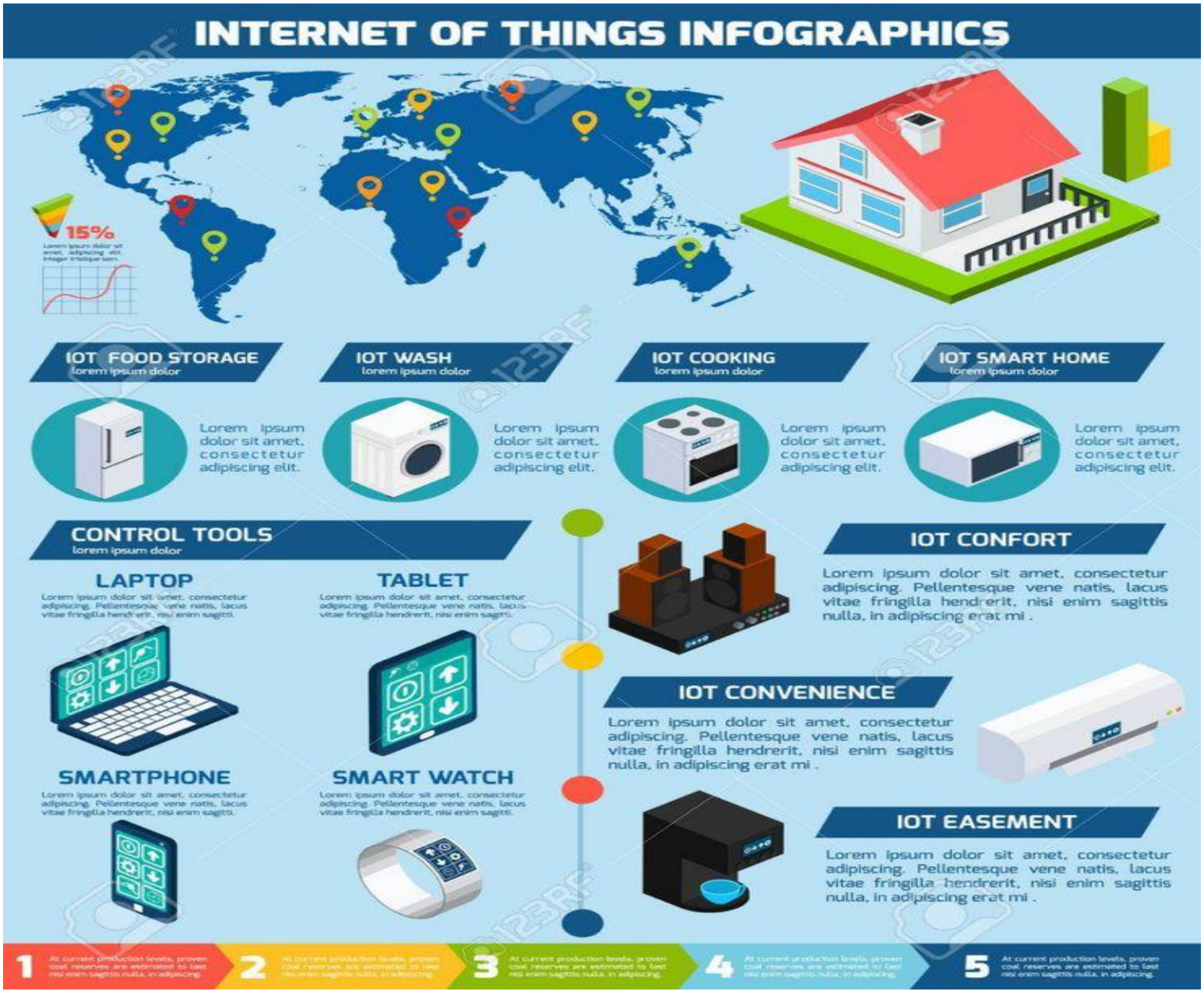
You are extremely unlikely to get 100% accuracy 80%+ is considered v. good

Beware just because ML gives you results unless you can articulate what they are & why you cannot rely on them – it won't tell you when you have taught it wrong! You must understand your data

5 Know your data

- Using a numeric score on qualitative data does not make it quantitative!! (E.g. rate on a scale of 1 to 5 how much you like this poster)
- Independence is important, the previous coin toss has no bearing on the result of the next.
- Correlation is not causation – just because the lines on the chart line up you need to be certain there isn't a confounding (unknown) variable skewing the results

Course Name: IOT
Class: IV B.Tech. I Sem
Teacher: Sathvik Prasad
Activity : Poster Presentation


INTERNET OF THINGS INFOGRAPHICS
15%
IOT FOOD STORAGE
lorem ipsum dolor
IOT WASH
lorem ipsum dolor
IOT COOKING
lorem ipsum dolor
IOT SMART HOME
lorem ipsum dolor
CONTROL TOOLS
lorem ipsum dolor
LAPTOP
TABLET
SMARTPHONE
SMART WATCH
IOT CONFORT
IOT CONVENIENCE
IOT EASEMENT
1
2
3
4
5

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Lorem ipsum dolor sit amet, consectetur adipiscing. Pellentesque vene natis, lacus vitae fringilla hendrerit, nisi enim sagittis nulla, in adipiscing erat mi .

Lorem ipsum dolor sit amet, consectetur adipiscing. Pellentesque vene natis, lacus vitae fringilla hendrerit, nisi enim sagittis nulla, in adipiscing erat mi .

At current production levels, proven coal reserves are estimated to last nisi enim sagittis nulla, in adipiscing.

At current production levels, proven coal reserves are estimated to last nisi enim sagittis nulla, in adipiscing.

At current production levels, proven coal reserves are estimated to last nisi enim sagittis nulla, in adipiscing.

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At current production levels, proven coal reserves are estimated to last nisi enim sagittis nulla, in adipiscing.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Collaborative Learning Model

(A.Y: 2022-23)

OBJECTIVE:

Learn how to work cooperatively and support each other. Develop effective teamwork and communication (including interpersonal and cross cultural awareness) skills. Assimilate multiple views to deepen knowledge and promote critical thinking. Foster individual accountability to the team.

Role of Teachers:

Group the students to perform the given task. Framing assignments or group activities for the students that improve their creative and soft skills. Giving feedback to student for their improvement..

1. Group Assignments
2. Students Seminar
3. Team collaboration in practical session

SAMPLE DOCUMENTS

GROUP ASSIGNMENTS

Course Name: **OPERATING SYSTEMS**
Class: **II B.Tech. I Sem**
Teacher: **Dr. P. Epsiba**
Date: **20 - JUNE – 2023**
Activity : **Group Assignments**

SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY,Sheriguda (V), R.R.Dist.
(An Autonomous Institution under UGC)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
ASSIGNMENT -2

YEAR / SEM : II YEAR D SEC / II SEM **A.Y:2022-2023**

SUB.CODE/NAME : R20CSE2202 / OPERATING SYSTEM **Date: 20.6.2023**

Batch . No	Assignment Questions	Register Number
1.	a. How will you handle synchronization problem using hardware? Discuss. b. A variable portion memory system has at some point in time the following box sizes in the order 20k,15k,40k,60k,10k,25k, a new process is to be loaded which block will be filled using best fit, first fit, worst fit respectively. c. Discuss the structure of directory and its implementation in detail.	21D41A05K6 to 21D41A05L0
2.	a. Explain critical section problem and discuss various algorithm to solve synchronization problem. List advantages and disadvantages of each. b. Given 5 memory partitions of 100 KB,500KB,200KB,300KB and 600KB how would the best fit, first fit, worst fit algorithm place processes of 310KB,589KB,96KB and 116 KB? Which algorithm makes the most efficient use of memory? c. Explain the different methods for allocating disk space to files.	21D41A05L1 to 21D41A05L5
3.	a. Examine dining philosopher's problem and develop a solution using monitors. b. Explain LRU page replacement algorithm with this example. Consider the following reference string 7,0,1,2,0,3,0,4,2,3,0,3,2,1,2,0,1,7,0,1 c. Explain about sequential and indexed file access methods.	21D41A05L7 to 21D41A05M1
4.	a. Explain the basic method of paging scheme. Show the hardware support for it with a diagram. b. Consider the following reference string: 1,2,3,4,2,1,5,6,2,1,2,3,7,6,3,2,1,2,3,6 How many page faults would occur for the Optimal replacement algorithms? c. How Files System are organized with UNIX ? Explain with an example.	21D41A05M2 to 21D41A05M6

<table>
<tr><td>5.</td><td>a. Examine Readers/Writers problem with suitable algorithm.
b. A variable portion memory system has at some point in time the following box sizes in the order 20k,15k,40k,60k,10k,25k, a new process of 5k,28k,16k,55k,12k is to be loaded which block will be filled using best fit, first fit, worst fit respectively.
c. Discuss Contiguous, Linked, Indexed disk block allocation method with their merits and demerits.</td><td>21D41A05M7 to
21D41A05N1</td></tr>
<tr><td>6.</td><td>a. What is virtual memory? What hardware supports is needed to implement virtual memory? Explain with the help of an example that FIFO page replacement algorithm may encounter more number of page faults encountered by LRU page replacement algorithm.
b. Draw the diagram of structure of page table.
c. Discuss about the access rights and management simultaneous access.</td><td>21D41A05N2
to
21D41A05N6</td></tr>
<tr><td>7.</td><td>a. What are the various security requirements for the operating system? What are different types of security policies for different types of operating system?
b. Consider the following reference string:
1,2,3,4,2,1,5,6,2,1,2,3,7,6,3,2,1,2,3,6
How many page faults would occur for the FIFO replacement algorithms?
c. Explain the different methods for allocating disk space to files.</td><td>21D41A05N7
to
21D41A05P1</td></tr>
<tr><td>8.</td><td>a. System consists of 5 processes. P1, P2, P3 and 3 resources (R1, R2, R3). Resource type R1 has 7 instances, Resource type R2 has 7 instances and Resource type R3 has 10 instances. The following snap shot of the system has been taken. Find out safe state
<table>
<tr><th>Process</th><th colspan="3">Allocation</th><th colspan="3">Max</th></tr>
<tr><th></th><th>R1</th><th>R2</th><th>R3</th><th>R1</th><th>R2</th><th>R3</th></tr>
<tr><td>P1</td><td>2</td><td>2</td><td>3</td><td>3</td><td>6</td><td>8</td></tr>
<tr><td>P2</td><td>2</td><td>0</td><td>3</td><td>4</td><td>3</td><td>3</td></tr>
<tr><td>P3</td><td>1</td><td>2</td><td>4</td><td>3</td><td>4</td><td>4</td></tr>
</table>
b. Write the difference between paging and segmentation.
c. Explain various directory structures used in operating system for storing files give its merits and demerits?</td><td>21D41A05P2
to
21D41A05P6</td></tr>
<tr><td>9.</td><td>a. Consider the following snap shot of the system has been taken.
<table>
<tr><th>Process</th><th colspan="4">Allocation</th><th colspan="4">Max</th><th colspan="4">Available</th></tr>
<tr><th></th><th>R1</th><th>R2</th><th>R3</th><th>R4</th><th>R1</th><th>R2</th><th>R3</th><th>R4</th><th>R1</th><th>R2</th><th>R3</th><th>R4</th></tr>
<tr><td>P0</td><td>0</td><td>0</td><td>1</td><td>2</td><td>0</td><td>0</td><td>1</td><td>2</td><td>1</td><td>5</td><td>2</td><td>0</td></tr>
<tr><td>P1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>1</td><td>7</td><td>5</td><td>0</td><td></td><td></td><td></td><td></td></tr>
<tr><td>P2</td><td>1</td><td>3</td><td>5</td><td>4</td><td>2</td><td>3</td><td>5</td><td>6</td><td></td><td></td><td></td><td></td></tr>
<tr><td>P3</td><td>0</td><td>6</td><td>3</td><td>2</td><td>0</td><td>6</td><td>5</td><td>2</td><td></td><td></td><td></td><td></td></tr>
<tr><td>P4</td><td>0</td><td>0</td><td>1</td><td>4</td><td>0</td><td>6</td><td>5</td><td>6</td><td></td><td></td><td></td><td></td></tr>
</table>
i)What is the content of matrix need?
ii) Is the system is in safe state?</td><td>21D41A05P7
to
21D41A05Q1</td></tr>
</table>

iii)If the request from process P1 arrives for (0,4,2,0)can the request be granted immediately

b. Discuss Contiguous, Linked, Indexed disk block allocation method with their merits and demerits.

c. Discuss in detail about functions of files.

10. a. Explain how buffering is used with respect to storage devices.

b. System consists of 5 processes. P1,P2,P3,P4,P5 and 3 resources (R1,R2,R3) . Resource type R1 has 10 instances, Resource type R2 has5 instances and Resource type R3 has 7 instances. The following snapshot of the system has been taken. Find out safe state.

Process	Allocation			Max			Available		
	R1	R2	R3	R1	R2	R3	R1	R2	R3
P1	0	1	0	7	5	3	3	3	2
P2	2	0	0	3	2	2			
P3	3	0	2	9	0	2			
P4	2	1	1	2	2	2			
P5	0	0	2	4	3	3			

c. Explain about swapping in memory management.

21D41A05Q2

to

21D41A05Q6

11. a. Consider the following snap shot of the system has been taken.

Process	Allocation		Max		Available	
	R1	R2	R1	R2	R1	R2
P1	7	2	9	5	2	1
P2	1	3	2	6		
P3	1	1	2	2		
P4	3	0	5	0		

i) What is the content of matrix need?
ii) Is the system is in safe state?

b. Explain the basic method of paging scheme. Show the hardware support for it with a diagram.

c. Explain the different methods for allocating disk space to files.

21D41A05Q7

to

21D41A05R1

12. a. Write the difference between contiguous and non- contiguous memory allocations.

b. What are the various security requirements for the operating system? What are different types of security policies for different types of operating system?

c. Consider the following reference string:
1,2,4,4,2,1,5,6,2,1,5,3,7,6,3,2,1,2,3,6
How many page faults would occur for the FIFO and LRU replacement algorithms?

21D41A05R2

to

21D41A05R6

13. a. What is meant by demand paging? Explain in detail.

b. Explain the Usage of open, create, read, write, close, lseek, stat, ioctl system calls.

c. System consists of 5 processes. P1, P2, P3 and 3 resources (R1, R2, R3). Resource type R1 has 7 instances, Resource type R2 has 7 instances and Resource type R3 has 10 instances. The following snap shot of the system has been taken. Find out safe state

Process	Allocation			Max		
	R1	R2	R3	R1	R2	R3

21D41A05R7

to

21D41A0520

P1	2	2	3	3	5	8
P2	2	0	3	3	2	3
P3	1	2	4	4	4	4

14.	a. Explain the resource- allocation graph algorithm for deadlock detection with relevant diagram. b. Consider the following reference string 7,0,1,2,0,3,0,4,2,3,0,3,2,1,2,0,1,7,0,1 Assume there are three frames. Apply LRU replacement algorithm to the reference string aboveandfindouthowmanypagefontsareproduced.IllustratetheLRUpagereplacement Algorithm in detail and also two feasible implementation of the LRU algorithm. c. Explain about sequential and indexed file access methods.	21D41A0521 to 21D41A0527

STUDENTS SEMINAR

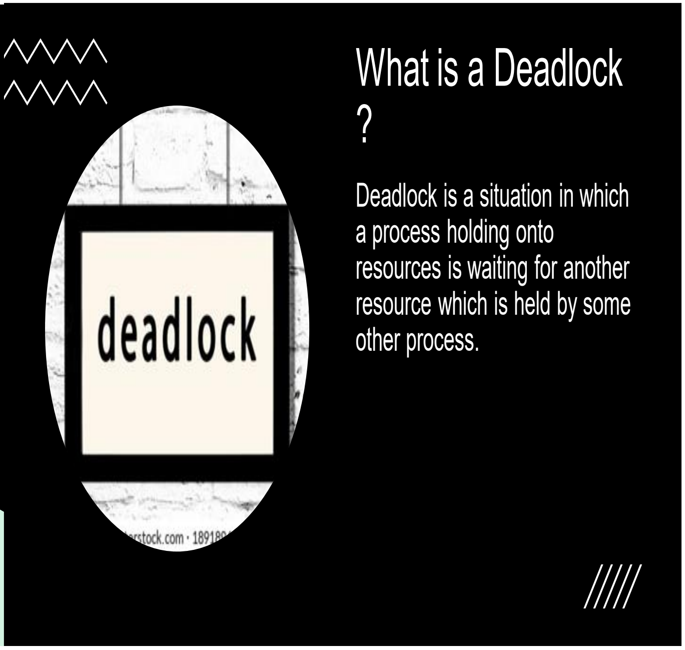
S.No.	YEAR/SEM	Roll. No.	Name of the student	SUBJECT	TOPIC
1.	II/I	21D41A05G7	M.SaiKiran	COA	Addressing Modes
2.	II/I	21D41A05B5	K.Hanshu	OOPS Using C++	Dynamic Binding
3.	II/I	21D41A05N6	S.Sandhya	DS	B+ Trees
4.	II/II	21D41A0516	M.Srilaxmi	DM	Graph Theory
5.	II/II	21D41A05M2	S.Ramya	DBMS	Normal Forms
6.	II/II	21D41A05Q7	V.Aasrith	OS	DeadLock
7.	III/I	20D41A0535	C.Pranavi Reddy	SE	Data Modeling
8.	III/I	20D41A0501	P.Aashritha	WT	CSS
9.	III/I	20D41A0587	J.Sandeep	ML	Supervised & Unsupervised Learning
10.	III/II	20D41A0572	G.Dinesh Babu	CD	Parsing
11.	III/II	20D41A0588	J.Rakshitha	DAA	Sorting Techniques
12.	IV/I	19D41A0546	D.Saikiran	IOT	Access Management
13.	IV/I	19D41A0504	A.Kavya	C&NS	Cryptography, Security Attacks
14.	IV/II	19D41A0557	G.Arunkanth	ISF	Firewalls, AES,DES
15.	IV/II	19D41A0506	A.Surya	DS	Client –Server Systems

Course Name: OPERATING SYSTEMS
Class: II B.Tech. I Sem
Teacher: Dr. P. Epsiba
Date: 5-MAY-2023
Activity : Students Seminar
Student Name: V.Aasrith(21D41A05Q7)
Topic: Dead lock in Operating Systems

DEADLOCK

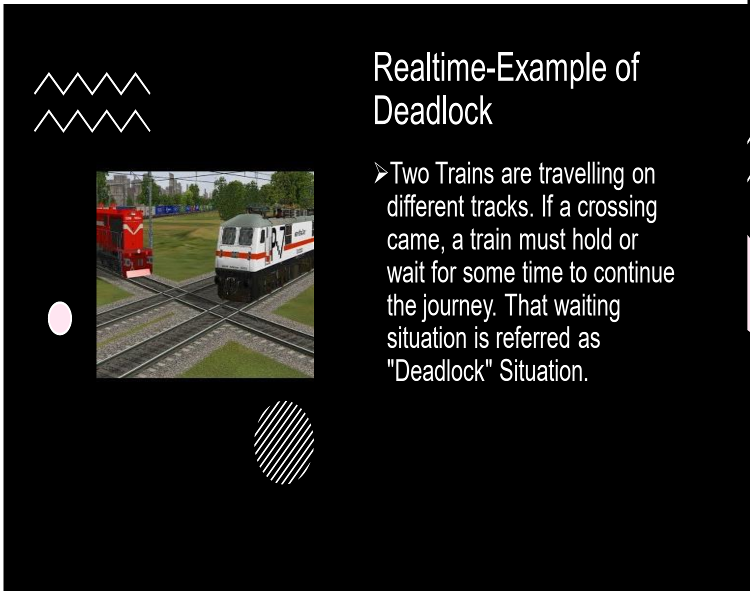
IN OPERATING SYSTEMS

"An Unconditional Waiting Situation"



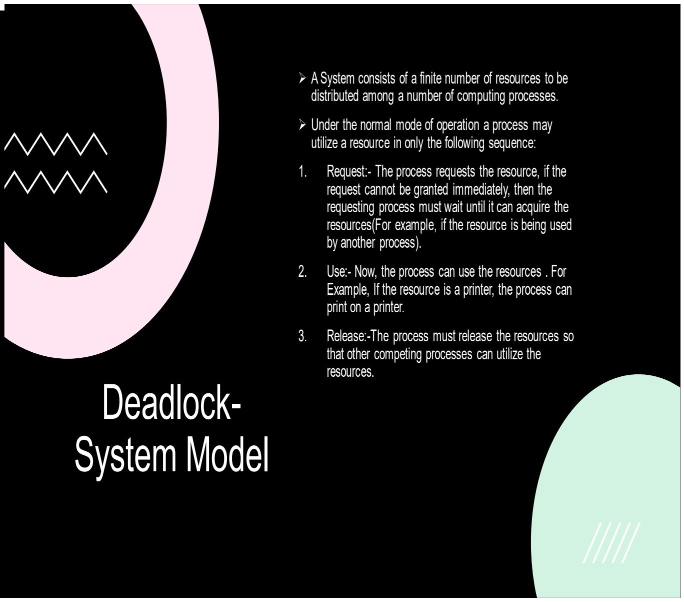
What is a Deadlock ?

Deadlock is a situation in which a process holding onto resources is waiting for another resource which is held by some other process.



Realtime-Example of Deadlock

- Two Trains are travelling on different tracks. If a crossing came, a train must hold or wait for some time to continue the journey. That waiting situation is referred as "Deadlock" Situation.



Deadlock-System Model

- A System consists of a finite number of resources to be distributed among a number of computing processes.
- Under the normal mode of operation a process may utilize a resource in only the following sequence:

1. Request:- The process requests the resource, if the request cannot be granted immediately, then the requesting process must wait until it can acquire the resources(For example, if the resource is being used by another process).
2. Use:- Now, the process can use the resources . For Example, If the resource is a printer, the process can print on a printer.
3. Release:-The process must release the resources so that other competing processes can utilize the resources.

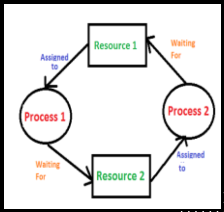
Deadlock-Characterization

In a Deadlock situation, the process never finish executing, preventing other jobs from starting.

Necessary conditions for Deadlock:-

A deadlock situation may arise if any of the conditions hold simultaneously in the system.

1. Mutual Exclusion
2. No-Preemption
3. Hold and Wait
4. Circular Wait



Mutual Exclusion-Only one process at a time can use a resource. If another process requests the same resource, the requesting process must be delayed until the resource has been released.

No-Preemption-Resources cannot be preempted, i.e a resource can be released only voluntarily by the process holding it, after the process completed its task.

Hold and Wait- Hold and Wait is a condition in which a process is holding one resource while simultaneously waiting for another resource that is being held by other process.

Circular wait- Each process is waiting for a resources which is held by another process, which inturn is held by the first process to release the resource.

Methods to handle Deadlocks

- Deadlock Prevention
- Deadlock Avoidance
- Deadlock Detection
- Deadlock Recovery

THANK YOU

CREATED AND PRESENTED BY

-V.AASRITH(21D41A05Q7)

Course Name: DataBaseManagementSystems
Class: II B.Tech. II Sem
Teacher: K.Vijayalakshmi
Date: 9-MAY-2023
Activity : Students Seminar
Student Name: S.Ramya (21D41A05M2)
Topic: Normal Forms in DBMS

Course Name : **Software Engineering**
Class **: III B.Tech. I Sem**
Teacher **: Mrs G.SwarnaLatha**
Date **: 9-MAY-2023**
Activity **: Students Seminar**
Student Name: **C.Pranavi Reddy (20D41A0535)**
Topic **: Data Modeling in Software Engineering**

Introduction
Flow anomaly detection is a crucial aspect of cybersecurity, aiming to identify and mitigate potential cyberattacks in real-time.
The process involves analyzing network traffic data to detect any unusual patterns or behaviors that may indicate a security threat

TEAM COLABORATION IN PRACTICAL SESSION

REDMI NOTE 8
AI QUAD CAMERA

REDMI NOTE 8
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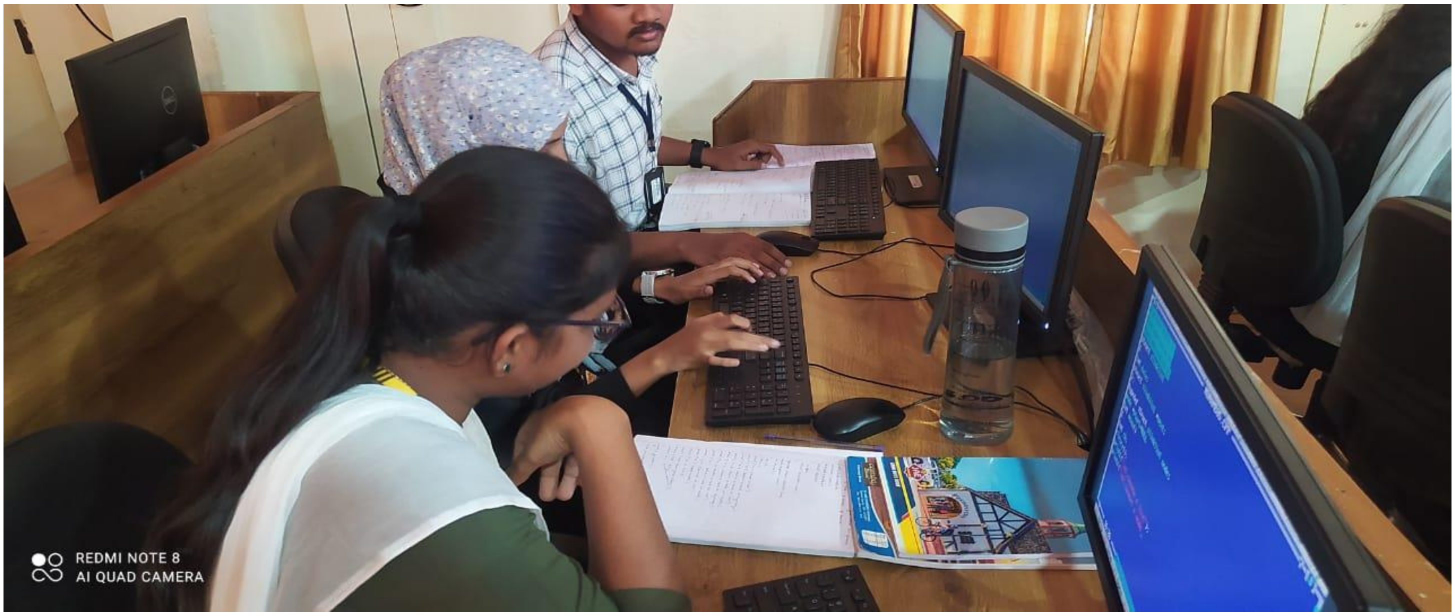
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REDMI NOTE 8
AI QUAD CAMERA

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D4

BR-22

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Project based learning
(A. Y: 2022-23)

YEAR/SEM: 1V B.TECH (CSE-A) (MAJOR PROJECT)

S.No.	Batch No.	Roll No.	Name of the Student	Major Project Title
1.	1	19D41A0543	CH.Mahitha	Deep learning based object detection and recognition framework for the visually-impaired
2.		19D41A0503	A.Anusha	
3.		19D41A0546	D.SaiKiran	
4.		19D41A0527	B.SaiTeja	
5.	2	19D41A0504	A.Kavya	Detect spam from twitter comment us in detect spam from twitter comment using machine
6.		19D41A0560	G.Kiranmai	
7.		19D41A0512	A.Srikar	
8.		19D41A0547	D.Swetha	
9.		19D41A0538	CH.NagaJyothi	
10.	3	19D41A0505	A.Niharika	Cyber threat detection based on an using event profiles
11.		19D41A0541	CH.Naveen Kumar	
12.		19D41A0554	E.Rajkumar	
13.		20D41A0503	B.Pranisha	
14.	4	19D41A0555	E.Ramesh	Face recognition using ml techniques
15.		19D41A0551	E.Pavan Kumar	
16.		20D41A0502	B.Akhila	
17.		19D41A0531	B.JaganDatta	
18.	5	19D41A0508	A.Sushmitha	IRIS RECOGNITION USING ML TECHNIQUES
19.		19D41A0545	D.Vishwakanth	
20.		19D41A0510	A.Pavan Kumar	
21.		19D41A0552	E.SaiCharan	

