

### **ASSOCIATION OF ECE**

# ECE TIMES

December 29,2021

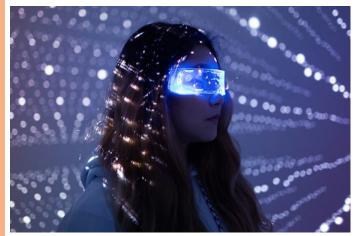
## **Motivational story**



### **SACHIN BANSAL**

Sachin Bansal an Indian entrepreneur bestknown as the co-founder of Flipkart was born on August 5, 1981 in Chandigarh. Being a scholar who always scored well, Sachin was a propitious student. He worked very hard for JEE preparation and went on to stand 49 in All India JEE rankings. Later, he got into Indian Institute of Technology, Delhi. where he graduated and became a software engineer. After completing his graduation Sachin started working for Techspan Company. Bansal served there for few months until he got an opportunity to work at Amazon India as a Senior Software Engineer. At Amazon, he learnt the dynamics of e-commerce. Later, his friend Binny Bansal also started working in the same team. Within the timespan of around 6 months, both of them decided to quit their job to discover the possibilities of e-commerce in India. Initially The plan was to create an online bookstore tailored to the unique needs of the Indian consumer. "In the beginning it was a two-man show. We did everything ourselves," says Sachin Bansal, Both spent half the year in 2007 writing codes for the site. The duo launched the website sitting in their two bedroom apartment in Koramangala. For 10 days, the site did not see even a single sale until a customer from Andhra Pradesh placed the first order for the book, 'Leaving Microsoft. to Change the World' by John Wood.

# Facebook is planning to hire 10,000 people in the European Union to develop a so-called metaverse



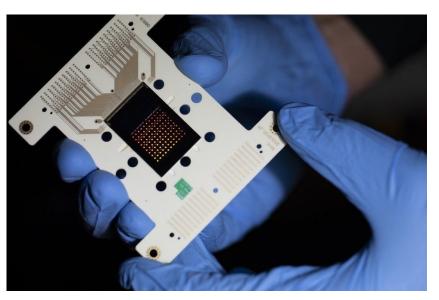
Facebook CEO Mark Zuckerberg has been a leading voice on the concept. The announcement comes as Facebook deals with the fallout of a damaging scandal and faces increased calls for regulation to curb its influence. Investing in the EU offered many advantages, including access to a large consumer market, first-class universities and high-quality talent, Facebook said.

Facebook has made building the metaverse one of its big priorities. Despite its history of buying up rivals, Facebook claims the metaverse "won't be built overnight by a single company" and has promised to collaborate. It recently invested \$50m (£36.3m) in funding non-profit groups to help "build the metaverse responsibly". But it thinks the true metaverse idea will take another 10 to 15 years.

- VIKRAM S

#### Scientists made a major step forward in efforts to store information as molecules of DNA, compact and longlasting than other options.

The magnetic hard drives we currently use to store computer data can take up lots of space. And they have to be replaced over time. Using life's preferred storage medium to back up our precious data would allow vast amounts of information to be archived in tiny molecules. The data would also last thousands of years, according to



In the early days, Sachin and Binny used to deliver books on their own scooters. There was a dearth of money earlier but Sachin never fell short of passion. Moreover, he believed that Internet shopping has a greatscope in India and deserved to be better. The Flipkart founder worked extremely hard and showed great marketing acumen in the early stage which turned Flipkart as one of the richest ecommerce companies. With his aspiring story and lessons, Sanjay Bansal is truly a role model for upcoming entrepreneurs.

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scientists. A team in Atlanta, US, has now developed a chip that they say could improve on existing Scientists made a major step forward in efforts to store information as molecules of DNA, compact and long-lasting than other options.forms of DNA storage by a factor of 100. "The density of features on our new chip is [approximately] 100x higher than current

commercial devices," Nicholas Guise, senior research scientist at Georgia Tech Research Institute (GTRI). DNA storage has a higher error rate than conventional hard drive storage. In collaboration with the University of Washington, GTRI researchers have come up with a way of identifying and correcting those errors.

