



# **Problem Solving Methodologies**



Mock Drive Analysis : 29 March 2024  
Swarinim School of Computing and IT BCA  
&BSC IT 2024

## 1.0 Effective Analysis:

The mock drive conducted for BCA and BSC IT students proved to be a valuable tool for assessing their potential and identifying areas requiring rigorous training. The analysis of the mock drive revealed insightful observations on the student's soft skills, quant ability, logical reasoning, and verbal skills.

The evaluation process provided a comprehensive understanding of each student's strengths and weaknesses, allowing educators to tailor training programs more effectively. Soft skills including communication, teamwork, and leadership, were assessed to gauge the student's interpersonal abilities. Quantitative and logical abilities were scrutinized to determine their analytical prowess, while verbal skills were evaluated for effective expression and articulation.

The results of the analysis will serve as a roadmap for developing targeted training modules, ensuring that students receive the necessary support to enhance their skills and prepare them for the challenges of the business world. This holistic approach to assessment and subsequent training will contribute significantly to the student's overall development and success in their academic and professional pursuits.

### 1.1 Snippets From Effective Analysis:









## 2.0 Mock Drive Analysis:

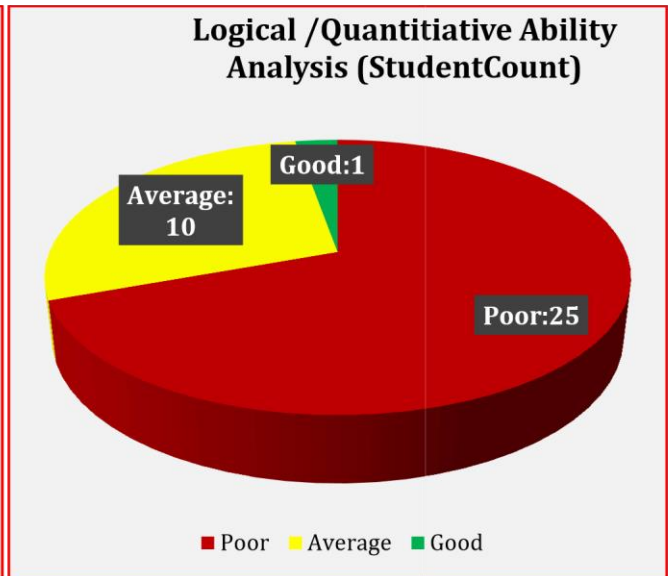
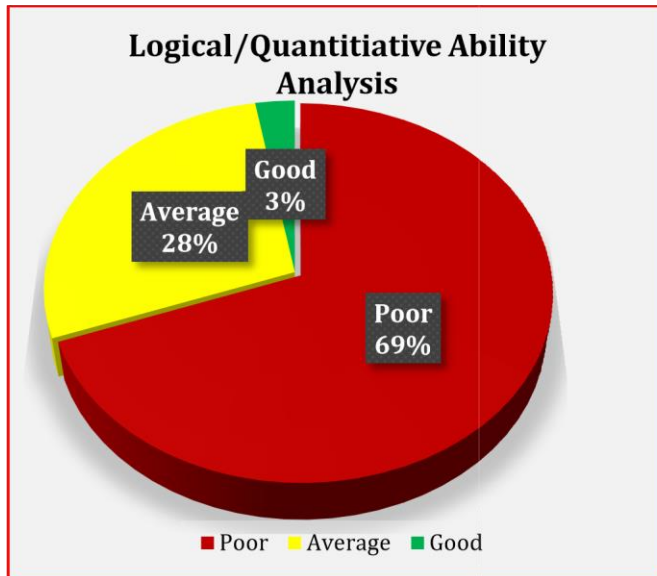
Range Color Wise Indication	
POOR	
AVERAGE	
GOOD	

Sr No.	Student Name	Quant/ reasoning /30	Verbal /30	GD/ 20	PI/ 20	Grand Total/100
1	TANWANI PIYUSH DRA DHARMEN	15	13	2.4	4.8	35.2
2	BASANTANI VINIT UMAR MAHESHK	6	6	4	9.6	25.6
3	RAJPUROHIT KARINA G.	13	12	0	0	25
4	THAKUR NIKITA	11	12	1.2	0	23
5	BAROT ROHITKUMAR AKUMAR SANJA	10	9	9.6	5.4	34
6	BRAHMBHATT DHRUVSHKUMAR YOGE	7	7	4.8	8.4	27.2
7	SNEH GUPTA	15	16	8.4	16.8	56.2
8	JENIS DUSARA	8	6	2.4	0	16.4
9	DHRUVIKA RAJPARA	9	6	4.4	0	19.4
10	SHRUSTI BHAGAT	5	4	0	0	9
11	BHAVESH MULCHANDANI	4	10	6.4	12	32.4
12	PATEL SMIT GHANSHYAM AI BH	9	9	3.2	10.8	32
13	PARMAR AUM NIRAV	11	12	4.4	0	27.4
14	PUEVI JIVANI	8	8	1.6	0	17.6
15	DHRUVA JAGDISHKUMAR AKKAR TH	12	7	10.8	0	29.8
16	SISODIYA SHIKHA INGH RANJEET S	9	9	0	0	18
17	KAPIL SHARMA	10	11	4.8	9.6	30.6
Sr No.	Student Name	Quant/ reasoning /30	Verbal /30	GD/ 20	PI/ 20	Grand Total/100
18	NAYAK MAITRI AKUMAR DHARMENDR	12	6	0	0	18
19	MANAV PATEL	9	8	5.2	11.2	33.4
20	SIDHARTH LOHAR	2	4	0	0	6

