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# KONGU ARTS AND SCIENCE COLLEGE Nanjanapuram, Erode KONGU DEPARTMENT OF COMPUTER SCIENCE(UG) Amoning the Beat Cyber Crews Association

E-mail: itunlimitedmagazine@gmail.com Website: www.kasc.ac.in

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# **5G NETWORK AND GENERATION**

#### What is 5G Network

**5G network** is assumed as the perfection level of wireless communication in mobile technology. Cable network is now become the memory of past. Mobiles are not only a communication tool but also serve many other purposes. All the previous wireless technologies are entertaining the ease of telephone and data sharing but 5G is bringing a new touch and making the life real mobile life. The new **5G network** is expected to improve the services and applications offered by it.

5G network is very fast and reliable. The concept of handheld devices is going to be revolutionized with the advent of 5G. Now all the services and applications are going to be accessed by single IP as telephony, gaming and many other multimedia applications. As it is not a new thing or gadget in market and there are millions of thousands users all over the world who have experienced the wireless services and till now they are addicted to this wireless technology. It is not easy for them to shrink from using this new 5G network technology. There is only need to make it accessible so that a common man can easily afford the economic packs offered by the companies so that 5G network could hold the authentic place. There is need to win the customer trust to build fair long term relation to make a reliable position in the telecommunication field.

To compete with the preceding wireless technologies in the market 5G network has to offer something reliable something more innovative. All the features like telephony, camera, mp3 player, are coming in new mobile phone models. 4G is providing all these utility in mobile phone. By seeing the features of 4G one can gets a rough idea about what could be a 5g Network offer. There is messenger, photo gallery, and multimedia applications that are also going to be the part of 5G. There would be no difference between a PC and a mobile phone rather both would act vice versa.



#### **5G Network Features**

A first remarkable feature of 5G network is the broadband internet in mobile phones that would be possible to provide internet facility in the computer by just connecting the mobile.

#### Handheld Computer:

Now computers and mobiles are not separate things. A smallest mobile is equal to a handheld computer. The way it facilitates the user with games, cameras, video n music recorder / player is really remarkable.

Data sharing in 5G network is very easy. It omits the condition of putting both mobile face to face so that data could be shared. But 5G Bluetooth technology removes this condition and data could be transferred if it is shared in the range of 50m.

It is not far away when we see the global mobiles all over the world. A user can move everywhere in the world by holding just 5G mobile network.

All the roaming would be exempt from the tariff plans. The rates of the call would not be different area to area





**5G** (**5th generation mobile networks** or **5th generation wireless systems**) is a term used in some research papers and projects to denote the next major phase of mobile telecommunications standards beyond the current 4G/IMT-Advanced standards. 5G does not describe any particular specification in any official document published by any telecommunication standardization body.

Although updated standards that define capabilities beyond those defined in the current 4G standards are under consideration, those new capabilities are still being grouped under the current 4G standards.

### Prognosis

A new mobile generation has appeared approximately every 10th year since the first 1G system, Nordic Mobile Telephone, was introduced in 1981. The first 2G system started to roll out in 1992, the first 3G system first appeared in 2001 and 4G systems began to appear in 2011. Some sources state that a new generation of 5G standards will not be implemented by the ITU until approximately 2020.

New mobile generations are typically assigned new frequency bands and wider spectral bandwidth per frequency channel (1G up to 30 kHz, 2G up to 200 kHz, 3G up to 5 MHz, and 4G up to 40 MHz), but skeptics argue that there is little room for new frequency bands or larger channel bandwidths. If 5G appears, and reflects these prognoses, the major difference from a user point of view between 4G and 5G techniques must be something else than increased maximum throughput; for example lower battery consumption, lower outage probability (better coverage), high bit rates in larger portions of the coverage area, cheaper or no traffic fees due to low infrastructure deployment costs, or higher aggregate capacity for many simultaneous users (i.e. higher system level spectral efficiency). Those are the objectives in several of the research papers below.



### **<u>12 infuriating Office 2013 flaws (and how to fix them):</u>**

#### **12 Microsoft Office flaws:**

While Office patriots wax poetic over Office 2013's new features, those who've long struggled with Office see a lot of gratuitous change that simply gets in the way.