- VIKRAM S

#### Navitas Announces First-Time Availability of GaN power ICs for Data Center, Solar and Electric Vehicle



Navitas GaNFast<sup>™</sup> ICs were first introduced to mobile customers three years ago . Now, for the first time, this GaN power IC technology – the only GaN semiconductor platform to monolithically integrate drive, control, protection and power – is available to applications that operate in the 2kW to 20kW power range, which includes data centers, solar inverters and electric vehicle power electronics. This development is foundational in

the upgrade from legacy silicon to next-generation GaN semiconductors to "Electrify Our World" and transition from fossil fuels to clean electric applications, and impact up to 2.6Gtons/year of CO2 emissions by 2050.

- Sakthivel P S

- Sailendra

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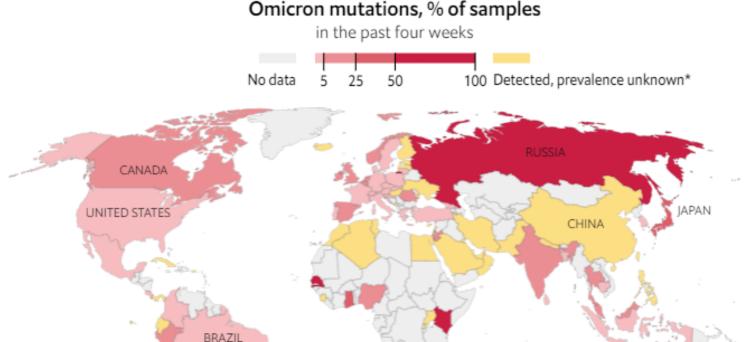


# Four Tesla EV models allowed for registration

Now the four models which can be sold by Tesla India Motors and Energy and can be registered by the state transport departments are — Model 3 Performance, Model 3 Long Range, Model 3 Standard Range Plus and Model Y Standard Range. These electric cars cost between Rs 50 lakh and Rs 60 lakh. Sources said the American car major received the approval for registration of these models last month from the Central Institute of Road Transport (CIRT). This was done after verifying the compliance documents submitted by the company to the testing agency and officials said the process doesn't require any "testing" of the vehicle in line with accepted international norms. The goahead comes for Tesla as it prepares to open its first dealership in India and start selling vehicles by this year-end. The government in September 2018 had laid down the procedure for registration of vehicles imported by a manufacturer or its authorised representative in India. It specified that if any manufacturer or its representative imports up to 2,500 units of unused cars in completely built units (CBU) or completely knocked down units (CKD) annually and if they are compliant with the international standards, namely EEC or ECE or Japanese, these will be allowed for registration in India.

- SAILENDRA

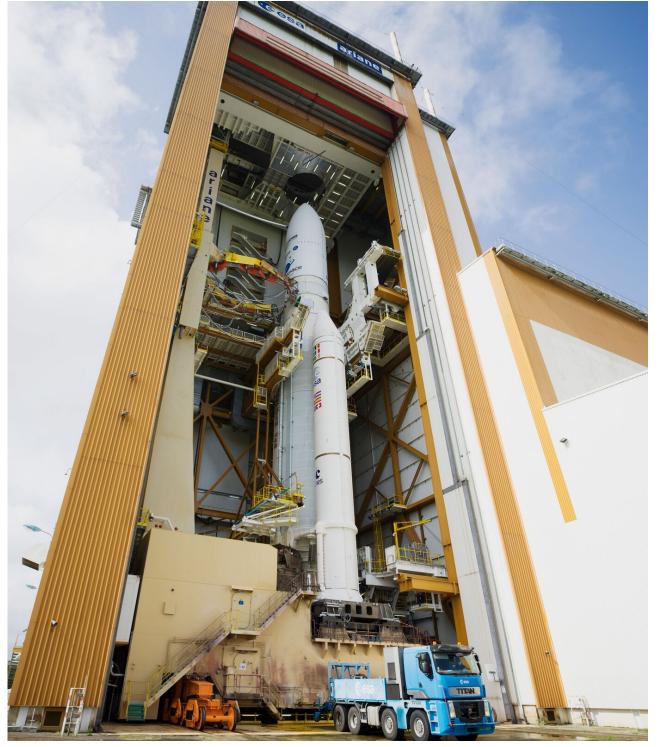
# Omicron Latest: Cases of the new variant are less severe than the Delta one, new studies say



AS THE OMICRON wave of covid-19 washes over Europe and America, it is only a matter of time before the variant breaks over the rest of the world. First spied in South Africa, Omicron had been detected in 106 countries, and counting, by December 22nd. The hope this time around, however, is that layers of immunity from past infections and vaccines—layers which now exist, in some combination, in every country on Earth—will make serious Omicron infections a lot less common than serious infections of other variants were. Researchers from Imperial College London found that people recorded as infected with the variant are about 15-20% less likely to seek hospital care and 40% less likely to be admitted for a night or longer than those with Delta. They had shorter hospital stays, too.

