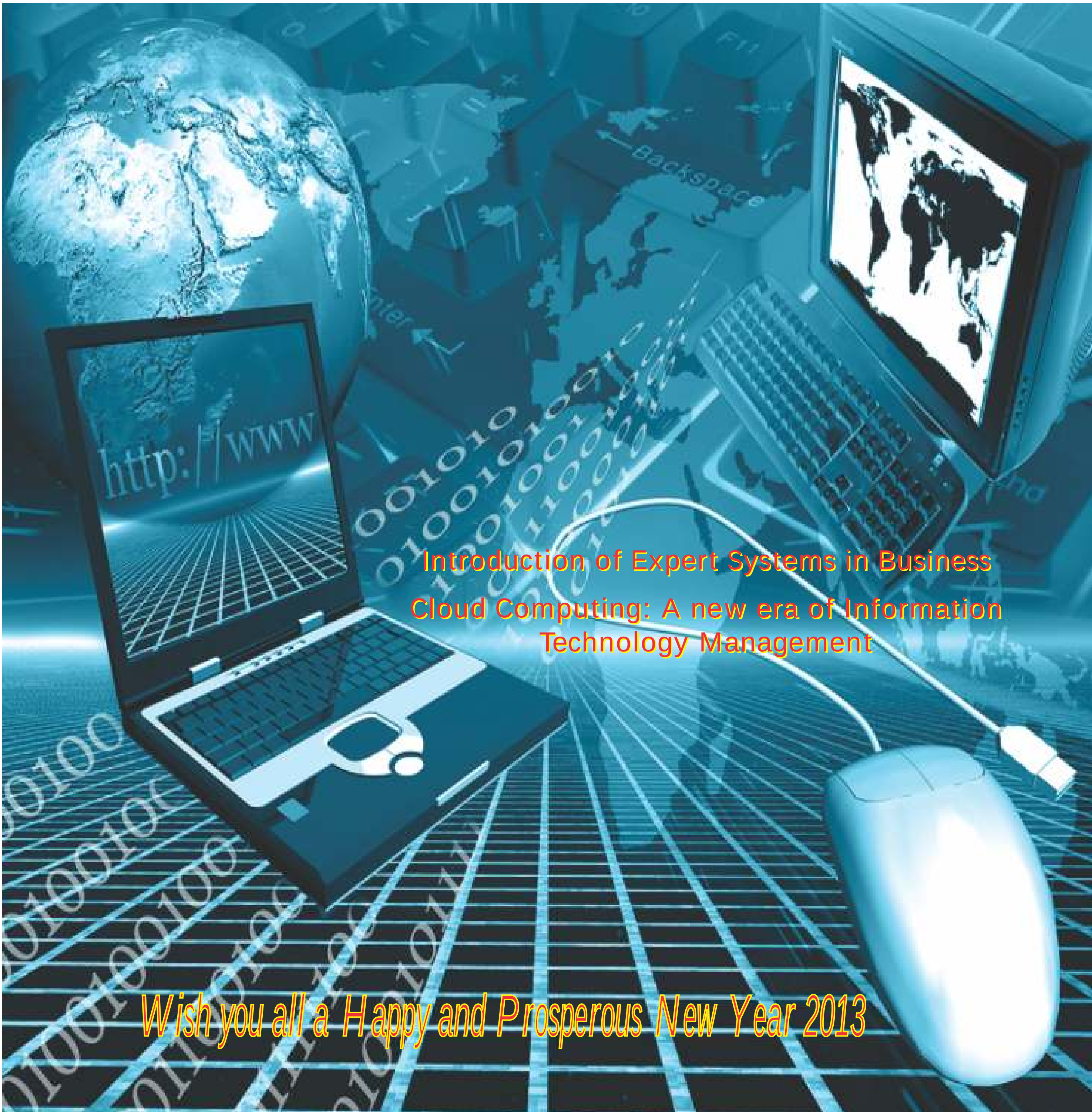
Price ` 50
The Institute of Chartered Accountants of India
(Set up by an Act of Parliament)

The Chartered Accountant Student

Your Monthly Guide to the CA News, Information & Events

STUDENTS' JOURNAL January 2013 Vol SJ4 Issue 1 Pages 36



President's Communication

Dear Students,

At the outset, on behalf of the Institute of Chartered Accountants of India, I would like to extend my heartiest wishes for a wonderful and prosperous New Year 2013. I also express my best wishes on the 63rd Republic Day of our motherland and hope that our country will continue the pace of growth for her run up to a Global Economic Powerhouse.

