



## TECH - SAVVY

Mar-May, 2015

### THE NEWS LETTER

Department of Computer Science & Engineering

The Department of Computer Science & Engineering was established in the year 2001. It has intake capacity of 120 students. All the laboratories are well established with state of the art equipment. The department has highly qualified and experienced faculty and technical staff. An innovative teaching and learning process is implemented in imparting quality education to the students which includes conduct of workshops, seminars, industrial tours, expert lectures and various extracurricular activities.



#### **PROF. (DR.) N. SUBHASH CHANDRA**

**Principal**

To my mind an Educational Institute is not just about four walls with bricks, mortar and concrete, but about building characters, enriching minds and developing confidence towards above motivation. Every effort is pursued to identify the functional gaps between Holy Mary Institute of Technology & Science and the Premier Institutions of the country like IITs and NITs so as to narrow the caps as soon as possible.



#### **PROF. G. CHARLES BABU**

**HOD-CSE**

It gives me immense pleasure to lead the department of Computer Science & Engineering. The aim of the department is to provide high quality education along with training the students with all the new advancements in the computers field. I congratulate the team of faculty members and the students for their brilliant and original efforts. I wish all the students and faculty a great academic career.

### EDITORIAL BOARD

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### *From the Editorial Board*

Brian Drain refers the situation when highly qualified and trained people leave a country to permanently settle in some other country. It is also referred to as Human capital flight. Highly educated professional people immigrate to other advanced countries for better opportunities and a comfortable life style. The problem of Brain-drain, in our age, has become very elusive. The developing countries like India are desperately in need of talents, especially in the field of science and technology but for one reason or the other the talents and fleeing their countries, leaving their native lands impoverished in the process. Brain Drain is an extremely serious problem for a developing countries. The destiny of such countries lies in the solution to this great problem. India can be taken as an instance in point. After independence this country is engaged in difficult struggle against poverty. But struggles cannot be launched in papers; they require armies of trained personnel – the scientists, technical knowhow and specialists in the field of planned development. If, instead of contributing to the prosperity of India, the Indian scientists, research scholars, engineers, doctors and economists immigrate to other countries, it is difficult to see how India can implement her development plans and attain her goal of prosperity. In ancient times the scholars of one country visited neighboring countries, and they often stayed there for years, both learning and teaching. The great scholars of China and Persia and other scholars from the West visited India during her prosperous days in the past and wrote memoirs which are precious materials for Indian history. But these were not considered brain drain then. On the contrary, their experiences and wisdom gained from their visits enriched their countries. Such exchanges benefited the countries in those days and built a bridge of understanding and amity when communication between even the neighbors was not easy.

## Department of Computer Science & Engineering

### Android App Of 2013



#### PRODUCTIVITY CAL

To-do list startup Any.DO spun out a brand new smart calendar app called Cal this year, representing the “first in a suite” of standalone apps from the Israel-based company. More to come from them soon, we expect.

It’s worth noting that although it is indeed a ‘standalone’ app, insofar as it’s a separate entity to Any.DO, there is actually a fairly tight integration between the two apps – so you will be asked to sign-in using your Any. DO credentials.

Cal syncs with all the major calendars, including Google and Exchange, but it’s when you start adding items to your calendar where things get interesting. It asks to use your current location, so it can deliver additional details for each entry. For example, if you enter a location name such as ‘Concert at Finsbury Park’, Cal detects it. It will even plot it out on a map for you and offer to help you navigate your way to any event.

## Android App



#### Buy Me a Pie

After seeing success on the iPhone, Buy Me a Pie finally arrived for Android in August, delivering a sweet way of creating shopping lists. These lists can be shared via SMS, email or via other apps installed on a device.

It has a cloud synchronization feature, so if you’re an iOS and Android user, you can sync lists between accounts and devices.

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## Article on Spyware

**Spyware** is software that aims to gather information about a person or organization without their knowledge, that may send such information to another entity without the consumer's consent, or that asserts control over a device without the consumer's knowledge. "Spyware" is mostly classified into four types: adware, system monitors, tracking cookies, and trojans examples of other notorious types include digital rights management capabilities that "phone home", keyloggers, rootkits, and web beacons.

Spyware is mostly used for the purposes of tracking and storing Internet users' movements on the Web and serving up pop-up ads to Internet users. Whenever spyware is used for malicious purposes, its presence is typically hidden from the user and can be difficult to detect. Some spyware, such as keyloggers, may be installed by the owner of a shared, corporate, or public computer intentionally in order to monitor users.

While the term *spyware* suggests software that monitors a user's computing, the functions of spyware can extend beyond simple monitoring. Spyware can collect almost any type of data, including personal information like internet surfing habits, user logins, and bank or credit account information. Spyware can also interfere with a user's control of a computer by installing additional software or redirecting web browsers. Some spyware can change computer settings, which can result in slow Internet connection speeds, un-authorized changes in browser settings, or changes to software settings. Sometimes, spyware is included along with genuine software, and may come from a malicious website or may have been added to the intentional functionality of genuine software (see the paragraph about Facebook, below). In response to the emergence of spyware, a small industry has sprung up dealing in anti-spyware software. Running anti-spyware software has become a widely recognized element of computer security practices, especially for computers running Microsoft Windows. A number of jurisdictions have passed anti-spyware laws, which usually target any software that is surreptitiously installed to control a user's computer.

## Article on Encryption



When we use the Internet, we're not always just clicking around and passively taking in information, such as reading news articles or blog posts -- a great deal of our time online involves sending others our own information. Ordering something over the Internet, whether it's a book, a CD or anything else from an online vendor, or signing up for an online account, requires entering in a good deal of sensitive personal information. A typical transaction might include not only our names, e-mail addresses and physical address and phone number, but also passwords and personal identification numbers (PINs).