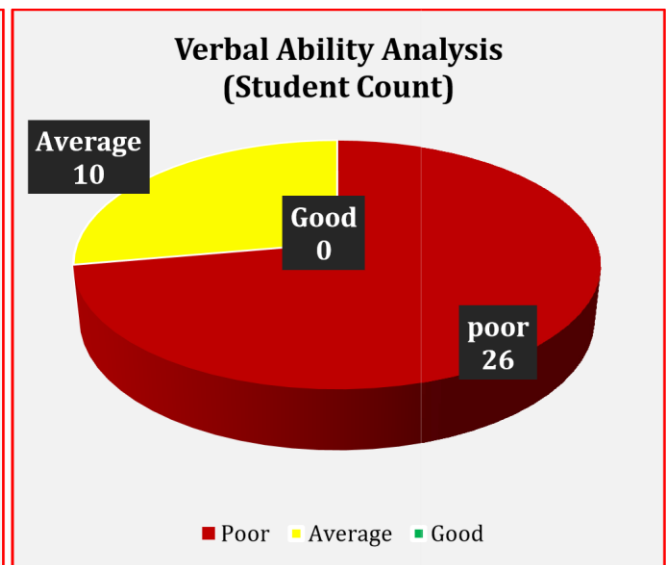
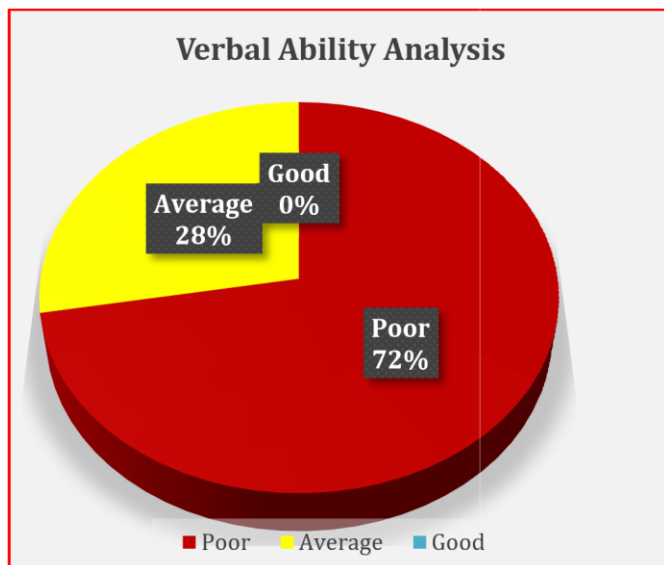
21	BARIA SHUBHAM BHARAT	10	5	0.4	6.8	22.2
22	VEDARAM PARIHAR	8	3	4.8	6	21.8
23	SUNIL KUMAR KRISHNA AR KUM	7	9	9.2	6	31.2
24	KAUR JASMEET SARVJEET IGH SI	5	15	13.6	4.6	38.2
25	RATHOUR NIKHIL AN KALICHAR	7	11	3.6	8	29.6
26	SOLANKI RONAKBEN	8	8	0	0	16
27	DIXIT GOVIN SUTHAR	4	6	0	0	10
28	PRASHANT SINGH- NEPAL	13	3	0	0	16
29	HEMANT KUMARDAS BHAGWAN	6	11	2.4	4.4	23.8
30	PATEL FARJ MAHENDRABHAI	19	17	12	13.2	61.2
31	JOSHI VISHWA MEHUL	11	6	0	0	17
32	PATEL JALP ASHOKKUMAR	11	7	10	8.4	36.4
33	PRAJAPATI PREKSHA BHAI ASHOK	5	6	12.4	9.2	32.6
34	PATEL MIHIR JMAR BHUPENDRAK	10	8	3.2	0	21.2
35	CHAUDHARI KUNJ AI DINESHBH	9	10	0	5.6	24.6
36	PANDYA TIRTH NDRA JAGDISHCHA	9	8	4.8	6	27.8



### :3.0 Assessment Analysis



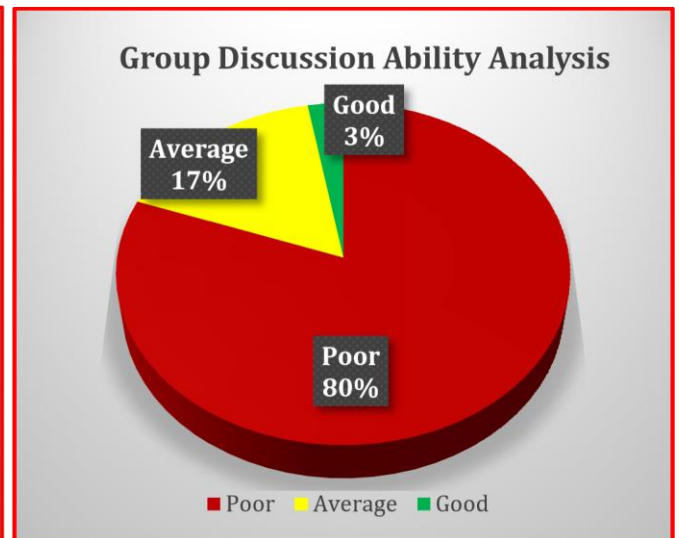
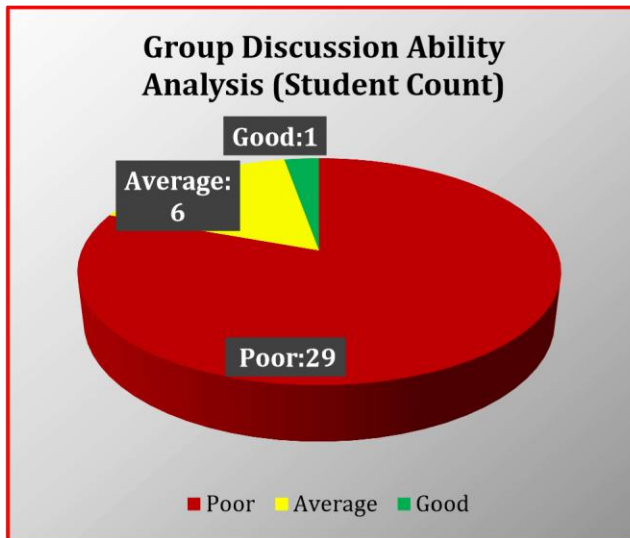
- Logical/ Quantitative Ability Analysis ☐ Verbal Ability Analysis