It is my humble prayer to Almighty that all your dreams and aspirations be fulfilled in the year 2013. I am very confident that the entire CA student fraternity will be able to set new milestones in their professional career. The blissful occasion of New Year brings with it new hopes and opportunities to explore new heights of professional and personal success. Over the past year, we have attained important goals and confronted new challenges. As we celebrate the New Year, we look with hope to the year ahead and the endless opportunities it would bring.

At the beginning of this year, you should make a resolve that you will start every day with vigour, spend the day by upgrading your knowledge and intelligence, and end the day on a cheerful note. ***"The object of a New Year is not that we should have a new year. It is that we should have a new soul and a new nose; new feet, a new backbone, new ears and new eyes. Unless a particular man made New Year resolutions, he would make no resolutions. Unless a man starts afresh about things, he will certainly do nothing effective."- G.K. Chesterton.***

I am very happy to say that the year 2012 was an eventful year for the Institute as it witnessed a wide variety of professional and development initiatives. In the year 2013, we look forward to reaching new heights of success and progress while working holistically to ensure that each student and member can develop himself/herself in a congenial environment that promotes personal and professional growth. Our Institute is very keen to get you off to a great start. In turn, we expect you to work in an undeterred manner to achieve standards set forth by the Institute. As the time flows continuously, we have to prepare for tomorrow and should remain at the forefront of advancement and development in the field. I do believe that in the year 2013, you would be able to come up with glorifying success and will begin your professional career on a successful note.

Those of you who have appeared in the November 2012 examinations must be eagerly waiting for the results. I express my best wishes and hope that maximum number of students clear their respective examinations. Students must keep in mind that by following a proper approach, the examinations can be passed easily. The Chartered Accountancy examination calls for a holistic professional approach. Avoid half-hearted, last minute preparation or selective study. It is my earnest desire that the students pass in their first available attempts and join the realms of profession at an early date. However, keep in mind that successful Chartered Accountants of future will be those who see the qualification as the starting point and not the end for their professional education and development. In the dynamic professional environment, you should continue to learn and update your skills. Have a burning desire to strive for excellence and become successful professional.

The Board of Studies took several steps during the past year to improve the quality and range of its services. To share with you, significant development included revision of the study materials of IPCC and final courses. Supplementary Study Paper for Final Course on Direct and Indirect tax laws explaining the amendments made by the latest Finance Act, circulars, and notifications in direct and indirect tax laws was released during the period. There were 24 Conferences at branch, regional and national levels besides several elocution and quiz contests.

The All India Final Elocution and Quiz contests are scheduled for this month. I hope that you will take part in these events with full vigour and vitality.

Yours sincerely,

CA. Jaydeep Narendra Shah
President, ICAI, New Delhi

Inside
January

ARTICLES INVITED FOR STUDENTS' JOURNAL

The Board of Studies is planning to bring out theme based Special Issue of the Chartered Accountant Students' Journal in February as per the following schedule:-

S.No	Month	Theme
1.	February 2013	Accounting & Social Audit

Articles are invited from Members, Academicians, Students and others.

The theme-based articles must reach the Board of Studies latest by 10th of the preceding month in which the article is to be published. The article should comprise 1600 to 2400 words only. The Contributors are advised to enclose the following along with the articles, without which the article will not be considered:-

1. A formal & signed undertaking in the form of a letter stating that the article is original in all respects and does not infringe any copyright and has neither been published elsewhere nor has been sent for publication.
2. A latest passport size colour photograph (with full name and Membership/Registration No. written on the back).
3. A soft copy of the article, with complete communication and E- mail address.

An honorarium of ₹2500/- is paid if the article is published. All correspondence in this regard should be made to The Director, Board of Studies, ICAI Bhawan A-29, Sector-62, Noida - 201 309 giving full name, complete address and Membership/ Registration No., if applicable.

