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Arihant स्पर्श Newsletter

A Touch of Excellence, Every Month

FEBRUARY 2026

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MESSAGE OF THE MONTH

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Four Generations, One Workplace

Walk through our workplace on any given day and you'll see something special, professionals from different generations working side by side. Experience meets fresh thinking, tradition blends with technology, and diverse perspectives shape how we grow together.

Each generation carries the influence of its time. Some built their careers on stability and long-term commitment. Others grew alongside rapid technological change. Many seek purpose and flexibility, while the newest members bring digital fluency and adaptability. These differences show up in how we communicate, solve problems, and approach work and that's exactly what makes our workplace stronger.

A multi-generational environment is powerful because learning flows in every direction. Experience offers perspective, while new ideas challenge us to evolve. When we collaborate with openness and respect, innovation becomes more thoughtful and solutions more resilient.

Despite varying styles and approaches, some values remain constant across all generations integrity, discipline, and a strong work ethic. These shared principles form the foundation of meaningful work.

At Arihant, our strength lies not in working the same way, but in respecting how differently we work while staying united by common values. **When generations learn from each other, diversity becomes strength and collaboration becomes our advantage.**

Four generations. One workplace. One shared future.

With warm regards,
HR Desk
Arihant Electrical

SPOTLIGHT OF THE MONTH

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Featured Articles

Dive into this month's insightful articles, covering industry trends, innovations, and expert perspectives. Stay informed, stay inspired, and explore ideas that drive excellence at Arihant Electricals.

1. BJT VS MOSFET VS IGBT VS SIC MOSFET

Mr. Rohit Jha
(Sales, Lighting Division)

BJT(Bipolar Junction Transistor):

- Current-controlled and robust.
- Great for low-frequency, high-current circuits.
- Slower switching, higher switching losses.
- Still useful in analogue and linear applications.

MOSFET(Silicon MOSFET):

- Voltage-controlled, easy to drive.
- Excellent for low- to medium-voltage, high-frequency applications.
- Efficient up to ~200 V.
- Limited by silicon's material properties (higher Rds(on) at high voltage).

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🔹 **IGBT (Insulated Gate Bipolar Transistor):**

- The hybrid: MOSFET control + BJT conduction Ideal for high-voltage (>400 V) and medium-frequency switching.
- Common in inverters, EV drives, and industrial converters.
- Slightly slower than MOSFETs, but more power-efficient at high current.

🔹 **SiC MOSFET (Silicon Carbide):**

- The next generation of power switches.
- Handles high voltage (up to 1.2 kV and beyond) with very low losses.
- Extremely fast switching, enabling smaller passive components.
- High thermal conductivity → less heat, smaller cooling systems.
- Higher cost today, but price is dropping fast.

🔹 **My takeaway:**

- For low voltage & high speed → MOSFET.
- For high voltage & efficiency → IGBT or SiC.
- For cutting-edge performance → SiC MOSFET wins the future.
- As semiconductor materials evolve, SiC and GaN devices are redefining what's possible smaller, faster, cooler and more efficient power systems.

BJT vs MOSFET vs IGBT vs SiC MOSFET

Parameter	BJT	MOSFET (Si)	IGBT	SiC MOSFET
Control Type	Current-controlled	Voltage-controlled	Voltage-controlled	Voltage-controlled
Speed / Switching Frequency	Low (<20 kHz)	High (up to 500 kHz)	Medium (≤50 kHz)	Very High (up to >1 MHz)
Conduction Loss	Moderate (Vce sat)	Low (Rds(on))	Low at high current	Very Low
Switching Loss	High	Low	Moderate–High	Very Low
Voltage Range	<400 V	<200–300 V	400 V – 1.2 kV	600 V – 1.7 kV+
Current Handling	High	Moderate	Very High	Very High
Thermal Performance	Moderate	Moderate	Good	Excellent
Drive Complexity	Requires base current	Simple gate drive	Simple gate drive	Similar to MOSFET
Cost	Very Low	Low	Moderate	High (but decreasing)
Typical Applications	Amplifiers, low-speed control	DC-DC converters, SMPS, motor drivers	Inverters, EV drives, industrial power	High-efficiency converters, EV, aerospace, renewable systems