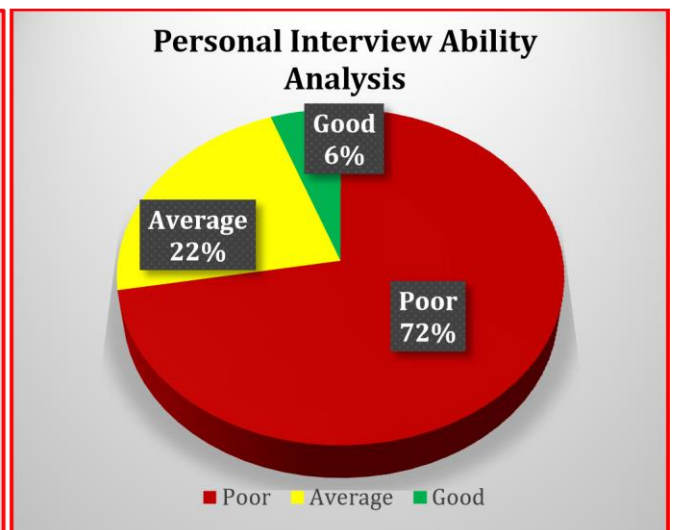
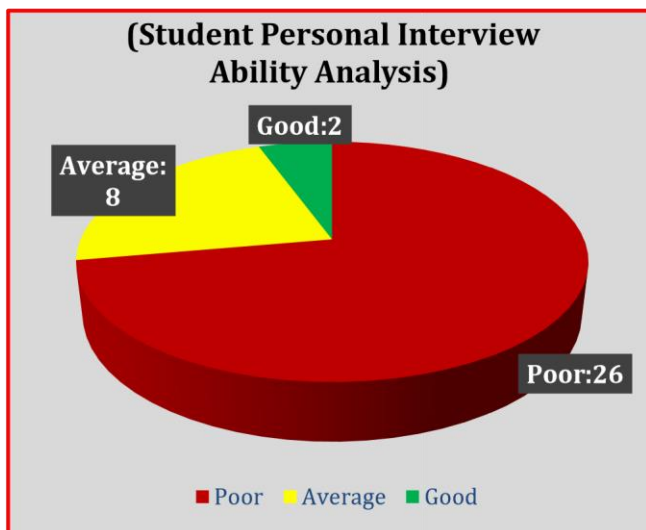
- Group Discussion Ability Analysis