President and Editor-in-Chief
CA. Jaydeep Narendra Shah, Nagpur

Director – Board of Studies
Shri Vijay Kapur

Editorial Support
Prem Bhutani, Deputy Director
K. Sudhakaran, Assistant Director

Office
Board of Studies
The Institute of Chartered Accountants of India,
ICAI Bhawan, A-29, Sector-62, Noida-201 309.
Phone : 0120-3045938

Correspondence with regard to subscription, advertising and writing articles
Email : writesj@icai.org

Non-receipt of Students' Journal
Email : nosj@icai.org

Head Office
The Institute of Chartered Accountants of India,
ICAI Bhawan, Indraprastha Marg,New Delhi - 110104.
http://www.icai.org

Annual Subscription Rates:

CA Students	:	₹	200
Members & Others	:	₹	500
Overseas	:	US $	100

Total Circulation: 2,78,014

Check your Address : All students should check their mailing address printed on back cover. In case, there is any change or the PIN Code (Postal Index Code) is either missing or is incorrect, kindly inform immediately the concerned Regional Office, giving full particulars of your address alongwith correct PIN Code. This would enable us to ensure regular and prompt delivery of the Journal.

Editor: CA. Nilesh S. Vikamsey
Printed and published by Shri Vijay Kapur, on behalf of The Institute of Chartered Accountants of India, New Delhi. Published at the Institute's Office at Indraprastha Marg, New Delhi and printed at International Print-O-Pac Ltd., B-204, 205, Okhla Industrial Area, Phase-1, New Delhi.

Introduction of Expert Systems in Business

A phase of Transformation towards Perfection in Decision Making

Swapnil R. Jain

Introduction

"The real danger is not that Computers have begun to think like Men, but that in years to come Men will begin to think like Computers."

Organizations of today depend heavily on Information and Communication Technology (ICT) to manage business. The ICT plays a central role in the operation of most of the business functions. We are entering into a new world in which **Data and Information** is more important than Hardware, Software, or any other component of ICT.

Information and its role in Business Management

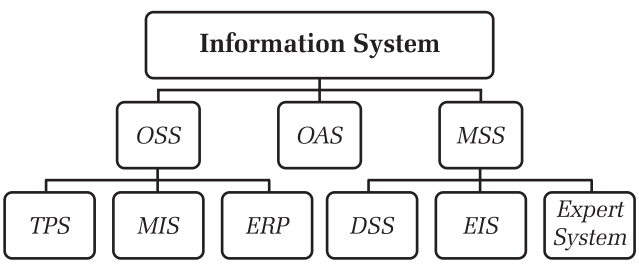
Meaningful and useful data to the organisation is called as Information. Information is the substance on which business decision are based therefore it is said the '***quality of information determines the quality of decision***'. Following are some of the important implications of Information in Business:

- Information **reduces uncertainty** about an event or situation.
- It helps managers in **effective decision-making** to achieve the goal of the organisation.
- With the help of updated Information, an organisation will **gain edge** in the competitive environment.
- It helps the management to **take right decision at the right time.**

Gathering, sorting, summarizing and retrieving information is a challenging task in itself. Here, the role of ***Information Technology*** comes into picture.

Technology has developed a special System, which is an arrangement of a number of elements that provides effective information for decision-making. This system is called as **Information System**.

Categories of Information System



Here,

OSS – Operation Support Systems

TPS – Transaction Processing Systems

MIS – Management Information Systems

ERP – Enterprise Resource Planning Systems

MSS – Management Support Systems

DSS – Decision Support Systems

EIS – Executive Support Systems

OAS – Office Automation Systems

What is an Expert System?

Professor Edward Feigenbaum of Stanford University, an early pioneer of expert systems technology, has defined an expert system as

"An intelligent computer program that uses knowledge and inference procedures to solve problems those are difficult enough to require significant human expertise for their solutions."

Expert system is a branch of **Artificial Intelligence** that makes extensive use of specialized knowledge to solve problems at the level of a human expert. An expert is a person who has expertise in a certain area. That is, the expert has knowledge or special skills that are not known or available to most people. An expert can solve problems that most people cannot solve or can solve them much more efficiently.

An expert system has a unique structure, different from traditional programs. It is divided into two parts, one fixed, independent of the expert system: the inference engine, and one variable: the knowledge base. To run an expert system, the engine reasons about the knowledge base like a human.