22.	6	19D41A0514	A.Rajitha	Digitized and decentralized block chain technology
23.		19D41A0521	B.Madhuri	
24.		19D41A0559	G.Ganesh	
25.		19D41A0522	B.Tarun	
26.	7	19D41A0524	B.Rani	Vehicle detection and speed detection
27.		19D41A0511	A.MadhuShalini	
28.		20D41A0504	B.Siddhartha	
29.		20D41A0501	A.Nagaraju	
30.	8	19D41A0550	D.Swathi	Predicting cyberbullying on social media in the big data
31.		19D41A0520	B.Pranay Kumar	
32.		19D41A0528	B.Murali	
33.		19D41A0509	A.Meghana	
34.	9	19D41A0532	B.Varsha	Lung cancer classification using SVM of k-means
35.		19D41A0535	CH.Sathwika	
36.		19D41A0501	A.Vamshi	
37.		19D41A0553	E.Sairam	
38.	10	19D41A0536	CH.Dinesh	A machine learning model for average fuel consumption in heavy vehicles
39.		19D41A0544	CH.Nandhini	
40.		19D41A0549	D.Nagaraj	
41.		19D41A0525	B.SaiKiran	
42.	11	19D41A0539	C.Chaitanya	The game use two paddles to hit a ball back and forth (pong)
43.		19D41A0515	A.Shivani	
44.		19D41A0502	A.Bharath	
45.		19D41A0523	B.Bhargav	
46.	12	19D41A0557	G.Arunkanth	Performance improvement of smart surveillance camera using modified CNN technique
47.		19D41A0518	B.Nagesh	
48.		19D41A0556	E.Tharal Reddy	
49.		19D41A0529	B.Abhilash	
50.	13	19D41A0548	D.Varsha	Missing child identification system using deep learning & svm
51.		19D41A0558	Gr.Gaurav	
52.		19D41A0513	A.Navaneetha	

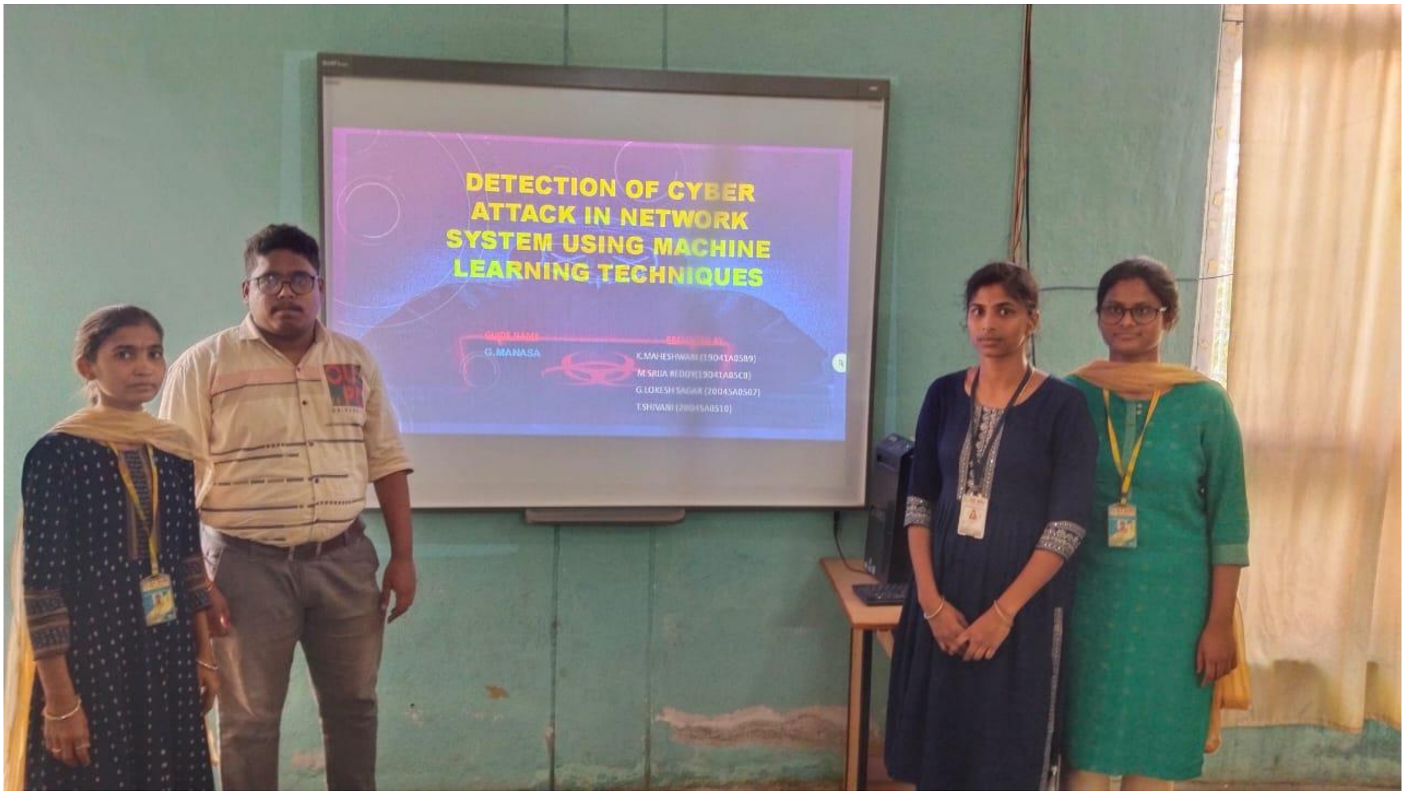
53.		19D41A0519	B.Avinash	
54.	14	19D41A0517	B.Sharon	Fake images detection
55.		19D41A0537	CH.Anitha	
56.		19D41A0540	C.Keerthi Reddy	
57.		20D41A0505	C.Sandhya Rani	
58.	15	19D41A0507	A.Nagaraj	Classification of online toxic comments using machine learning
59.		19D41A0506	A.Surya	
60.		19D41A0516	A.Sriram	
61.		19D41A0530	B.Gopinath	

SRI INDU COLLEGE OF ENGINEERING AND TECHNOLOGY
ELECTRIC VEHICLE RECHARGE

HR
Use Cases
Admin
Hotel Owner

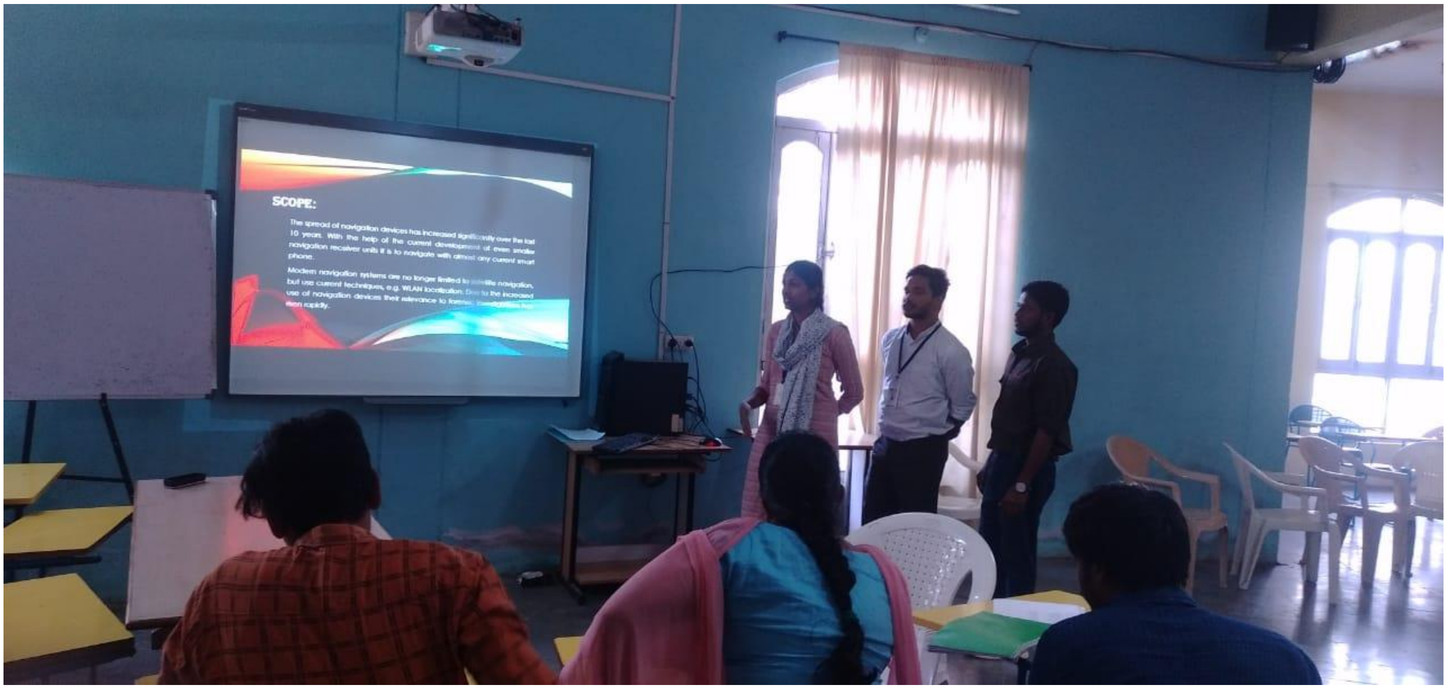
PLACEMENT MANAGEMENT SYSTEM
PRESENTED BY:
SHAIK RAYAN(19D41A05K3)
SHAIK IMRAN(20D45A0520)
P. PRASHANTH(20D45A0524)

A FORENSIC ACTIVITY LOGGER
TO EXTR SER ACTIVITY
FROM M DEVICES
Guided By
Presented by
K.Dharani
J.Sai Teja
K.Gowtham
K.Akash


DETECTION OF CYBER ATTACK IN NETWORK SYSTEM USING MACHINE LEARNING TECHNIQUES
G.MANASA
K.MAHESHWARI
M.SRIJA REDDY
G.LOKESH SAGAR
T.SHIVANI

ABSTRACT

- Data mining is well founded on the theory that the historic data holds the essential memory for predicting the future direction. This technology is designed to help investors discover hidden patterns from the historic data that have probable predictive capability in their investment decisions.
- The prediction of stock markets is regarded as a challenging task of financial time series prediction.
- Data analysis is one way of predicting if future stocks prices will increase or decrease. Also, it investigated various global events and their issues predicting on stock markets.



SCOPE:

The spread of navigation devices has increased significantly over the last 10 years. With the help of the current development of even smaller navigation receiver units it is to navigate with almost any current smart phone.

Modern navigation systems are no longer limited to satellite navigation, but use current techniques, e.g. WLAN localization. Due to the increased use of navigation devices their relevance to forensic [illegible] risen rapidly.

MMTS TICKET RESERVATION SYSTEM
Submitted by-
Meghana.T(L6)
Ravali.V(N1)
Arun.V(M7)

STUDENT COUNSELLING MANAGEMENT SYSTEM
S. ANUSHA [19D41A05P7]
V. KAVYA [20D45A0522]
V. BHAVANI [20D45A0521]

Deep Learning based Object Detection and Recognition Framework for the Visually-Impaired
INTERNAL GUIDE :
(ASSISTANT PROFESSOR)
PRESENTED BY
A.ANUSHA
C.MAHITHA
B.SAI TEJA
D.SAI KIRAN

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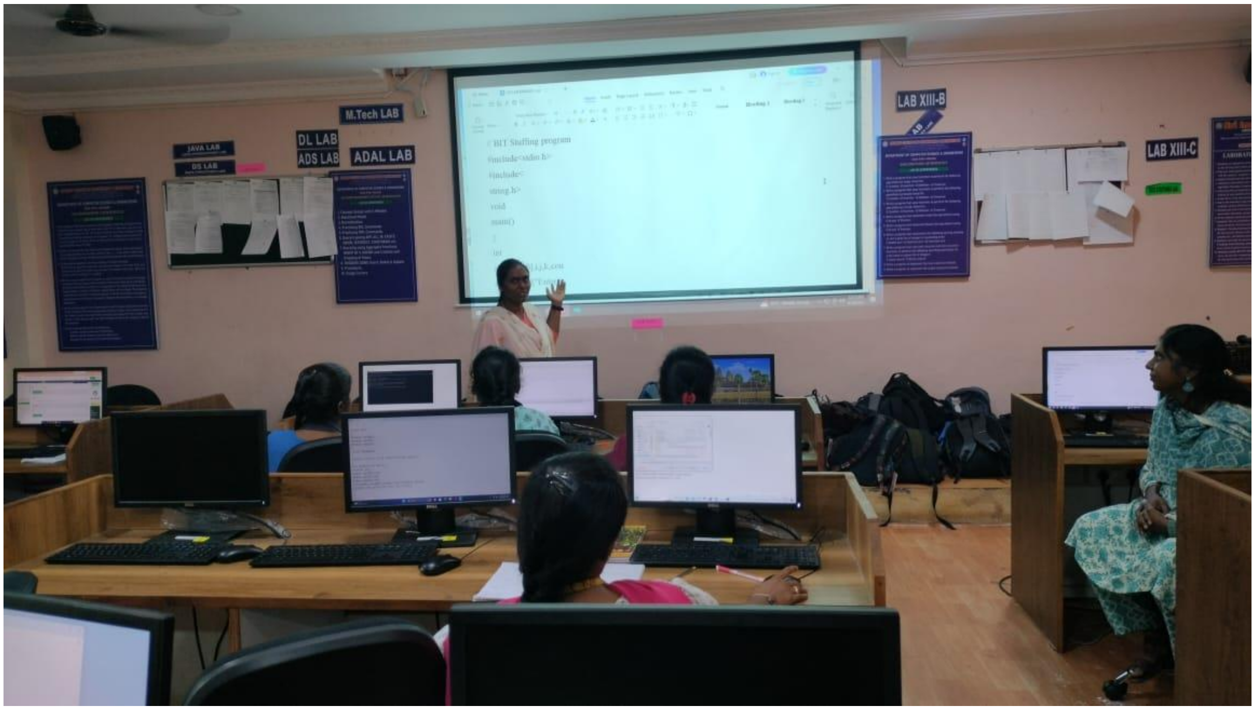
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

LABORATORY COURSES
(A.Y: 2022-23)

S.No.	YEAR/SEM	COURSE CODE	NAME OF THE LABORATORY
1.	II/I	R22CSE2126	Data Structures Lab
2.	II/I	R22CSE2127	Object Oriented Programming through Java Lab
3.	II/II	R22CSE2226	Operating Systems Lab
4.	II/II	R22CSE2227	Database Management Systems Lab
5.	III/I	R20CSE31L1	Software Engineering Lab
6.	III/I	R20CSE31L2	Web Technologies Lab
7.	III/I	R20HAS31L1	Advanced Communication Skills Lab
8.	III/II	R20CSE32L2	Compiler Design Lab
9.	III/II	R20CSE32L3	Mobile Application Development Lab
10.	IV/I	R20CSE41L1	Cryptography and Network Security Lab

CO-ORDINATOR **HoD**

Data Structures Lab

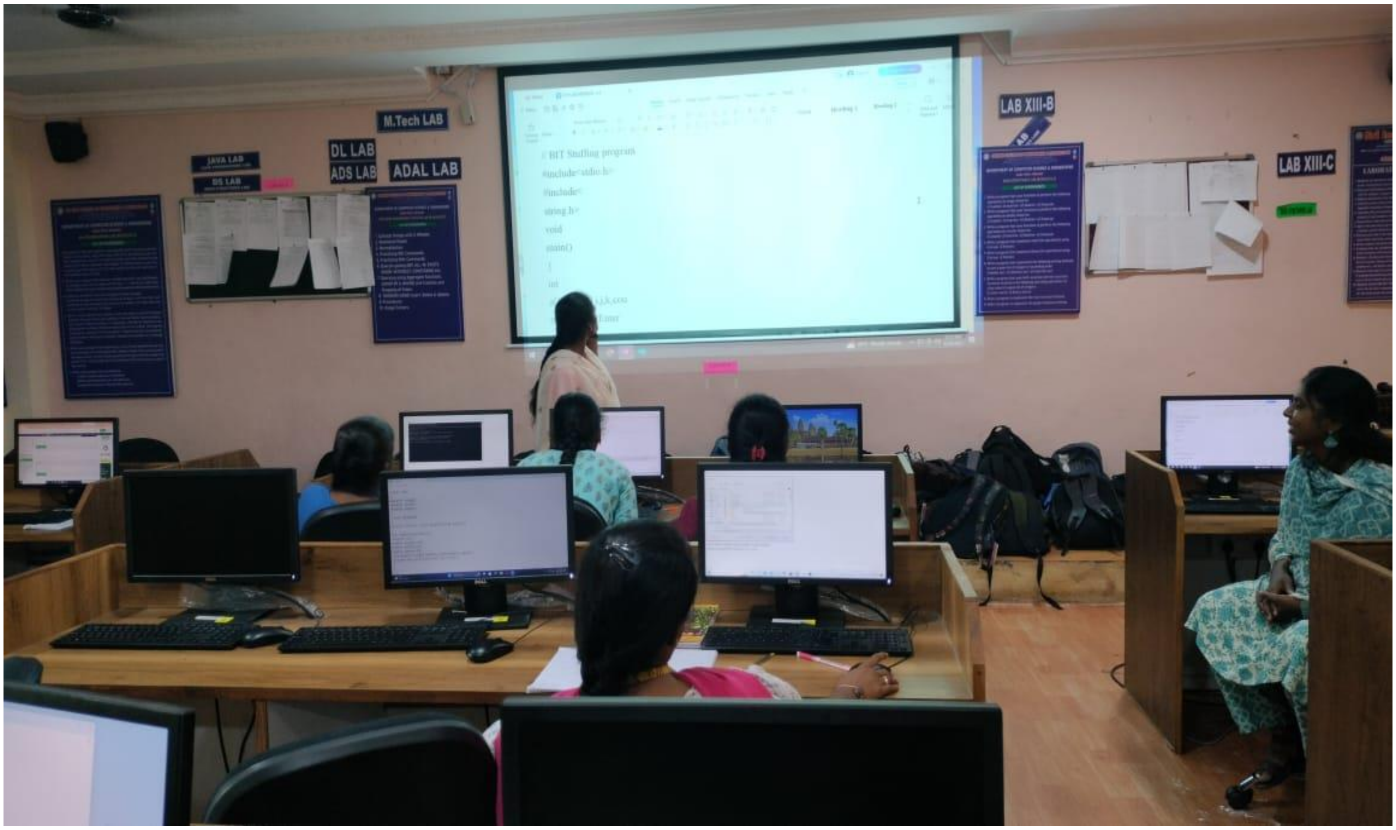

M.Tech LAB
JAVA LAB
DL LAB
ADS LAB
ADAL LAB
DS LAB
LAB XIII-B
LAB XIII-C

Object Oriented Programming through Java Lab

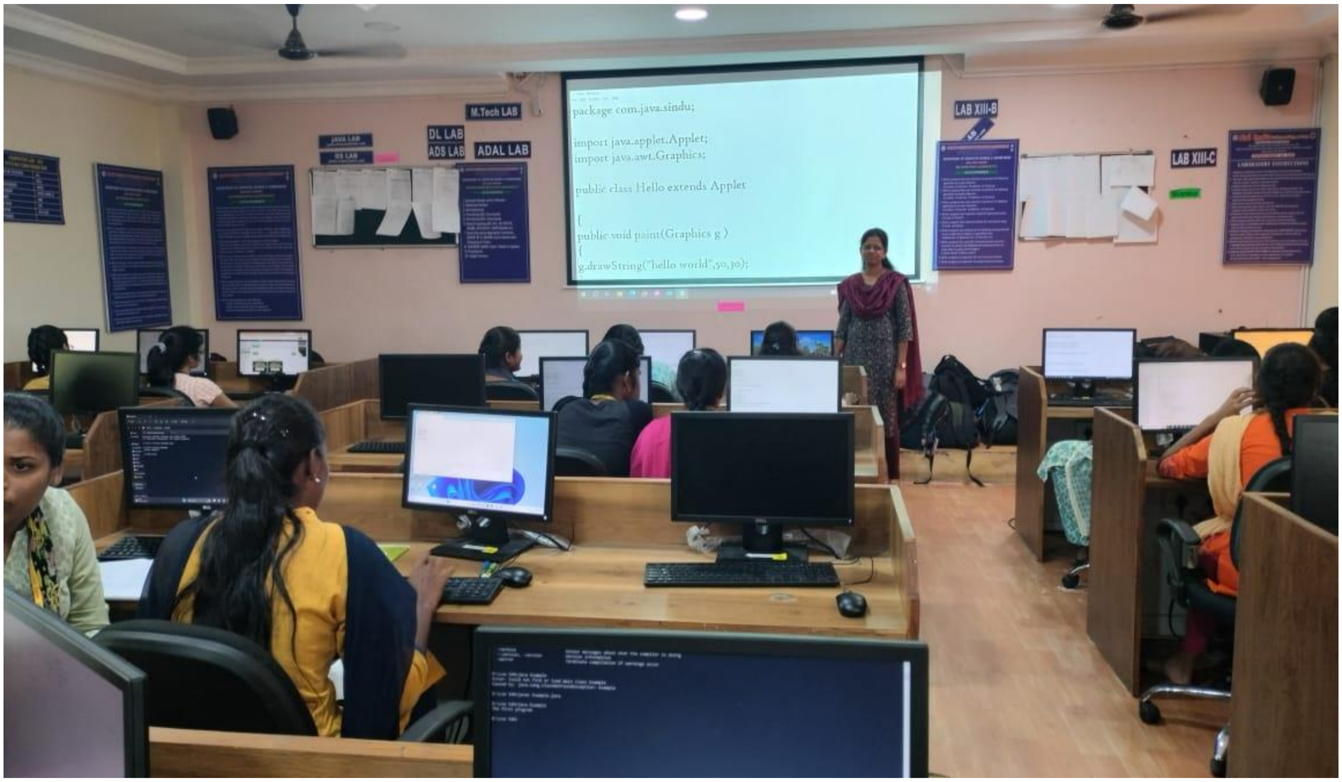
Operating Systems Lab

Database Management Systems Lab

Software Engineering Lab


M.Tech LAB
JAVA LAB
DS LAB
DL LAB
ADS LAB
ADAL LAB
LAB XIII-B
LAB XIII-C

Web Technologies Lab



Advanced Communication Skills Lab

Compiler Design Lab

Mobile Application Development Lab

Cryptography and Network Security Lab

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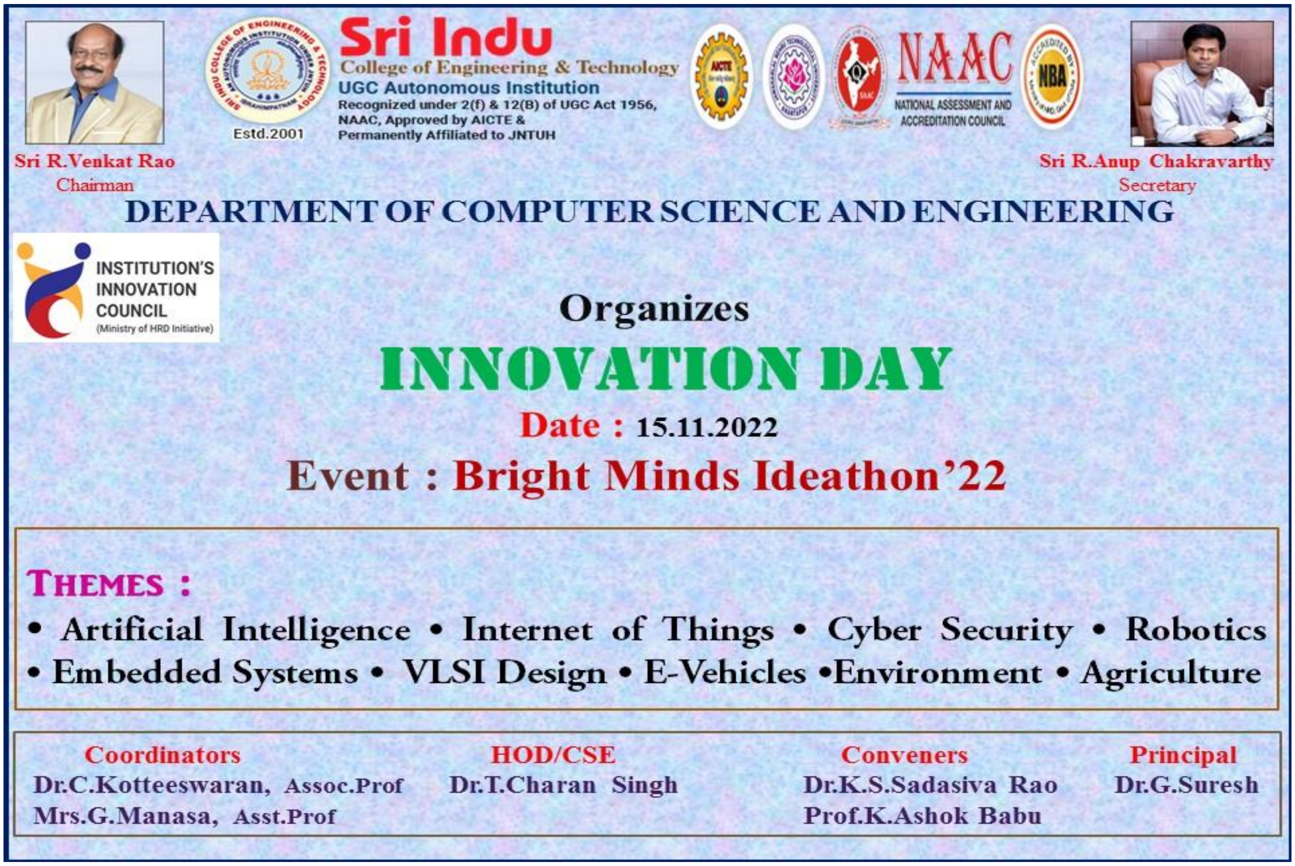
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

OPEN HOUSE EXHIBITIONS AND IDEA PRESENTATION
(A.Y: 2022-23)

S.No.	Date of the Event	Name of the Activity	No. of Students Participated
1.	15/11/2022	BRIGHT MINDS IDEATHON’22	250
2.	16/12/2022	EXCELLENCIA-2022	260
3.	16/09/2023	SMART INDIA HACKATHON’23	250

BRIGHT MINDS IDEATHON’22



Sri R.Venkat Rao
Chairman

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Secretary

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(Ministry of HRD Initiative)

Organizes

INNOVATION DAY

Date : 15.11.2022

Event : Bright Minds Ideathon’22

THEMES :