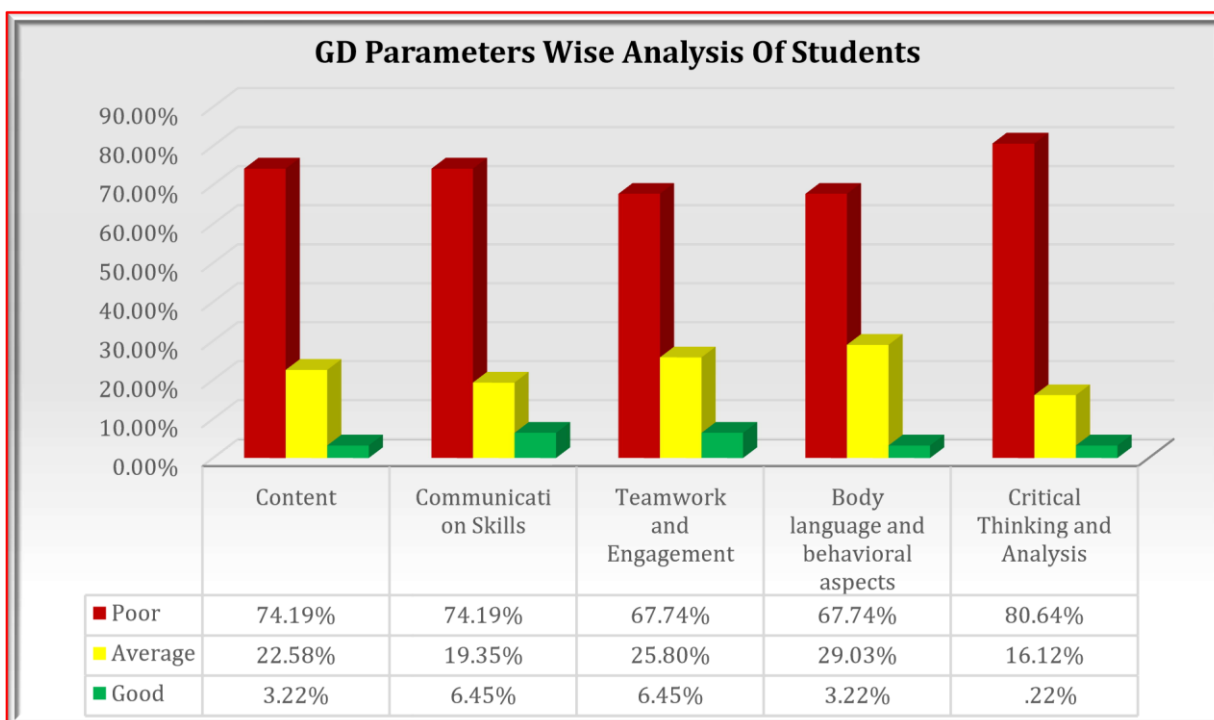




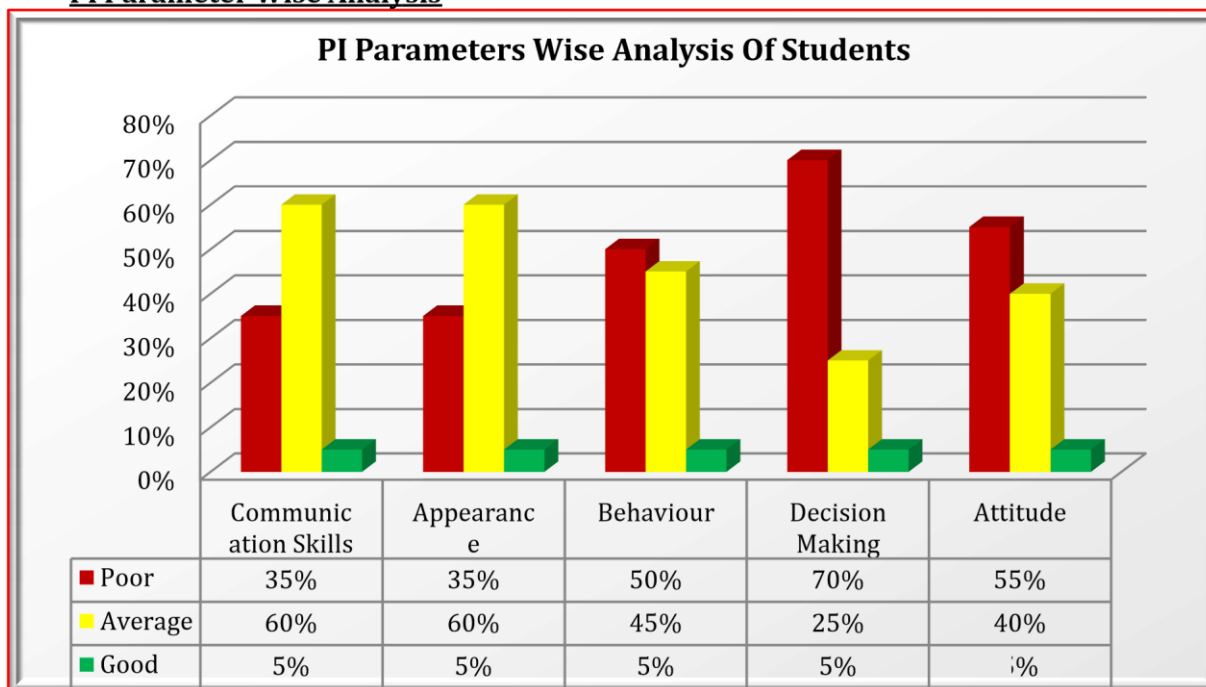
□ Personal Interview Ability Analysis



- **GD Parameter Wise Analysis**



- **PI Parameter Wise Analysis**

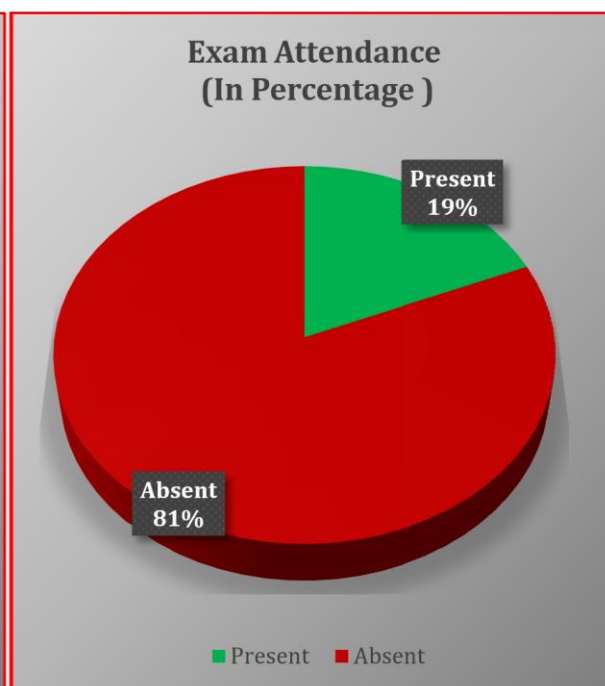
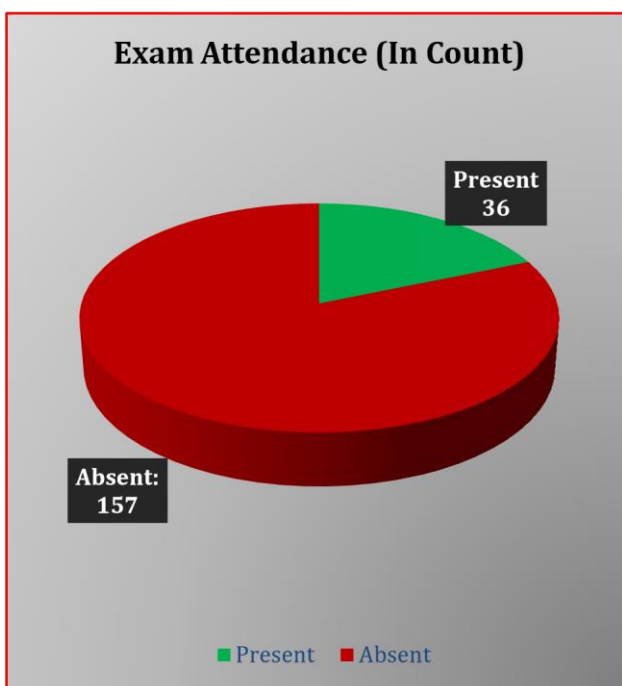


#### 4.0. Mock Drive Attendance Report :

Training Fields	Student Count
Semester 2: BCA/BSC IT	78
Semester 4: BCA/BSC IT	60
Semester 6: BCA	55