S. AFRICA

#### - VIKRAM S



# At long last, the world's most powerful space telescope is ready to launch

For the world's most advanced space telescope, and the thousands of people who've worked on it over the decades, the starting gun is about to fire. After more than a quarter-century of planning, designing, building, waiting—and of obsessively testing the most complex space observatory ever assembled the mammoth James Webb Space Telescope is scheduled to launch at 7:20 a.m. eastern time on December 25. Whether that launch represents a year-end gift to science or a catastrophic conclusion to 2021 depends on two things: a safe rocket ride into the sky, and the weeks immediately afterward. For JWST's mission to succeed, the telescope must execute an intricate series of carefully choreographed maneuvers during its first month in space. Even a single misstep could compromise the entire mission. And the telescope must perform its devilishly difficult dance far beyond the reach of human hands, hurtling toward a point in space a million miles away. "This is a high-risk and a very high-payoff program," NASA deputy administrator Pam Melroy said during a call with reporters on December 21. "There are a lot of hard, long weeks ahead, where the telescope has to deploy perfectly."

- VIKRAM S

# Intel's next-generation 7nm chips delayed until 2022

The company said it was exploring "contingency plans" such as having third-party manufacturers produce some of its products. In June, Apple said it would transition its Mac computers away from Intel processors and design its own chips. One expert said Intel risked leaving a gap for competitors to step into. Intel said it had identified a "defect" in its manufacturing process that led to the new delay.

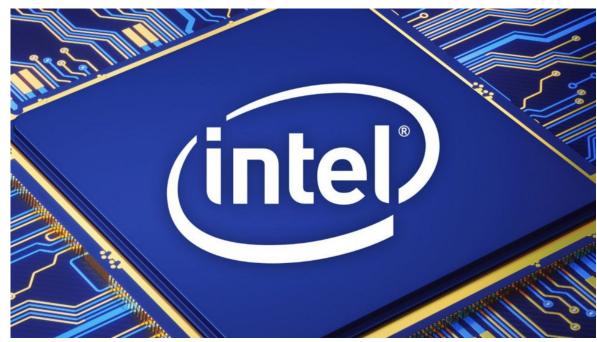
#### What is a next-generation chip?

Chip-makers try to miniaturise their technology and processes so that they can pack more transistors on to a single silicon chip. Doing so typically creates faster processors which are more energyefficient. This can give smartphones and laptops a longer battery life, and reduce energy consumption by data centres. Intel's current-generation chips are described as 10nm (nanometre) chips, and its next-generation will be 7nm chips. These numbers used to be a measure of the tiny spaces in between

transistors on a chip, but today they are simply marketing terms.

For most of human history, China was the world's most advanced technological power. The blast furnace originated there, and thus so, too, did cast iron. Other breakthroughs included porcelain and paper. Its gunpowder propelled the first military rockets farther than javelin or arrow could fly; its compasses magically revealed magnetic north when the stars were hidden.

Only in the Middle Ages did Europe begin to match Chinese ingenuity and capacity in these fields, doing so largely through imitation. Only with the growth of European mechanical industries and overseas empires in the 18th century did the Westerners become its rivals. In the centuries that followed, hampered by its own stifling education system, China was defeated in the opium wars, then suffered terrible civil unrest and a disastrous revolution that reduced the country to a technological bystander and "Made in China" to a byword for gimcrackery. – VIKRAM S



Intel says the production of its nextgeneration chips will be set back until 2022, following years of delays getting its current-generation chips on sale.

# With the state's help, Chinese technology is booming



# Scientists have announced the discovery of a perfectly preserved dinosaur embryo that was preparing to hatch from its egg, just like a chicken.