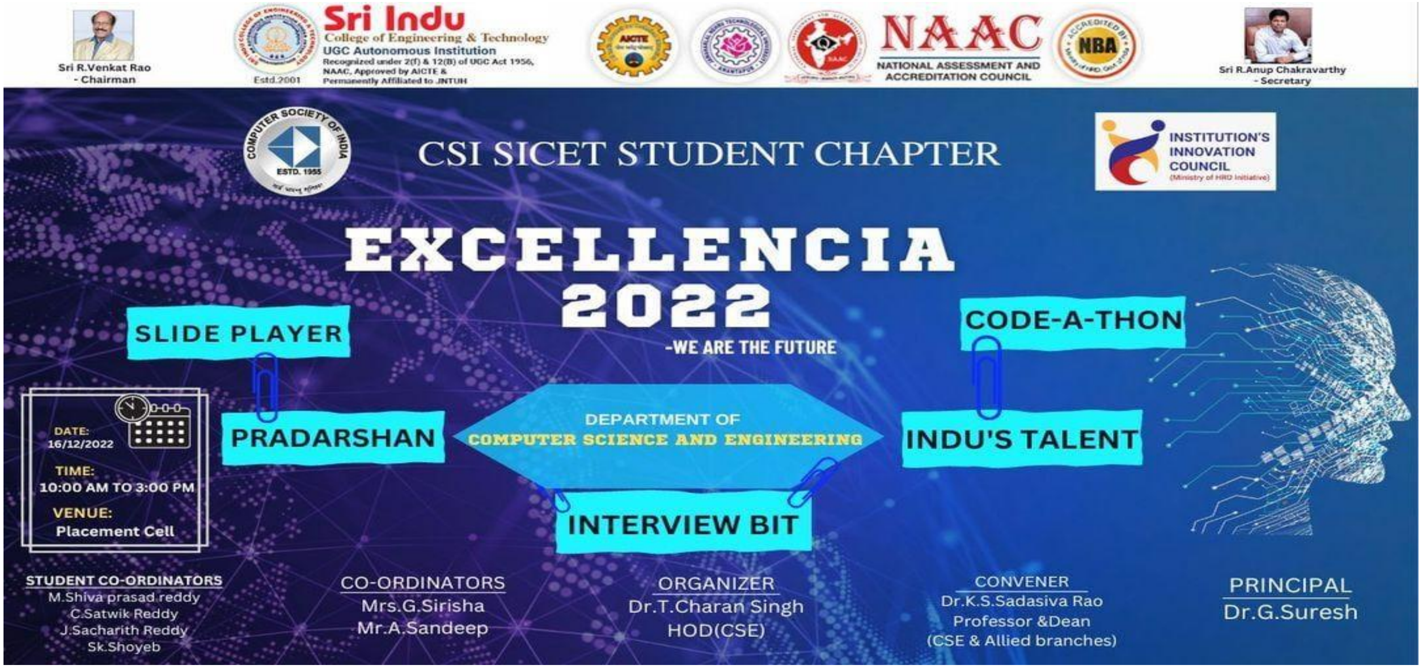
- Artificial Intelligence
- Internet of Things
- Cyber Security
- Robotics
- Embedded Systems
- VLSI Design
- E-Vehicles
- Environment
- Agriculture

Coordinators	HOD/CSE	Conveners	Principal
Dr.C.Kotteeswaran, Assoc.Prof	Dr.T.Charan Singh	Dr.K.S.Sadasiva Rao	Dr.G.Suresh
Mrs.G.Manasa, Asst.Prof		Prof.K.Ashok Babu	

INNOVATION DAY

OVATION DAY
WARAN.SCET@GMAIL.COM

EXCELLENCIA-2022



Sri R.Venkat Rao
- Chairman

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- Secretary

CSI SICET STUDENT CHAPTER

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EXCELLENCIA
2022
-WE ARE THE FUTURE

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COMPUTER SCIENCE AND ENGINEERING

SLIDE PLAYER
PRADARSHAN
INTERVIEW BIT
INDU'S TALENT
CODE-A-THON

DATE: 16/12/2022
TIME: 10:00 AM TO 3:00 PM
VENUE: Placement Cell

STUDENT CO-ORDINATORS
M.Shiva prasad reddy
C.Satwik Reddy
J.Sacharith Reddy
Sk.Shoyeb

CO-ORDINATORS
Mrs.G.Sirisha
Mr.A.Sandeep

ORGANIZER
Dr.T.Charan Singh
HOD(CSE)

CONVENER
Dr.K.S.Sadasiva Rao
Professor &Dean
(CSE & Allied branches)

PRINCIPAL
Dr.G.Suresh

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ESTD. 1955
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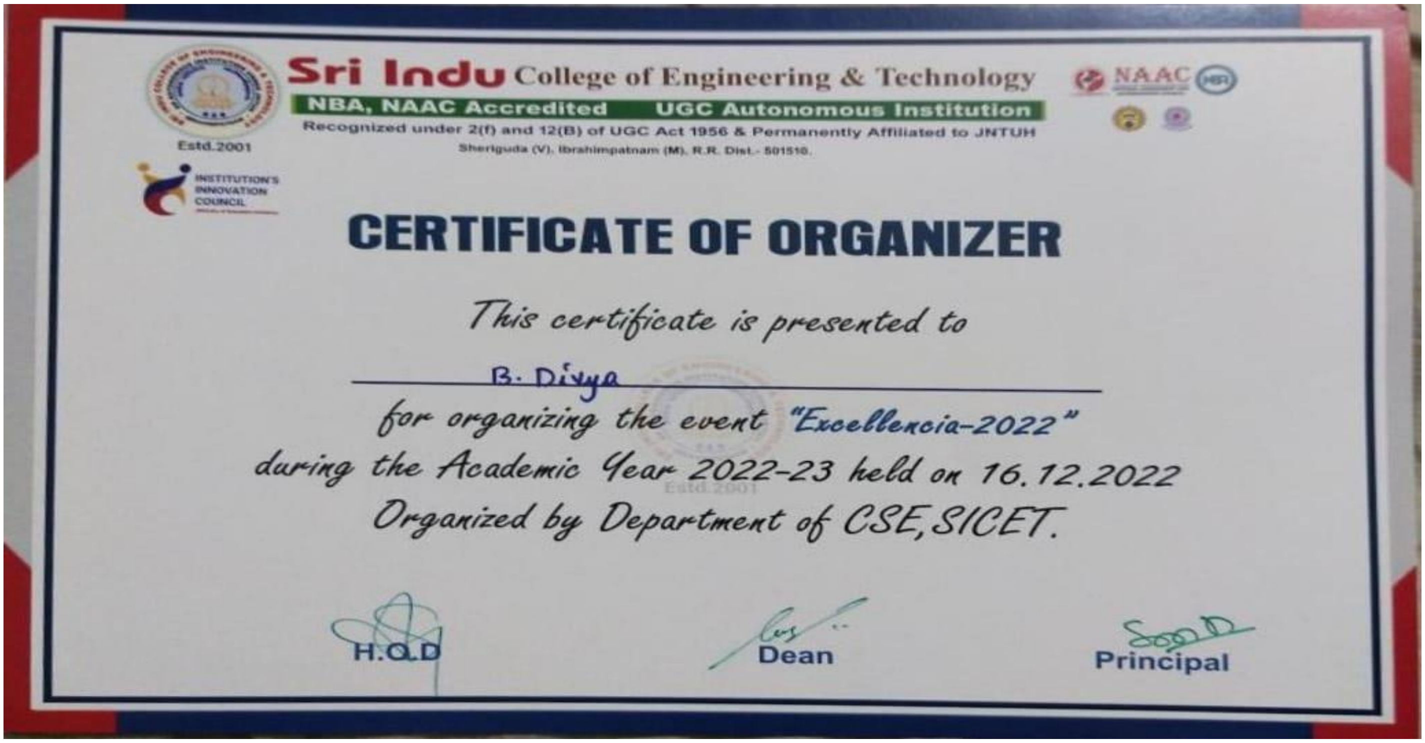

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INSTITUTION'S INNOVATION COUNCIL

NAAC

CERTIFICATE OF ORGANIZER

This certificate is presented to

B. Divya

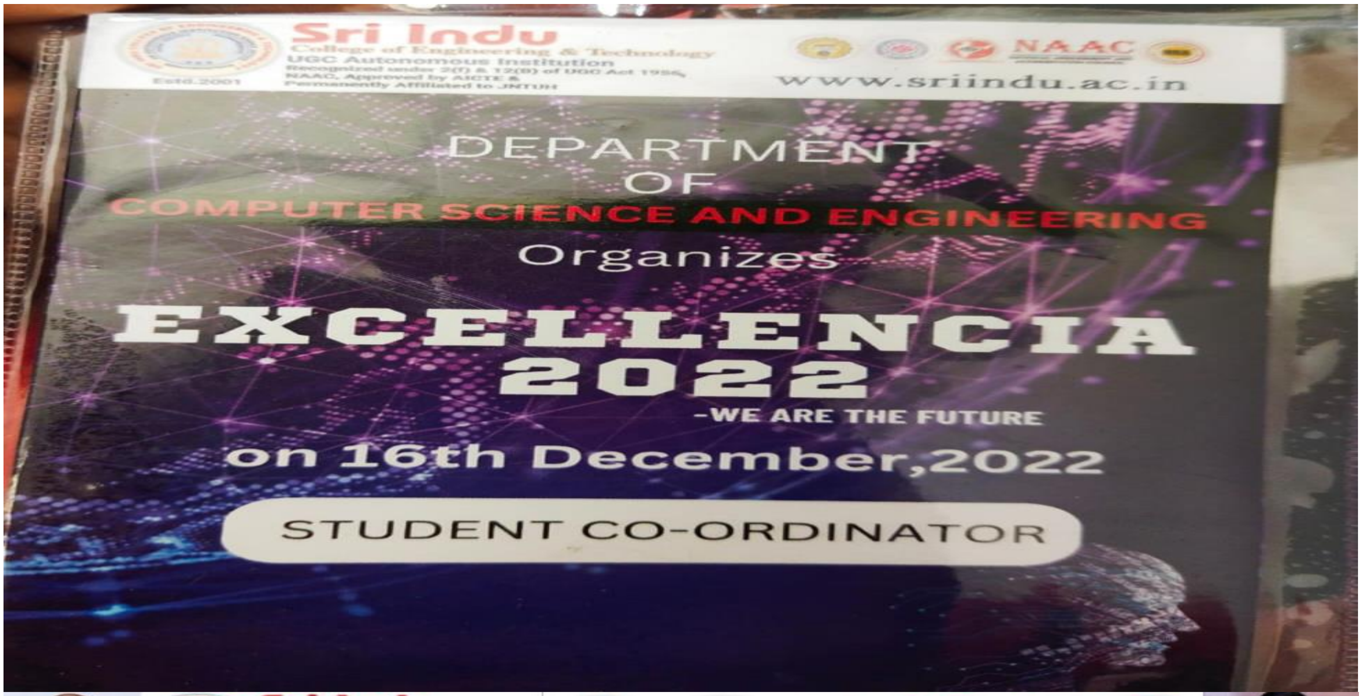
for organizing the event "Excellencia-2022" during the Academic Year 2022-23 held on 16.12.2022 Organized by Department of CSE, SICET.

H.O.D

Dean

Principal

Sri Indu



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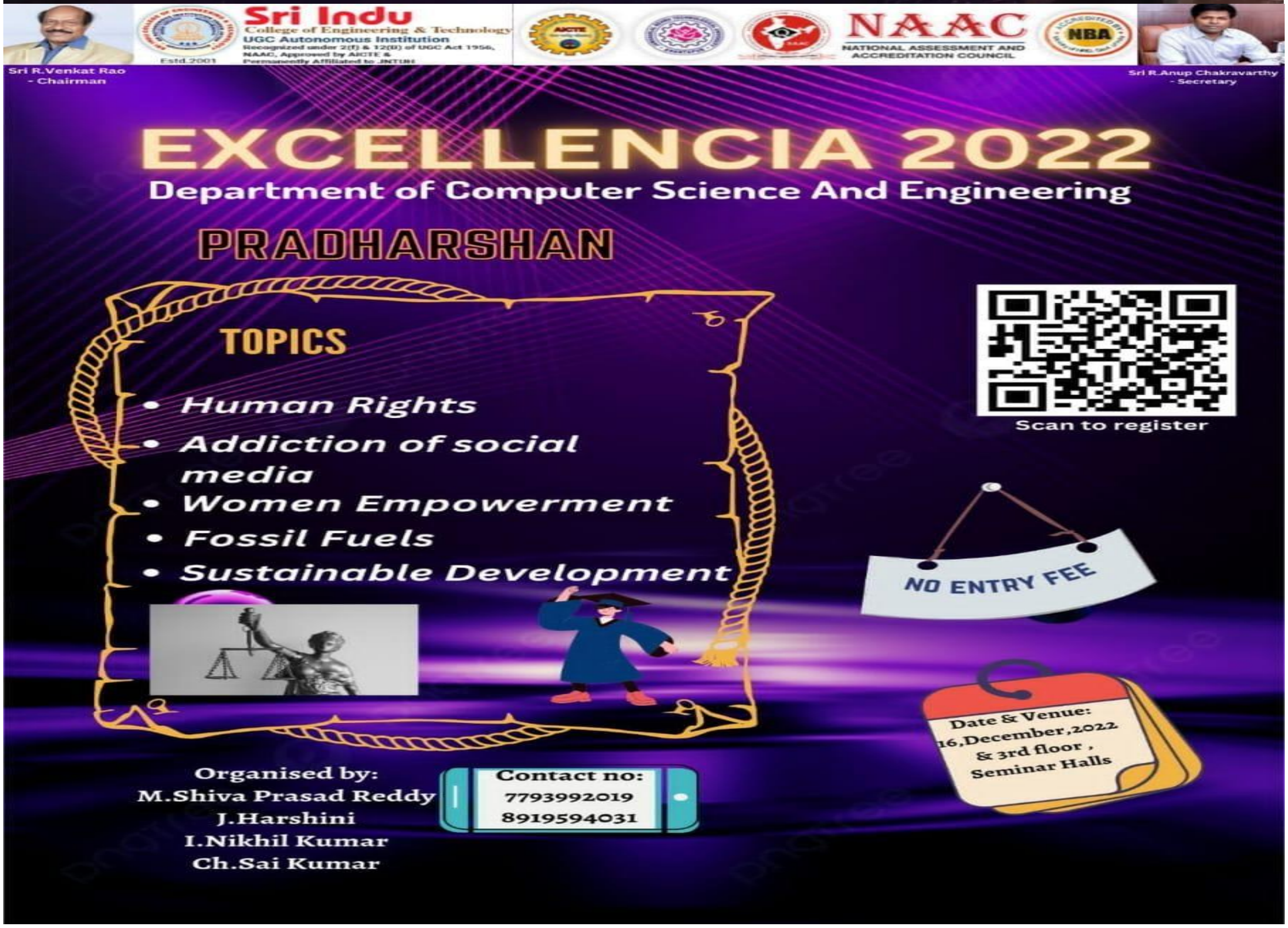
Organizes

EXCELLENCIA
2022

-WE ARE THE FUTURE

on 16th December,2022

STUDENT CO-ORDINATOR



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- Chairman

Sri R.Anup Chakravarthy
- Secretary

EXCELLENCIA 2022

Department of Computer Science And Engineering

PRADHARSHAN

TOPICS

- *Human Rights*
- *Addiction of social media*
- *Women Empowerment*
- *Fossil Fuels*
- *Sustainable Development*

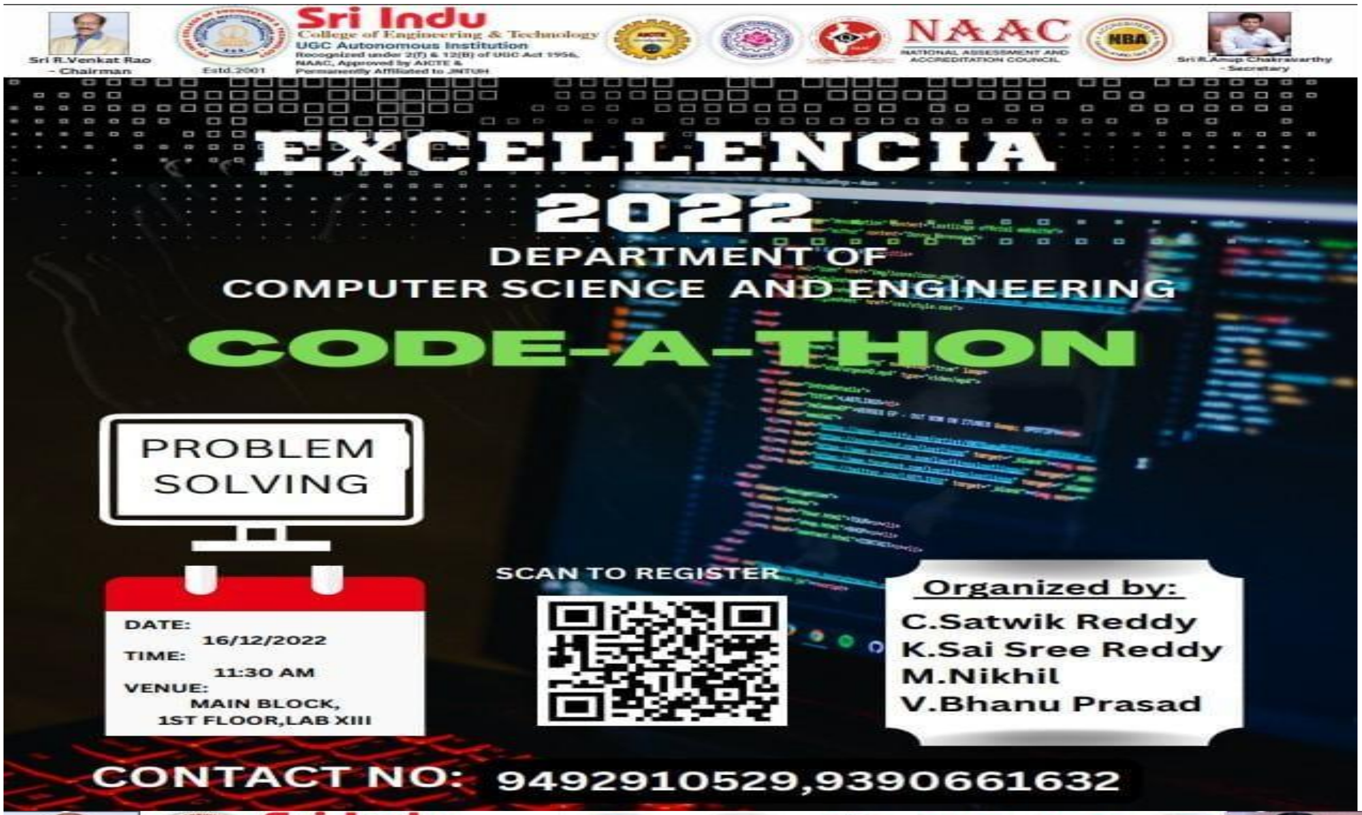
Scan to register

NO ENTRY FEE

Date & Venue:
16,December,2022
& 3rd floor ,
Seminar Halls

Organised by:
M.Shiva Prasad Reddy
J.Harshini
I.Nikhil Kumar
Ch.Sai Kumar

Contact no:
7793992019
8919594031



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DEPARTMENT OF
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CODE-A-THON

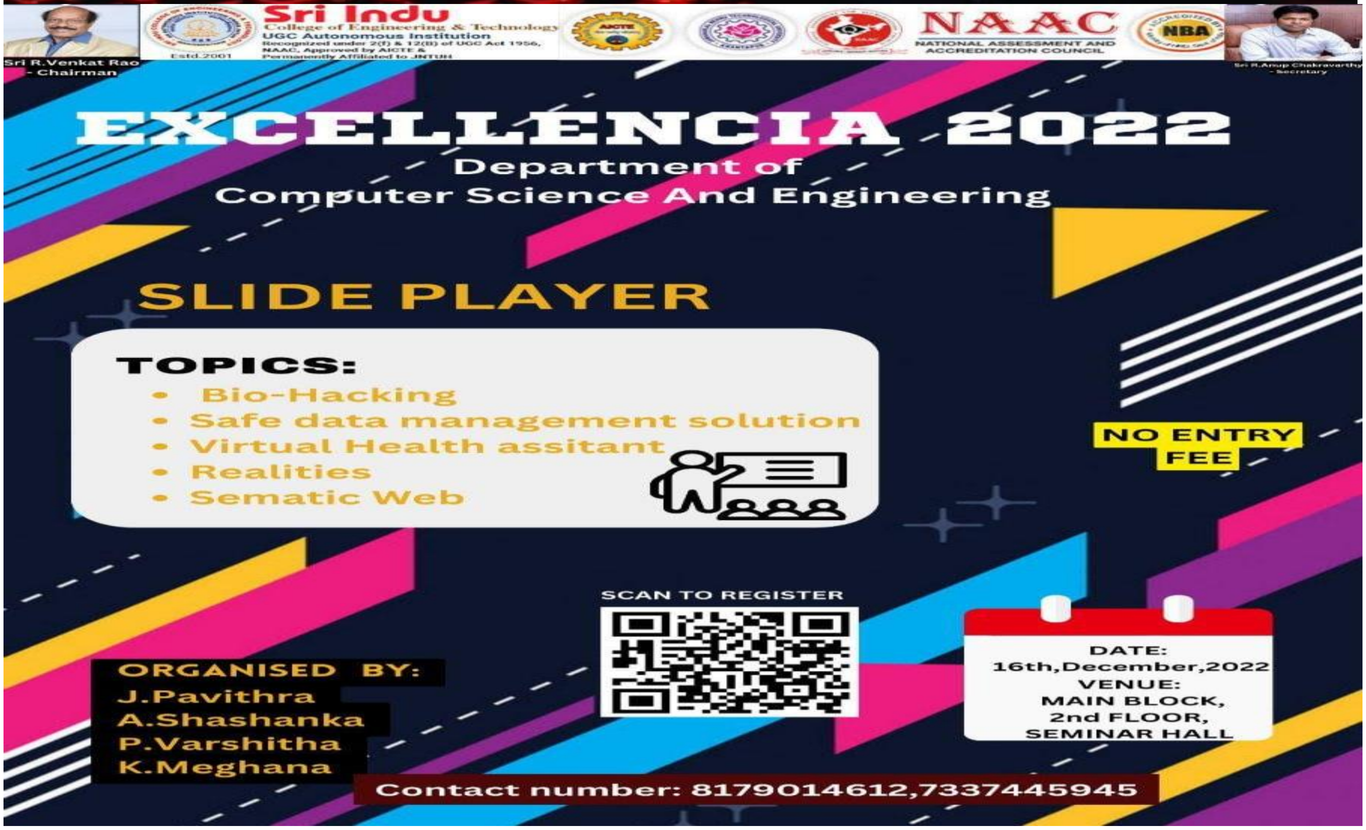
PROBLEM SOLVING

DATE: 16/12/2022
TIME: 11:30 AM
VENUE: MAIN BLOCK, 1ST FLOOR,LAB XIII

SCAN TO REGISTER

Organized by:
C.Satwik Reddy
K.Sai Sree Reddy
M.Nikhil
V.Bhanu Prasad

CONTACT NO: 9492910529,9390661632



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Computer Science And Engineering

SLIDE PLAYER

TOPICS:

- Bio-Hacking
- Safe data management solution
- Virtual Health assitant
- Realities
- Sematic Web

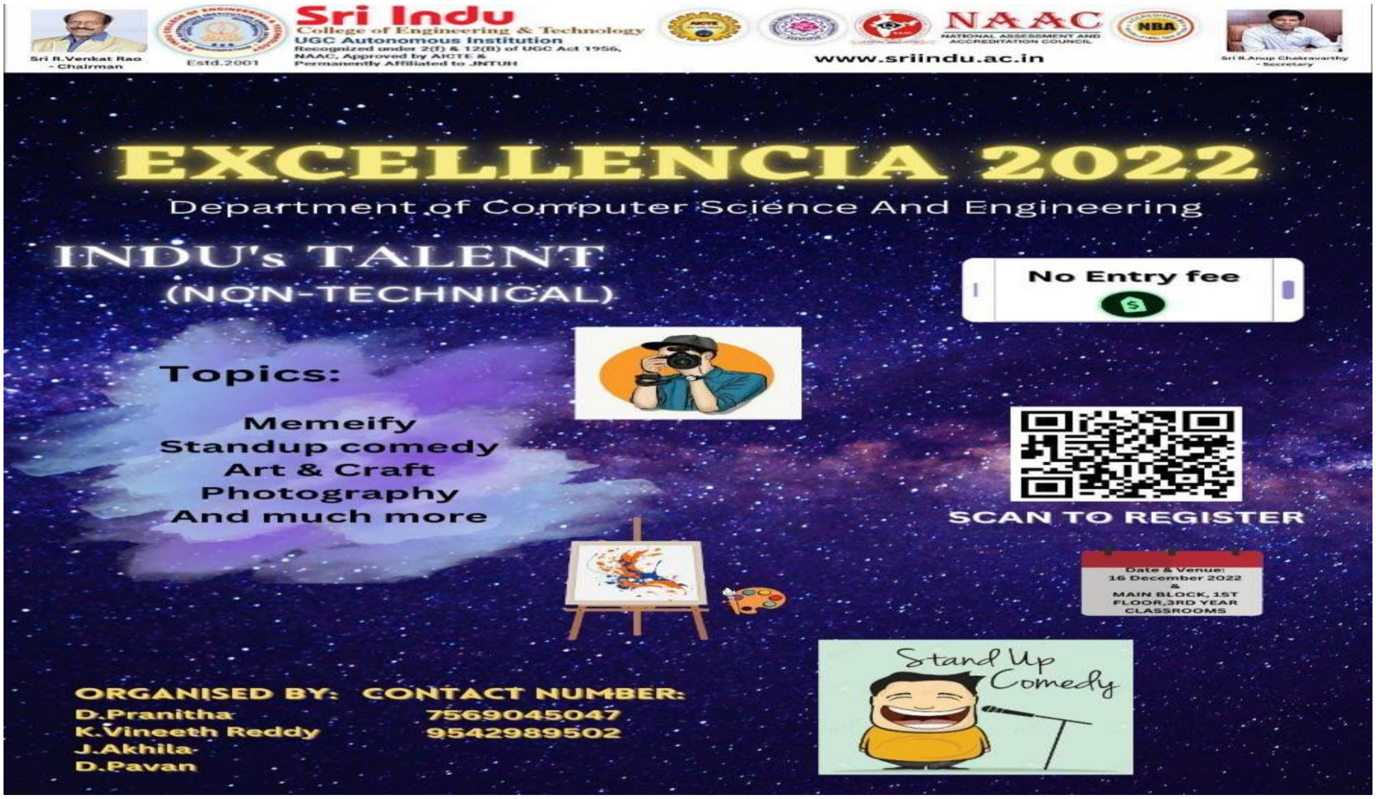
NO ENTRY FEE

SCAN TO REGISTER

DATE: 16th,December,2022
VENUE: MAIN BLOCK, 2nd FLOOR, SEMINAR HALL

ORGANISED BY:
J.Pavithra
A.Shashanka
P.Varshitha
K.Meghana

Contact number: 8179014612,7337445945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EXCELLENCIA 2022

Department of Computer Science And Engineering

INDU's TALENT
(NON-TECHNICAL)

No Entry fee

Topics:

Memeify
Standup comedy
Art & Craft
Photography
And much more

SCAN TO REGISTER

Date & Venue:
16 December 2022
&
MAIN BLOCK, 1ST FLOOR,3RD YEAR CLASSROOMS

ORGANISED BY:
D.Pranitha
K.Vineeth Reddy
J.Akhila
D.Pavan

CONTACT NUMBER:
7569045047
9542989502

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# SRI INDU INSTITUTIONS
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HYDERABAD, T.S.
"STEPPING STONES TO SUCCESS"

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Hyderabad, T.S.501 510.