#### Written Exam Attendance Report

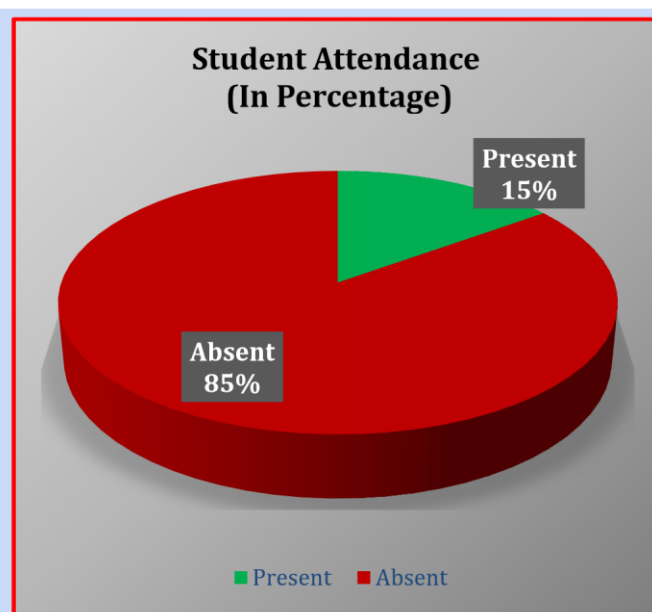
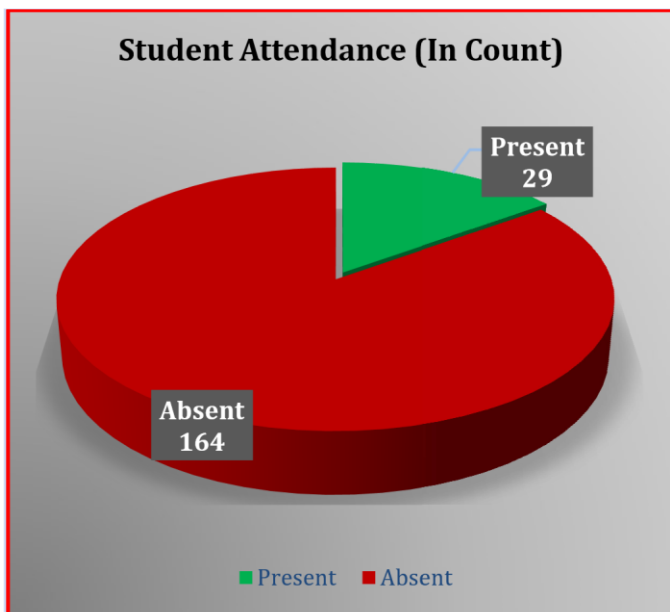
Course	Total	Present	Absent	Present %	Absent %
BCA	158	31	127	18.65%	81.34%
BSC IT	35	5	30		



#### 4.1 Group Discussion Attendance

Group Discussion Report					
Course	Total	Present	Absent	Present %	Absent %

BCA	158	24	134	15.02%	84.98%
BSC IT	35	5	30		

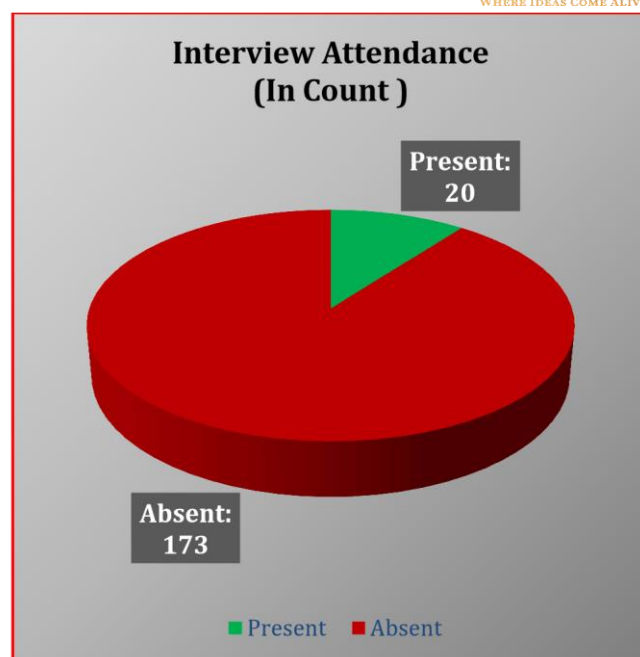
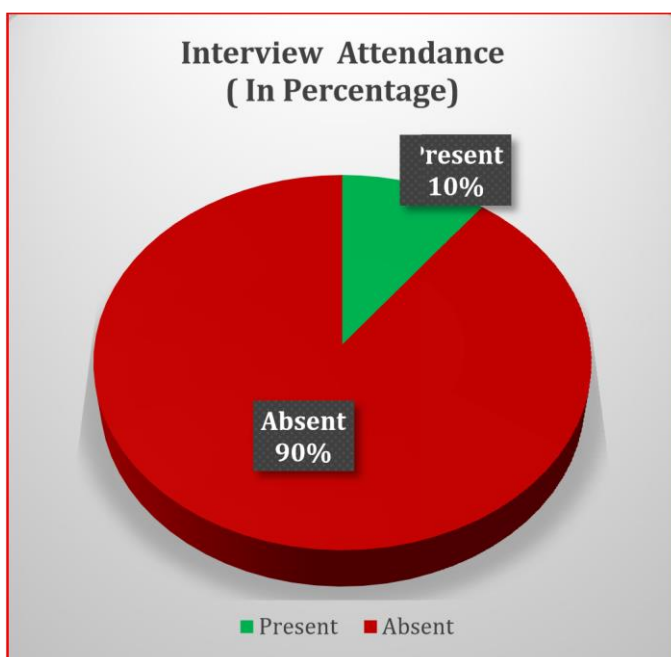


## 4.2 Interview Attendance

HR Interview Attendance Report					
Course	Total	Present	Absent	Present %	Absent %
BCA	158	16	142	10.36%	89.63%
BSC IT	35	4	31		