- VIKRAM S

The embryo was discovered in Ganzhou in southern China and researchers estimate it is at least 66 million years old. It is believed to be a toothless theropod dinosaur, or oviraptorosaur, and has been named Baby Yingliang. Researcher Dr Fion Waisum Ma said it is "the best dinosaur embryo ever found in history". The discovery has also given researchers a greater understanding of the link between dinosaurs and modern birds. The fossil shows the embryo was in a curled position known as "tucking", which is a behaviour seen in birds shortly before they hatch. Paleontologist Prof Steve Brusatte who was also part of the research team, tweeted that it was "one of the most stunning dinosaur fossils" he had ever seen, and that the embryo was on the brink of hatching. Baby Yingliang measures 10.6in (27cm) long from head to tail, and rests inside a 6.7 inch-long egg at the Yingliang Stone Nature History Museum in China. The egg was first uncovered in 2000, but put into storage for 10 years. It was only when construction work began on the museum and old fossils were being sorted through that researchers turned their attention to the egg, which they suspected was holding an embryo inside. Part of the dinosaur's body is still covered by rock and researchers will use advanced scanning techniques to create an image of its full skeleton.



- Sethu Aravinth s

### **STUDENTS CORNER**

# LC Recognition 2021-2022



MS. SAKTHIPRIYANKA V P PRESIDENT



MR. PRASANTH A INNOVATION PRESIDENT



MS. MONI SREE H SOCIAL PRESIDENT



MR. MUKUNDAN K K ARTS PRESIDENT

# **DA Activities**

### **Beginner to Pro** Date : September 12 Day : Sunday **Platform: MS teams Organizer: Linganiveth** Tech Trendz Take up Date : September 26 Day : Sunday **Platform: MS Teams** Organizer: Pratigya , Tharun Raj G **Brawls of Brains** Date : October 2 Day : Saturday **Platform: MS Teams** Organizer - Hariprasanna A K Webinar on Beyond Engineering Date : December 5 Day : Sunday **Platform: MS Teams**



MR. BALAKUMAR K FITNESS PRESIDENT



MS. ABIRAMI R WOMEN PRESIDENT



MS. DHITCHANA K R ETHICS PRESIDENT

Organiser: Dhiksha Mohan **Pro-abECEdarians** Date: December 12 Day: Sunday **Platform: MS Teams** Organizer: Yalini P, Tharun Raj G **Elevate ECE** Date: December 15 Day: Tuesday Organizer: Rashmi S, Ranjith V We Zone Date : December 21-23 Day : Tuesday – Thursday Venue: Civil Department Hall **Organiser : Dhaneshwar E ECE Times** Date : December 29 Day: Wednesday Cheif Editors – VIKRAM S Sharan K

### **INVESTIGATION TIME**



## **Real Creator**



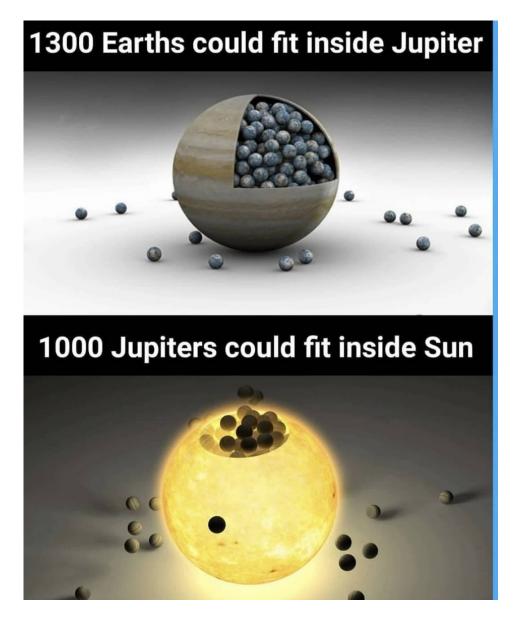
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MYTH

Everyone believes that Nicolas Tesla invented Ac current. Actually Tesla promoting and perfecting AC in his life time.

- VIKRAM S

### **Facts**



#### **ROBBERY ON BOARD**

A Japanese ship was leaving the port and on its way to open sea. The captain went to go oil some parts of the ship and took his ring off so it wouldn't get damaged. He left it on the table next to his bunk. When he returned, it was missing. He had suspected three crew members could be guilty and asked them what they had been doing for the ten minutes that he had been gone.