DEPARTMENT OF COMPUTER SCIENCE AND TECHNOLOGY

INDUSTRIAL VISITS
(A.Y: 2022-23)

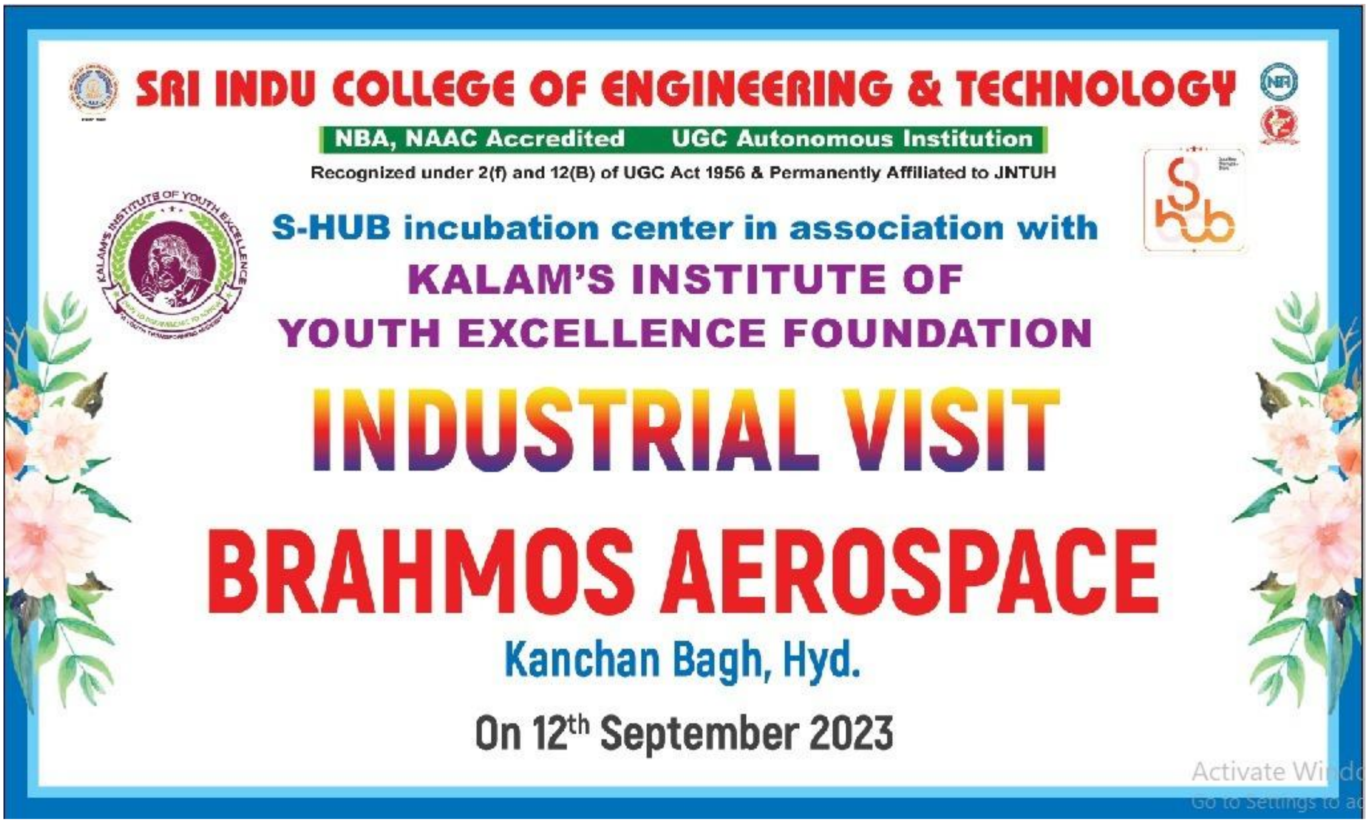
S.No.	Date of Visit	Year/Sem	Name of the Industry Visits	No. of Students
1.	30.9.2023	III/ I	Industrial Visit to C-DAC, Hyderabad	148
2.	12.09.2023	II/II	Industrial Visit to Kalam Institute of youth excellence and foundation	120

- **Organizing Department :** Computer Scienceand Engineering
- **Name of Activity :** Industrial Visit to C-DAC, Hyderabad,
- **Date of Activity :** 30th Sept 2023,
- **No.of Participants :** 128
- **Participants from :** B.Tech (CSE), III Year AND B.Tech (CSIT), III YEAR, SICET
- **Details of Activity:** We are arranged industrial visit to C-DAC, Hyderabad. It is the premier R&D organization of the Ministry of Electronics and Computer Science and Engineering for carrying out R&D in CSE, Electronics and associated areas located at Plot No. 6 & 7, Hardware Park, Sy No. 1/1, Srisailam Highway Pahadi Shareef, Via, Keshavagiri Post, Hyderabad, Telangana 501510. C-DAC has today emerged as a premier R&D organization in CSE (Computer Science and Engineering) in the country working on strengthening national technological capabilities in the context of global developments in the field and responding to change in the market need in selected foundation areas. In that process, C-DAC represents a unique facet working in close junction with MeitY to realize nation’s policy and pragmatic interventions and initiatives in Computer Science and Engineering. As an institution for high-end Research and Development (R&D, the Ministry of Electronics and Computer Science and Engineering, Ministry of Communications and Computer Science and Engineering, Government of India and other stakeholders including funding agencies, collaborators, users and the market-place.

- **Outcome of Activity :** Students learnt about the emerging/enabling technologies and skill sets to develop and deploy IT products and solutions provided by CDAC for different sectors of the economy

- **How it Bridges gap between Industry and Academia:** Due to this visit, students learnt in C-DAC has been at the forefront of the Computer Science and Engineering (CSE) revolution, constantly building capacities in emerging/enabling technologies and innovating and leveraging its expertise, caliber, skill sets to develop and deploy IT products and solutions for different sectors of the economy

- **Photo :** INDUSTRIAL VISIT PHOTOS
- **Organizing Department :** Computer Science & Information Technology,
- **Name of Activity :** Kalam Institute of youth excellence and foundation, Hyderabad
- **Date of Activity :** 12.09.2023
- **No.of Participants :** 120
- **Participants from :** B.Tech III Year (CSE), SICET.
- **Details of Activity :** INDUSTRIAL VISIT PHOTOS



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KALAM'S INSTITUTE OF

YOUTH EXCELLENCE FOUNDATION

INDUSTRIAL VISIT

BRAHMOS AEROSPACE

Kanchan Bagh, Hyd.

On 12th September 2023

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SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY
KALAM'S INSTITUTE OF
YOUTH EXCELLENCE FOUNDATION
INDUSTRIAL VISIT
BRAHMOS AEROSPACE
Kanchan Bagh, Hyd.
On 12th September 2023

SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY
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D4

BR-22

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

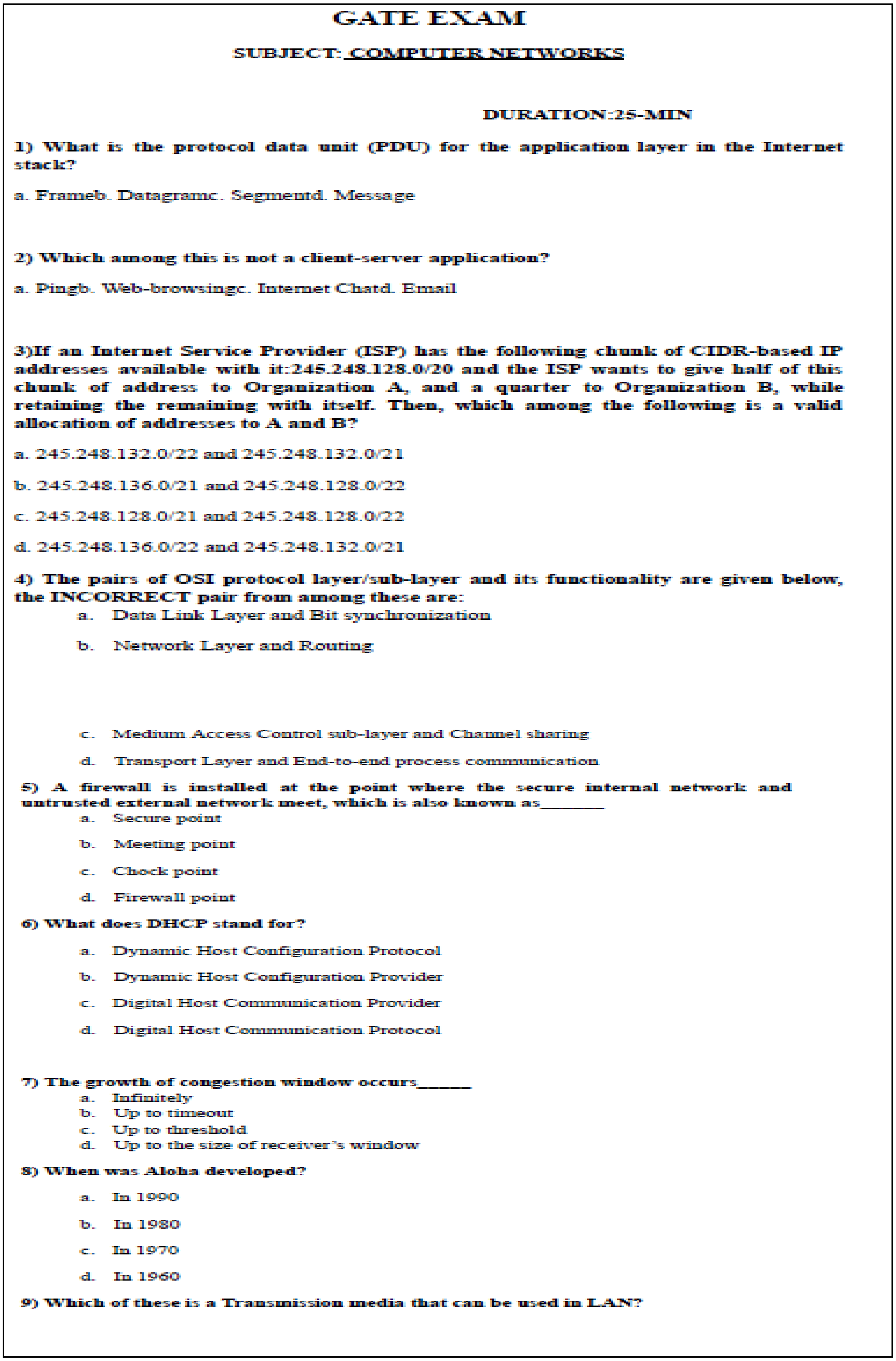
Objective Type Questions In Higher Level Of Thinking
(A.Y: 2022-23)

1. **Gate Questions**
2. **Subject wise MCQs**
3. **Quiz**
4. **Competitive exam papers**

S.No.	YEAR/SEM	SUBJECT	GQ	MCQ	QUIZ	CEP	
1.	II/I	Analog Electronics	✓	✓	✓	✓	
2.	II/I	Data Structures	✓	✓	✓	✓	
3.	II/I	Computer Oriented Statistical Methods	✓	✓	✓	✓	
4.	II/I	Computer Organization & Architecture	✓	✓	✓	✓	
5.	II/I	Object Oriented Programming using C++	✓	✓	✓	✓	
6.	II/II	Discrete Mathematics	✓	✓			
7.	II/II	Digital Logic Design	✓	✓	✓	✓	
8.	II/II	Operating Systems	✓	✓	✓	✓	
9.	II/II	Database Management Systems	✓	✓	✓	✓	
10	II/II	Java Programming	✓	✓	✓	✓	
11	III-I	Business Economics & Financial Analysis	✓	✓	✓		
12	III-I	Software Engineering	✓	✓	✓	✓	
13	III-I	Computer Networks	✓	✓	✓	✓	✓
14	III-I	Web Technologies	✓	✓	✓	✓	
15	III-I	Principles of Programming Languages	✓				

16.	III-II	Machine Learning	✓	✓	✓	
17.	III-II	Compiler Design	✓	✓	✓	
18.	III-II	Design and Analysis of Algorithms	✓	✓	✓	✓
19.	III-II	Mobile Application Development	✓	✓	✓	
20.	III-II	Information Technology Essentials		✓		
21.	IV-I	Cloud Computing	✓	✓	✓	
22.	IV-I	Data Mining	✓	✓	✓	✓
23.	IV-I	Cryptography And Network Security	✓	✓	✓	✓
24.	IV-I	Internet Of Things	✓		✓	
25.	IV-I	E-Commerce	✓	✓	✓	
26.	IV-II	Organizational Behaviour	✓		✓	
27.	IV-II	Distributed Systems		✓	✓	
28.	IV-II	Information Security System Fundamentals	✓	✓		

1. Gate Exam (Model papers Subject wise)



GATE EXAM

SUBJECT: COMPUTER NETWORKS

DURATION:25-MIN

1) What is the protocol data unit (PDU) for the application layer in the Internet stack?

a. Frameb. Datagramc. Segmentd. Message

2) Which among this is not a client-server application?

a. Pingb. Web-browsingc. Internet Chatd. Email

3)If an Internet Service Provider (ISP) has the following chunk of CIDR-based IP addresses available with it:245.248.128.0/20 and the ISP wants to give half of this chunk of address to Organization A, and a quarter to Organization B, while retaining the remaining with itself. Then, which among the following is a valid allocation of addresses to A and B?

a. 245.248.132.0/22 and 245.248.132.0/21

b. 245.248.136.0/21 and 245.248.128.0/22

c. 245.248.128.0/21 and 245.248.128.0/22

d. 245.248.136.0/22 and 245.248.132.0/21

4) The pairs of OSI protocol layer/sub-layer and its functionality are given below, the INCORRECT pair from among these are:

a. Data Link Layer and Bit synchronization
b. Network Layer and Routing
c. Medium Access Control sub-layer and Channel sharing
d. Transport Layer and End-to-end process communication

5) A firewall is installed at the point where the secure internal network and untrusted external network meet, which is also known as________

a. Secure point
b. Meeting point
c. Check point
d. Firewall point

6) What does DHCP stand for?

a. Dynamic Host Configuration Protocol
b. Dynamic Host Configuration Provider
c. Digital Host Communication Provider
d. Digital Host Communication Protocol

7) The growth of congestion window occurs_______

a. Infinitely
b. Up to timeout
c. Up to threshold
d. Up to the size of receiver's window

8) When was Aloha developed?

a. In 1990
b. In 1980
c. In 1970
d. In 1960

9) Which of these is a Transmission media that can be used in LAN?

a. fibre optics
b. coaxial cable
c. microwave
d. satellite

10) Which of these protocols given below uses UDP as transport protocol
a. DNS
b. Telnet
c. HTTP
d. SMTP

11) LANs can be connected by a device known as ________
a. Ethernet card
b. Modems
c. Routers
d. Bridges

12) What is the bit rate In Ethernet when Man
a. Same as the baud rate
b. Twice the baud rate
c. Half the baud rate
d. None of these

13) What is slot time for gigabit
a. 0.612
b. 0.512
c. 0.412
d. 0.312

14) Radio waves are
a. directio
b. bidire
c. om
d.

15) Th

c. Signal element
d. Both b and c

16) Which architecture is FTP built on?
a. P2P
b. Client-server
c. Both the above
d. None of these

17) What is the address resolution protocol (ARP) used for?
a. Finding the IP address of the default gateway
b. Finding the MAC address that corresponds to an IP address
c. Finding the IP address that corresponds to a MAC address
d. Finding the IP address from the DNS

18) Which of the following are not true characteristics of NetBEUI?
a. Fast for small networks to Self-tuning
b. Little configuration required
c. Routable
d. Highly customizable

19) Identify the correct option for the given assertion and reason

a. Assertion and Reason, both are true

b. Assertion and reason are false

c. Assertion is true and reason is false

d. Assertion and reason are true, but this is not the correct reason for the given assertion

20)Consider that a computer on a 10Mbps network is regulated by a token bucket. The token bucket is filled at a rate of 2Mbps. It is initially filled to capacity with 16 Megabits. What is the maximum duration for which the computer can transmit at the full 10Mbps?
a. 8 seconds

b. 5 second

c. 2 seconds

d. 1.6 seconds

21) In Unicast Routing, we use shortest path tree method for finding shortest path of the________

a. Nodes

b. Networks

c. Packets

d. Frames

22) Which is the network that provides high speed connectivity?

a. Internetwork
b. WAN
c. LAN
d. MAN

23) What is the maximum number of subnets and the maximum number of hosts in each subnet, if the address of a class B host is to be split into subnets with a 6-bit subnet number?

a. 64 subnets and 262142 hosts

b.62 subnets and 262142 hosts

c. 64 subnets and 1024 hosts

d. 62 subnets and 1022 hosts

24) Which of the following statements about HTTP are false?

a. HTTP describe the structure of web page

b. HTTP run over TCP

c. HTTP can be used to test the validity of hyper link test

d. HTTP allows information to be stored in url

25) What is an anticipated result from multi programming operations?

a. Handling of more jobs

b. Reduced computer idle time

c. Better scheduling of work

d. All of the above

GATE EXAM ON SOFTWARE ENGINEERING

DURATION-10MIN

SUBJECT:SOFTWARE ENGINEERING

1 Match the following:

List I	List II
(P) Condition coverage	(i) Black-box testing
(Q) Equivalence class partitioning	(ii) System testing
(R) Volume testing	(iii) White-box testing
(S) Alpha testing	(iv) Performance testing

A P - ii, Q - iii, R - i, S - iv

B P - iii, Q - iv, R - ii, S - i

C Correct Answer

P - iii, Q - i, R - iv, S - ii

D P - iii, Q - i, R - ii, S - iv

2 A software requirements specification (���) document should avoid discussing which one of the following?

A User interface issues

B Non-functional requirements

C Correct Answer

Design specification

D Interfaces with third party software

3 Consider the basic ������� model where � is the effort applied in person-months, � is the development time in chronological months, ����� is the estimated number of delivered lines of code (in thousands) and ��,��,��,�� have their usual meanings. The basic ������� equations are of the form

A Correct Answer �=��(�����)exp(��),�=��(�)exp(��)

B �=��(�����)exp(��),�=��(�)exp(��)

C �=��exp(��),�=��(�����)exp(��)

D �=��exp(��),�=��(�����)exp(��)

4 Consider a software project with the following information domain characteristics for calculation of function point metric.

Number of external inputs (I)=30
Number of external outputs (�)=60
Number of external inquiries (�)=23
Number of files (�)=08
Number of external interfaces (�)=02

It is given that the complexity weighting factors for �,�,�,� and � are 4,5,4,10 and 7, respectively. It is also given that, out of fourteen value adjustment factors that influence the development effort, four factors are not applicable, each of the other four factors have value 3, and each of the remaining factors have value $$4.$ The computed value of function point metric is ________________.

Answer

Correct answer is 612 to 613

4.Consider a software program that is artificially seeded with 100 faults. While testing this program, 159 faults are detected, out of which 75 faults are from those artificially seeded faults. Assuming that both real and seeded faults are of same nature and have same distribution, the estimated number of undetected real faults is ________________.

Answer

C Correct Answer

Prototyping is a method of requirements validation.

D Requirements review is carried out to find the errors in system design.

7. A company need to develop digital signal processing software for one of its newest inventions. The software is expected to have 4000 lines of code. The company needs to determine the effort in person months needed to develop this software using basic ������ model. The multiplicative factor for this model is given as 2.8 for the software development on embedded systems. While the exponentiation factor is given as 1.20. What is the estimated effort in person months?

A Correct Answer 234.25

B 932.50

C 287.80

D 122.40

8 Which of the following is NOT desired in a good Software Requirement Specifications (���) document?

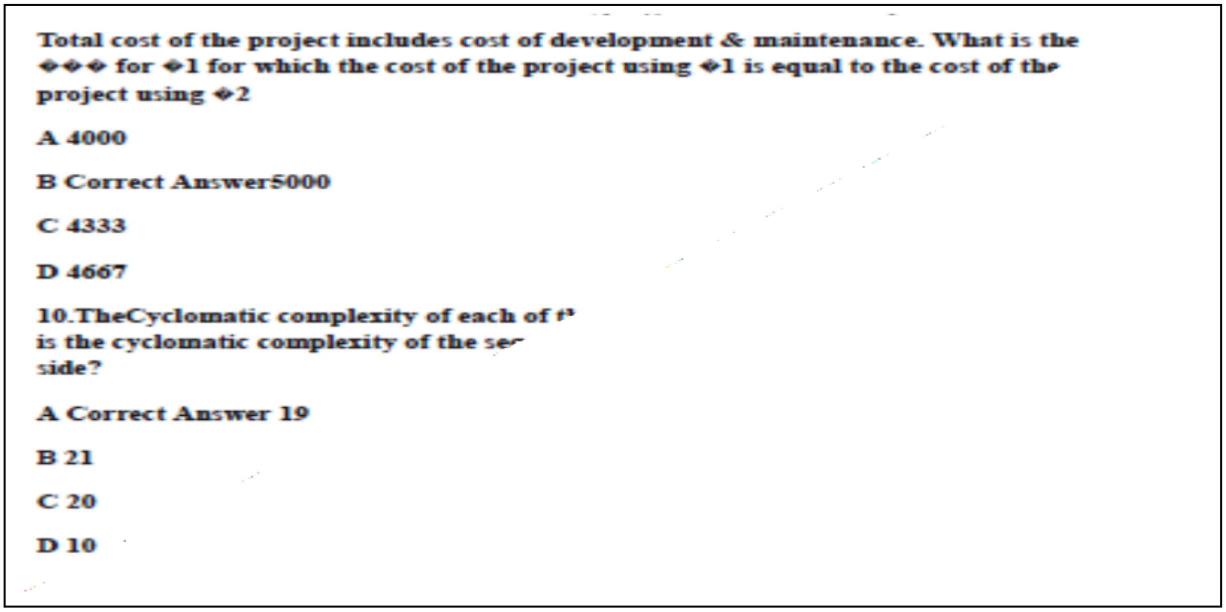
A Functional Requirements

B Non Functional Requirements

C Goals of Implementation

D Correct Answer Algorithms for software Implementation

9.A company needs to develop a strategy for Software Product development for which it has a choice of two programming language �1 and �2. The number of lines of code (���) developed using �2 is estimated to be twice the ��� developed with �1 the product will have to be maintained for five years. Various parameters for the company are given in the table below.



Total cost of the project includes cost of development & maintenance. What is the ��� for �1 for which the cost of the project using �1 is equal to the cost of the project using �2

A 4000

B Correct Answer5000

C 4333

D 4667

10.TheCyclomatic complexity of each of t
is the cyclomatic complexity of the se
side?

A Correct Answer 19

B 21

C 20

D 10

GATE EXAM **DURATION-20MIN**

1. The number of tuples in an extended Non Deterministic Finite Automaton:

a) 5
b) 6
c) 7
d) 4

Answer: a

Explanation: For NFA or extended transition function on NFA, the tuple elements remains same i.e. 5.

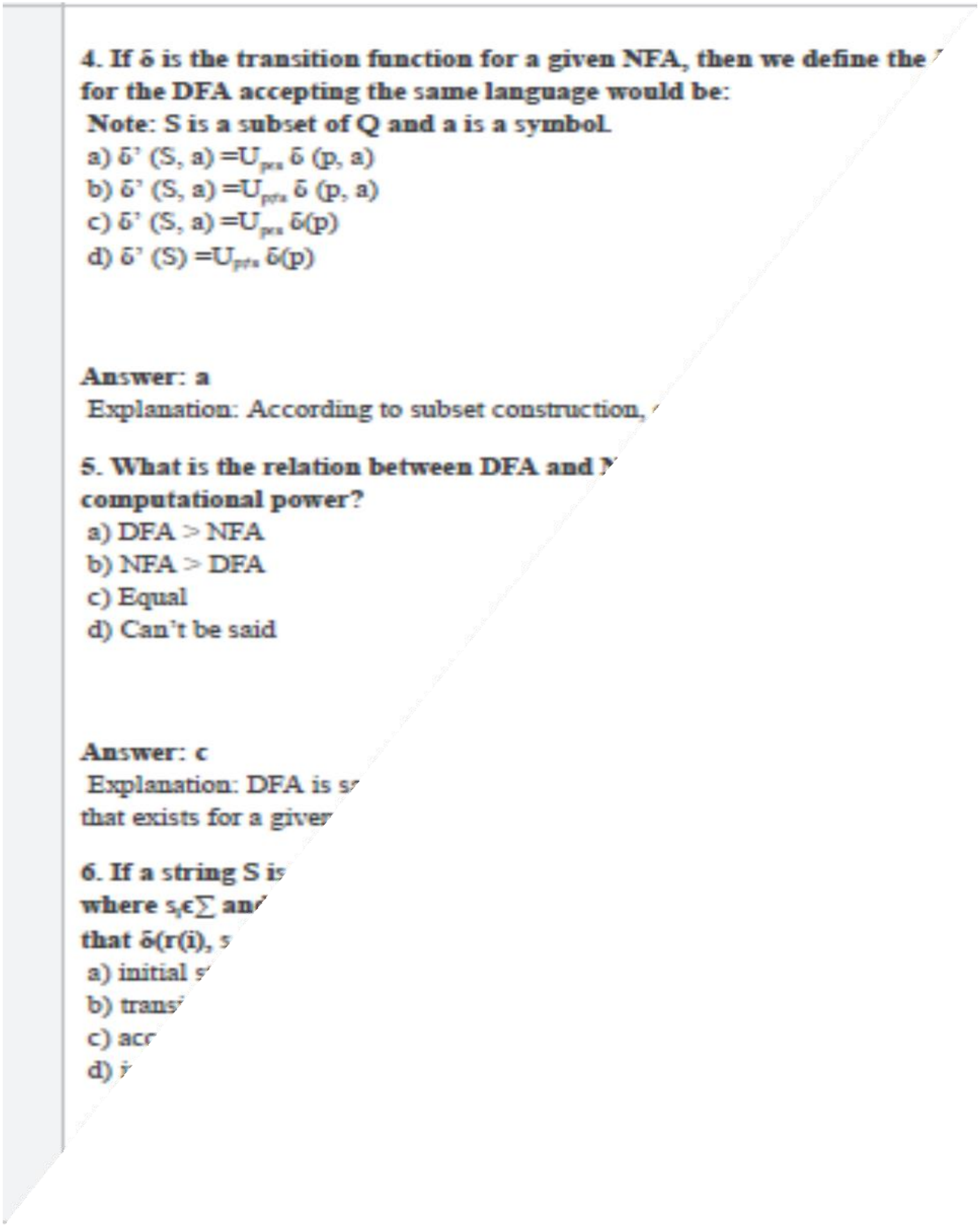
2. Choose the correct option for the given statement:
Statement: The DFA shown represents all strings which has 1 at second last position.

a) Correct
b) Incorrect, Incomplete DFA
c) Wrong proposition
d) May be correct

Answer: c

Explanation: The given figure is an NFA. The statement contradicts itself.

3. What is wrong in the given definition?
Def: ({q0, q1, q2}, {0,1}, δ, q3, {q3})
a) The definition does not satisfy 5 Tuple definition of NFA
b) There are no transition definition
c) Initial and Final states do not belong to the Graph
d) Initial and final states can't be same
Answer: c
Explanation: q3 does not belong to Q where Q= set of finite states.



4. If δ is the transition function for a given NFA, then we define the
for the DFA accepting the same language would be:
Note: S is a subset of Q and a is a symbol.

a) δ' (S, a) =$U_{p\in s}$ δ (p, a)
b) δ' (S, a) =$U_{p\notin s}$ δ (p, a)
c) δ' (S, a) =$U_{p\in s}$ δ(p)
d) δ' (S) =$U_{p\notin s}$ δ(p)

Answer: a
Explanation: According to subset construction,

5. What is the relation between DFA and N
computational power?

a) DFA > NFA
b) NFA > DFA
c) Equal
d) Can't be said

Answer: c
Explanation: DFA is s
that exists for a give

6. If a string S is
where s_i**ϵ∑ an**
that δ(r(i), s

a) initial s
b) trans
c) acc
d)

Explanation: r(n) is the final state and accepts the string S after the string being traversed through r(i) other states where I ϵ 01,2…(n-2).

7. According to the given table, compute the number of transitions with 1 as its symbol but not 0:

a) 4
b) 3
c) 2
d) 1 **Answer: d**
Explanation: The transition graph is made and thus the answer can be found.

8. From the given table, δ*(q0, 011) =?

a) {q0}
b) {q1} U {q0, q1, q2}
c) {q2, q1}
d) {q3, q1, q2, q0} **Answer: b**
Explanation: $\delta^*(q0,011) = U_r \delta^*(q0,01)\ \delta\ (r, 1) = \{q0, q1, q2\}$.

9. Number of times the state q3 or q2 is being a part of extended 6 transition state is

a) 6
b) 5
c) 4
d) 7 **Answer: a**
Explanation: According to the question, presence of q2 or q1 would count so it does and the answer according to the diagram is 6.