If you're new to Office, need some prompting about basic features, want to put all of your documents in SkyDrive, and don't mind STARING AT A SCREEN OF GRATUITOUS CAPS, the new Office 2013 should be right up your alley.

But if you've been using Office for a while, relegate files to SkyDrive begrudgingly, use Dropbox, and couldn't care less about touch, there are a few steps you can take to make Office 2013 tolerable.



#### **Stuff the silly Start screens:**

**Problem:** All of the Office 2013 applications (except Outlook) show Start screens with a list of recently opened documents—and vast numbers of rarely used templates—when you start the app. Unless you keep working on the same docs over and over, invariably your first move is to click at the bottom left to open other documents

Solution: To get rid of the Start screen in any of the Office apps, click File, options. On the left, make sure General is selected and, at the bottom, uncheck the box marked "Show the Start screen when this application starts." The next time you start that app, you're greeted with a new blank document—same way Office has worked forever.



#### Stop saving to SkyDrive as default:

**Problem:** There's some confusion as to which specific kinds of Office 2013 installs lead to SkyDrive being set as the default location for both File Open, and File Save As. If you aren't sure if your specific copy of Office 2013 uses SkyDrive as a default, restart one of the Office apps; create a new, blank document; and click File, Save As. If SkyDrive is highlighted (you may have more than one SkyDrive account accessible), that's your default.

**Solution:** It's easy to change the default if you know where to look. Click File, Options. On the left, choose Save. Then under the Save heading at the top, check the box marked "Save to computer by default."





#### Add Dropbox as an open/save location:

**Problem:** It's click-and-drag easy to add Favorites to the Office 2010 Open and Save As dialogs. Dropbox and many other online storage services add an entry as a byproduct of installing the package. But when you click the Add a Place icon in the Open or Save As dialog in Office 2013, the only "places" you're allowed to add are sharePoint locations and additional SkyDrive accounts.

Solution: Dropbox has a script that you can run that will add a Dropbox location to the list of cloud locations. Although you have to figure out the path to your Dropbox folder (typically

c:Users<username>DocumentsDropbox), running the script is easy.

T		Presentation1 - PowerPoint
Into	Open	
New Open	C Recent Presentations	Add a Place You can add locations to make it easier to save Office documents to the cloud.
Save Save As	C Woody Leonhard's SkyDrive	Office 365 SharePoint  SkyDrive
Print	Ineeda Windowsliveid's SkyDrive	
Share Export	Snidely Whiplash's SkyDrive	
Close	Computer	
Account Options	Add a Place	

#### Get rid of the Open/Save Backstage screens:

**Problem:** Why, I hear you ask, do you have to use these cute SkyDrive screens to open/save in the first place? Sure, Microsoft wants to sell you SkyDrive space, but can't you tell Office 2013 to skip the "Backstage screens" and cut to the old Open and Save As dialogs we've known for years?

**Solution:** Yes, you can tell Office to skip the Backstage screens. But I've had trouble getting the setting to work. In theory at least, you can click on File, Options, Save, and under Save Presentations check the box marked "Don't show the backstage when opening or saving files." Restart all of your Office apps. Does it work for you?

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Authors	Woody Leonhard Tags:	Add a tag			
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#### **Remove those ALL CAPS TAB TITLES:**

**Problem:** I DON'T KNOW WHY MICROSOFT MADE THE OFFICE 2013 TAB TITLES ALL CAPS WHEN WIN8 FILE EXPLORER AND ALL OF THE WIN8 APPS show Initial Caps. Bah. It's condescending to touch customers.

**Solution:** Fortunately, you don't have to LIVE WITH ALL CAPS. Rightclick any tab, choose Customize the Ribbon. On the right, click on the name you want to change, click Rename, and give the tab any name you like. If you want to keep the name that's assigned to the tab by default (for example, "Home") rename with a space at the beginning or end of the name (" Home" or "Home "), or modify it in some other way ("\_Home\_"). Alas, you can't rename it FILE.

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#### **Turn off Read Mode:**

**Problem:** When you double-click on a DOC or DOCX file attached to an email message in Outlook, Word pops up in Read Mode (also called, confusingly, Reading View). As Tristan Davis said on the Office Next blog, it "essentially turns your Word documents into an interactive digital magazine." Pardon my vituperation, but Read Mode is just a pain in the pinkie if you don't use touch.