The cook said, "I was in the kitchen preparing tonight's dinner."

The engineer said, "I was working in the engine

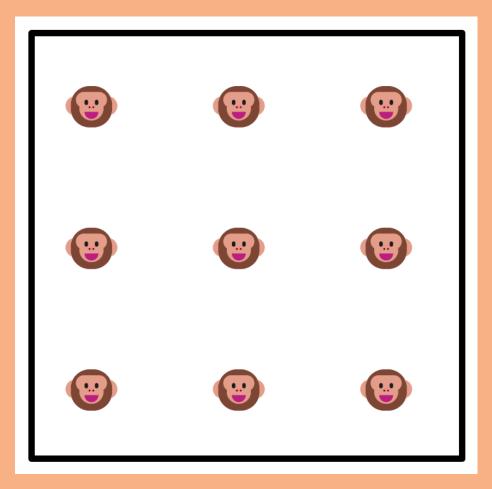
room making sure everything was running smoothly."

The seaman said, "I was on the mast correcting the flag because someone had attached it upside down by mistake."

The captain immediately knew who it was. How?

Click here to answer

- SHARAN K



#### LOGICAL THINKING

There are 9 monkeys placed in a square fence. They are really naughty and playful. So, it's decided to separate all of them. Here's the thing. You are asked to create fencing inside the squared area. You can create the separation provided that you make it with 2 squares. (Imagine you had this on a piece of paper. Draw only two squares to separate all of them).

**Click here to Answer** 

- VIKRAM S

- SHARAN K

#### **SPORTS AND BUSINESS CORNER**

#### Asian Champions Trophy: India beat Pakistan 4-3 in thriller to win bronze

After being stunned by Japan 3-5 in the semifinal on Tuesday, much was expected from India against Pakistan. They pressed hard and created numerous chances, including 11 penalty corners, out of which they made use of just two. The Indian team took the lead in the very first minute through vice-captain Harmanpreet Singh before Sumit (45th), Varun Kumar (53rd) and Akashdeep Singh (57th) struck a goal each. Pakistan's goals were scored by Afraz (10th), Abdul Rana (33rd) and Ahmed Nadeem (57th).



- VIKRAM S

#### IPL mega auction likely to be held in Bengaluru on Feb 7 and 8

The BCCI is planning to hold the two-day mega auction in India. The two-day event will be held on February 7 and 8 and like other years, we plan to hold it in Bengaluru. Preparations are underway, "a senior BCCI official told PTI on conditions of anonymity. There were reports that the auction will be held in the UAE but as of now, BCCI has no such plans. However with the emergence of the **Omicron** variant of COVID-19 and cases on the rise, the situation will remain fluid but if there are restrictions with regards to overseas travel (unless all owners decide to use charter plans), conducting it in India will be less of a logistical nightmare. This year's IPL will be a 10-team affair with **Sanjiv Goenka** owned Lucknow franchise along with venture captured firm CVC owned Ahmedabad making their debut in the cash rich league.



- VIKRAM S

## Five Common Causes of Business Failure



Failure won't be at the front of many business owners' minds when they launch a company. In this article, management accountant Kirsty Fitzgerald outlines the five bad practices to avoid if you wish to give your business a fighting chance of success.

#### **1. Poor cash flow management**

You may be sick of being told "cash is king", but it doesn't change the fact that poor cash flow management can lead to the demise of any business. High stock levels, bad debt and late invoicing. Inadequate financing – or selecting the wrong type of funding for your business – can also put it on the path to failure. Without access to sufficient growth capital, whether in the form of personal savings, private equity or debt finance, your business may not have the "fuel" it needs to grow.

#### 2. Losing control of the finances

Any business owner needs to be aware of their financials and cash position at any given time. The accurate forecasting of income and costs may lead to a few surprises, but it will ultimately help support your cash flow. Business owners should also understand and control their cost, acknowledging risks and opportunities.

#### 3. Bad planning and a lack of strategy

"Failing to plan is planning to fail" – cheesy but true. Quite simply, long-term planning is key to the success of any business. When mapping out the growth of their business, a business owner needs to conduct market research to establish who their customers are and what they need. They also need to recognise their competitors and be proactive regarding trends, to avoid getting left behind. Just look at the numerous bricksand-mortar retailers that didn't adapt quickly enough to changing customer shopping habits and are now struggling or have gone under as a result.