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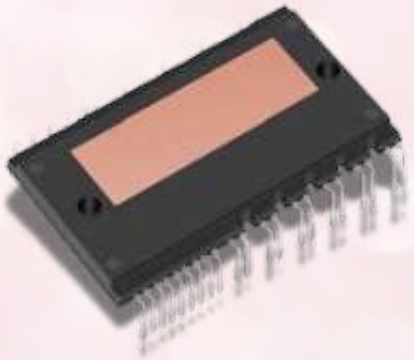
2. INDUSTRY DEMANDS: INTELLIGENT POWER MODULES (IPMS)

Mr. Shivam Jaiswal
(Dy. Manager Sales)

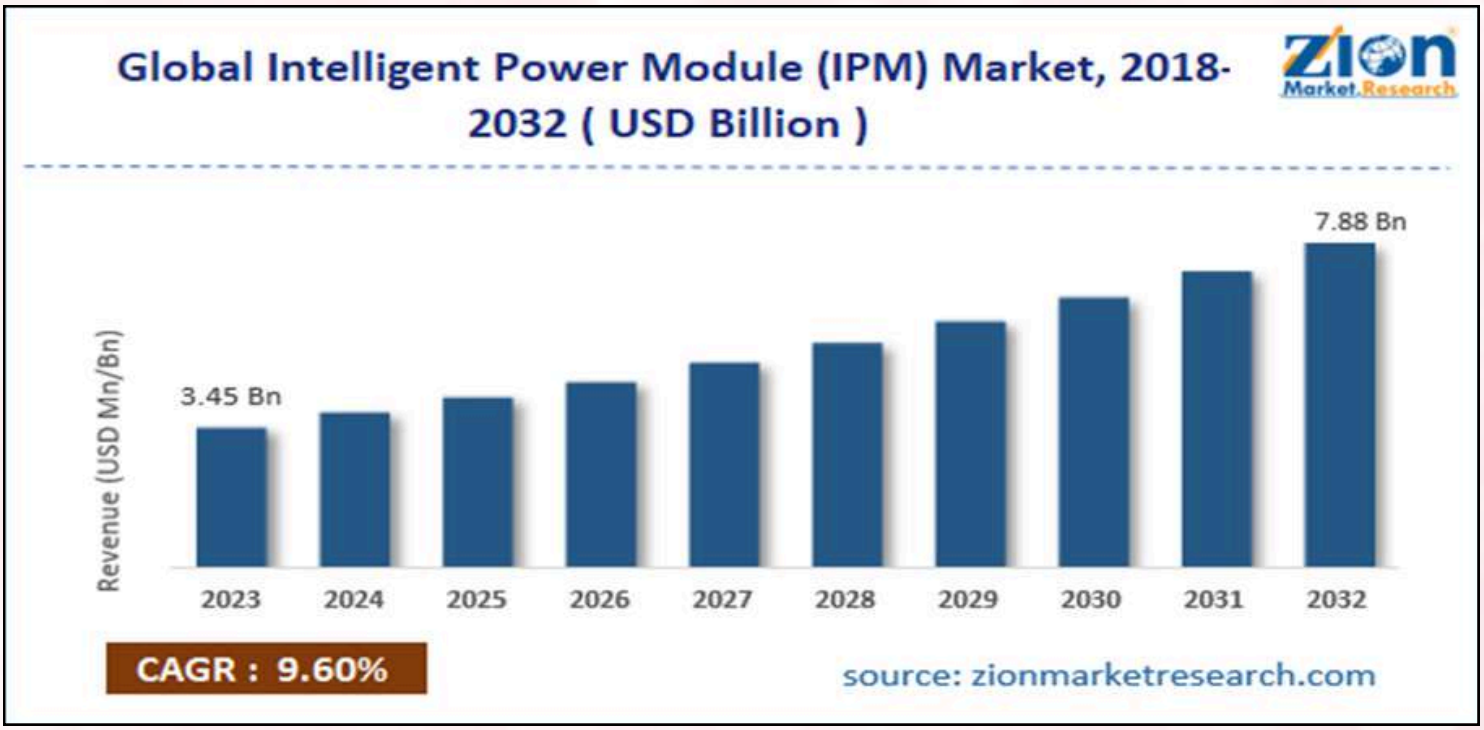
IPM - Intelligent Power Module:



It stands for Intelligent Power Module. An IPM is a module product, based on a 3-phase inverter circuit with a control IC that contains a gate driving circuit and other protection circuits. This product makes it easier to design peripheral circuits than conventional IGBT modules with external driver circuits.