**Solution:** In Word, click File, Options, and on the left make sure General is showing. Near the bottom, uncheck the box that says "Open e-mail attachments and other uneditable files in Reading View." Restart Word.



#### Disconnect your Win8 Microsoft Account:

**Problem:** The Office 2013 installer picks up your Microsoft Account info if you use a Microsoft Account to log in to Windows 8. While that makes it easier for you to use SkyDrive and to carry your settings from one machine to another, it's yet another way for you to transmit your every move to Mother Microsoft. (Note: Some folks report that they can't get Background and Theme changes to take after disconnecting.)

**Solution:** Click File, Account (or File, Office Account in Outlook). To disconnect an individual SkyDrive account, which you may have added in a moment of delusion, click Remove next to the account. To disconnect your main account, at the top, click Sign Out. Restart Windows.



Use Word as your (slow) default PDF viewer:

**Problem:** If you double-click on a PDF file in Windows 8, you get hurled over to the Metro side and stuck in the full-screen Metro Reader app. It's totally preventable if you have Word 2013. The new Word has a slow but almost always serviceable PDF viewing capability. There's no reason to use Acrobat Reader or Foxit, although you may want to keep one around for the unusual PDF file that doesn't render right in Word 2013, or really big PDFs, which take glacial time to render in Word.

**Solution:** In Windows Explorer or File Explorer, right-click on a PDF file. Choose Open With, Choose Default Program. Pick Word (desktop). Voilà.



#### **Disable inline replies in Outlook:**

**Problem:** When you reply to a message in Outlook 2010 or earlier, Outlook creates a new message in a free-floating window. When you hit Reply (or Reply to All) in Outlook 2013, your reply appears "inline," above the original message in the viewing pane on the right. Many of the message options available in Outlook 2010 aren't available in Outlook 2013, and it's easy to lose track of your reply when switching to other apps, unless you click Pop Out at the top. Pop Out makes Outlook revert to the 2010 behavior.

**Solution:** Click File, Options, Mail. In the Replies and Forwards section, check the box marked "Open replies and forwards in a new window."

	From •	woody@khunwoody.com
Send	To	Jeroen <ineedawindowsliveid@live.com>;</ineedawindowsliveid@live.com>
Sena	Cc	
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		Charity Golf Tournament

#### Make Outlook search the current folder only:

**Problem:** In Outlook 2010 and earlier, if you type something in the search box, up above the list of mail, Outlook performs the search on the contents of the current folder. Great. But in Outlook 2013, for reasons known only to certain sadists in Redmond, if you're looking at your Inbox, the search extends to all folders in the current mailbox, which means you may end up accidentally deleting mail from the Deleted Items folder, for example, or replying to something you shouldn't. I'll raise my hand here and share your pain.

**Solution:** Click File, Options, on the left click Search. Under "Results/Include results only from," choose the radio button marked Current Folder.

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2-8153 2-11-347 11 8-1575 8-

General	Change how items are searched with Instant Search.
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Calendar	Sources
People	Change the Outlook stores indexed by Windows Search
Tasks	D <sup>2</sup> change the outdow stores indexed by Hindows search
Search	Results
Language	Include results only from:
Advanced	Current folder
Customize Ribbon	Current folder. Current mailbox when searching from the inbox
	Current mailbox
Quick Access Toolbar	All mailboxes
Add-Ins	Include messages from the <u>D</u> eleted items folder in each data file when searching
Trust Center	When possible, display results as the query is typed
THUR CONC.	Improve search speed by limiting the number of results shown
	Highlight search terms in the results
	Highlight ⊆olor: D →
	✓ Notify me when results might be limited because search indexing is not comp

Set all of your favorite power user changes:

**Problem:** Microsoft had a chance to make things easier for power users in 2013, but it didn't. All the training wheels are still there, and you have to hunt and peck to get rid of them. That's why, for example, every time you type an email address, it gets underlined, bolded, discolored, and set up as a link.

<u>Solution</u>: In Word click File, Options. Under General, you can show paragraph marks, tabs, and object anchors—all crucial to understand formatting. In the Proofing area, click the AutoCorrect Options box and uncheck the settings you don't like. In Excel, click File, Options, and under Proofing, click the button marked AutoCorrect Options. And so on.