## 6.0 Employment Improvement Table

Type of Company	Campus Employability Prospect	Areas in Need of Training for Improving Employability Chances
Large IT companies	Low	These companies are basically looking for good English and Logical skills with average Quantitative ability. To increase the employability prospects for this industry, extra efforts are required on Verbal, Quantitative Ability and Logical Ability.
Small/Core Technology companies	Low	These companies are basically looking for good Programming, Logical and Quantitative abilities. To increase the employability prospects for this industry, extra efforts are required on Core Technical Knowledge, Basic Communicative English, Quantitative Ability, and advanced Computer Programming.
KPO	Low	These companies look for candidates having basic knowledge of Communicative English, Verbal and good Quantitative and Reasoning abilities. If employability prospects are to be increased for this industry, students need to focus on English and Logical Ability.
BPO	Low to	These companies look for candidates having basic knowledge of English and average Reasoning abilities. To increase the employability prospects for this industry, extra efforts are required by the campus authority on English.
	Average	

Hardware & Networking companies	Low	These companies are basically looking for candidates having basic knowledge of English and good Quantitative and Reasoning abilities. If employability prospects are to be increased for this industry, campus faculty will need to focus on English and Logical Ability along with core subjective knowledge.
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## 7.0 Performance Summary

The mock drive proved to be an enriching and insightful experience for the students. It served as a platform where they could put their potentials and knowledge to the test, thereby assessing their understanding and application of the concepts learned so far. Moreover, it provided them with a glimpse into the real-world business environment, allowing them to comprehend the dynamics and challenges that come with it.

The mock drive was not just a one-time event, but a part of our continuous efforts to provide practical exposure to our students, complementing their theoretical learning. The success of this drive has encouraged us to organize more such activities in the future. Our aim is to further enhance the learning journey of our students, equipping them with the necessary skills and knowledge that will help them excel in their respective fields.

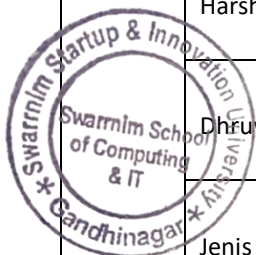


VIKAS C. SHARMA  
HOD-SSCIT



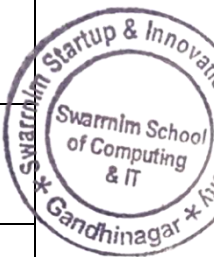
# **Problem Solving via Projects**

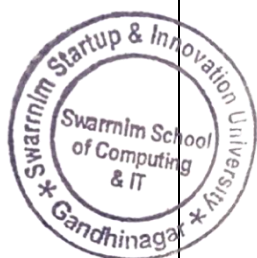
	Name of Student	Title & Project	Department & Semester
U. G.	Prajapati Miten Vijaybhai	Project X	SSCIT & BCA-5TH SEMSTER
	Prem Nagdev	Ping pong in python	SSCIT & BCA-5TH SEMSTER
	Brahmbhatt Dhruv	RED BUS	SSCIT & BCA-5TH SEMSTER
	PATEL KEYUR KUMAR	NOT DECIDED	SSCIT & BCA-5TH SEMSTER
	Dev Nayee	Hotel Management Website	SSCIT & BCA-5TH SEMSTER
	Himir Sonpal	Hotel management system	SSCIT & BCA-5TH SEMSTER
	Rajput Sahil	E commerce	SSCIT & BCA-5TH SEMSTER
	Brahmbhatt Dhruv	E-commerce site	SSCIT & BCA-5TH SEMSTER
	Abhishek Nair	E-Commerce site	SSCIT & BCA-5TH SEMSTER
	Neel Patel	E-commerce site	SSCIT & BCA-5TH SEMSTER
	Bhavik Ghanshyambhai Patel	E-Commerce Site	SSCIT & BCA-5TH SEMSTER
	Piyush tanwani	Student Attendance website	SSCIT & BCA-5TH SEMSTER
	Harsh kumar	Video calling app like skype	SSCIT & BCA-5TH SEMSTER
	Dhruvika Rajpara	Airline Data Analysis	SSCIT & BCA-5TH SEMSTER
	Jenis Dusara	Airlines Data Analysis	SSCIT & BCA-5TH SEMSTER
	Navneet Kamaliya	Library management system	SSCIT & BCA-5TH SEMSTER





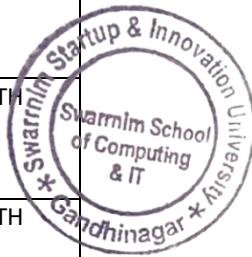
	Harsh Rajivkumar Jain	Grocery store	SSCIT & BCA-5TH SEMSTER
	Patel vansh	Food Management System	SSCIT & BCA-5TH SEMSTER
	Prajapati Miten Vijaybhai	Project X	SSCIT & BCA-5TH SEMSTER
	Prem Nagdev	Ping pong in python	SSCIT & BCA-5TH SEMSTER
	Brahmbhatt Dhruv	RED BUS	SSCIT & BCA-5TH SEMSTER
	PATEL KEYUR KUMAR	NOT DECIDED	SSCIT & BCA-5TH SEMSTER
	Dev Nayee	Hotel Management Website	SSCIT & BCA-5TH SEMSTER
	Himir Sonpal	Hotel management system	SSCIT & BCA-5TH SEMSTER
	Rajput Sahil	E commerce	SSCIT & BCA-5TH SEMSTER
	Brahmbhatt Dhruv	E-commerce site	SSCIT & BCA-5TH SEMSTER
	Abhishek Nair	E-Commerce site	SSCIT & BCA-5TH SEMSTER
	Neel Patel	E-commerce site	SSCIT & BCA-5TH SEMSTER
	Bhavik Ghanshyambhai Patel	E-Commerce Site	SSCIT & BCA-5TH SEMSTER
	Piyush tanwani	Student Attendance website	SSCIT & BCA-5TH SEMSTER
	Harsh kumar	Video calling app like skype	SSCIT & BCA-5TH SEMSTER
	Dhruvika Rajpara	Airline Data Analysis	SSCIT & BCA-5TH SEMSTER
	Jenis Dusara	Airlines Data Analysis	SSCIT & BCA-5TH SEMSTER