Intelligent Power Module (IPM) Industry Perspective :

The global intelligent power module (IPM) market size was worth around USD 3.45 billion in 2023 and is predicted to grow to around USD 7.88 billion by 2032 with a compound annual growth rate (CAGR) of roughly 9.60% between 2024 and 2032.



Why are industries demanding IPM

Here is a detailed breakdown of why the industry demands IPM:

1. Simplified Design- By integrating multiple components into one package, IPM reduce the need of external drive and protection circuit, making the overall system design simpler and faster.

2. Increase Reliability- The integrated nature and built-in protection features enhance the reliability of the power supply.

3. Cost Reduction- The high level of integration and simplified assembly contribute to lower system costs.

4. Improve Performance- Optimized power stages and control ICs allow for better switching characteristics and improved performance in the driven equipment.

5. Reduce Size & Weight- An integrated package leads to a smaller and more compact power solution.

KEY COMPONENTS AND FUNCTIONS OF IPM:

1. Power Semiconductor Device- These are the core components, typically IGBTs OR MOSFETs, that handle the switching of high power.

2. Gate Drive Circuit- These circuits are integrated within the IPM to properly control the switching of the power device, ensuring their optimal performance.

3. Protection Circuits- A key feature of IPM is the inclusion of a built-in safety feature. Which protects from the following issue:

A. Short Circuit Protection (OCP)
B. Under Voltage Lockout (UVLO)
C. Over Temp. Protection (OTP)

4. Alarm Signals- Many IPMs can output an alarm signal when a fault condition is detected, allowing the system react appropriately.

Common Applications:
IPM are widely used in various power electronics systems, including:

1. Motor Device- Controlling the speed and operation of the motor.

2. Consumer Applications- Driving FANs, Pumps and Compressors in Air Conditioners and refrigerators.

3. Industrial Machinery- Powering equipment in the factory automation and servo systems.

4. Automotive Systems- Driving electric fans & pumps in vehicles.

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3. PROFIT AS A PERCENTAGE OF SALES V/S PROFIT AS A PERCENTAGE OF COST

Mr. Arun Sharma
(Vice President - Operation & Business Development)

1

Profit as a percentage of Cost

For example :
Cost of product = 1100
Add Profit @20% i.e. **220**
Final Selling Cost = 1100 + 220
= **1320**

2

Profit as a percentage of Sales

For example :
Cost of product = 1100
Mark Up Profit @20%
= (1100 / 0.80) – 1100
= 1375-1100
= **275**
Final Selling Cost = 1100 + 275
= **1375**

1. Profit is 1375 – 1320 = **55 more in case-2**

2. Imagine a salesperson who does not know the cost but gives discount 20%.
20% Discount on sales price 1320 in case 1 is – 264
Therefore, the final discounted sales price is 1320 – 264= 1056, which is a loss of 4.

Now consider the same level 20% discount in case 2, where the sales price is 1375. Discount is 275
Final discounted sales price is 1375 – 275 = 1100. There is no loss.

Most calculators give a facility of **MU** (Mark Up) which is nothing but way to get sales price based on case 2.

PROFIT AS A PERCENTAGE OF SALES V/S PROFIT AS A PERCENTAGE OF COST

Profit as a percentage of Cost:

- There is no comparative advantage.
- Needs knowledge of cost necessarily.
- Cost is a complex subject. It involves deep dive into entire gamut if operation, purchasing cost, inbound and /or outbound logistics costs, duties, levies, taxes, stores cost, financing cost, processing cost, packing/repacking cost, warranty management cost, aftersales service cost, marketing/sales cost, personnel cost, communication cost, travel and conveyance cost, sampling cost, business promotion cost etc etc. For Sales team, discount structure on MRP or SRP is enough and simple.