Save Language Advanced Customize Ribbo Quick Access Tor Add-Ins Trust Center	When correcting spelling in	AutoFormat  Apply Buil-in-Heaging styles Just styles Other garagraph styles Conter garagraph styles Content (12) with superscript Content (12) with faction character (%) Highens (-) with dash (-) Content and network paths with hyperlinks Preserve	7 × Format As You Type Actions	
ай 1 -220V	Writing Style: Grammar O	Ahwaya AutoFormat	5-14006 Mile	

## **Introducing Android 4.0**

Android 4.0 (Ice Cream Sandwich) is the latest version of the Android platform for phones, tablets, and more. It builds on the things people love most about Android — easy multitasking, rich notifications, customizable home screens, resizable widgets, and deep interactivity — and adds powerful new ways of communicating and sharing.







#### Simple, Beautiful, Useful ; Refined, evolved UI

Focused on bringing the power of Android to the surface, Android 4.0 makes common actions more visible and lets you navigate with simple, intuitive gestures. Refined animations and feedback throughout the system make interactions engaging and interesting. An entirely new typeface optimized for high-resolution screens improves readability and brings a polished, modern feel to the user interface.

Virtual buttons in the System Bar let you navigate instantly to Back, Home, and Recent Apps. The System Bar and virtual buttons are present across all apps, but can be dimmed by applications for full-screen viewing. You can access each application's contextual options in the Action Bar, displayed at the top (and sometimes also at the bottom) of the screen. Multitasking is a key strength of Android and it's made even easier and more visual on Android 4.0. The Recent Apps button lets you jump instantly from one task to another using the list in the System Bar. The list pops up to show thumbnail images of apps used recently — tapping a thumbnail switches to the app.

The Recent Apps list makes multitasking simple. Jump to the camera or see notifications without unlocking. For incoming calls, you can respond instantly by text.

Rich and interactive notifications let you keep in constant touch with incoming messages, play music tracks, see real-time updates from apps, and much more. On smaller-screen devices, notifications appear at the top of the screen, while on larger-screen devices they appear in the System Bar.

#### **Powerful web browsing :**

The Android Browser offers an experience that's as rich and convenient as a desktop browser. It lets you instantly sync and manage Google Chrome bookmarks from all of your accounts, jump to your favorite content faster, and even save it for reading later in case there's no network available.

To get the most out of web content, you can now request full desktop versions of web sites, rather than their mobile versions. You can set your preference for web sites separately for each browser tab. For longer content, you can save a copy for offline reading. To find and open saved pages, you can browse a visual list that's included with browser bookmarks and history. For better readability and accessibility, you can increase the browser's zoom levels and override the system default text sizes.

Across all types of content, the Android Browser offers dramatically improved page rendering performance through updated versions of the WebKit core and the V8 Crankshaft compilation engine for JavaScript. In benchmarks run on a Nexus S device, the Android 4.0 browser showed an improvement of nearly 220% over the Android 2.3 browser in the V8 Benchmark Suite and more than 35% in the SunSpider 9.1 JavaScript Benchmark. When run on a Galaxy Nexus device, the Android 4.0 browser showed improvement of nearly 550% in the V8 benchmark and nearly 70% in the SunSpider benchmark.



# A Mac is good as it looks

It's made from strong, beautiful materials like aluminium and glass. It comes with the latest technology — powerful processors, advanced graphics and fast memory.



#### It's designed to be a better computer.

When you buy a computer, you want it to last. And a Mac will. That's because a Mac is designed and built to be as reliable as it is beautiful.

#### **Designed to last.**

A Mac is designed for a long, productive life. Apple designers and engineers spend countless hours ensuring that each Mac is precisely built inside and out. From the down-to-the-micron fit of each internal component to the finish of the enclosure, every detail matters. Take MacBook Air, for example. Its unibody enclosure is machined from a solid block of aluminium. The result is a notebook that is thin and light, looks polished and refined, and feels strong and durable.

#### Born to perform.

To make a better computer, only quality components and materials will do. That's why every Mac contains storage technology, memory, graphics processor, even a power supply specifically chosen to give you the best performance possible. And materials like aluminium and glass keep all those high-performance components safe and sound.