10. Predict the missing procedure:

i.Δ(Q0, ε) ={Q0},
ii.Δ(Q0, 01) = {Q0, Q1}
iii.δ(Q0, 010) =?
a) {Q0, Q1, Q2}

b) {Q0, Q1}
c) {Q0, Q2}
d) {Q1, Q2}

Answer: c

Explanation: According to given table and extended transition state implementation, we can find the state at which it rests.

11. Subset Construction method refers to:

a) Conversion of NFA to DFA
b) DFA minimization
c) Eliminating Null references
d) ε-NFA to NFA

Answer: a

Explanation: The conversion of a non-deterministic automata into a deterministic one is a process we call subset construction or power set construction.

12. Given Language:

L_n= {xϵ {0,1} * | |x|≥n, nth symbol from the right in x is 1}

How many state are required to execute L_3 using NFA?

a) 16
b) 15
c) 8
d) 7

Answer: b

Explanation: The finite automaton for the given language is made and thus, the answer can be obtained.

13. In NFA, this very state is like dead-end non final state:

a) ACCEPT
b) REJECT
c) DISTINCT
d) START

Answer: b

Explanation: REJECT state will be like a halting state which rejects a particular invalid input.

14. We can represent one language in more one FSMs, true or false?

a) TRUE
b) FALSE
c) May be true
d) Cannot be said

Answer: a

Explanation: We can represent one language in more one FSMs, example for a same language we have a DFA and an equivalent NFA.

15. The production of form non-terminal -> ε is called:

a) Sigma Production
b) Null Production
c) Epsilon Production
d) All of the mentioned

Answer: b

Explanation: The production of form non-terminal ->ε is call null production.

16. Which of the following is a regular language?

a) String whose length is a sequence of prime numbers
b) String with substring ww' in between

c) Palindrome string
d) String with even number of Zero's

Answer: d
Explanation: DFSM's for the first three option is not possible; hence they aren't regular.

17. Which of the following recognizes the same formal language as of DFA and NFA?
a) Power set Construction
b) Subset Construction
c) Robin-Scott Construction
d) All of the mentioned

Answer: d
Explanation: All the three option refers to same technique if distinguishing similar constructions for different type of automata.

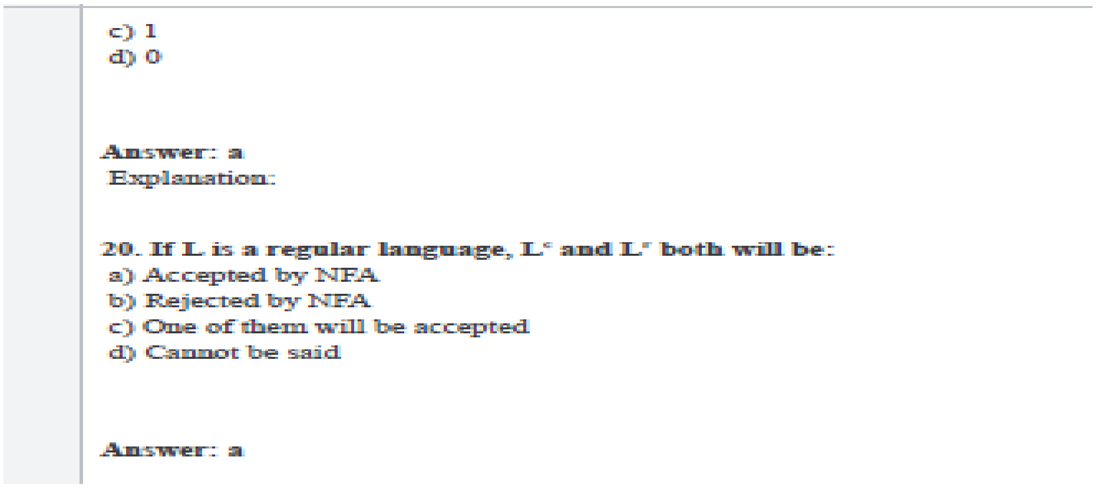
18. Which of the following does the given NFA represent?

a) {11, 101} * {01}
b) {110, 01} * {11}
c) {11, 110} * {0}
d) {00, 110} * {1}

Answer: c

19. **The number of transitions required to convert the following into equivalents DFA:**

a) 2
b) 3



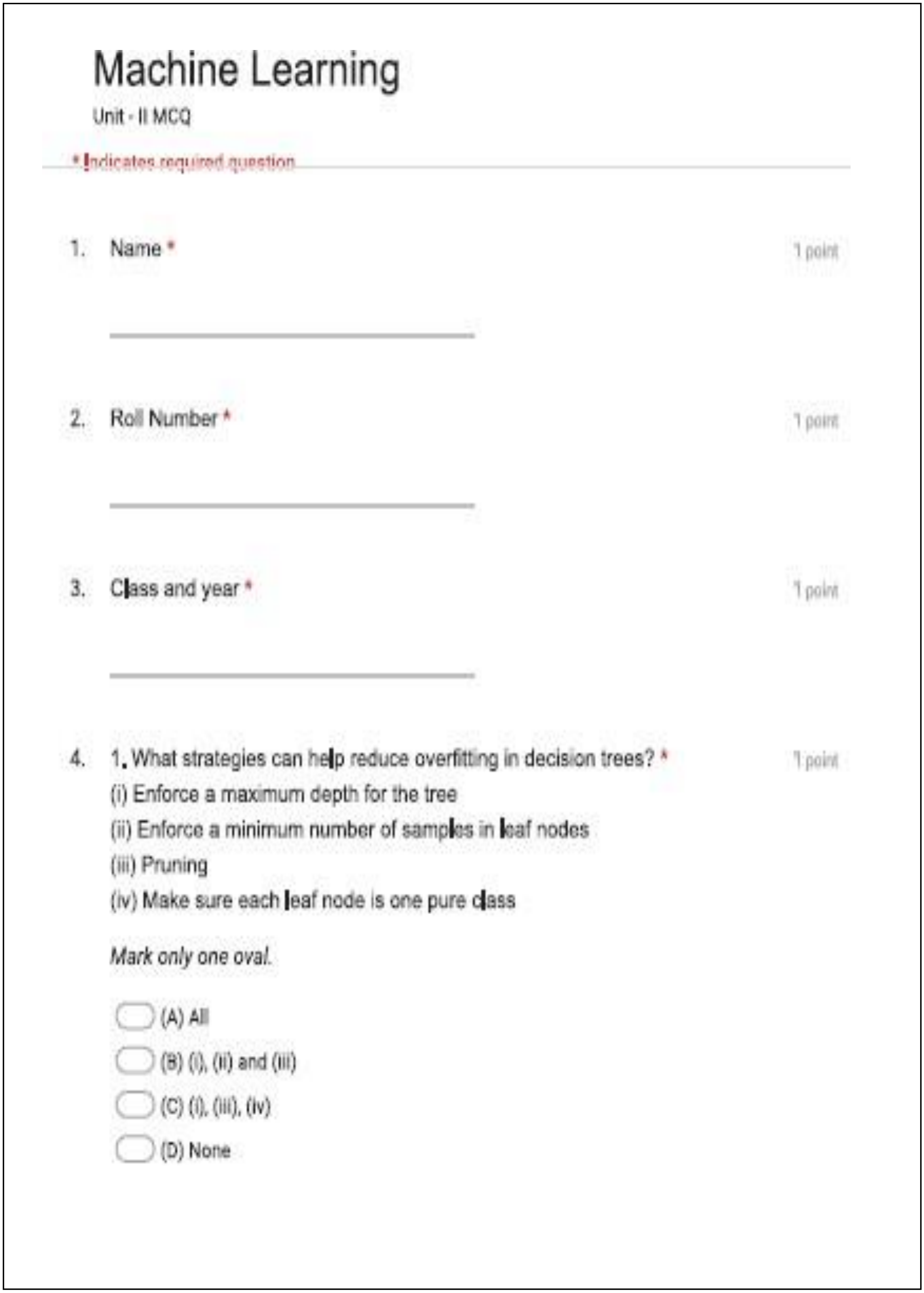
c) 1
d) 0

Answer: a
Explanation:

20. If L is a regular language, L^c and L^r both will be:
a) Accepted by NFA
b) Rejected by NFA
c) One of them will be accepted
d) Cannot be said

Answer: a

2. MCQ’S Sample papers



Machine Learning

Unit - II MCQ

* Indicates required question

1. Name * 1 point

2. Roll Number * 1 point

3. Class and year * 1 point

4. 1. What strategies can help reduce overfitting in decision trees? * 1 point

(i) Enforce a maximum depth for the tree

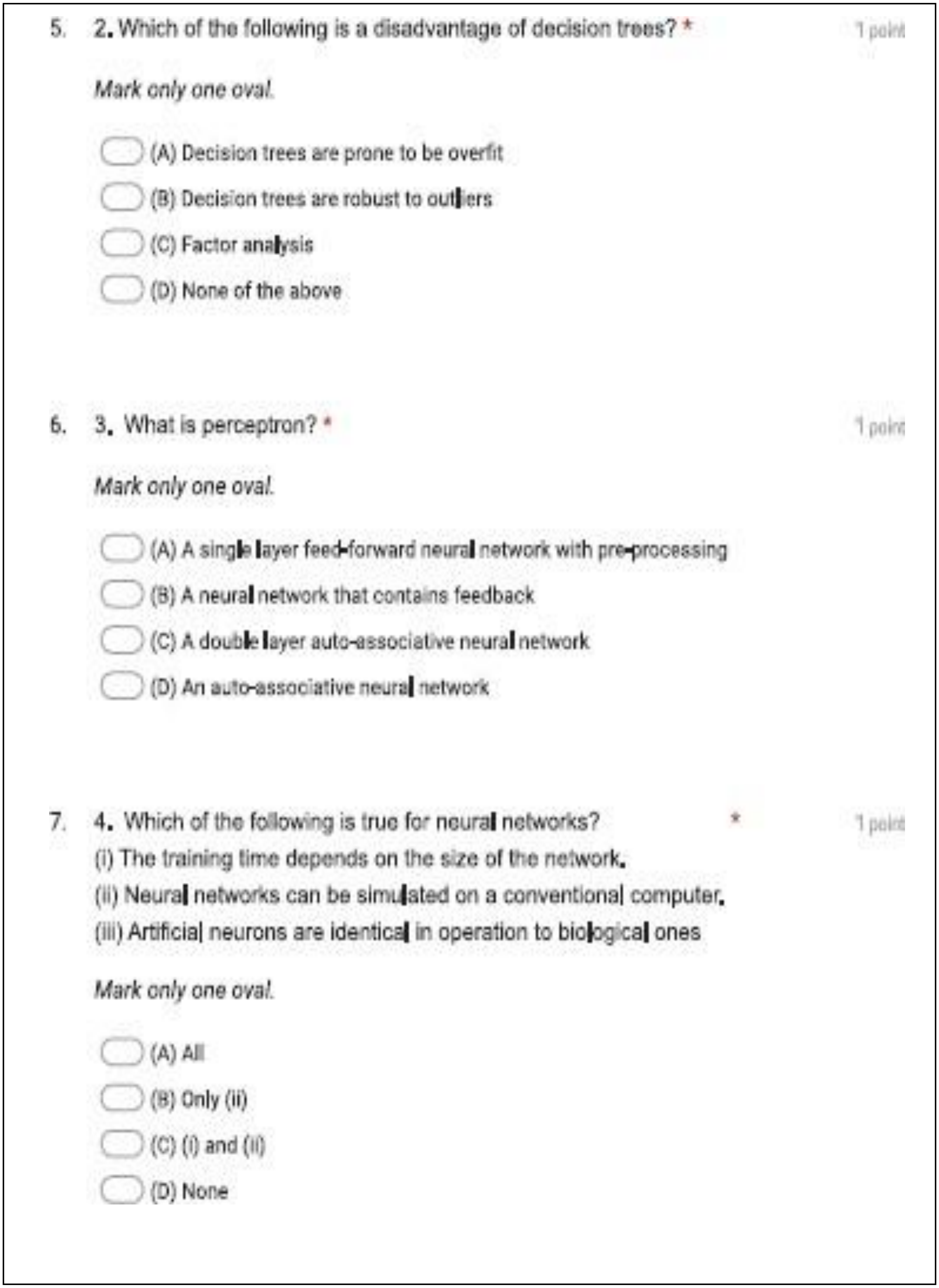
(ii) Enforce a minimum number of samples in leaf nodes

(iii) Pruning

(iv) Make sure each leaf node is one pure class

Mark only one oval.

○ (A) All
○ (B) (i), (ii) and (iii)
○ (C) (i), (iii), (iv)
○ (D) None



5. 2. Which of the following is a disadvantage of decision trees? * 1 poin

Mark only one oval.

○ (A) Decision trees are prone to be overfit
○ (B) Decision trees are robust to outliers
○ (C) Factor analysis
○ (D) None of the above

6. 3. What is perceptron? * 1 poin

Mark only one oval.

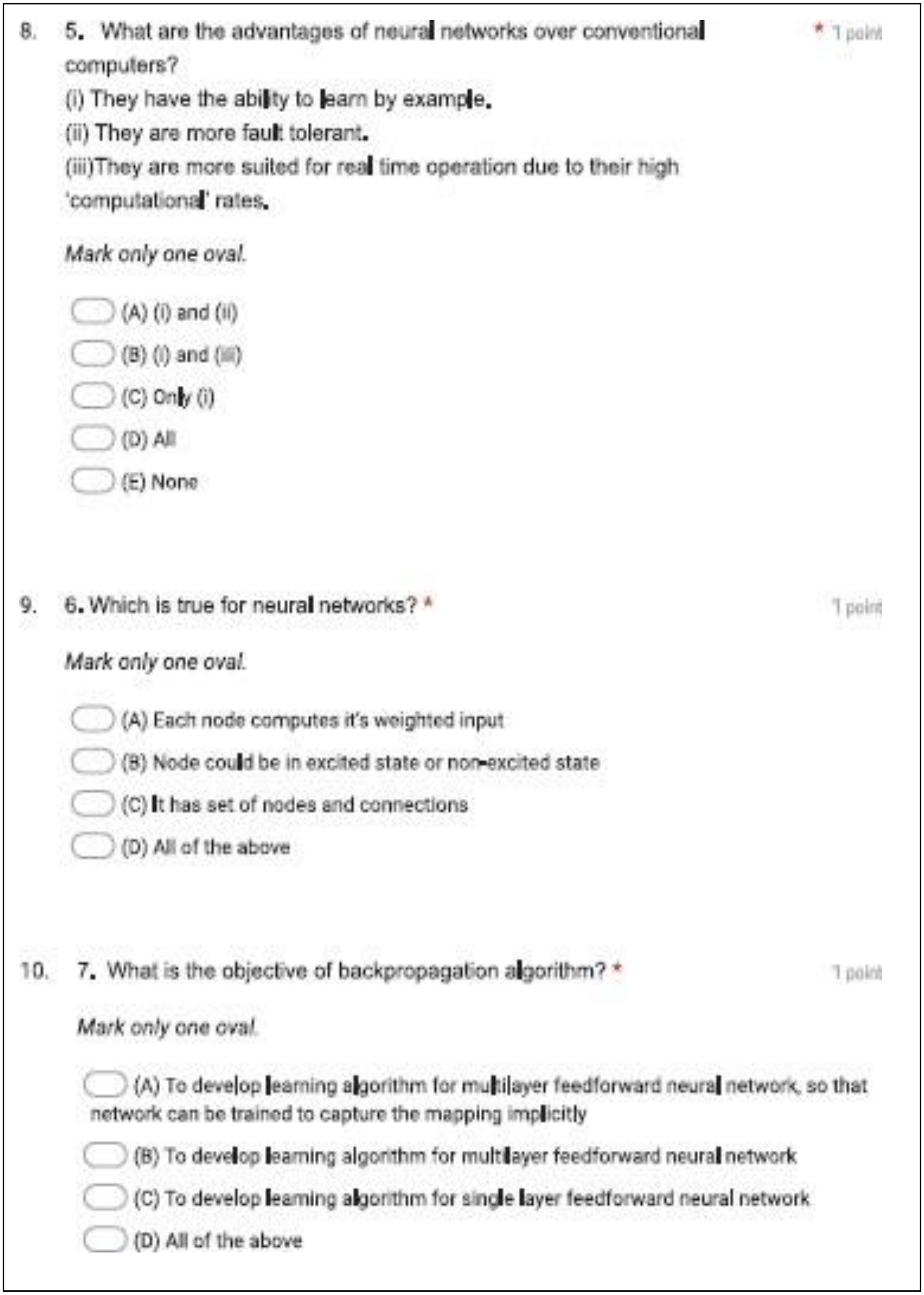
○ (A) A single layer feed-forward neural network with pre-processing
○ (B) A neural network that contains feedback
○ (C) A double layer auto-associative neural network
○ (D) An auto-associative neural network

7. 4. Which of the following is true for neural networks? * 1 poin

(i) The training time depends on the size of the network.
(ii) Neural networks can be simulated on a conventional computer.
(iii) Artificial neurons are identical in operation to biological ones

Mark only one oval.

○ (A) All
○ (B) Only (ii)
○ (C) (i) and (ii)
○ (D) None



8. **5.** What are the advantages of neural networks over conventional computers? * 1 point

(i) They have the ability to learn by example.

(ii) They are more fault tolerant.

(iii)They are more suited for real time operation due to their high 'computational' rates.

Mark only one oval.

- ○ (A) (i) and (ii)
- ○ (B) (i) and (iii)
- ○ (C) Only (i)
- ○ (D) All
- ○ (E) None

9. **6.** Which is true for neural networks? * 1 point

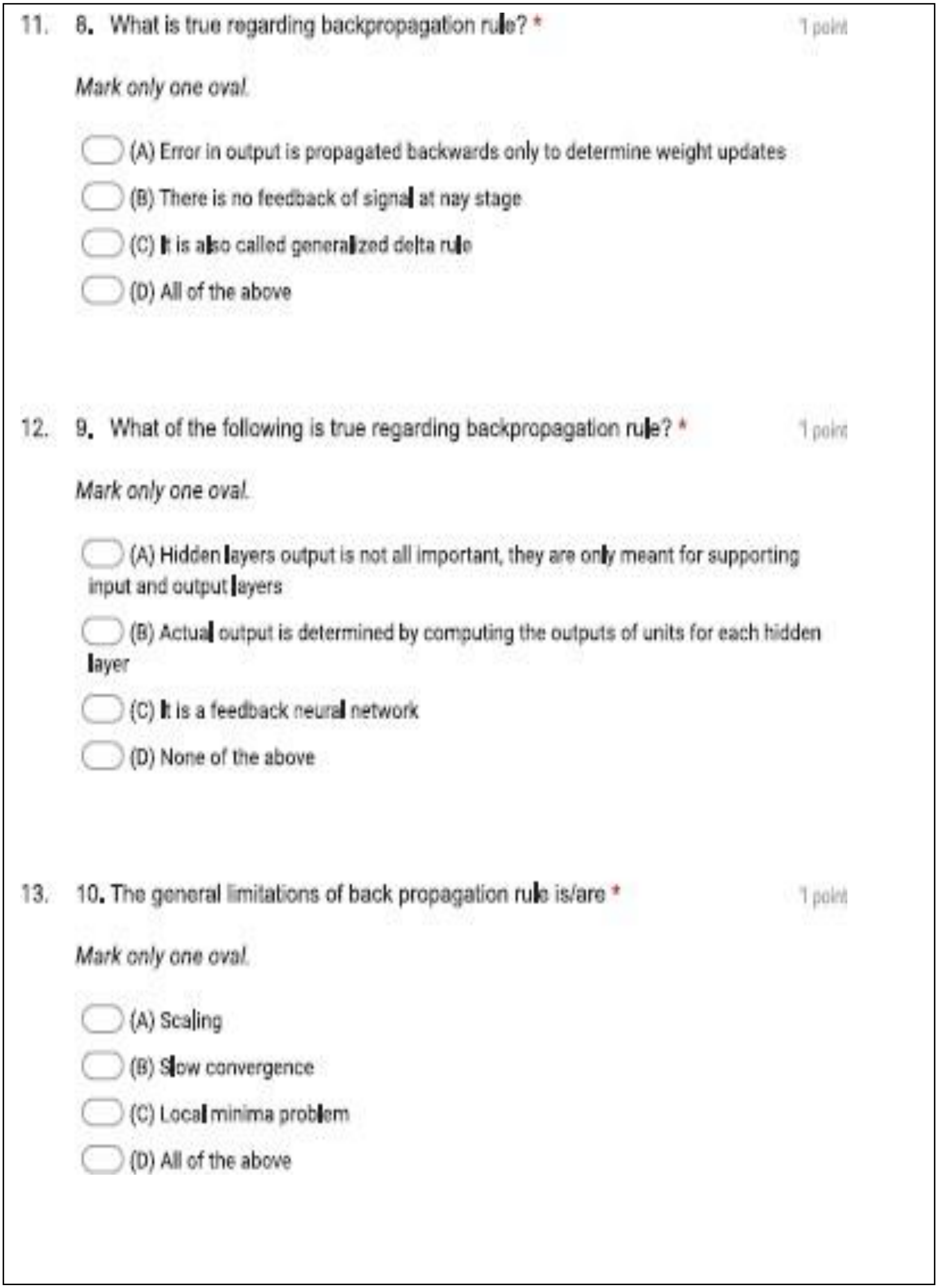
Mark only one oval.

- ○ (A) Each node computes it's weighted input
- ○ (B) Node could be in excited state or non-excited state
- ○ (C) It has set of nodes and connections
- ○ (D) All of the above

10. **7.** What is the objective of backpropagation algorithm? * 1 point

Mark only one oval.

- ○ (A) To develop learning algorithm for multilayer feedforward neural network, so that network can be trained to capture the mapping implicitly
- ○ (B) To develop learning algorithm for multilayer feedforward neural network
- ○ (C) To develop learning algorithm for single layer feedforward neural network
- ○ (D) All of the above



11. 8. What is true regarding backpropagation rule? * 1 point

Mark only one oval.

○ (A) Error in output is propagated backwards only to determine weight updates

○ (B) There is no feedback of signal at nay stage

○ (C) It is also called generalized delta rule

○ (D) All of the above

12. 9. What of the following is true regarding backpropagation rule? * 1 point

Mark only one oval.

○ (A) Hidden layers output is not all important, they are only meant for supporting input and output layers

○ (B) Actual output is determined by computing the outputs of units for each hidden layer

○ (C) It is a feedback neural network

○ (D) None of the above

13. 10. The general limitations of back propagation rule is/are * 1 point

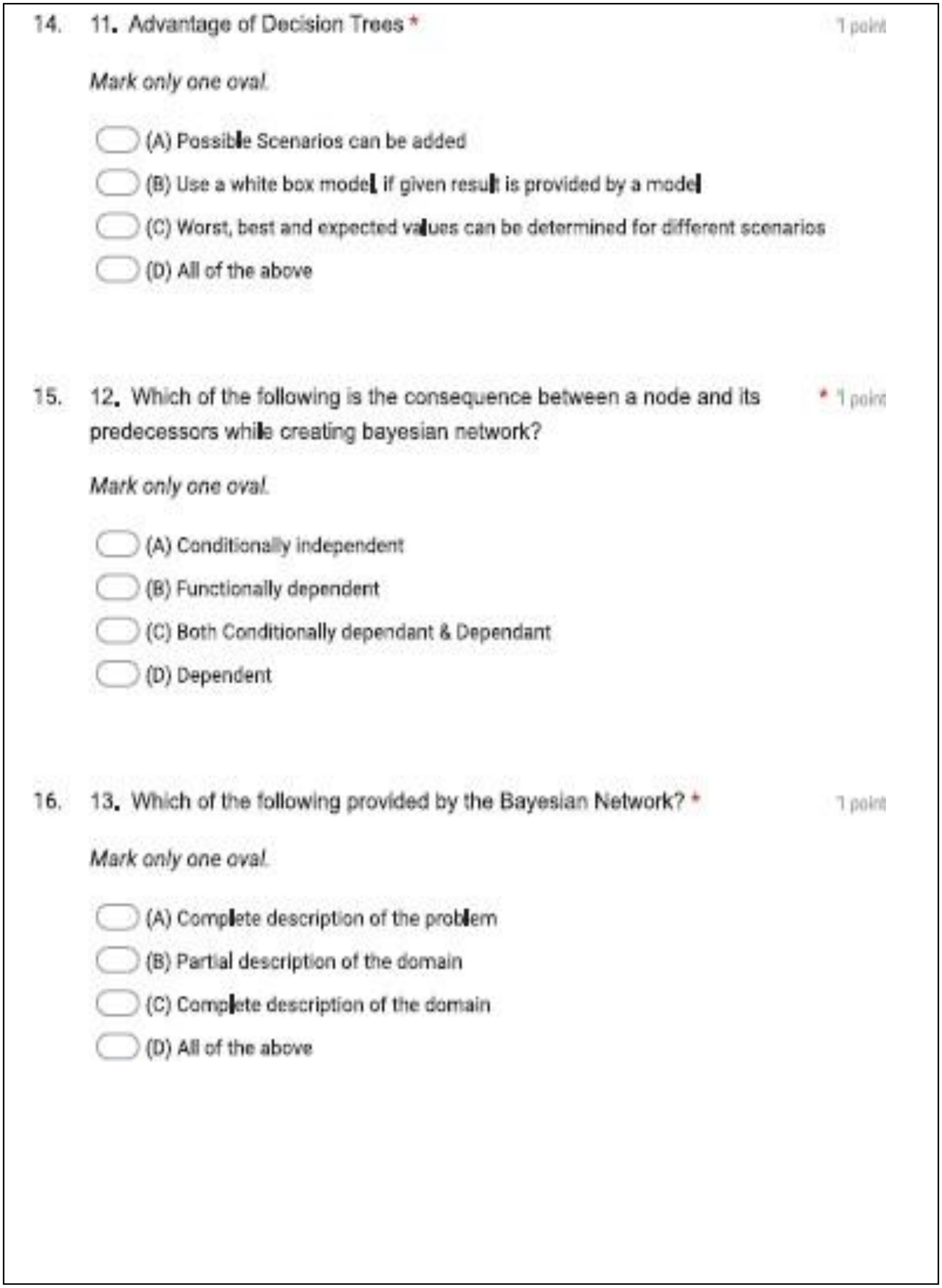
Mark only one oval.

○ (A) Scaling

○ (B) Slow convergence

○ (C) Local minima problem

○ (D) All of the above



14. 11. Advantage of Decision Trees * 1 point

Mark only one oval.