Profit as a percentage of Sales:

- Profitability is higher.
- A percentage-based discount can be given.
- No need to know the absolute profit amount and cost
- Most important is:
  The financial balance sheet is made by taking profit as a percentage of sales. So when the percentage of profit is higher, the absolute value is also higher. Company health in the balance sheet is better.
- In fact, your customer does not know our COST. He compares the sales prices of different suppliers. So, working with discounts is the right approach.

EVENTS AND CONFERENCES

1. New Year Get-Together at Arihant Electricals: Welcoming the Year with Team Spirit

Arihant Electricals began the year on a positive and grateful note, celebrating the unity and dedication of its team members. Moments like these highlight the strong sense of connection, shared purpose, and collective energy that drive us forward. Together, we look ahead to a year of growth, collaboration and many more milestones as one team.

2. DRDO Team Visit at Arihant Electricals

Dr. Suresh Lal, Scientist ‘G’ and Project Director, along with his team from DRDO – CFEES, visited the Arihant Electricals facility on 06 January 2026.

The visit included a review of the ongoing project status and an overview of the company’s infrastructure and support services. Arihant Electricals remains committed to delivering high-quality solutions for critical defence applications.

3. Arihant Electricals at DESCOM 2026 – Driving Dialogue in Defence Electronics

Arihant Electricals actively participated in DESCOM 2026 – Defence Electronics & Secure Communications Conference, a key industry forum uniting policymakers, defence experts, and technology leaders. The event provided a valuable platform to exchange insights on emerging challenges, evolving technologies, and the growing demand for secure, future-ready defence systems. Such engagements help us stay aligned with industry advancements while fostering collaboration, innovation, and long-term ecosystem growth.

4. Arihant Electricals at NCSTC 2026 – Supporting Responsible Strategic Trade

Arihant Electricals participated in the National Conference on Strategic Trade Controls (NCSTC) 2026 at Bharat Mandapam, New Delhi. The conference convened policymakers, government bodies, and industry leaders to discuss India's strategic trade control framework, compliance practices, and emerging technology considerations across defence, aerospace, electronics, and other critical sectors. Our presence reflects our commitment to responsible trade, regulatory alignment, and contributing to secure, future-ready supply chains.

PEOPLE & CULTURE

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At Arihant Electricals, our people are our greatest strength. This month, we celebrated birthdays, welcomed new team members, and fostered a positive workplace culture. Through these moments, we continue to build a collaborative and engaging work environment where everyone thrives!

January Birthday Celebrations

Celebrating our incredible team members and wishing them joy, success and prosperity!

Birthday celebration of Ms. Bani Biswas

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Upcoming February Birthdays

Wishing you joy, success, and a fantastic year ahead!

Virendra Kumar	February 15
Jitendra Singh	February 15
Bittu Kumar Dubey	February 24

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Welcome Aboard! (New Joinees - January 2026)

Excited to have new talents join the Arihant family as we grow together!

Kowshik Gajula
FAE (Bangalore)

Brijpal Singh
VMC Operator

Lavi Kumar
Engineer Production

Prem Pal Singh
Dy. Manager Tool Room

Madhav Prasad Vishwakarma
Asst. Manager Production (HV&E)

Sudip Maity
Sales Engineer

Srinivasan Narayanan
Sales Engineer (Chennai)

Swapnil Parthsarthi
Sales Engineer

MOMENTS OF LAUGHTER & FUN

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The Case of the "Dead" Panel

A newly assembled panel was ready for testing.
But when the team powered it up... nothing happened.
Voltage was checked.
Wiring was rechecked.
Drawings were reviewed.
Everyone looked puzzled.
Finally, one technician leaned in, looked closely, and said,
"Should we... turn the main breaker ON?"
Click.
The panel came to life instantly.
For two seconds, there was silence.
Then the whole group burst out laughing.
Since that day, there's one golden shop-floor rule:

"No power? Check the power... first."