#### Charge today and five years from today.

Getting a few hours of battery life from a notebook is good. But for a Mac, good isn't good enough. On a single charge, you can get up to 7 hours on every MacBook Pro model.<sup>1</sup> That means you can power through a day of work or a day of classes without stopping to find the nearest power point. And the battery inside MacBook Pro can be recharged up to 1,000 times — enough for about five years of typical usage.<sup>2</sup>Multi-Touch trackpad.

• The Multi-Touch trackpad on every Mac notebook transforms the way you interact with your documents, images and applications, making all you do more intuitive and direct. Use two fingers to move smoothly up and down a page with realistic rubber-band scrolling. Swipe with two fingers to flip through web pages, documents and more. Swipe with three fingers to flip through your full-screen apps. Double-tap with two fingers to quickly magnify a website, or pinch to zoom in and out of photos and web pages more precisely. Rotate an image with your fingertips. Swipe up with three fingers to see every open window on your Mac in Mission Control. Tap to click

The entire trackpad is the button, so you have lots of space to click.

#### Wireless keyboard and wireless Magic Mouse.

iMac comes with the Apple Wireless Keyboard and Magic Mouse the world's first Multi-Touch mouse — for a beautifully clutter-free workspace.

#### **Built-in FaceTime camera and mic.**

Cleverly hidden behind the glass display of every iMac, MacBook Air and MacBook Pro Apple Thunderbolt display is a built-in FaceTime camera and mic. Using the FaceTime for Mac app, you can make FaceTime calls to other Intel-based Mac computers, iPad 2, iPhone 4 or the latest iPod touch.<sup>3</sup> So you can stay in touch with friends and family no matter where they are.

#### MagSafe power connector.

Accidents happen. That's why MacBook Pro and MacBook Air feature a MagSafe power connector that breaks cleanly away from the notebook if you trip over the power lead. Get great performance from every Mac.

Every Mac comes with the latest technology. From the small-butmighty Mac mini to the powerhouse Mac Pro, all are equipped with blazingfast Intel processors, high-performance graphics and high-speed DDR3 memory. And Mac OS X is custom-made to take advantage of every bit of that technology. So no matter which Mac you choose, you get superior performance for just about everything you do: managing your photos, editing video, even playing graphics-intensive 3D games.



#### **Crash-proof computer tactic revealed by UK researchers.**

For a PC user, nothing chills the heart like the "Blue Screen of Death" in Windows. It means the computer has crashed.

Although crashes are as old as computers, some UK researchers may be taking the first steps toward sending blue screens to the same graveyard where 5.25-inch floppy disks are buried. The boffins at University College in London (UCL) have made something they're calling a "systemic computer" that they say taps into the chaos found in nature to enable a computer to heal itself.

A problem has been detected and windows has been shut down to prevent damage to your computer. DRIVER\_IRQL\_NOT\_LESS\_OR\_EQUAL If this is the first time you've seen this Stop error screen, restart your computer, If this screen appears again, follow these steps: Check to make sure any new hardware or software is properly installed. If this is a new installation, ask your hardware or software manufacturer for any windows updates you might need. If problems continue, disable or remove any newly installed hardware or software. Disable BIOS memory options such as caching or shadowing. If you need to use Safe Mode to remove or disable components, restart your computer, press F8 to select Advanced Startup Options, and then select Safe Mode. Technical information: \*\*\* stop: 0x00000001 (0x0000000c, 0x00000000, 0xF86B5A89) \*\*\* gv3.sys - Address F86B5A89 base at F86B5000, DateStamp 3dd991eb Beginning dump of physical memory Physical memory dump complete. Contact your system administrator or technical support group for further assistance.

A chief cause of computer crashes, advarcing to the researchers, is the way computers process the instructions in the programs they run. They do that sequentially, a step at a time. Disturb that sequence, and the computer jumps the track and crashes. That's not how nature works. "Its processes are distributed, decentralized and probabilistic," a computer scientist working on the research, Peter Bentley, told New Scientist.

Nature is also fault tolerant, which is why biological systems can heal themselves, he added. Fault tolerance, of course, is nothing new to computing. Servers have had it for years. simulate the activity of neurons in the human brain.