Navneet Kamaliya	Library management system	SSCIT & BCA-5TH SEMSTER
Harsh Rajivkumar Jain	Grocery store	SSCIT & BCA-5TH SEMSTER
Patel vansh	Food Management System	SSCIT & BCA-5TH SEMSTER
Bhanushali Bhumi Mansukhbhai	Stock Price Predictor	SSCIT & BCA-6TH SEMSTER
Jenis Dusara	Classifying plant leaf diseases using deep learning technique	SSCIT & BCA-6TH SEMSTER
Brahmbhatt Dhruv yogeshkumar	Booking App	SSCIT & BCA-6TH SEMSTER
Abhinav Kumar	Shopping app	SSCIT & BCA-6TH SEMSTER
Bhavik Ghanshyambhai Patel	Booking App	SSCIT & BCA-6TH SEMSTER
Patel Neelkumar Rasikbhai	Booking App	SSCIT & BCA-6TH SEMSTER
Dhruvika Rajpara	Library Management System	SSCIT & BCA-6TH SEMSTER
Rajpurohit Karina G.	Food ordering system	SSCIT & BCA-6TH SEMSTER
Thakur Nikita	Food ordering	SSCIT & BCA-6TH SEMSTER
Tanvi goswami	A.R fitness club	SSCIT & BCA-6TH SEMSTER
Sneh Gupta	Expense tracker(tentative)	SSCIT & BCA-6TH SEMSTER
Abhinav Kumar	Online shopping app	SSCIT & BCA-6TH SEMSTER
Bhargav Dangar	Hotel management	SSCIT & BCA-6TH SEMSTER
Maaz Shaikh	E-Commerce Website (Wordpress)	SSCIT & BCA-6TH SEMSTER

	Prem Nagdev	Hotel Management system	SSCIT & BCA-6TH SEMSTER
	Tanwani piyush dharmendra	Smart canteen system	SSCIT & BCA-6TH SEMSTER
	Bhanushali Bhumi Mansukhbhai	Stock Price Predictor	SSCIT & BCA-6TH SEMSTER
	Jenis Dusara	Classifying plant leaf diseases using deep learning technique	SSCIT & BCA-6TH SEMSTER
	Brahmbhatt Dhruv yogeshkumar	Booking App	SSCIT & BCA-6TH SEMSTER
	Abhinav Kumar	Shopping app	SSCIT & BCA-6TH SEMSTER
	Bhavik Ghanshyambhai Patel	Booking App	SSCIT & BCA-6TH SEMSTER
	Patel Neelkumar Rasikbhai	Booking App	SSCIT & BCA-6TH SEMSTER
	Dhruvika Rajpara	Library Management System	SSCIT & BCA-6TH SEMSTER
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	Maaz Shaikh	E-Commerce Website (Wordpress)	SSCIT & BCA-6TH SEMSTER
	Prem Nagdev	Hotel Management system	SSCIT & BCA-6TH SEMSTER



	Tanwani piyush Dharmendra	Smart canteen system	SSCIT & BCA-6TH SEMSTER
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*Vikas*

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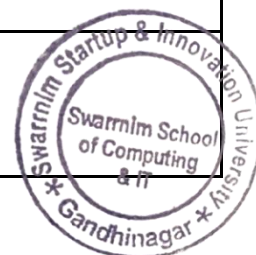




## Swarnim Startup & Innovation University

### Activity Report 2024

<b>Institute / Department</b>	Swarnim School Of Business
<b>Activity / Event Name</b>	Session on Vedic Mathematics
<b>Date of the event</b>	01-12-23
<b>Duration</b>	2:00 pm - 4:00 pm
<b>Location</b>	Seminar Hall
<b>Participant's Branch/Institutes</b>	B.C.A & B.SCIT Ist Year Students
<b>Total Number of Participants</b>	25
<b>Full Name of Mentor/Principal with designation</b>	Vikas Chandra Sharma (H.O.D and Associate Professor)
<b>Full Name of Speaker / Guest / Judge with designation</b>	Dr. Leena Patekar
<b>Faculty Coordinator Details (Name, Designation, Contact Details)</b>	Apeksha Dave <a href="mailto:apeksha.dave@swarnim.edu.in">apeksha.dave@swarnim.edu.in</a>
<b>Student Coordinator Details (If any)</b>	Pooja Kaswan



Contd...

#### Objective of the event:

1. **Introduction to Vedic Mathematics:** Introduce students to the history, origin, and significance of Vedic mathematics, highlighting its roots in ancient Indian texts like the Vedas and its relevance in modern times.

2. **Speed and Accuracy:** Emphasize how Vedic mathematics can improve students' speed and accuracy in mathematical calculations, making them more efficient in various mathematical operations like addition, subtraction, multiplication, and division.
3. **Mental Math Skills:** Develop students' mental math skills by teaching them Vedic techniques such as sutras (aphorisms) and sub-sutras, which enable rapid mental calculations.
4. **Problem-Solving Strategies:** Teach students problem-solving strategies based on Vedic mathematics principles, enabling them to approach mathematical problems in a structured and systematic manner.
5. **Application in Daily Life:** Illustrate practical applications of Vedic mathematics in daily life scenarios, such as calculating tips, discounts, and percentages mentally, thereby emphasizing its relevance beyond the classroom.
6. **Enhancing Confidence:** Boost students' confidence in their mathematical abilities by demonstrating how Vedic mathematics simplifies complex calculations and empowers them to tackle mathematical challenges with ease.
7. **Cultural Appreciation:** Foster an appreciation for Indian culture and heritage by exploring the mathematical contributions of ancient Indian scholars and the philosophical underpinnings of Vedic mathematics.
8. **Interactive Learning:** Engage students in interactive learning activities, such as solving puzzles, playing games, and participating in group discussions, to reinforce their understanding of Vedic mathematics concepts.
9. **Critical Thinking:** Encourage critical thinking by challenging students to explore the rationale behind Vedic mathematics techniques and analyze how they compare to conventional methods.
10. **Promoting Creativity:** Inspire creativity by encouraging students to explore alternative approaches to problem-solving using Vedic mathematics principles, fostering a mindset of innovation and experimentation.