FUN & BRAIN TEASERS CORNER

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Crossword Puzzle

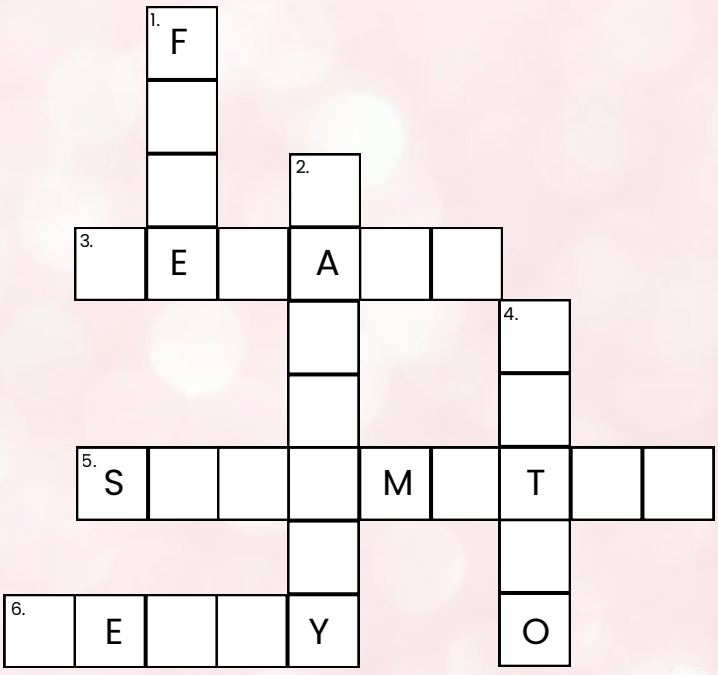
Get ready to kick-start the year with a little thinking and a lot of fun!

This month's **Crossword Puzzle** is designed to challenge your knowledge of electrical systems, engineering basics, and the industries Arihant Electricals proudly serves. Put on your thinking caps, solve the clues, and share your answers with the **HR Head.**

The first three correct entries will be featured in our March edition. Don't miss this chance to test your brain and enjoy some friendly competition!

ACROSS

3. (6 letters)The process of finding and fixing faults in an electrical system.
5. (9 letters) A diagram that shows electrical connections using lines and symbols.
6. (5 letters) Device used to control the flow of electric current in a circuit.



DOWN

1. (4 letters) Device that protects circuits by breaking the flow during overload.
2. (7 letters) A backup power source commonly used in panels and control systems.
4. (5 letters) A moving train system where Arihant supports electrical applications.

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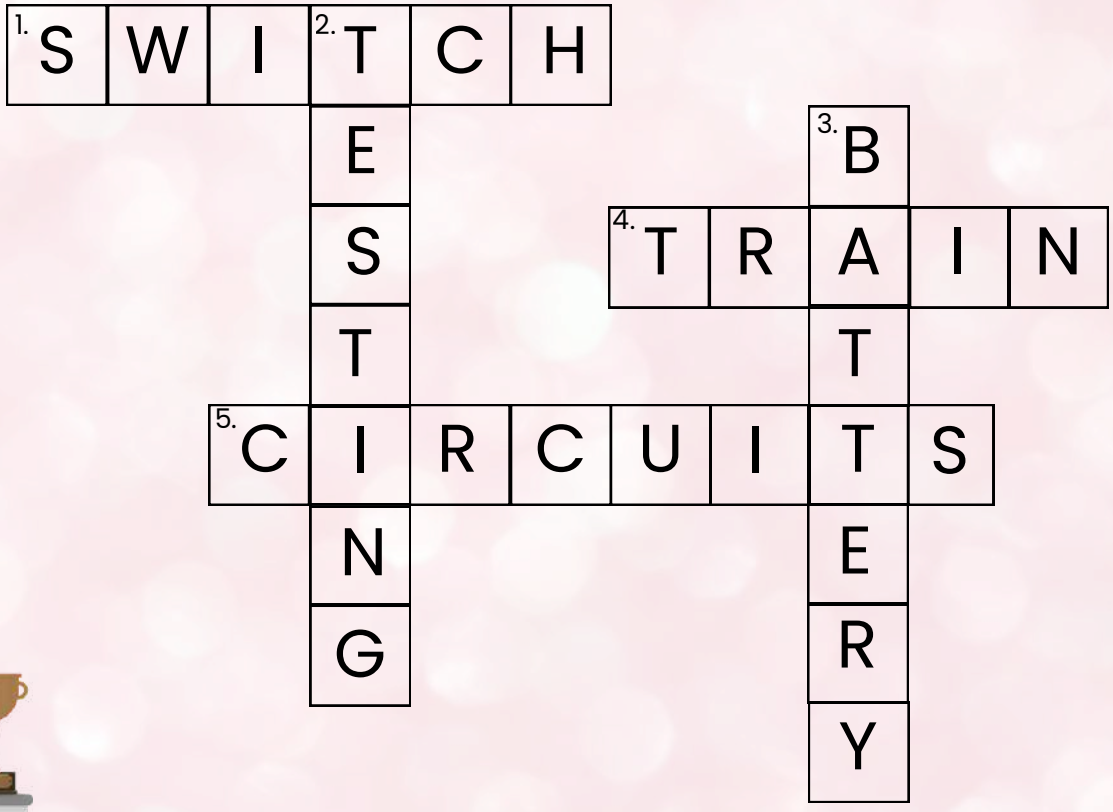
January Crossword Puzzle Winner Announcement