Unfortunately, the crash-proof computer being developed by the researchers won't be something rank-and-file computer users will see any time. The clue is in their assessment of the practical applications of the research: it could allow drones to reprogram themselves to cope with combat damage.

### Difference between WiMAX and Wi-fi

(1) Wi-Fi operates in Microwave frequency range to offer wireless access.

WiMAX also operates in Microwave frequency range to offer wireless access.

(2) Wi-Fi a short range technology mostly used in, in-house applications.

WiMAX is a long range technology to deliver wireless broadband to far end.

(3) Wi-Fi is mostly an end user technology where users can purchase Wi-Fi devices and configure them by themselves.

WIMAX is mostly deployed by service providers.

- (4) Wi-Fi uses CSMA/CA protocol which could be connection based or connection less.
   WiMAX uses connection oriented MAC protocol.
- (5) Wi-Fi is a wireless LAL technology.WiMAX is a wireless LAN technology (WLAN).

# IT TRIVIA

1. Another name for a Microsoft Windows tutorial is\_\_\_\_\_

2. Bill Gates' house was designed using a \_\_\_\_\_.

- 3. \_\_\_\_\_are being registered at a rate of more than one million names every month.
- 4. The average computer user blinks \_\_\_\_\_\_ a minute, less than half the normal rate of 20.

5. The first banner advertising was used in \_\_\_\_\_\_.

6. The first computer mouse was invented by \_\_\_\_\_\_ in around \_\_\_\_\_\_ and was made of \_\_\_\_\_\_.

7. The first domain name ever registered was \_\_\_\_\_\_.

8. While it took the radio 38 years, and the television a short 13 years, it took the World Wide Web only to reach \_\_\_\_\_50 million users.

9. The first Unix operating system, as it was in development stage, was written in the

10. The Input device that is closely related to a touch screen is the \_\_\_\_\_.

11. In a disk, each block of data is written into \_\_\_\_\_\_.

13. A mouse is connected to the \_\_\_\_\_.

- 14. The Headquarters of Intel located at \_\_\_\_\_.
- 15. A computer virus that actively attacks an anti-virus program or programs in an effort to prevent detection is\_\_\_\_\_\_.

# **Answer Keys**

1. 'Crash Course'! 2. Macintosh computer. 3. Domain names **4.7 times** 5.1994 6. Doug Engelbart, 1964, wood. 7. Symbolics.com 8.4 years 9. B Language. 10. Light Pen. 11. two or more sectors **12. ASCII** 13. Serial Port.

14. Santa Clara, California.

15. Retro Virus

20

# What Happens Inside Your Computer?



Let's go through the steps of the events that occur from the time you first push the power button on your computer to the time you click the "shut down" button.

1. You press the buttons to turn on your monitor and computer.

2. A signal is sent to your power supply telling it to turn on. The power supply is what keeps your entire computer system running; it is what makes the difference between a box with a whole bunch of oddlooking devices connected to it and a working computer system! The power supply changes the electrical current from the outlet in your wall into a voltage that can be used by your computer.

3. The fans found in the power supply will begin working. These fans are vital to your computer system. They circulate the air inside the computer case to make sure that the devices do not overheat!

4. Your computer's BIOS(Basic Input) goes to work. BIOS is the software that gives your CPU its first instructions when the computer is turned Your BIOS will: on. self-test Perform а power-on (POST), an inspection checking to make sure that all of your computer's components are working properly. Check to see if a reboot is necessary. If not, then it will perform a read/write test for your computer's random-access memory (RAM), it will check the keyboard and the mouse, and it will also check the PCI bus and expansion cards. You will see a string of text on your computer screen as your computer's BIOS everything. checks Check the CMOS (Complementary Metal Oxide Semiconductor) for your system settings. It will check for what components are installed in your computer system as well as for important information concerning your computer's operating system. Usually, you will see a string of words on a black screen when your computer first turns on. This is your **BIOS** system displaying information



about your computer's central processing unit, information about how much memory your computer has, as well as information about your hard disk drives and floppy disk drives.

5. The bootstrap loader will load the your computer's operating system into the computer's memory. Bootstrap, or boot, for short, is the process of loading the operating system. The whole process of loading your operating system is called booting up your computer.