○ (A) Possible Scenarios can be added
○ (B) Use a white box model, if given result is provided by a model
○ (C) Worst, best and expected values can be determined for different scenarios
○ (D) All of the above

15. 12. Which of the following is the consequence between a node and its predecessors while creating bayesian network? * 1 point

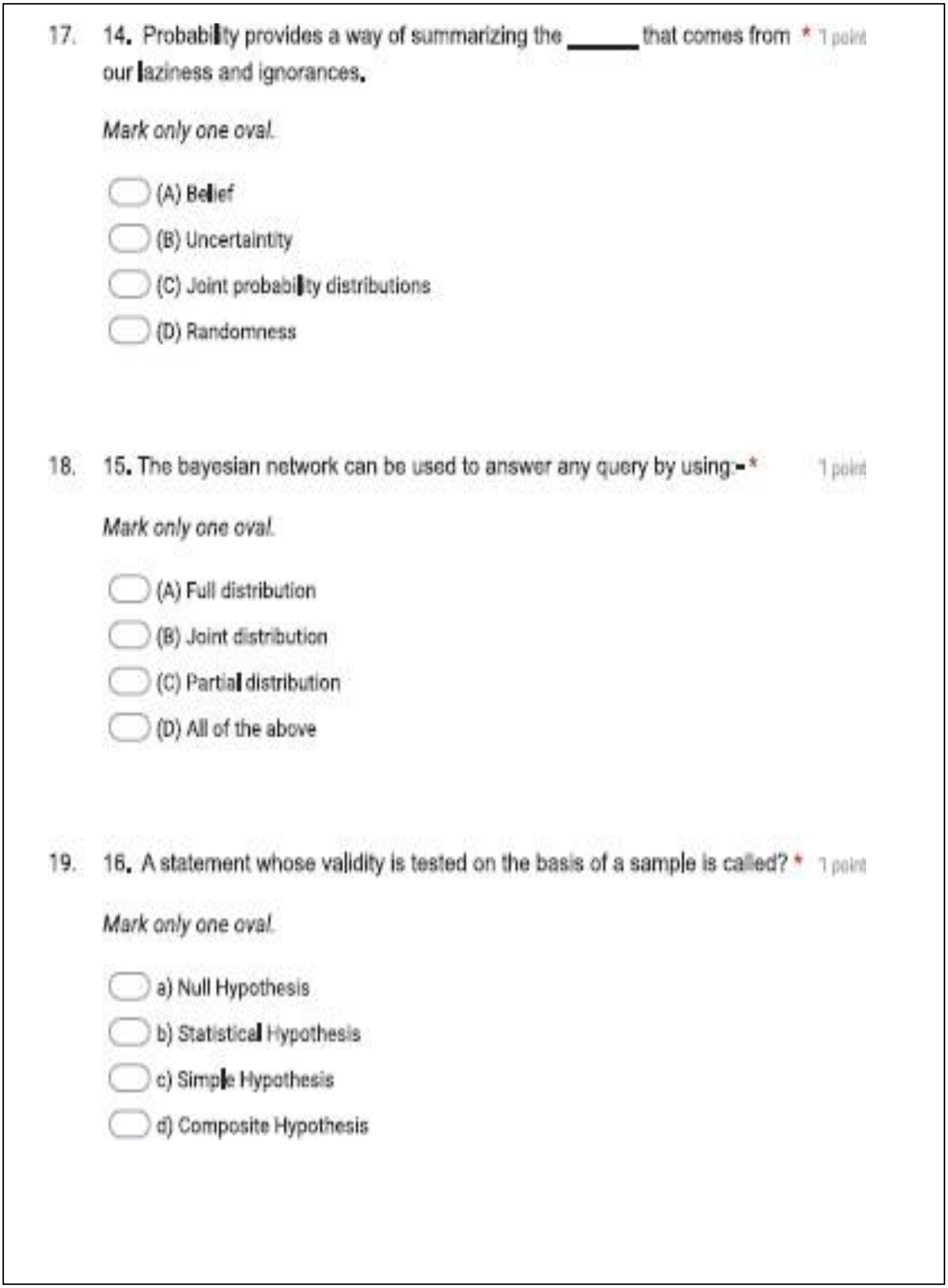
Mark only one oval.

○ (A) Conditionally independent
○ (B) Functionally dependent
○ (C) Both Conditionally dependant & Dependant
○ (D) Dependent

16. 13. Which of the following provided by the Bayesian Network? * 1 point

Mark only one oval.

○ (A) Complete description of the problem
○ (B) Partial description of the domain
○ (C) Complete description of the domain
○ (D) All of the above



17. **14.** Probability provides a way of summarizing the ______ that comes from our laziness and ignorances. * 1 point

Mark only one oval.

○ (A) Belief
○ (B) Uncertaintity
○ (C) Joint probability distributions
○ (D) Randomness

18. **15.** The bayesian network can be used to answer any query by using:- * 1 point

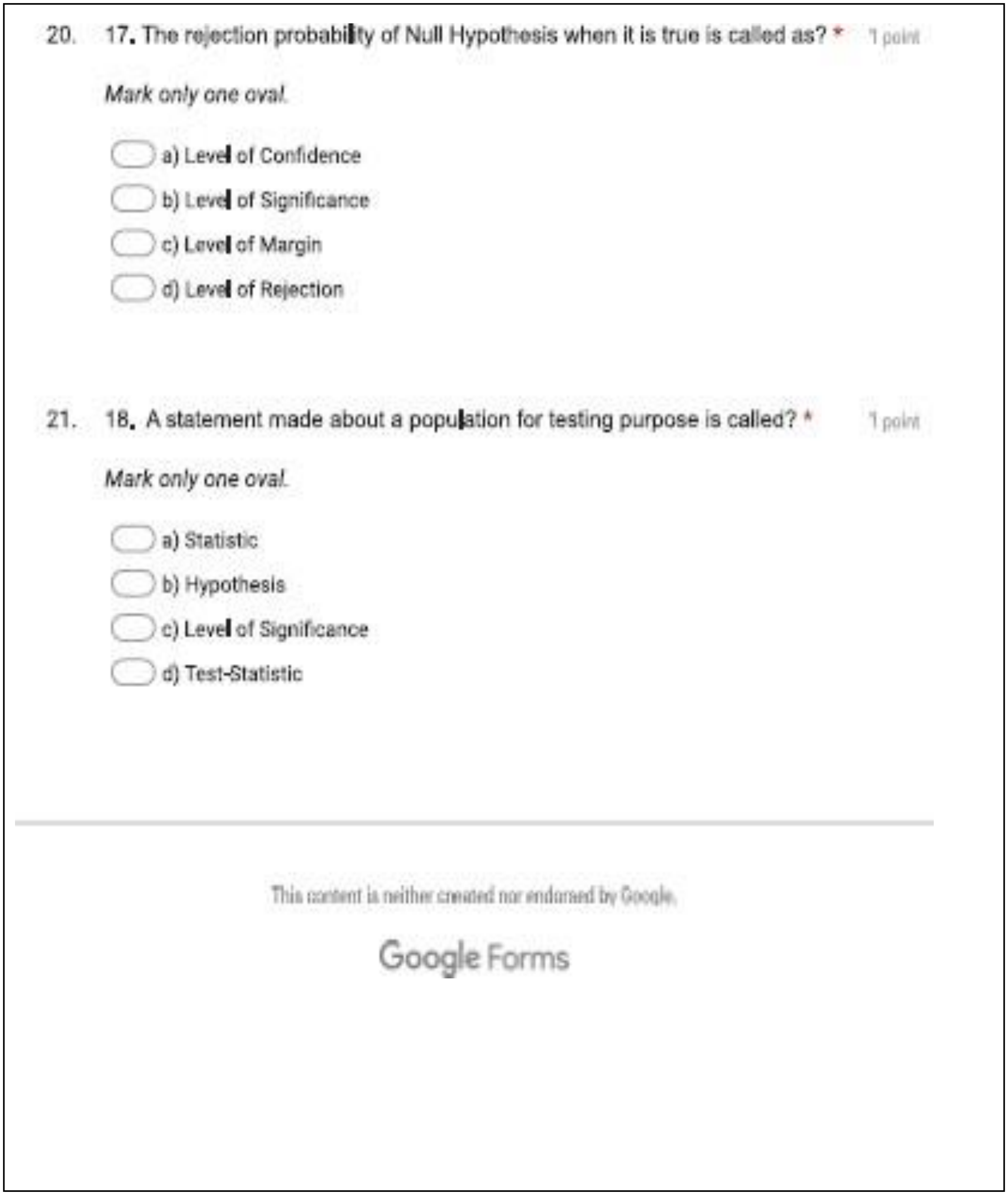
Mark only one oval.

○ (A) Full distribution
○ (B) Joint distribution
○ (C) Partial distribution
○ (D) All of the above

19. **16.** A statement whose validity is tested on the basis of a sample is called? * 1 point

Mark only one oval.

○ a) Null Hypothesis
○ b) Statistical Hypothesis
○ c) Simple Hypothesis
○ d) Composite Hypothesis



20. 17. The rejection probability of Null Hypothesis when it is true is called as? * 1 point

Mark only one oval.

○ a) Level of Confidence
○ b) Level of Significance
○ c) Level of Margin
○ d) Level of Rejection

21. 18. A statement made about a population for testing purpose is called? * 1 point

Mark only one oval.

○ a) Statistic
○ b) Hypothesis
○ c) Level of Significance
○ d) Test-Statistic

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Google Forms

SRI INDU COLLEGE OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

1. Which of the following in not an Operating System?
   - ○ A. Mac OS
   - ○ B. Windows Explorer
   - ○ C. Red Hat
   - ○ D. Solaris
2. Which of the following is not a product of Microsoft?
   - ○ A. Ubuntu
   - ○ B. XP
   - ○ C. Vista
   - ○ D. ME
3. What is an Operating System?
   - ○ A. It is an interface between the user and the hardware.
   - ○ B. It is the first software that runs when the computer boots up.
   - ○ C. It provides a platform for the user to run applications.
   - ○ D. All of the above.
4. Which of the following is an example of Single Programming Operating System?
   - ○ A. MS-DOS B. Unix C. Windows D. Linux

5. Which of the following is not the function of Operating System?
   - ○ A. Process Management
   - ○ B. Memory Management
   - ○ C. Device Management
   - ○ D. Clock Management
6. A process is a
   - ○ A. Operating system itself.
   - ○ B. A complete software package
   - ○ C. Program in execution
   - ○ D. Interrupt handler
7. From waiting state, a process can only enter into _________
   - ○ A. Running state
   - ○ B. Ready state
   - ○ C. New state
   - ○ D. Terminated state
8. The full form of PCB is:
   - ○ A. Public Control Block
   - ○ B. Process Control Box
   - ○ C. Process Creating Block
   - ○ D. Process Control Block
9. Each process has its own PCB.
   - ○ A. True
   - ○ B. False

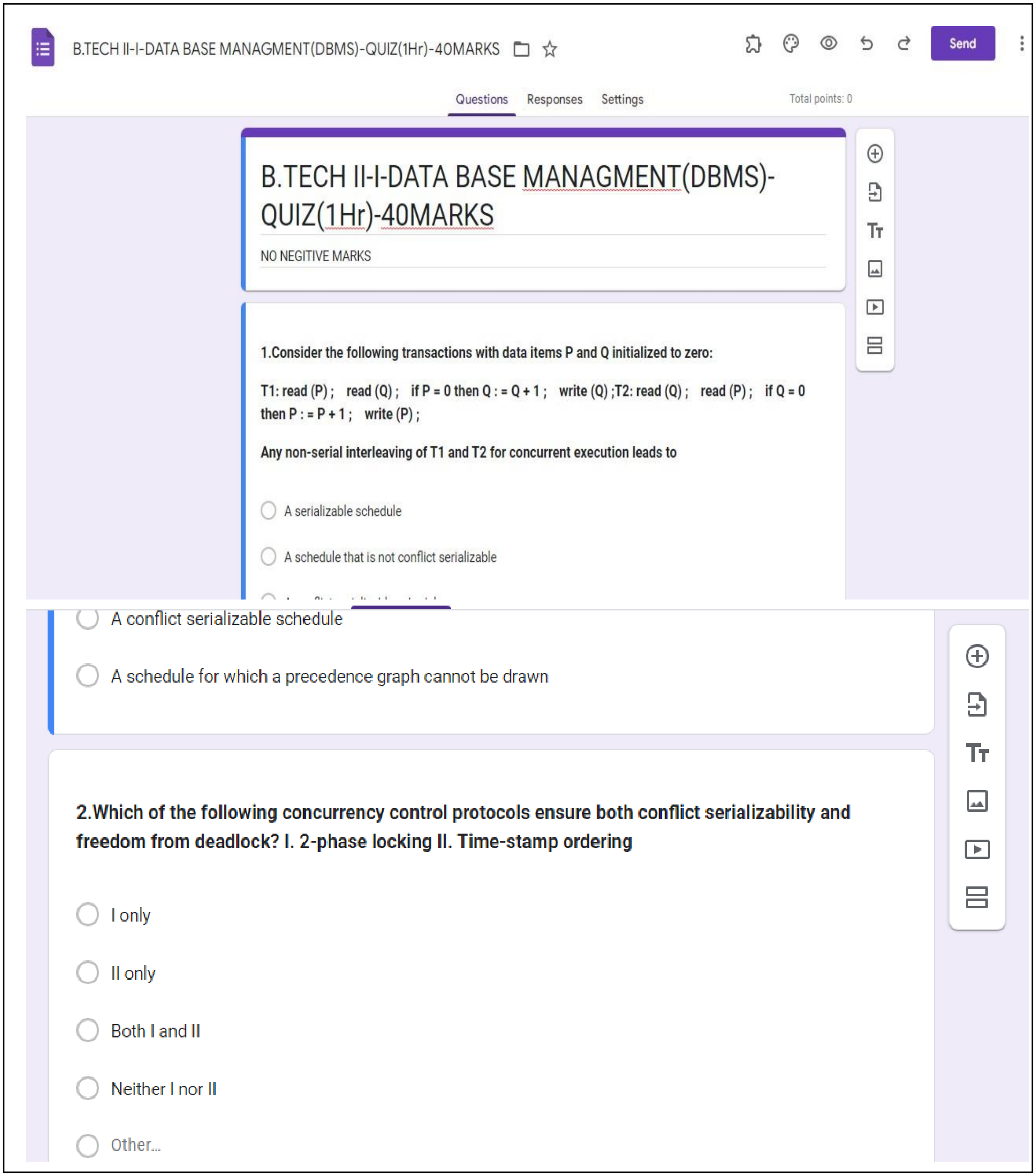
10. There can be more than one process in running state at any given time.
    - A. True
    - B. False
11. The state of a process is stored in its __________.
    - A. Registers
    - B. PCB
    - C. Source code
    - D. Memory
12. All the processes which are ready to execute reside in _________.
    - A. I/O queue
    - B. Waiting queue
    - C. Ready queue
    - D. Running queue
13. The ready queue is maintained by __________.
    - A. Array
    - B. Stack
    - C. Tree
    - D. Linked list
14. What is the function of short-term scheduler?
    - A. Selects a process from secondary storage device and allocates it to the CPU.
    - B. Selects a process from memory and swaps out to secondary storage.
    - C. Selects a process from ready queue and assigns it to the CPU.
    - D. Selects a process from I/O queue to moves it to ready queue.
15. The function of long-term scheduler is to:
    - A. Move the process from secondary storage to ready queue.
    - B. Move the process from ready queue to CPU.
    - C. Move the process from memory to secondary storage.
    - D. Move the process between different queues.
16. What is the function of mid-term scheduler?
    - A. It moves the process from ready queue to CPU.
    - B. It swaps out the idle process from memory to secondary storage.
    - C. It moves the process between different queues.
    - D. It helps the CPU in executing the process.
17. Which scheduler maintains the Degree of Multiprogramming?
    - A. Short-Term Scheduler
    - B. Mid-Term Scheduler
    - C. Long-Term Scheduler
    - D. None of the Above
18. The switching of CPU between different processes is called _________.
    - A. Swapping
    - B. Organizing
    - C. Context Switching
    - D. Multiple Switching
19. Which of the following scheduling algorithm comes under preemptive scheduling?

- A. FCFS
- B. Round Robin
- C. Multilevel Queue Scheduling
- D. Largest Job First

20. Turnaround time is:
    - A. The interval from the time of submission of a process to the time of completion.
    - B. The sum of periods spent waiting in the ready queue.
    - C. The sum of periods spent executing on CPU.
    - D. The time when the process first responds.
21. Which of the following scheduling algorithms use Time Quantum?
    - A. FCFS
    - B. SJF
    - C. Round Robin
    - D. Priority Scheduling
22. In Preemptive Priority Scheduling, if a high priority process arrives in the ready queue and a low priority process is executing then what will happen? Note: 1 is considered as high priority.
    - A. The currently executing process will be preempted and the new process will be assigned to the CPU.
    - B. The CPU will keep on executing the current process and the new process has to wait in the ready queue.
    - C. The new process will be shifted to I/O queue.
    - D. The system will crash.
23. One of the major problem with priority scheduling is:
    - A. Swapping
    - B. Context Switching
    - C. Aging
    - D. Starvation
24. Aging is a technique in which:
    - A. The priority of a process decreases after sometime. (moves away from 1)
    - B. The priority of a process increases after sometime. (moves closer to 1)
    - C. The priority remains constant.
    - D. The process becomes old and doesn't execute.
25. The processes are executed in the following manner in Round Robin Algorithm.
    - A. The process coming first is executed first without preemption.
    - B. The processes are executed according to their priority.
    - C. The process having the smallest burst time is executed first.
    - D. The process is executed for a time quantum and when the time quantum expires, the process enters into waiting state.

****

3. Quiz Sample papers


B.TECH II-I-DATA BASE MANAGMENT(DBMS)-QUIZ(1Hr)-40MARKS
Send
Questions
Responses
Settings
Total points: 0

B.TECH II-I-DATA BASE MANAGMENT(DBMS)-QUIZ(1Hr)-40MARKS

NO NEGITIVE MARKS

1.Consider the following transactions with data items P and Q initialized to zero:

T1: read (P) ; read (Q) ; if P = 0 then Q : = Q + 1 ; write (Q) ;T2: read (Q) ; read (P) ; if Q = 0 then P : = P + 1 ; write (P) ;

Any non-serial interleaving of T1 and T2 for concurrent execution leads to

○ A serializable schedule

○ A schedule that is not conflict serializable

○ A conflict serializable schedule

○ A schedule for which a precedence graph cannot be drawn

2.Which of the following concurrency control protocols ensure both conflict serializability and freedom from deadlock? I. 2-phase locking II. Time-stamp ordering

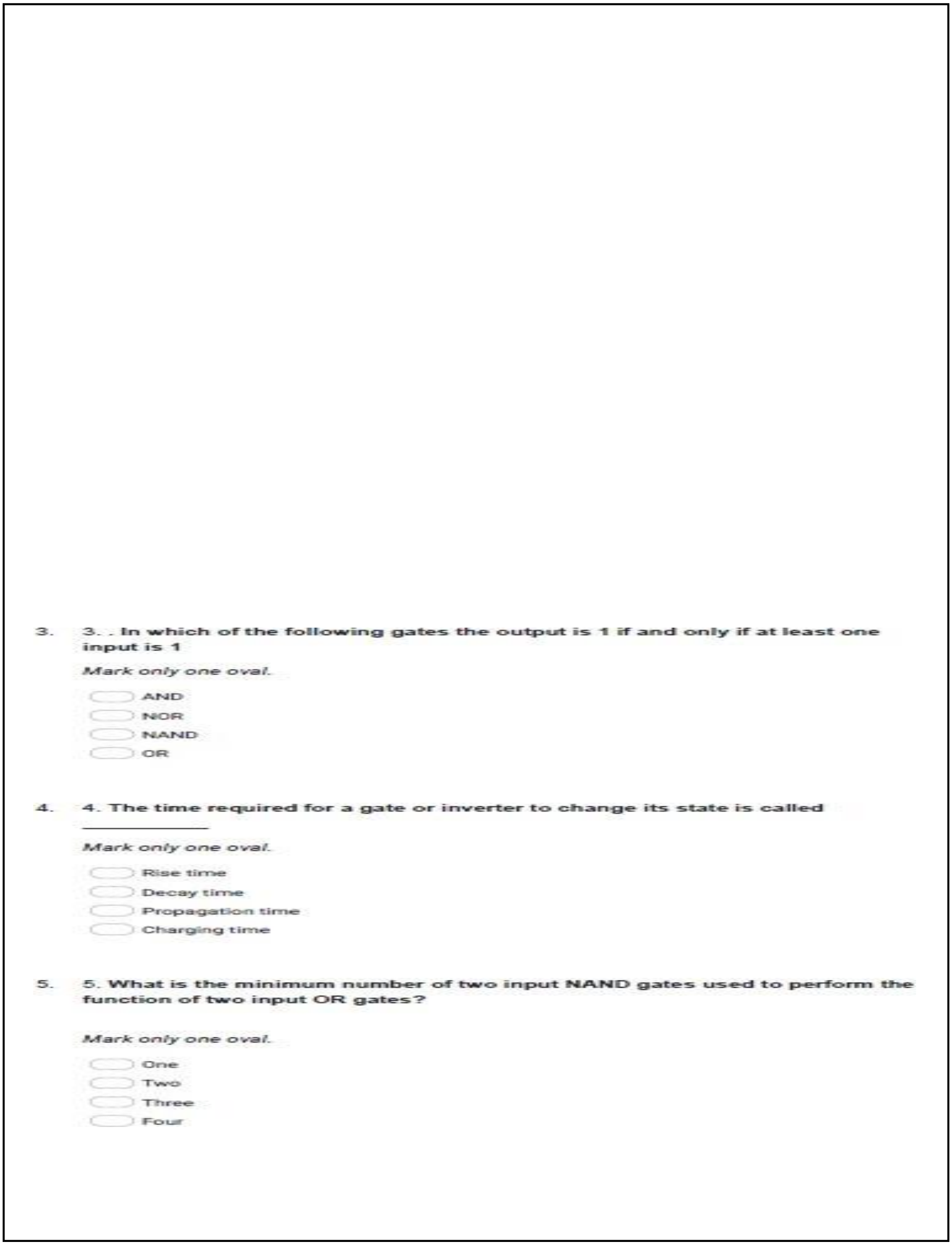
○ I only

○ II only

○ Both I and II

○ Neither I nor II

○ Other...



3. 3. . In which of the following gates the output is 1 if and only if at least one input is 1

Mark only one oval.

○ AND
○ NOR
○ NAND
○ OR

4. 4. The time required for a gate or inverter to change its state is called _____________

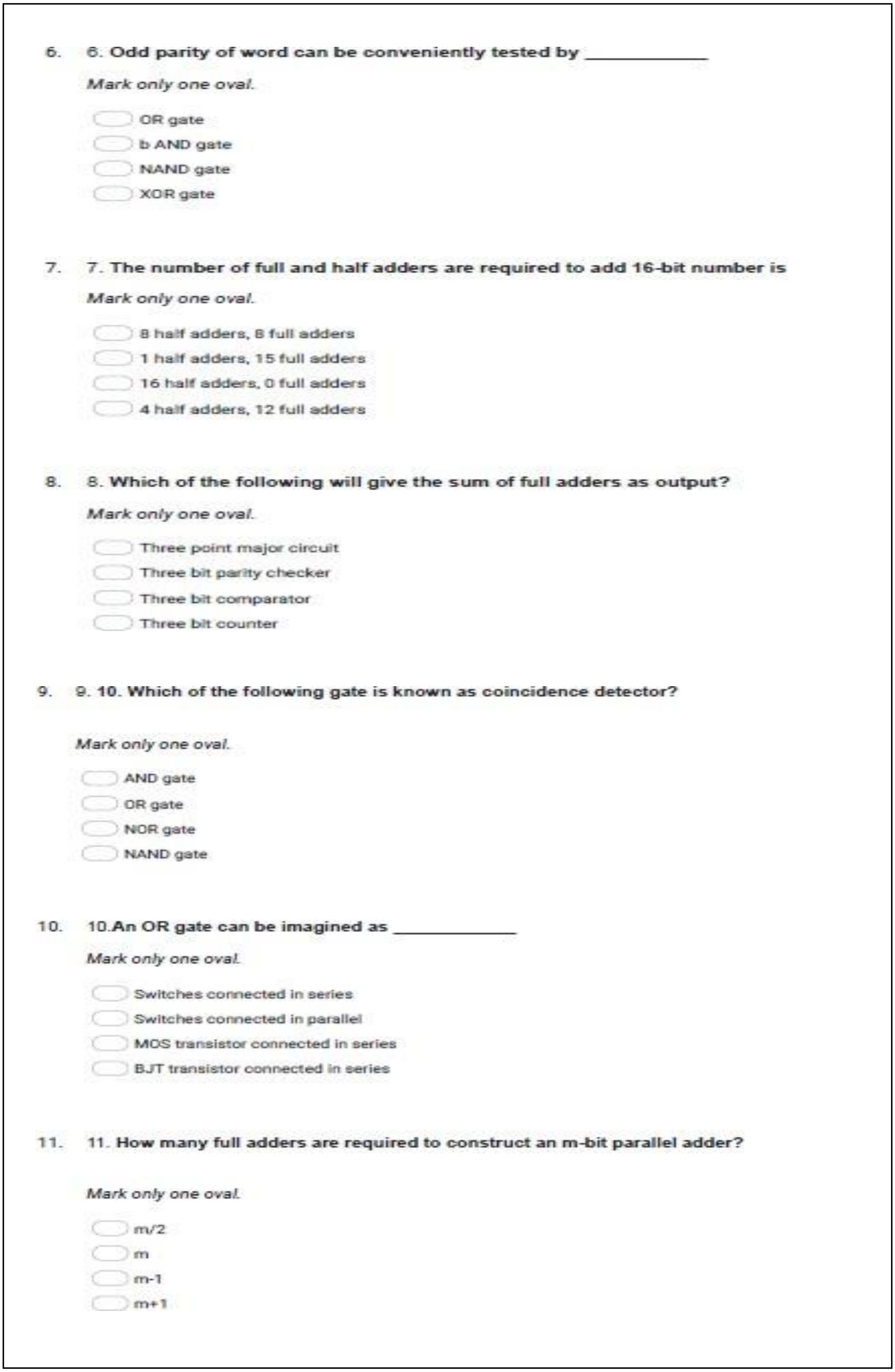
Mark only one oval.

○ Rise time
○ Decay time
○ Propagation time
○ Charging time

5. 5. What is the minimum number of two input NAND gates used to perform the function of two input OR gates?

Mark only one oval.

○ One
○ Two
○ Three
○ Four



6. 6. Odd parity of word can be conveniently tested by ___________

Mark only one oval.

○ OR gate
○ b AND gate
○ NAND gate
○ XOR gate

7. 7. The number of full and half adders are required to add 16-bit number is

Mark only one oval.

○ 8 half adders, 8 full adders
○ 1 half adders, 15 full adders
○ 16 half adders, 0 full adders
○ 4 half adders, 12 full adders

8. 8. Which of the following will give the sum of full adders as output?

Mark only one oval.

○ Three point major circuit
○ Three bit parity checker
○ Three bit comparator
○ Three bit counter

9. 9. 10. Which of the following gate is known as coincidence detector?

Mark only one oval.

○ AND gate
○ OR gate
○ NOR gate
○ NAND gate

10. 10.An OR gate can be imagined as ___________

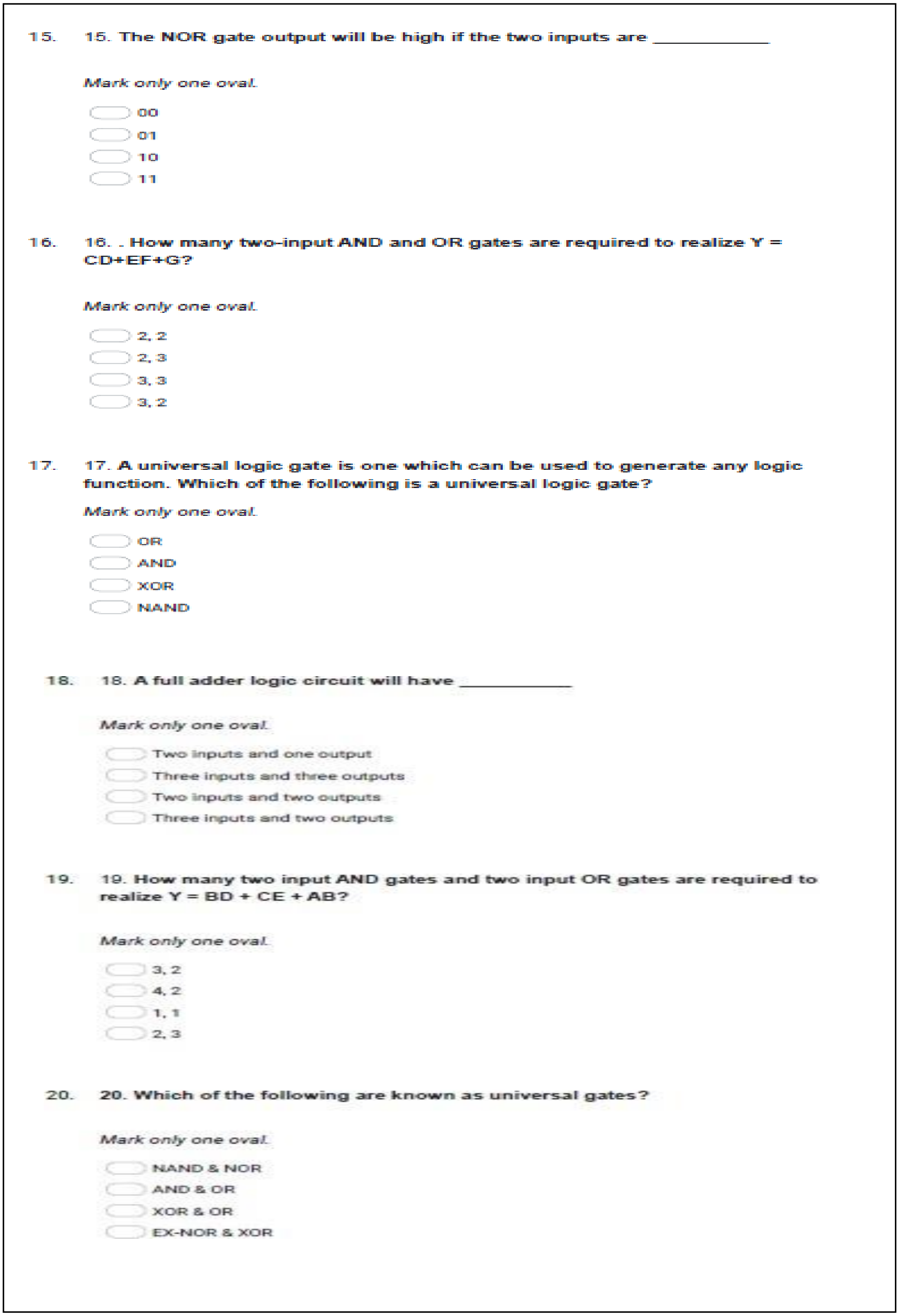
Mark only one oval.