### **Flow of Event:**

#### **1. Introduction (10 minutes):**

- Welcome the students and introduce the topic of Vedic mathematics.
- Briefly explain the history and significance of Vedic mathematics.



Set the objectives for the session.

#### **2. Icebreaker Activity (10 minutes):**

- Conduct a fun icebreaker activity to engage students and get them excited about learning Vedic mathematics.
- For example, you could start with a quick mental math challenge using Vedic techniques.

#### **3. Overview of Vedic Mathematics (15 minutes):**

- Provide an overview of the key principles and concepts of Vedic mathematics.
- Discuss the sixteen sutras (aphorisms) and their applications in various mathematical operations.
- Explain the importance of mental math and how Vedic mathematics can improve calculation speed and accuracy.

#### **4. Demonstration of Techniques (20 minutes):**

- Demonstrate a few Vedic mathematics techniques for addition, subtraction, multiplication, and division.
- Walk through examples and show how these techniques can simplify complex calculations.
- Encourage students to ask questions and participate in the demonstration.

5. **Hands-on Practice (20 minutes):**
  - Divide the students into small groups or pairs.
  - Provide worksheets or exercises for students to practice applying Vedic mathematics techniques.
  - Circulate among the groups to provide assistance and guidance as needed.
6. **Application in Real Life (10 minutes):**
  - Discuss practical applications of Vedic mathematics in daily life, such as calculating tips, discounts, and percentages.
  - Show examples of how Vedic techniques can be used to solve real-world problems efficiently.
7. **Interactive Activity (15 minutes):**
  - Engage students in an interactive activity, such as a math game or puzzle, that incorporates Vedic mathematics principles.
  - Encourage teamwork and problem-solving skills.
8. **Reflection and Discussion (10 minutes):**
  - Lead a reflection session where students share their thoughts and experiences with learning Vedic mathematics.
  - Facilitate a discussion on the benefits and challenges of using Vedic techniques compared to conventional methods.
9. **Conclusion (5 minutes):**
  - Summarize the key points covered during the session.
  - Reinforce the importance of practicing Vedic mathematics techniques to improve mathematical skills.
  - Thank the students for their participation and encourage them to continue exploring Vedic mathematics on their own.
10. **Follow-up (optional):**
  - Provide resources or additional exercises for students to continue practicing Vedic mathematics techniques.
  - Offer opportunities for further learning, such as workshops or online resources, for students who are interested in delving deeper into the topic.



### **Significance/Outcome:**

1. **Enhanced Mental Math Skills:** Vedic mathematics provides students with efficient mental math techniques, enabling them to perform calculations quickly and accurately without relying on calculators or written methods. This skill is valuable in various academic subjects and real-life situations.
2. **Improved Problem-Solving Abilities:** By learning Vedic mathematics techniques, students develop a deeper understanding of mathematical concepts and gain alternative problem-solving strategies. They become adept at breaking down complex problems into simpler steps, fostering critical thinking and analytical skills.
3. **Increased Confidence in Math:** Mastering Vedic mathematics techniques boosts students' confidence in their mathematical abilities. They feel more comfortable tackling mathematical challenges and are less intimidated by complex calculations, leading to greater engagement and success in math-related tasks.
4. **Relevance Beyond the Classroom:** Vedic mathematics is not only a mathematical tool but also a practical skill with applications in various aspects of daily life. Students learn how to apply these techniques in situations such as budgeting, shopping, and time management, enhancing their overall numeracy skills.

5. **Cultural Appreciation:** Exploring Vedic mathematics exposes students to the rich cultural heritage of ancient India. They gain an appreciation for the intellectual contributions of Indian scholars and the interconnectedness of mathematics with different cultures and traditions.
6. **Preparation for Competitive Exams:** Many competitive exams, including standardized tests and entrance exams for higher education, often have time constraints. Proficiency in Vedic mathematics equips students with the speed and accuracy needed to excel in these exams, giving them a competitive edge.
7. **Promotion of Lifelong Learning:** Learning Vedic mathematics fosters a growth mindset and a passion for lifelong learning. Students develop a curiosity to explore alternative approaches to problem-solving and are more open to experimenting with new ideas and techniques in mathematics and beyond.
8. **Cross-Curricular Connections:** Vedic mathematics principles can be integrated into various subjects beyond mathematics, such as physics, chemistry, and computer science. Students learn to make connections between different disciplines, enhancing their interdisciplinary understanding and problem-solving abilities.
9. **Accessibility and Inclusivity:** Vedic mathematics offers alternative methods of calculation that may be more accessible to students with diverse learning styles or those who struggle with traditional math approaches. It provides a pathway for all students to succeed in mathematics regardless of their background or ability level.

## **Conclusion**

1. **Enhanced Mathematical Skills:** Students have developed enhanced mental math skills, learning techniques that enable them to perform calculations swiftly and accurately. They have discovered new approaches to problem-solving, fostering critical thinking and analytical abilities.
2. **Confidence and Empowerment:** Through mastering Vedic mathematics techniques, students have gained confidence in their mathematical abilities. They now feel empowered to tackle mathematical challenges with ease and are less intimidated by complex calculations.
3. **Practical Applications:** Students have explored the practical applications of Vedic mathematics in daily life, from budgeting and shopping to time management and competitive exams. They understand how these techniques can be applied beyond the classroom, enhancing their overall numeracy skills.
4. **Cultural Appreciation:** The session has provided students with a deeper appreciation for the cultural heritage of ancient India and the contributions of Indian scholars to the field of mathematics. They recognize the interconnectedness of mathematics with different cultures and traditions.
5. **Preparation for the Future:** Students are better prepared for future academic and professional endeavors, equipped with valuable skills that are highly sought after in today's fast-paced world. They understand the importance of continuous learning and are ready to apply their newfound knowledge in various contexts.



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