6. The operating system will go to work. At this point, all control of your computer system is transferred from the **BIOS** to the operating system. The tasks your operating system must perform can be broken six major categories: up into Processor Management: The operating system breaks tasks down into chunks that your CPU can handle and it prioritizes the tasks before sending them off to the processor.

Memory Management: The OS coordinates the information as it flows in and out of the computer's random-access memory. Device Management: The operating system will let the numerous devices that are part of your computer system communicate with each other and with the central processing unit. Storage Management: The OS will direct data and information to the places where they are to be stored. Application Interface: The operating system lets your computer's hardware interface, or talk to, the software.

User Interface: Of course, now you'll need someway to communicate with your computer. This is controlled by your operating system.

7. You open up and run certain programs or applications. First, let's say you open up a word document to type a letter to your Great-Aunt Betty.

Your operating system will realize that you have a word processor open, so when you use either the keyboard or the mouse to input information, it will know to accept the information you input for the word document. Sometimes, if you have more than one program open at a time, your operating system will have to determine which program it is that you are using at the given time, but for now, we will just concentrate on the word processor.

8. Let's say you wanted to type in the letter "D" You press the "D" key on the keyboard

Your keyboard will send an electrical signal to your computer telling it that you have just pressed a button The keyboard controller will send an interrupt to the central processing unit telling it to take a look at the key you just pressed. The "D" will be temporarily stored in a special memory until your CPU is ready to deal with it. Most often, your CPU also has to



deal with other tasks. Your operating system will prioritize these tasks. Finally, it is time for your CPU to deal with the key you just pressed. The CPU determines which program you were using when you pressed the key. In this case, you were in a word processor. The CPU will tell your operating system to display the letter "D" on the screen. The letter is displayed by adding it to your graphics card, which tells your monitor what to display on the screen! This seems like a long and complicated process, but it occurs almost instantaneously! That shows how fast a computer is!

9. Now, you've finished typing your letter to Great-Aunt Betty, and you want to save it. When you press the "save" button in your word processor, a message will be sent to the operating system. A window will pop up, in which you can choose where you want to save the document to. Then, the operating system will transfer the document from the computer's RAM to the specified storage device.

10. After you have saved your letter, you decide that you want to print it out. Your operating system will translate the file from its present form into a form that your printer can comprehend. Then, your printer will go to work! 11. Now, that you've finished your letter, you decide that you want to go online to chat with some friends. You open up a web browser. Once again, it is your operating system that controls everything. This time, you can either type in the URL of the website you want to go to, or click on a link. By using a modem, your browser software can direct you to the right website, which will be displayed on your monitor!

12. After you've finished chatting, you're done using your computer. You click on the "shut down" button.

13. The operating system will close any programs that you have left open. However, if it finds that you have left a word document open, and that the document contains unsaved information, a prompt will come up asking if you would like to save the file before you exit. How convenient!

14. The operating system will save your current settings for your computer system. This way, it will remember them the next time you turn on your computer.

15. Usually, your computer has special software that will automatically shut down its power supply. If not, you will have to manually press a button.



# **Mind Punch**

#### The superstitious president

Mr. Fisher is a night watchman in a large company. On a certain morning when Mr. Fisher wants to go home, his boss tells him: 'I will go for a businesstrip to Norway. Tomorrow I will depart from Heathrow airport.' Mr. Fisher however advises him to take a boat. 'Why should I?' asked the president. 'This night I dreamed that the plane to Norway crashes, just before it will land,' is the response. The president smiles first, but since he is pretty superstitious he decides to take the boat. When he arrives in Norway, he is told that the plane which he should have taken had crashed. When the president returns from the trip, he gives a big reward to Mr. Fisher and immediately fires him. Why?

#### Solution:

A night watchman should not sleep when he is at work.

### **Gold Box**

There are three boxes in a table. One of the box contains Gold and the other two are empty. A printed message contains in each box. One of the message is true and the other two are lies. The first box says 'The Gold is not here'. The Second box says 'The Gold is not here'. The Third box says 'The Gold is in the Second box'. Which box has the Gold?

#### **Solution:**

As the As the message contains one truth, the third says that the gold is in the second box, if it is to be true, then the first box message will also become true. So Gold cannot be in second and third boxes. Gold is in the first box.

The Editorial Board Expresses its Sincere gratitude to All those who Are responsible, Either by being On the stage or behind the screen