Rohit Jha

Rajendra Jharia

Ashutosh

Puzzle Answers from Our Last Edition



Note: The winners were selected according to the quickest response time.

LITTLE CREATORS' CORNER

Small hands. Big imagination. Unlimited fun!

This corner is for our Employee's Kids **happy playground of colours and ideas**, where anything you imagine can come to life! Just fun, creativity and your own special touch. So grab your crayons or colours and show us your world, the way you see it!

- **Parents can help share the artwork with the HR team.**
- **Some super-cool creations will be featured in the next Arihant Newsletter!**

Ready… Set…Create!

Colour & Create: The Super Power Panel Robot

Kids are invited to colour their very own **Super Power Panel Robot -** a friendly robot built from switches, panels, wires, and lights!

They can get creative by adding colours to buttons, glowing indicators, cables, wheels, or even giving the robot a name badge. Maybe it's on its way to power a train, help a control room, or save the day at a big project site!

Let imagination spark and creativity flow

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CHILD NAME & AGE

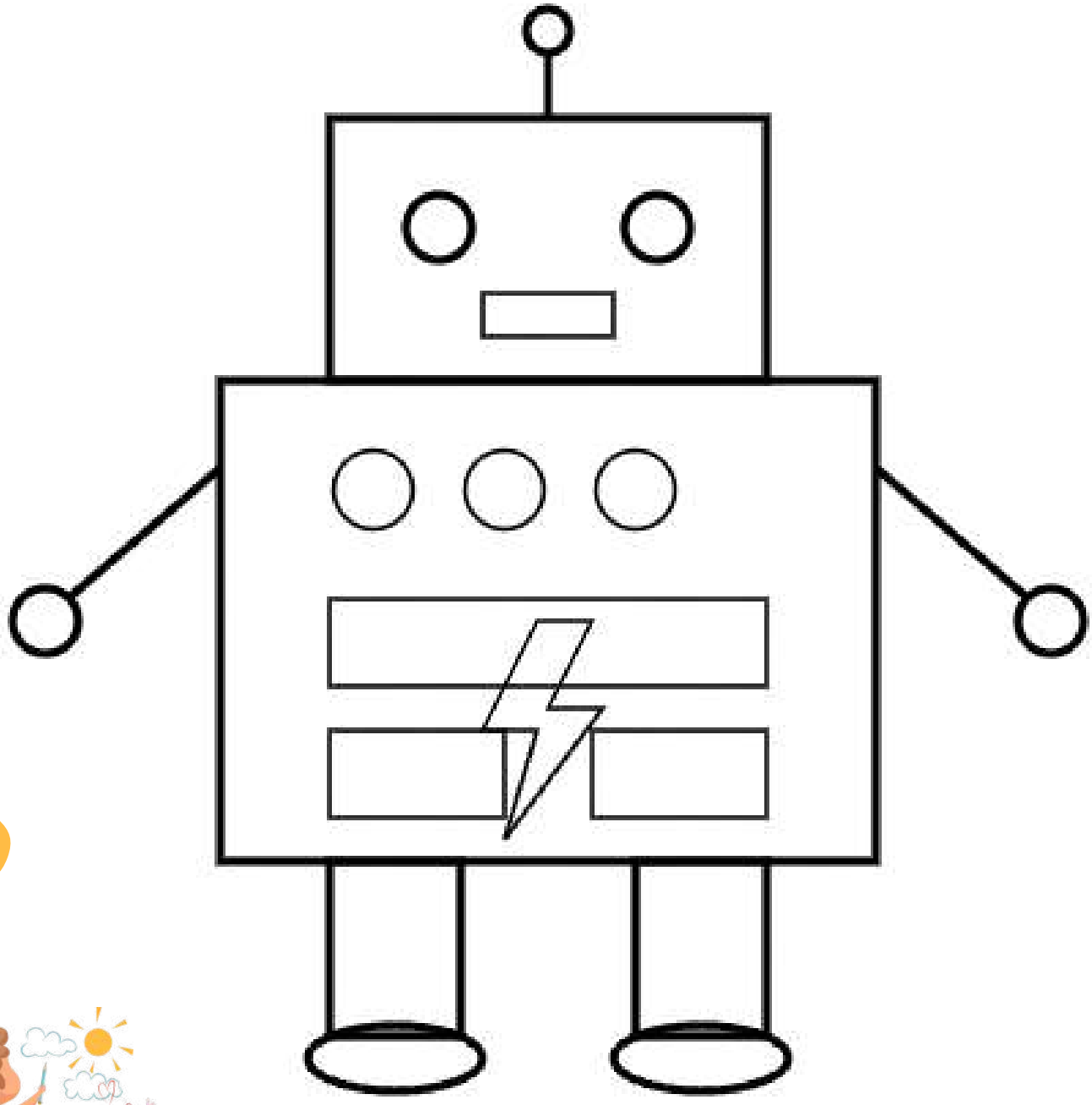
_____

EMPLOYEE NAME

_____

DEPARTMENT

_____



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Guess the Object!

Can you crack the clues? Put on your thinking cap and guess what these objects are!

1. **I go round and round very fast, I keep you cool when the heat won't pass. On the ceiling or on a stand, I blow air all across the land!**
   (Hint: You switch me on in summer.)

2. **I help you see when it is night, with just one click, I give you light. On desks, walls, or by your bed, I glow in white or yellow instead.**
   (Hint: You turn me on when it gets dark.)

3. **You plug me in to charge your phone, without me, your battery's gone! I sit on walls with little holes, giving power is my role.**
   (Hint: Your charger goes into me.)

4. **I have buttons, numbers too, I change the channel just for you. From far away, I help you choose what you would like to watch for the news.**
   (Hint: You use me while sitting on the sofa.)

5. **Food stays fresh when I am near. I keep things cold throughout the year. Open my door - brrr, cold air! Milk and fruits are happy there.**
   (Hint: I am in the kitchen and I hum softly.)