○ Switches connected in series
○ Switches connected in parallel
○ MOS transistor connected in series
○ BJT transistor connected in series

11. 11. How many full adders are required to construct an m-bit parallel adder?

Mark only one oval.

○ m/2
○ m
○ m-1
○ m+1



15. 15. The NOR gate output will be high if the two inputs are ____________

Mark only one oval.

○ 00
○ 01
○ 10
○ 11

16. 16. . How many two-input AND and OR gates are required to realize Y = CD+EF+G?

Mark only one oval.

○ 2, 2
○ 2, 3
○ 3, 3
○ 3, 2

17. 17. A universal logic gate is one which can be used to generate any logic function. Which of the following is a universal logic gate?

Mark only one oval.

○ OR
○ AND
○ XOR
○ NAND

18. 18. A full adder logic circuit will have ____________

Mark only one oval.

○ Two inputs and one output
○ Three inputs and three outputs
○ Two inputs and two outputs
○ Three inputs and two outputs

19. 19. How many two input AND gates and two input OR gates are required to realize Y = BD + CE + AB?

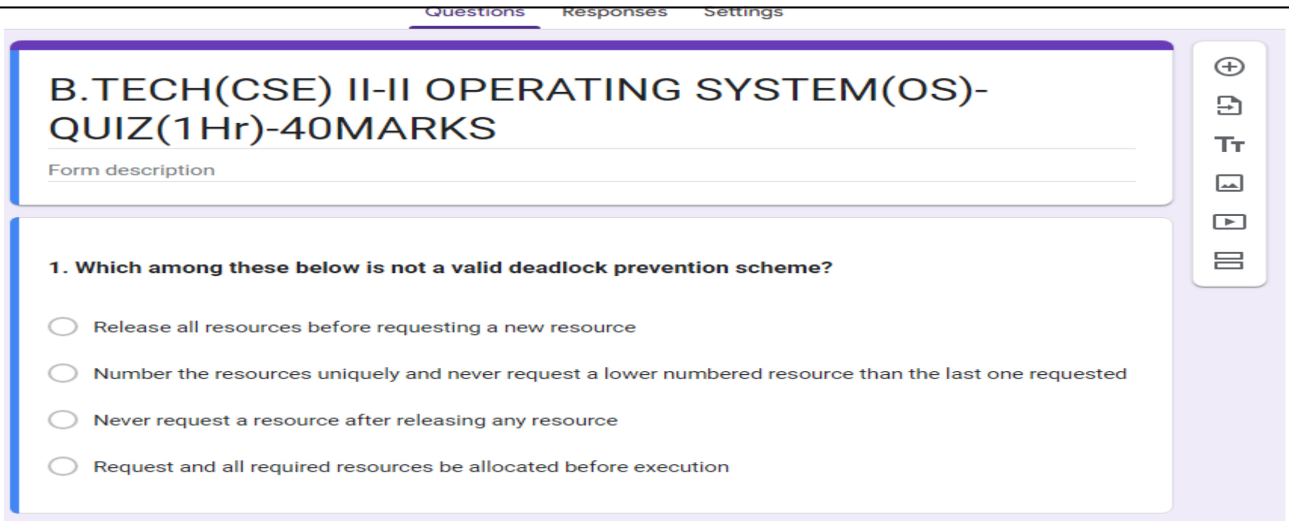
Mark only one oval.

○ 3, 2
○ 4, 2
○ 1, 1
○ 2, 3

20. 20. Which of the following are known as universal gates?

Mark only one oval.

○ NAND & NOR
○ AND & OR
○ XOR & OR
○ EX-NOR & XOR


Questions
Responses
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B.TECH(CSE) II-II OPERATING SYSTEM(OS)-QUIZ(1Hr)-40MARKS

Form description

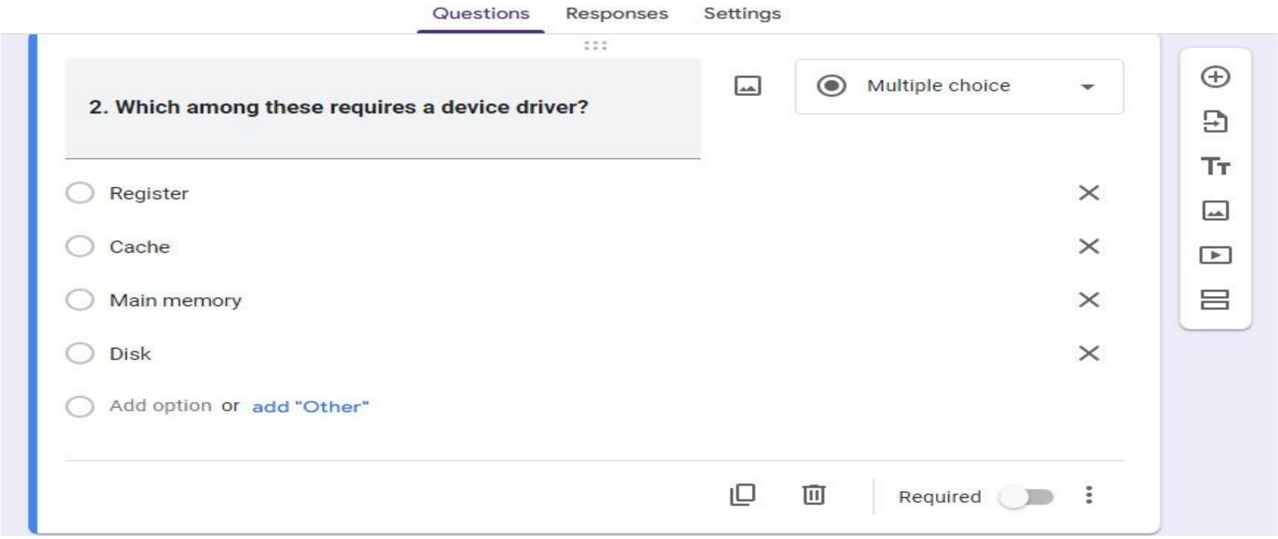
1. Which among these below is not a valid deadlock prevention scheme?

○ Release all resources before requesting a new resource

○ Number the resources uniquely and never request a lower numbered resource than the last one requested

○ Never request a resource after releasing any resource

○ Request and all required resources be allocated before execution


Questions
Responses
Settings
Multiple choice
Add option
or
add "Other"
Required

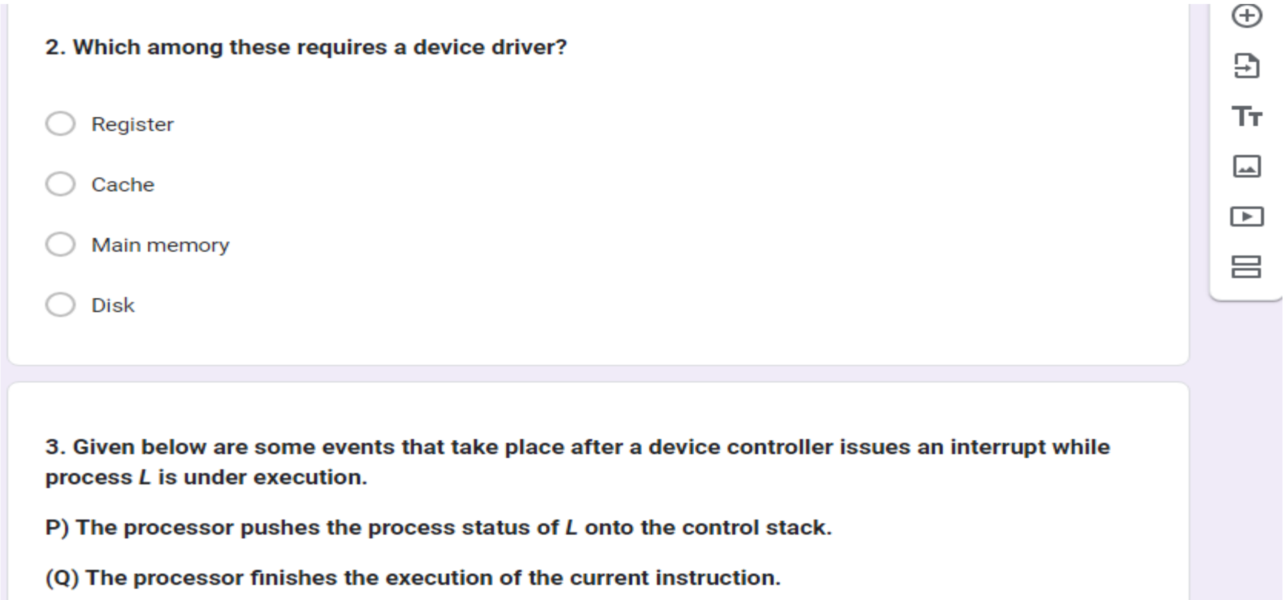
2. Which among these requires a device driver?

○ Register

○ Cache

○ Main memory

○ Disk


2. Which among these requires a device driver?

○ Register

○ Cache

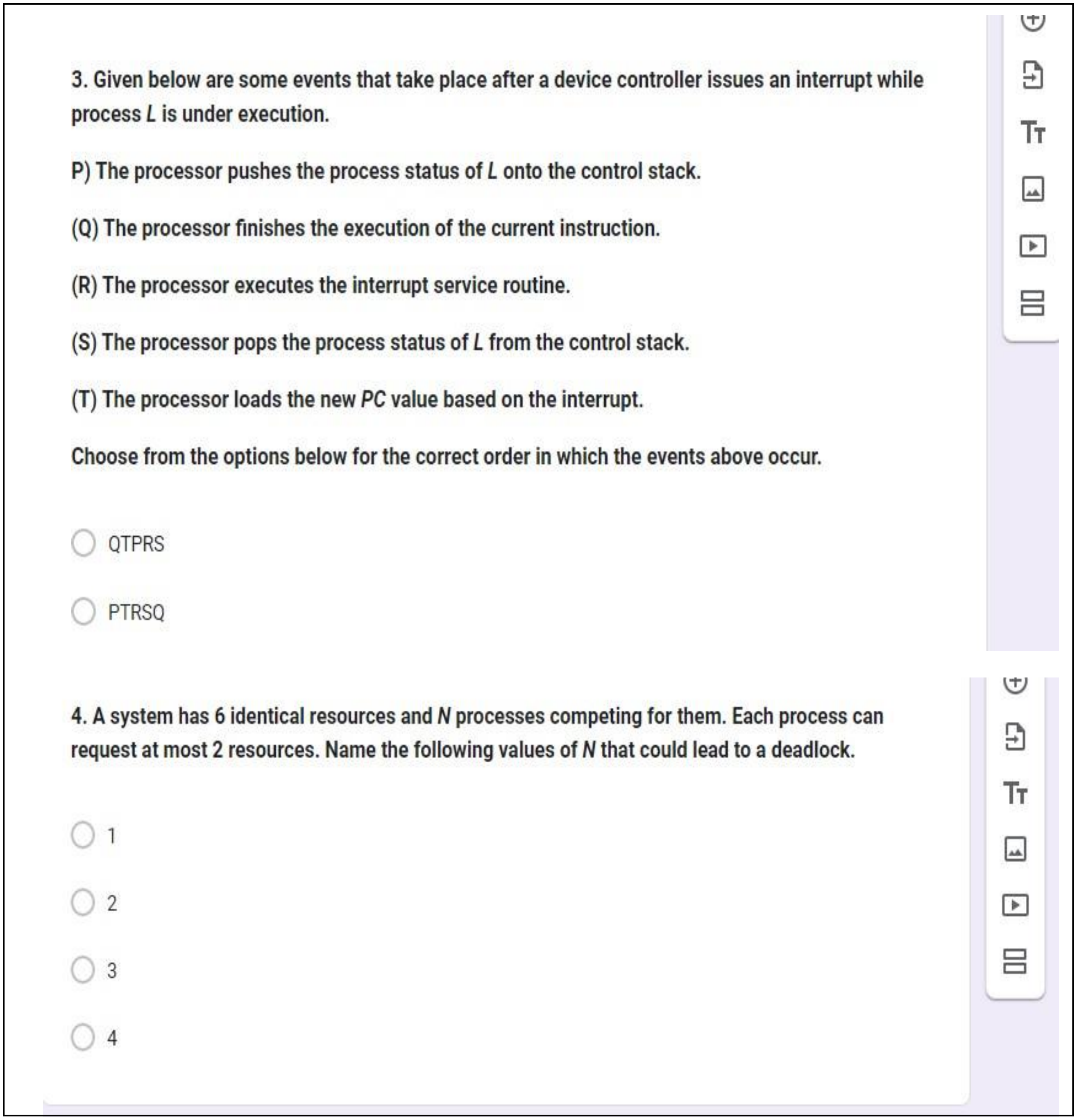
○ Main memory

○ Disk

3. Given below are some events that take place after a device controller issues an interrupt while process *L* is under execution.

P) The processor pushes the process status of *L* onto the control stack.

(Q) The processor finishes the execution of the current instruction.



3. Given below are some events that take place after a device controller issues an interrupt while process *L* is under execution.

P) The processor pushes the process status of *L* onto the control stack.

(Q) The processor finishes the execution of the current instruction.

(R) The processor executes the interrupt service routine.

(S) The processor pops the process status of *L* from the control stack.

(T) The processor loads the new *PC* value based on the interrupt.

Choose from the options below for the correct order in which the events above occur.

○ QTPRS

○ PTRSQ

4. A system has 6 identical resources and *N* processes competing for them. Each process can request at most 2 resources. Name the following values of *N* that could lead to a deadlock.

○ 1

○ 2

○ 3

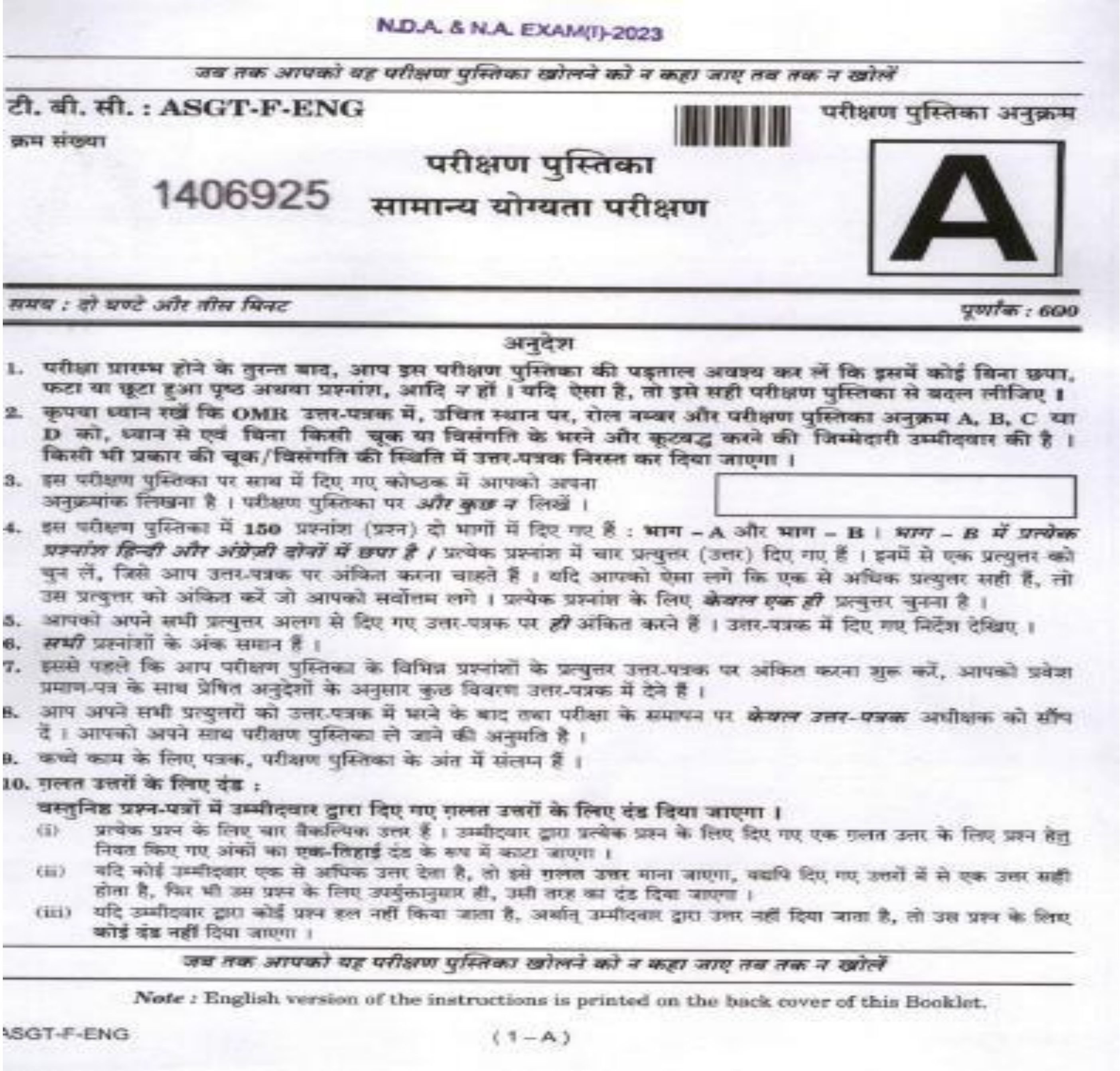
○ 4

4. Competitive exam papers

Computer Science includes

- Banking sector exams (SBI PO, RBI Grade B)
- Defense exams (NDA, Combined Defence Service Examination (CDS)
- Railway exams (RRB NTPC, RRB JE)

Sample competitive Exam Question papers



N.D.A. & N.A. EXAM(I)-2023

जब तक आपको यह परीक्षण पुस्तिका खोलने को न कहा जाए तब तक न खोलें

टी. बी. सी. : ASGT-F-ENG

क्रम संख्या

1406925

परीक्षण पुस्तिका अनुक्रम

A

परीक्षण पुस्तिका

सामान्य योग्यता परीक्षण

समय : दो घण्टे और तीस मिनट *पूर्णांक : 600*

अनुदेश

1. परीक्षा प्रारम्भ होने के तुरन्त बाद, आप इस परीक्षण पुस्तिका की पड़ताल अवश्य कर लें कि इसमें कोई बिना छपा, फटा या छूटा हुआ पृष्ठ अथवा प्रश्नांश, आदि न हों। यदि ऐसा है, तो इसे सही परीक्षण पुस्तिका से बदल लीजिए।
2. कृपया ध्यान रखें कि OMR उत्तर-पत्रक में, उचित स्थान पर, रोल नम्बर और परीक्षण पुस्तिका अनुक्रम A, B, C या D को, ध्यान से एवं बिना किसी चूक या विसंगति के भरने और कूटबद्ध करने की जिम्मेदारी उम्मीदवार की है। किसी भी प्रकार की चूक/विसंगति की स्थिति में उत्तर-पत्रक निरस्त कर दिया जाएगा।
3. इस परीक्षण पुस्तिका पर साथ में दिए गए कोष्ठक में आपको अपना अनुक्रमांक लिखना है। परीक्षण पुस्तिका पर *और कुछ न* लिखें।
4. इस परीक्षण पुस्तिका में 150 प्रश्नांश (प्रश्न) दो भागों में दिए गए हैं : भाग – A और भाग – B। *भाग – B में प्रत्येक प्रश्नांश हिन्दी और अंग्रेज़ी दोनों में छपा है।* प्रत्येक प्रश्नांश में चार प्रत्युत्तर (उत्तर) दिए गए हैं। इनमें से एक प्रत्युत्तर को चुन लें, जिसे आप उत्तर-पत्रक पर अंकित करना चाहते हैं। यदि आपको ऐसा लगे कि एक से अधिक प्रत्युत्तर सही हैं, तो उस प्रत्युत्तर को अंकित करें जो आपको सर्वोत्तम लगे। प्रत्येक प्रश्नांश के लिए *केवल एक ही* प्रत्युत्तर चुनना है।
5. आपको अपने सभी प्रत्युत्तर अलग से दिए गए उत्तर-पत्रक पर *ही* अंकित करने हैं। उत्तर-पत्रक में दिए गए निर्देश देखिए।
6. *सभी* प्रश्नांशों के अंक समान हैं।
7. इससे पहले कि आप परीक्षण पुस्तिका के विभिन्न प्रश्नांशों के प्रत्युत्तर उत्तर-पत्रक पर अंकित करना शुरू करें, आपको प्रवेश प्रमाण-पत्र के साथ प्रेषित अनुदेशों के अनुसार कुछ विवरण उत्तर-पत्रक में देने हैं।
8. आप अपने सभी प्रत्युत्तरों को उत्तर-पत्रक में भरने के बाद तथा परीक्षा के समापन पर *केवल उत्तर-पत्रक* अधीक्षक को सौंप दें। आपको अपने साथ परीक्षण पुस्तिका ले जाने की अनुमति है।
9. कच्चे काम के लिए पत्रक, परीक्षण पुस्तिका के अंत में संलग्न हैं।
10. गलत उत्तरों के लिए दंड :

वस्तुनिष्ठ प्रश्न-पत्रों में उम्मीदवार द्वारा दिए गए गलत उत्तरों के लिए दंड दिया जाएगा।

(i) प्रत्येक प्रश्न के लिए चार वैकल्पिक उत्तर हैं। उम्मीदवार द्वारा प्रत्येक प्रश्न के लिए दिए गए एक गलत उत्तर के लिए प्रश्न हेतु नियत किए गए अंकों का **एक-तिहाई** दंड के रूप में काटा जाएगा।

(ii) यदि कोई उम्मीदवार एक से अधिक उत्तर देता है, तो इसे **गलत उत्तर** माना जाएगा, यद्यपि दिए गए उत्तरों में से एक उत्तर सही होता है, फिर भी उस प्रश्न के लिए उपर्युक्तानुसार ही, उसी तरह का दंड दिया जाएगा।

(iii) यदि उम्मीदवार द्वारा कोई प्रश्न हल नहीं किया जाता है, अर्थात् उम्मीदवार द्वारा उत्तर नहीं दिया जाता है, तो उस प्रश्न के लिए **कोई दंड नहीं** दिया जाएगा।

जब तक आपको यह परीक्षण पुस्तिका खोलने को न कहा जाए तब तक न खोलें

Note : English version of the instructions is printed on the back cover of this Booklet.

ASGT-F-ENG (1 – A)

PART – A

Spotting Errors

Directions : *Each item in this section has a sentence with three underlined parts labelled (a), (b) and (c). Read each sentence to find out whether there is any error in any underlined part. Indicate your response in the Answer Sheet against the corresponding letter i.e., (a) or (b) or (c). If you find no error, your response should be indicated as (d).*

1. Over long periods of time, (a) layers of sediments builds up (b) to a height of a few kilometers. (c)

   No Error (d)

2. When a gas is (a) cooled down it turns into a liquid (b) from a process called condensation. (c)

   No Error (d)

3. If you want (a) to know the news (b) you can read a newspaper. (c) No Error (d)

4. Columbus made his (a) first voyage from Europe to America (b) on 1492. (c)

   No Error (d)

5. Whenever the sky is   clear, you can see   the stars in the night.   No Error
(a)   (b)   (c)   (d)

6. I'm not working tomorrow,   so I don't had to   get up early.   No Error
(a)   (b)   (c)   (d)

7. She didn't   tell anybody   about her plans.   No Error
(a)   (b)   (c)   (d)

8. She wouldn't have   has an accident,   if she had driven carefully.
(a)   (b)   (c)

No Error
(d)

9. I will watch film   if I finish the work   in time.   No Error
(a)   (b)   (c)   (d)

10. In 1989, the government   did an about-face and Iran restored   it's family planning program.
(a)   (b)   (c)

No Error
(d)

Synonyms

***Directions** : Each item in this section consists of a sentence with an underlined word followed by four options, (a), (b), (c) and (d). Select the option that is **nearest in meaning** to the underlined word and mark your response in your Answer Sheet accordingly.*

11. During the pandemic the indigent people had to suffer a lot.

(a) very poor
(b) opulent
(c) solvent
(d) prosperous

12. She had no idea what made him angry in one minute and jovial the next.

(a) aggrieved
(b) melancholic
(c) doleful
(d) mirthful

13. It is sheer lunacy to drive a car in this frosty weather.

(a) prudence
(b) normalcy
(c) insanity
(d) sanity

14. Operating on a child with cancer needs meticulous planning and teamwork.

(a) strong
(b) long
(c) playful
(d) scrupulous

15. The thrill of over-speeding the vehicle can be exhilarating, but it is important not to take the consequences lightly.