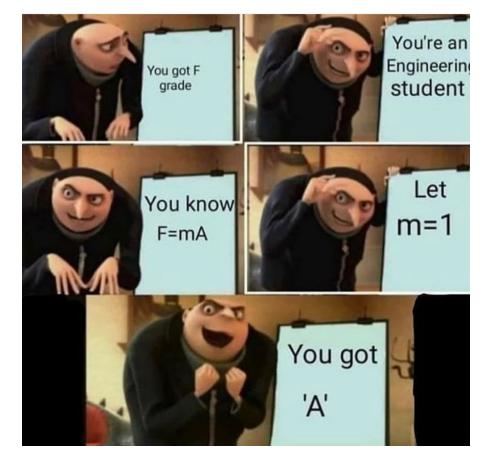
#### 4. Weak leadership

A good leader recognises the skills they lack or the jobs they do not have time for and either employs, outsources or seeks professional advice to fill those gaps. They will also communicate, direct, reward and offer the opportunity for personal growth to their employees, creating a happy, effective and loyal team. Poor leadership, on the other hand, leads to demotivated and ineffective teams, which can easily cripple a business.

#### 5. Over depend on a few big customer

An overdependence on a few big customers could easily lead to business failure if one of them suddenly pulls out – both cash flow and profit will ultimately be hit. The temptation could then be to offer discounts to that customers.

#### MEME



**EVENTS** 

1. International Conference on Computer Networks and Inventive Communication Technologies ICCNCT 2022, RVS Technical Campus, International Conference, Coimbatore, Tamil Nadu, 1st -2nd April 2022

**Category: International Conference** Start Date: 1st April 2022

2. International Conference on Artificial Intelligence and Smart Systems (ICAIS 2022) 2021, JCT College of Engineering and Technology, International Conference, Coimbatore, Tamil Nadu, 23rd - 25th February 2022 Category: International ConferenceStart Date: 23rd February 2022 End Date: 25th February 2022

#### **GENERAL APTITUDE**

1.If a KCT student starts running from Hostel and reaches Kore in 12 seconds. He travels 1/4th of the distance at 5m/s and the remaining distance at 7m/s. Then what will be the distance between Hostel and kore?

a) 65.13 m	c) 76.36 m
b) 82.55 m	d) 90.03 m

2.Assume that you are standing at a place on earth. You walk 1 mile South, 1 mile West and 1 mile North and you end up at the same position where you had started. How many places or points can there be on earth which satisfies this condition?

a) 1	c) infinite
b) 2	d) can't determine

3. A fruit seller had some apples. He sells 40% apples and still had 420 apples. Originally, how many apples did he have?

- a) 600 apples
- b) 580 apples
- c) 700 apples
- d) 867 apples

3. 2nd International Conference on Recent Trends in Engineering Technology and Management ICRETM 2022, Christ Engineering College, International Conference, King The Coimbatore, Tamil Nadu, 1st - 2nd April 2022 **Category: International Conference** Start Date: 1st April 2022 End Date: 2nd April 2022

- Ragul D

- Ragul D

#### **JOB OPPORTUNITIES IN ECE**

ECE provides an ocean of career opportunities such as

- Circuit Design Wireless communication Telecommunications Robotics Consumer Electronics VLSI • Power Electronics Defense Nanotechnology **Embedded Systems Digital Electronics** • Solid state • Signal Processing **Optical Communication Control Systems**
- Analog Electronics
- Networking

Some of the companies (both private and government) offering job opportunities are :

BEL, ECIL, Philips, Robert Bosch, Idea, Alcatel Lucent, Intel, Nvidia, Texas Instruments, Lg, AMD, ARM, Qualcomm, Indian Navy, Railways, ISRO, IAF, BSNL, HP, BHEL, NTPC, Samsung Cisco

- Sakthivel P

4.Two students appeared at examination. One of them secured 9 marks more than the other and his marks was 56% of the sum of their marks. The marks obtained by them

a) 39, 30 b) 41, 32 c) 42, 33 d) 43, 34

> 5.An agricultural land of 12 hectares requires 1.5 pounds of fertilizers, how much required for 15 hectares of land?

a) 2 pounds b) 2.245 pound C) 1.435 pound d) 1.875 pound