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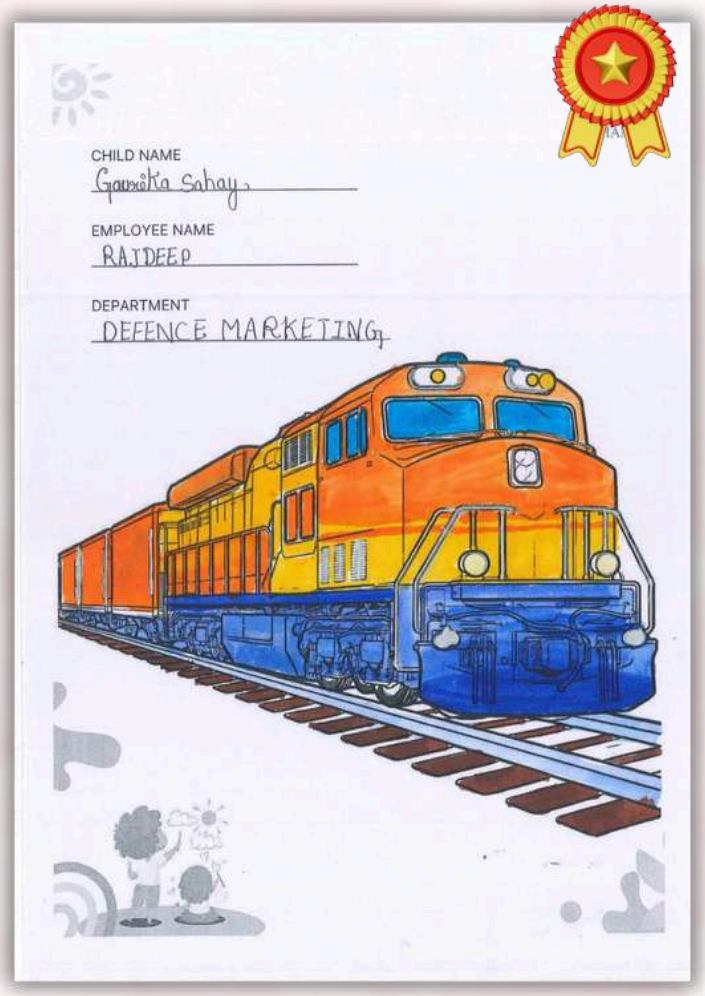
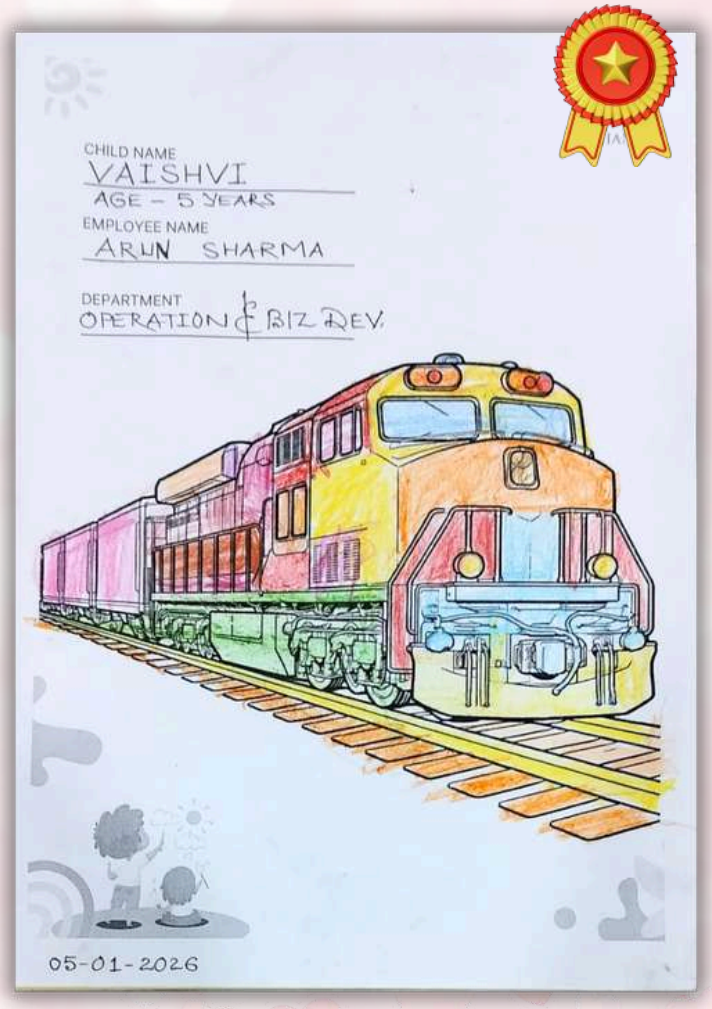
Showcasing Our Employee's Young Stars





January Guess the Object Winner Announcement

Ashutosh

Imran Khan

Guess the Object Answers from Our Last Edition

Can you guess what these are? Read the hints carefully and write down your answers!

1. **I have hands but no fingers. I tell you the time, I hang on a wall or sit on a table. What am I?**
   Answer: Clock

2. **I'm used to measuring how far or how tall something is. I have numbers along my edge. What am I?**
   Answer: Ruler

3. **I'm invisible, but you can feel me. I move clouds, fly kites, and make leaves dance. What am I?**
   Answer: Wind

4. **I have teeth, but I don't eat. I hold things together and can be opened and closed. What am I?**
   Answer: Zipper

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