(a) humdrum
(b) dreary
(c) exciting
(d) agitating

16. The redemption will now depend on his new strategy of inclusiveness.

(a) retrieval
(b) forfeiture
(c) corporation
(d) desecration

17. Only three candidates are now in contention for the title.

(a) involved in dispute
(b) in agreement with each other
(c) chance of winning
(d) amiable to each other

18. All my fishing paraphernalia is in the car.

(a) boxes
(b) accessories
(c) fuel
(d) food

19. The public watched in astonishment as he took a sudden jump from the bridge.

(a) anticipation
(b) hurriedly
(c) wonderment
(d) calmness

20. Drinking inordinate amount of liquor is not good for health.

(a) temperate
(b) exorbitant
(c) moderate
(d) regular

N.D.A. & N.A. EXAM (I)-2022

जब तक आपको यह परीक्षण पुस्तिका खोलने को न कहा जाए तब तक न खोलें

टी.बी.सी. : SDFR-S-HTM

परीक्षण पुस्तिका अनुक्रम

क्रम संख्या
0629701

परीक्षण पुस्तिका

गणित

A

समय : दो घण्टे और तीस मिनट

पूर्णांक : 300

अनुदेश

1. **परीक्षा प्रारम्भ होने के तुरन्त बाद, आप इस परीक्षण पुस्तिका की पड़ताल अवश्य कर लें कि इसमें कोई बिना छपा, फटा या छूटा हुआ पृष्ठ अथवा प्रश्नांश आदि न हो। यदि ऐसा है, तो इसे सही परीक्षण पुस्तिका से बदल लें।**
2. **कृपया ध्यान रखें कि OMR उत्तर-पत्रक में, उचित स्थान पर, रोल नम्बर और परीक्षण पुस्तिका अनुक्रम A, B, C या D को, ध्यान से एवं बिना किसी चूक या विसंगति के भरने और कूटबद्ध करने की जिम्मेदारी उम्मीदवार की है। किसी भी प्रकार की चूक/विसंगति की स्थिति में उत्तर-पत्रक निरस्त कर दिया जाएगा।**
3. इस परीक्षण पुस्तिका पर साथ में दिए गए कोष्ठक में आपको अपना अनुक्रमांक लिखना है। परीक्षण पुस्तिका पर **और कुछ न** लिखें।
4. इस परीक्षण पुस्तिका में **120** प्रश्नांश (प्रश्न) दिए गए हैं। प्रत्येक प्रश्नांश **हिन्दी** और **अंग्रेजी** दोनों में छपा है। प्रत्येक प्रश्नांश में चार प्रत्युत्तर (उत्तर) दिए गए हैं। इनमें से एक प्रत्युत्तर को चुन लें, जिसे आप उत्तर-पत्रक पर अंकित करना चाहते हैं। यदि आपको ऐसा लगे कि एक से अधिक प्रत्युत्तर सही हैं, तो उस प्रत्युत्तर को अंकित करें जो आपको सर्वोत्तम लगे। प्रत्येक प्रश्नांश के लिए **केवल एक ही** प्रत्युत्तर चुनना है।
5. आपको अपने सभी प्रत्युत्तर अलग से दिए गए उत्तर-पत्रक पर **ही** अंकित करने हैं। उत्तर-पत्रक में दिए गए निर्देश देखें।
6. **सभी** प्रश्नांशों के अंक समान हैं।
7. इससे पहले कि आप परीक्षण पुस्तिका के विभिन्न प्रश्नांशों के प्रत्युत्तर उत्तर-पत्रक पर अंकित करना शुरू करें, आपको प्रवेश प्रमाण-पत्र के साथ प्रेषित अनुदेशों के अनुसार कुछ विवरण उत्तर-पत्रक में देने हैं।
8. आप अपने सभी प्रत्युत्तरों को उत्तर-पत्रक में भरने के बाद तथा परीक्षा के समापन पर **केवल उत्तर-पत्रक** अधीक्षक को सौंप दें। आपको अपने साथ परीक्षण पुस्तिका ले जाने की अनुमति है।
9. कच्चे काम के लिए पत्रक परीक्षण पुस्तिका के अन्त में संलग्न हैं।
10. **गलत उत्तरों के लिए दण्ड :**

    वस्तुनिष्ठ प्रश्न-पत्रों में उम्मीदवार द्वारा दिए गए गलत उत्तरों के लिए दण्ड दिया जाएगा।

    (i) प्रत्येक प्रश्न के लिए चार वैकल्पिक उत्तर हैं। उम्मीदवार द्वारा प्रत्येक प्रश्न के लिए दिए गए एक गलत उत्तर के लिए प्रश्न हेतु नियत किए गए अंकों का **एक-तिहाई** दण्ड के रूप में काटा जाएगा।

    (ii) यदि कोई उम्मीदवार एक से अधिक उत्तर देता है, तो इसे **गलत उत्तर** माना जाएगा, यद्यपि दिए गए उत्तरों में से एक उत्तर सही होता है, फिर भी उस प्रश्न के लिए उपर्युक्तानुसार ही उसी तरह का दण्ड दिया जाएगा।

    (iii) यदि उम्मीदवार द्वारा कोई प्रश्न हल नहीं किया जाता है, अर्थात् उम्मीदवार द्वारा उत्तर नहीं दिया जाता है, तो उस प्रश्न के लिए **कोई दण्ड नहीं** दिया जाएगा।

जब तक आपको यह परीक्षण पुस्तिका खोलने को न कहा जाए तब तक न खोलें

Note : English version of the instructions is printed on the back cover of this Booklet.

1. If $\Delta_1 = \begin{vmatrix} 1 & p & q \\ 1 & q & r \\ 1 & r & p \end{vmatrix}$ and $\Delta_2 = \begin{vmatrix} 1 & 1 & 1 \\ q & r & p \\ r & p & q \end{vmatrix}$

where $p \neq q \neq r$, then $\Delta_1 + \Delta_2$ is

(a) 0

(b) always positive

(c) always negative

(d) positive if p, q, r are positive else negative

2. If $(a-b)(b-c)(c-a) = 2$ and $abc = 6$, then what is the value of

$$\begin{vmatrix} a & b & c \\ a^2 & b^2 & c^2 \\ a^3 & b^3 & c^3 \end{vmatrix} ?$$

(a) 3

(b) 12

(c) 14

(d) 15

3. Under which of the following conditions does the determinant

$$\begin{vmatrix} a & b & c \\ b & c & a \\ c & a & b \end{vmatrix} \text{ vanish ?}$$

1. $a + b + c = 0$
2. $a^3 + b^3 + c^3 = 3abc$
3. $a^2 + b^2 + c^2 - ab - bc - ca = 0$

Select the correct answer using the code given below :

(a) 1 and 2 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

4. Consider the following in respect of the matrices :

$A = [m \ n]$, $B = [-n \ -m]$ and $C = \begin{bmatrix} m \\ -m \end{bmatrix}$

1. $CA = CB$
2. $AC = BC$
3. $C(A + B) = CA + CB$

Which of the above statements is/are correct ?

(a) 1 only

(b) 2 only

(c) 2 and 3

(d) 1 and 2

5. If $A = \begin{bmatrix} 2\sin\theta & \cos\theta & 0 \\ -2\cos\theta & \sin\theta & 0 \\ -1 & 1 & 1 \end{bmatrix}$, then

what is $A(adjA)$ equal to ?

(a) Null matrix

(b) $-I$

(c) I

(d) $2I$

where I is the identity matrix.

6. For what value of k is the matrix

$$\begin{bmatrix} 2\cos 2\theta & 2\cos 2\theta & 6 \\ 1 - 2\sin^2\theta & 2\cos^2\theta - 1 & 3 \\ k & 2k & 1 \end{bmatrix}$$

singular ?

(a) 0 only

(b) 1 only

(c) 2 only

(d) Any real value

Question

Directions (1-8): In the questions given below, there is a sentence in which one part is given in bold. The part given in bold may or may not be grammatically correct. Choose the best alternative among the four given which can replace the part in bold to make the sentence grammatically correct. If the part given in bold is already correct and does not require any replacement, choose option (e), i.e. "No replacement required" as your answer.

Q1. Nobody can deny the fact that Indian economy **is very different than** American economy.
(a) are very different than
(b) is so much different than
(c) are very different from
(d) is very different from
(e) No replacement required

Q2. Accurate **statistics with regards to** the area occupied in different forms of cultivation are difficult to obtain.
(a) statistic with regards to
(b) statistics with regard to
(c) statistic with regard to
(d) statistics in regards to
(e) No replacement required

Adda 247

Q3. **Seldom if ever** was there any training or instructions in such tactics for either the tank crews or the infantry formations.
(a) Seldom or never
(b) Seldom if never
(c) Seldom or ever
(d) Seldom has ever
(e) No replacement required

Q4. As soon as I opened the front door of my house, **than I smelled**
the distinctive aroma of fresh coffee.
(a) then I smelled
(b) that I smelled
(c) I smelled
(d) I smell
(e) No replacement required

Q5. Although he had fewer supporters among the governing class, but he was able to get the popular vote.
(a) he was able
(b) and he was able
(c) else he was able
(d) or he was able
(e) No replacement required

Q6. The party explicitly denies that they are not involved in mainstream politics.
(a) denied that they are not
(b) denies that they were
(c) denied that they are
(d) deny that they are not
(e) No replacement required

Q7. I would rather be a poor man in a garret with plenty of good books to read than a king who did not loved reading.
(a) who do not loved
(b) who did not love
(c) whom did not loved
(d) whom did not love
(e) No replacement required

Q8. The relatively static lattice in a diamond ensures that the scattering is at a minimum and the thermal conductivity is exceptional good.
(a) are exceptional
(b) was exceptional
(c) are exceptionally
(d) is exceptionally
(e) No replacement required

Directions (9-13): Select the phrase/connector (it must be at the start) from the given three options which can be used to form a single sentence from the two sentences given below, implying the same meaning as expressed in the statement sentences.

Q9. We see ourselves repeating our ordinary routine. We realize how much wealth surrounds our life.
(i) When we see ourselves ……………
(ii) Our ordinary routine……….
(iii) Realizing how much wealth……………
(a) Only (i)
(b) Both (ii) and (iii)
(c) Only (iii)
(d) Only (ii)
(e) None of these

Adda 247

D4

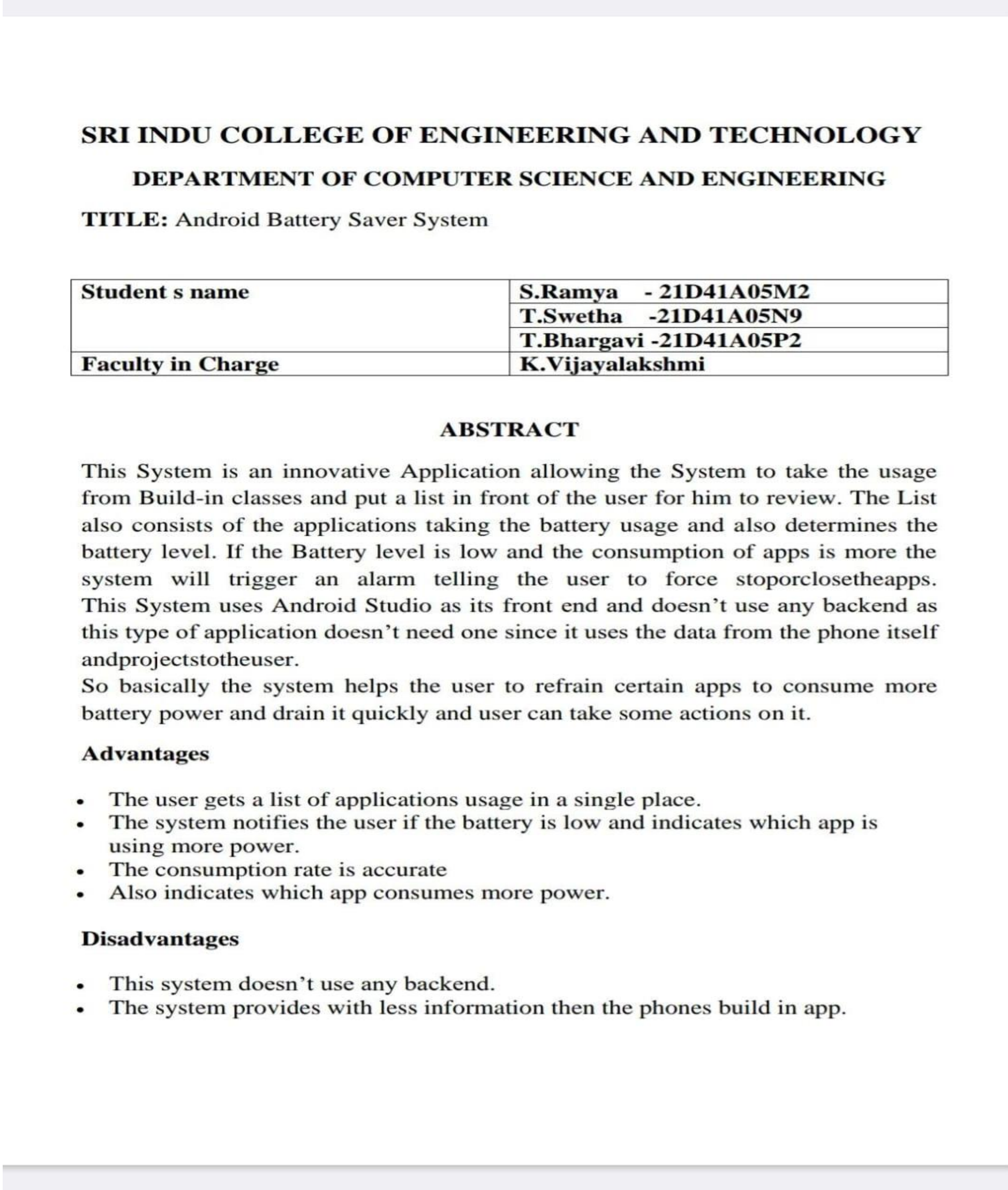
BR-22

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Real Time Assignments and Case Studies
(A.Y: 2022-23)

S. No.	List of Real Time Assignments and Case studies
1.	Face Detection
2.	College website development
3.	Online Auction system
4.	Evaluation of Academic performance
5.	E- Authentication system
6.	Cursor movement on Object motion
7.	Crime rate prediction
8.	Android battery Saver system
9.	Symbol Recognition
10.	Public news droid
11.	Search Engine
12.	Online e-book maker
13.	Mobile wallet with merchant payment

SAMPLE DOCUMENTS OF REAL TIME & CASE STUDIES



SRI INDU COLLEGE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

TITLE: Android Battery Saver System

Student s name	**S.Ramya - 21D41A05M2**
	T.Swetha -21D41A05N9
	T.Bhargavi -21D41A05P2
Faculty in Charge	**K.Vijayalakshmi**

ABSTRACT

This System is an innovative Application allowing the System to take the usage from Build-in classes and put a list in front of the user for him to review. The List also consists of the applications taking the battery usage and also determines the battery level. If the Battery level is low and the consumption of apps is more the system will trigger an alarm telling the user to force stoporclosetheapps. This System uses Android Studio as its front end and doesn't use any backend as this type of application doesn't need one since it uses the data from the phone itself andprojectstotheuser.

So basically the system helps the user to refrain certain apps to consume more battery power and drain it quickly and user can take some actions on it.

Advantages

- The user gets a list of applications usage in a single place.
- The system notifies the user if the battery is low and indicates which app is using more power.
- The consumption rate is accurate
- Also indicates which app consumes more power.

Disadvantages

- This system doesn't use any backend.
- The system provides with less information then the phones build in app.

System Description

The system comprises 1 major module with their sub-modules as follows:

❖ **USER:**

- **App list**
  - The user can view a list of applications with the highest usage application from the top.
- **Battery**
  - The system will display the battery level and status of the battery.
- **App details**
  - The user can click on the app details to get more details about it.
- **Notification**
  - It will send a notification if an app is consuming too much battery.

This application can help android users in reducing power consumption slightly.

SRI INDU COLLEGE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

TITLE: Crime Rate Prediction

Student s name	**A.Shashanka - 20D41A0510**
	A.Triveni - 20D41A0530
	CH.Roopasree -20D41A0536
Faculty in Charge	**B.Navya**

ABSTRACT

Analysis of crime is a methodological approach to the identification and assessment of criminal patterns and trends. In a number of respects cost our community profoundly. We have to go many places regularly for our daily purposes, and many times in our everyday lives we face numerous safety problems such as hijack, kidnapping, and harassment. In general, we see that when we need to go anywhere at first, we are searching for Google Maps; Google Maps show one, two, or more ways to get to the destination, but we always choose the shortcut route, but we do not understand the path situation correctly. Is it really secure or not that's why we face many unpleasant circumstances; in this job, we use different clustering approaches of data mining to analyze the crime rate of Bangladesh and we also use K-nearest neighbor (KNN) algorithm to train our dataset. For our job, we are using main and secondary data. By analyzing the data, we find out for many places the prediction rate of different crimes and use the algorithm to determine the prediction rate of the path. Finally, to find out our safe route, we use the forecast rate. This job will assist individuals to become aware of the crime area and discover their secure way to the destination.

The domain contains many clustering algorithms. There is widespread use and acceptance of the K-means partitioning method. Apart from the K-means strategy, the Linear regression algorithm is the one we used because it enables consumers to determine the number of clusters based on those values Naïve Bayes is also pretend good result but above two are provides the best accuracy

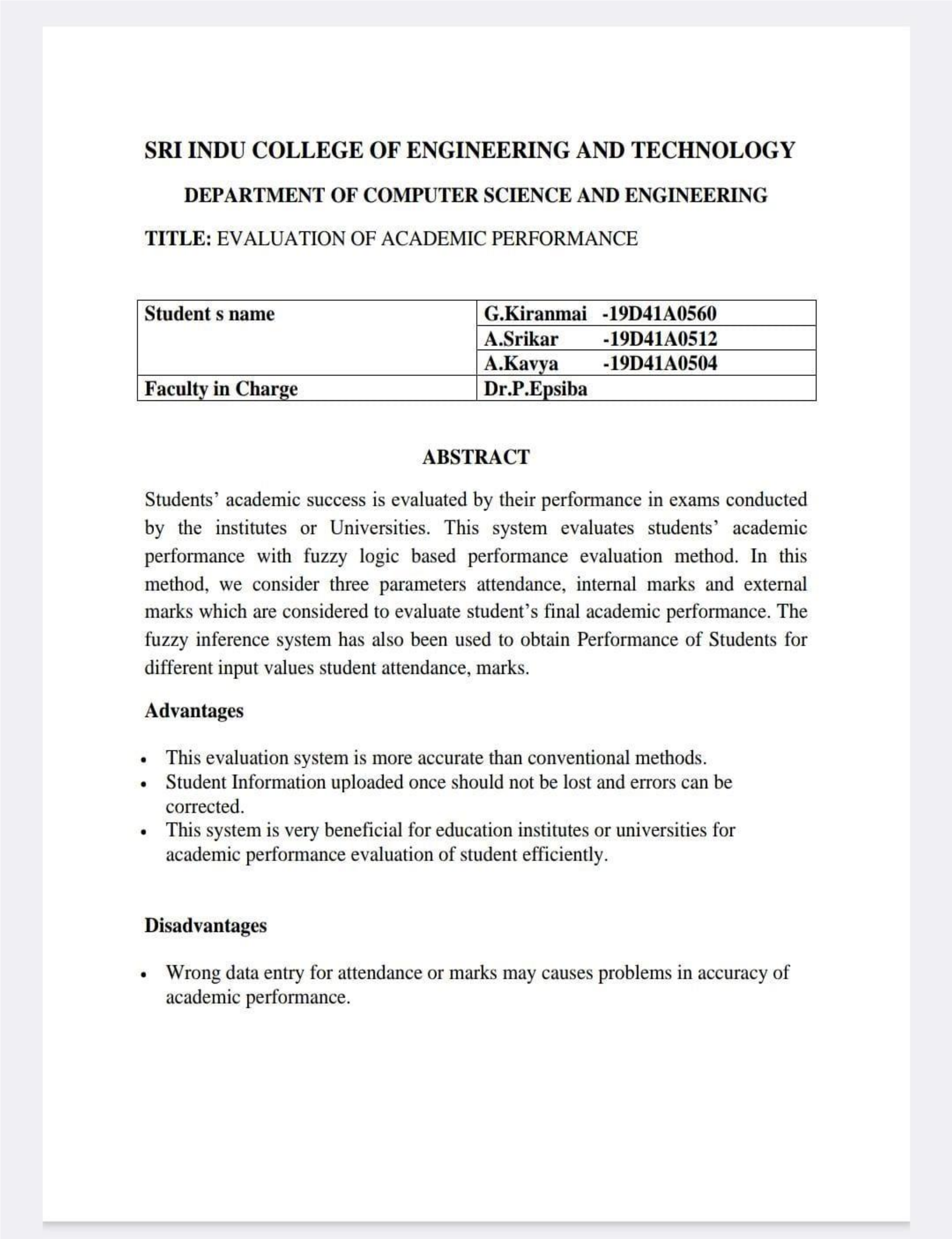
Multi-linear regression is a sort of mathematical approach to finding a relation between the dependent variables (Victim age) and a set of independent variables

those input values gathered from the crime spot. This methodology predicts the Era of the victims age values based on the input characteristics indicate in the metadata column. The multi-linear regression is:

$$Y = \beta 0 + \beta 1 x1 + \beta 2 x2 + \cdots + \beta p \ x \ p \quad (1)$$

Here, Y performs as the reliant variable X performs the independent variable β represent the coefficient formula function of regression.

The sparsity of crime in many areas complicates the application of the prediction rate area-specific modeling. We used the Machine Learning algorithm in that work to create and test age, sex, year, moment, month prediction of crime. In that job we use three types machine learning algorithms Linear regression, Naïve Bayes and Knearest neighbor among which we discover distinct precision in different instances some linear operates good and provides better precision but the general situation K-nearest neighbor provides the appreciated accuracy other than that's why we use K-nearest neighbor for our Crime Prediction scheme. By using these predict systems we will discover the stronger precision in the future and also by using this precision we will identify and discover the hot zone region in crime rate. In order to finish this job, we would like to use the CNN algorithm to analyze picture information and add the Google API for viewing the hot zone.



SRI INDU COLLEGE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

TITLE: EVALUATION OF ACADEMIC PERFORMANCE

Student s name	**G.Kiranmai -19D41A0560**
	A.Srikar -19D41A0512
	A.Kavya -19D41A0504
Faculty in Charge	**Dr.P.Epsiba**

ABSTRACT

Students' academic success is evaluated by their performance in exams conducted by the institutes or Universities. This system evaluates students' academic performance with fuzzy logic based performance evaluation method. In this method, we consider three parameters attendance, internal marks and external marks which are considered to evaluate student's final academic performance. The fuzzy inference system has also been used to obtain Performance of Students for different input values student attendance, marks.

Advantages

- This evaluation system is more accurate than conventional methods.
- Student Information uploaded once should not be lost and errors can be corrected.
- This system is very beneficial for education institutes or universities for academic performance evaluation of student efficiently.

Disadvantages

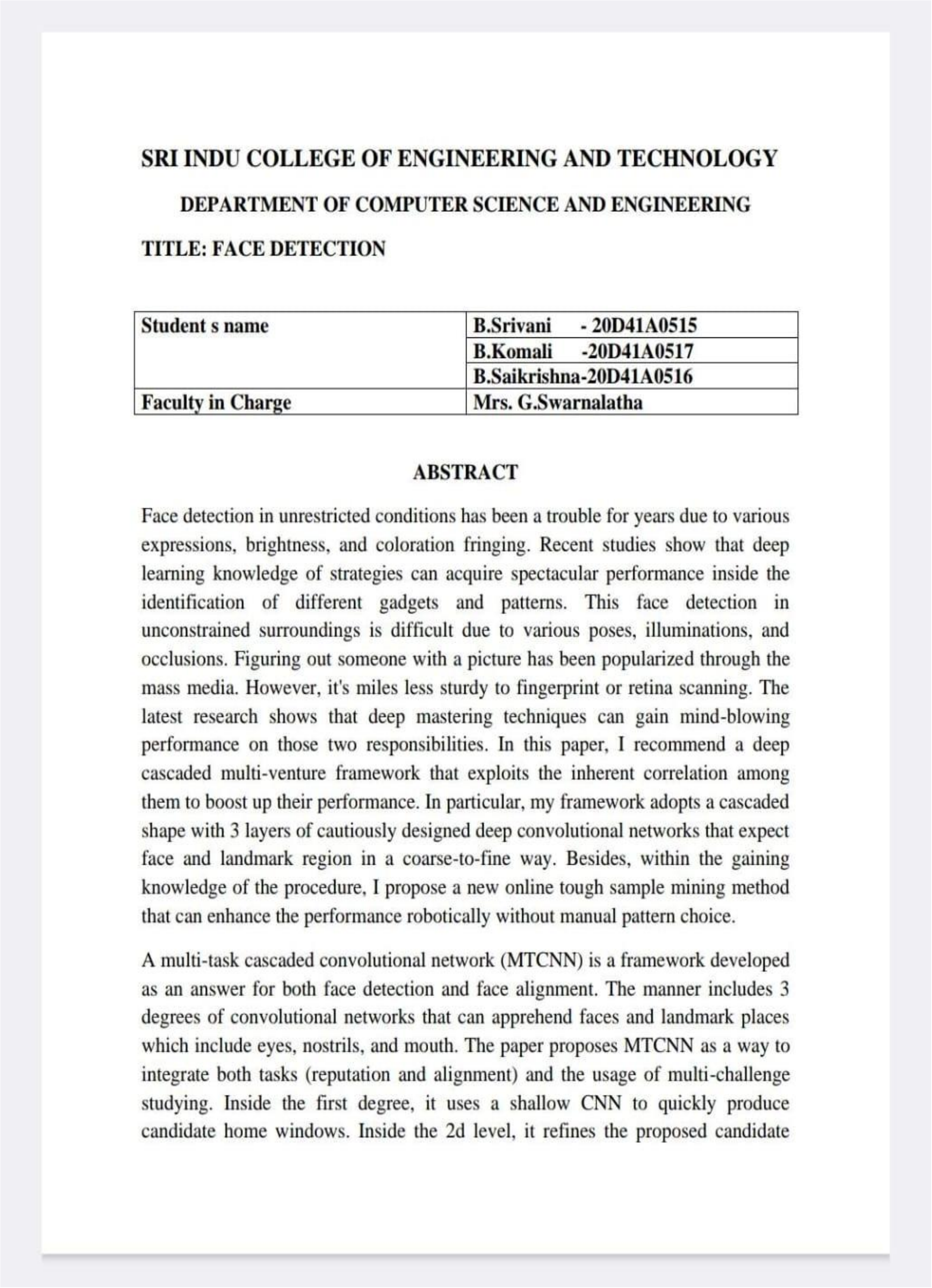
- Wrong data entry for attendance or marks may causes problems in accuracy of academic performance.

Student Module:

- Student register**:** Registration with basic details for student account.
- Student Login**:** Login with valid username and password.
- View Academic performance**:** Student can view his/her academic performance based on attendance and marks.

Admin Module:

- Admin Login**:** login with valid username and password.
- Fill Student Details: Insert proper details of attendance, marks of registered student.
- Evaluate Performance: Attendance and marks details of student get applied with fuzzy logic methods and give the final academic performance result.



SRI INDU COLLEGE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

TITLE: FACE DETECTION

Student s name	**B.Srivani - 20D41A0515**
	B.Komali -20D41A0517
	B.Saikrishna-20D41A0516
Faculty in Charge	**Mrs. G.Swarnalatha**

ABSTRACT

Face detection in unrestricted conditions has been a trouble for years due to various expressions, brightness, and coloration fringing. Recent studies show that deep learning knowledge of strategies can acquire spectacular performance inside the identification of different gadgets and patterns. This face detection in unconstrained surroundings is difficult due to various poses, illuminations, and occlusions. Figuring out someone with a picture has been popularized through the mass media. However, it's miles less sturdy to fingerprint or retina scanning. The latest research shows that deep mastering techniques can gain mind-blowing performance on those two responsibilities. In this paper, I recommend a deep cascaded multi-venture framework that exploits the inherent correlation among them to boost up their performance. In particular, my framework adopts a cascaded shape with 3 layers of cautiously designed deep convolutional networks that expect face and landmark region in a coarse-to-fine way. Besides, within the gaining knowledge of the procedure, I propose a new online tough sample mining method that can enhance the performance robotically without manual pattern choice.

A multi-task cascaded convolutional network (MTCNN) is a framework developed as an answer for both face detection and face alignment. The manner includes 3 degrees of convolutional networks that can apprehend faces and landmark places which include eyes, nostrils, and mouth. The paper proposes MTCNN as a way to integrate both tasks (reputation and alignment) and the usage of multi-challenge studying. Inside the first degree, it uses a shallow CNN to quickly produce candidate home windows. Inside the 2d level, it refines the proposed candidate

home windows through a greater complicated CNN. And lastly, inside the third stage, it makes use of a third CNN, extra complex than the others, to similarly refine the result and output facial landmark positions.

After making use of my dataset to the MTCNN procedure, I determined the face of the images for approximately a hundred videos at a rate of 99%-100%. Right here, the end result suggests that a great final result has been finished: the use of multi-venture cascaded Convolutional networks.

Face recognition systems are part of facial image processing applications and their significance as a research area are increasing recently. Implementations of system are crime prevention, video surveillance, person verification, and similar security activities. The face recognition system implementation will be part of humanoid robot project at Atılım University. The goal is reached by face detection and recognition methods. Knowledge-Based face detection methods are used to find, locate and extract faces in acquired images. Implemented methods are skin color and facial features. Neural network is used for face recognition. RGB color space is used to specify skin color values, and segmentation decreases searching time of face images. Facial components on face candidates are appeared with implementation of LoG filter. LoG filter shows good performance on extracting facial compoments under different illumination conditions.