The incredible growth of the Internet has excited businesses and consumers alike with its promise of changing the way we live and work. It's extremely easy to buy and sell goods all over the world while sitting in front of a laptop. But security is a major concern on the Internet, especially when you're using it to send sensitive information between parties. Information security is provided on computers and over the Internet by a variety of methods.

A simple but straightforward security method is to only keep sensitive information on removable storage media like portable flash memory drives or external hard drives. But the most popular forms of security all rely on **encryption**, the process of encoding information in such a way that only the person (or computer) with the **key** can decode it

## Technical Corner

### 1. Red and Blue Balls in a Bag

You have 20 Blue balls and 10 Red balls in a bag. You put your hand in the bag and take off two at a time. If they're of the same color, you add a Blue ball to the bag. If they're of different colors, you add a Red ball to the bag. What will be the color of the last ball left in the bag?

### 2. Handshake Puzzle

At a party, everyone shook hands with everybody else. There were 66 handshakes. How many people were at the party? Some basic ground rules : you don't shake hands with yourself & you only shake hands once with another person.

### 3. 10 Coins Puzzle

You are blindfolded and 10 coins are placed in front of you on a table. You are allowed to touch the coins, but can't tell which way up they are by feel. You are told that there are 5 coins head up, and 5 coins tails up but not which ones are which. How do you make two piles of coins each with the same number of heads up? You can flip the coins any number of times.

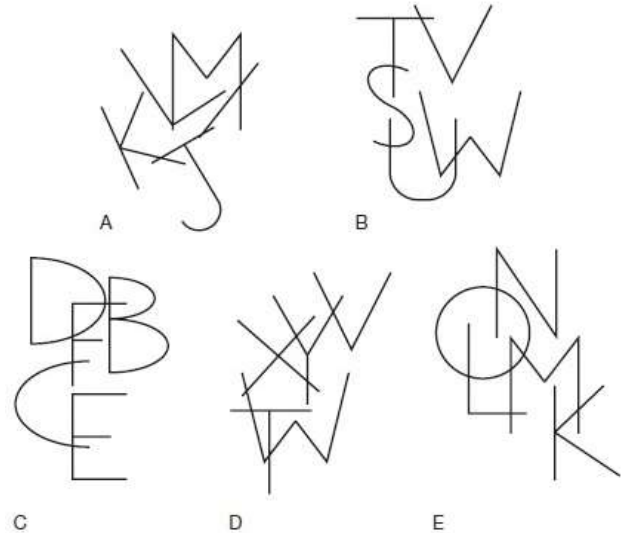
### 4. River Crossing Puzzle

Sailor Cat needs to bring a wolf, a goat, and a cabbage across the river. The boat is tiny and can only carry one passenger at a time. If he leaves the wolf and the goat alone together, the wolf will eat the goat. If he leaves the goat and the cabbage alone together, the goat will eat the cabbage.

How can he bring all three safely across the river?

## Logic Puzzles

### Which is the odd one out?

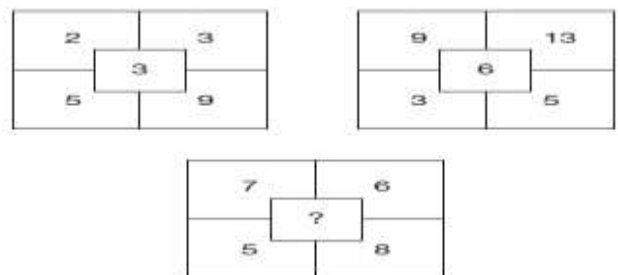


**Ans:** D.

**Sol.**

It contains the letters T V W X Y, which omits the letter U. The rest contain five consecutive letters of the alphabet.

### What number should replace the question mark?



**Ans:** 26.

**Sol.**

$$(7 \times 8) - (5 \times 6) = 56 - 30 = 26$$



## Vision

To produce technically competent and qualified professionals with cutting edge of research and innovative technology for the benefit of student community in particular and society in large.

## Mission

M1: To be a centre of excellence in Technical and Higher Education

M2: To be a centre of excellence in Research

M3: To be a centre of excellence in Support Services

## Program Educational Objective

### PEO 1:

To prepare the students for entry into successful employment as software engineers in industry, service, consulting and/or government organizations or for advanced study at leading graduate schools in engineering, business, management or other technical or non-technical fields.

### PEO 2:

To encourage teamwork skills among the students to design and implement complex software systems, particularly the ability to work with people from other fields in integrated engineering teams and develop the leadership skills for maximizing the performance of those teams.

### PEO 3:

To offer a curriculum that encourages students to become broadly educated engineers and to equip with the attitudes and skills to foster learning themselves for life long, an ability to communicate effectively with various audiences and function as responsible member of the global society.

**POs AND PSOs of Department****PROGRAMME OUTCOMES**

- (a) An ability to apply knowledge of mathematics, science and engineering.
- (b) An ability to design and conduct experiments, as well as to analyze and interpret data.
- (c) An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health & safety, manufacturability and sustainability.
- (d) An ability to function on multidisciplinary teams.
- (e) An ability to identify, formulates and solve engineering problems.
- (f) An understanding of professional and ethical responsibility.
- (g) An ability to communicate effectively.
- (h) The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context.
- (i) A recognition of the need for and an ability to engage in life-long learning.
- (j) A knowledge of contemporary issues.
- (k) An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.