The author is a student of ICAI (Reg. No.WRO 0368164)

TABLE: Generic Categories of Expert Systems

Category	Problem Addressed
Interpretation	Inferring situation description from sensor data
Prediction	Inferring likely consequences of given situations
Diagnosis	Inferring malfunctions from Observations
Debugging	Prescribing remedies for malfunctions
Monitoring	Comparing observations to plan vulnerabilities

NEED FOR EXPERT SYSTEMS IN BUSINESS

I. Expert labour is ***expensive and scarce***. Knowledge worker employee who routinely work with data and information to carry out their day to day duties are not easy to find and keep and companies are often faced with a shortage of talent in Key positions.

II. Moreover, no matter how bright or knowledgeable certain people are, they often can handle only a ***few factors at a time***.

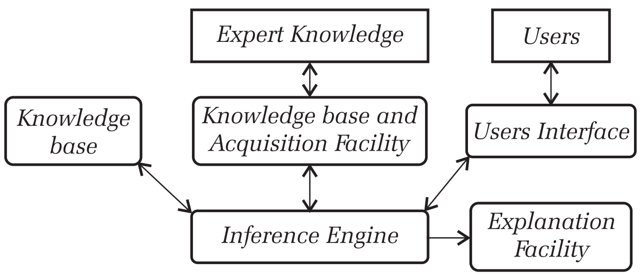
Benefits of Introduction of Expert Systems in Business

- **Increased availability** - Expertise is available on any suitable computer hardware. In a very real sense, an expert system is the mass production of expertise.
- **Reduced cost** - The cost of providing expertise per user is greatly lowered.
- **Reduced danger** - Expert systems can be used in environments that might be hazardous for a human.
- **Permanence** - The expertise is permanent. Unlike human experts, who may retire, quit, or die, the expert system's knowledge will last indefinitely.
- **Multiple expertise** - The knowledge of multiple experts can be made available to work simultaneously and continuously on a problem at any time of day or night.
- **Increased reliability** - Expert systems increase confidence that the correct decision was made by providing a second opinion to a human expert or break a tie in case of disagreements by multiple human experts.
- **Explanation** - The expert system can explicitly explain in detail the reasoning that led to a conclusion.
- **Fast response** - Fast or real-time response may be necessary for some applications. Depending on the software and hardware used, an expert system may respond faster and be more available than a human expert.
- **Steady, unemotional, and complete response at all times** - This may be very important in real-time and emergency situations, when a human expert may not operate at peak efficiency because of stress or fatigue.

Practical Implementation of Expert System

Expert System is a versatile tool, which can be used as multi-purpose systems such as decision support system, diagnostic system, self-learning tool, and teaching aid etc. In this article an attempt has been made to design an ***Expert system for determining the Applicability of various Accounting Standards*** to a corporate entity. This study will be a unique one since the knowledge base designed is a based on Accounting Standards issued by **NACAS applicable to Corporate Entities**.

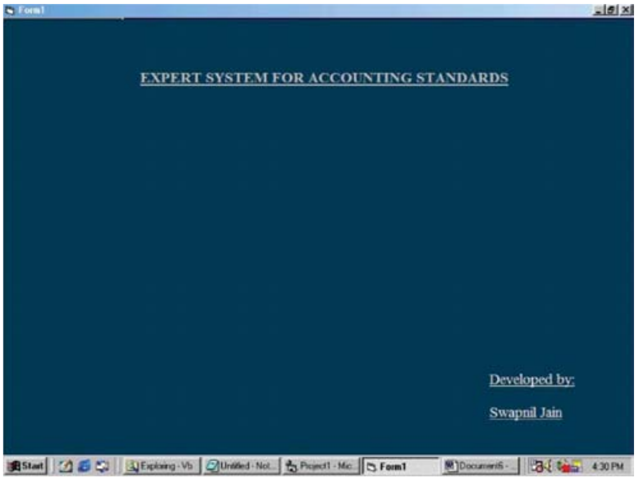
The structure adopted for the said expert system is illustrated in this flow chart:



Structure of Expert System

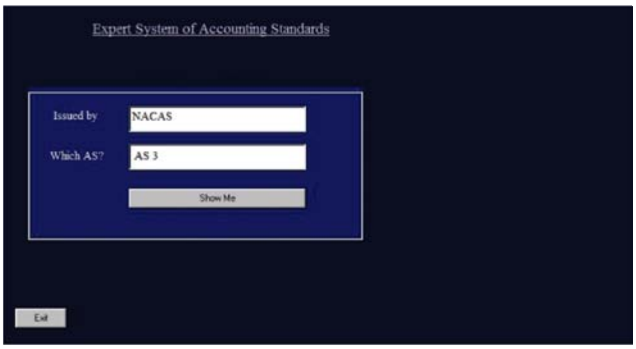
Information Retrieval from Expert System

Expert system has two significant features, namely user interaction and system interaction. User interaction allows the user to retrieve information by formulating queries and browsing the knowledge base. The system interaction, facilitates interrogation by the system itself, and on the basis of the answers provided by the user, it diagnosis the disease. In our case study, it also provides for the answer as to which accounting standards are applicable.



Opening Page of the Expert System

In the above developed Information System, I have provided for retrieval of Information using two ways. One is using user interaction and the other is system interaction. User interaction facilitates retrieval of information by formulating structured queries. See below display for better understanding:



User Interface

In the above user interface, the Expert systems asks the user about which Accounting Standard and issued by which authority does he wants to study about. User gives the input – Accounting Standard 3 issued by NACAS. When he clicks the "***Show me***" button a new page displaying the exact contents of Accounting Standard 3 is displayed. If the user wants to study AS issued by ASB of ICAI, even that option has been provided for. The user has to input ***'ASB of ICAI'*** in the input box of ***'Issued by'***.

System Interaction:

The System Interaction program has been designed in this expert system. In this program, the system itself puts forth some questions along with some options. The user can select any one of the options and the system will respond. From the interaction with the user, the system will draw conclusions and find out the AS applicable to the entity in question. Below is the Flow-Chart about the manner in which the Expert System will find out the answer to the query of user:

Query – Inform about the Accounting Standards which are applicable?

For developing an ***'Expert System'*** for the above query, the information is collected from an Expert in the field of Accounting or to be very particular from an Expert in the Domain of Accounting Standards. The collected information is then stored into the **Knowledge Base (KB)** of the Expert system by Knowledge Engineer.

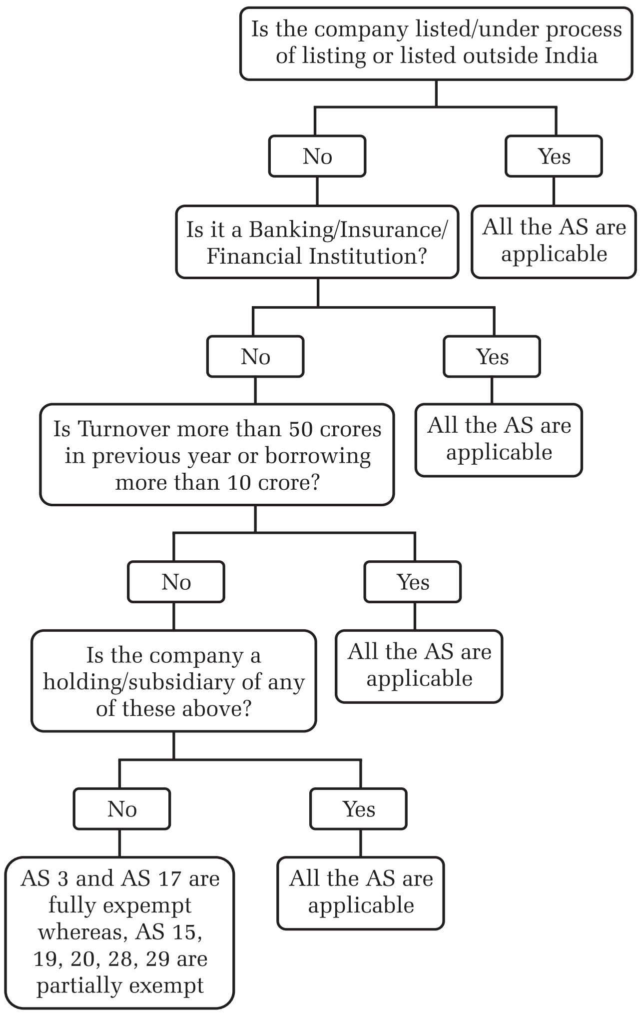
Logic for Solution to the Problem:

A company is a Small and Medium Company (SMC) if none of the points are satisfied:

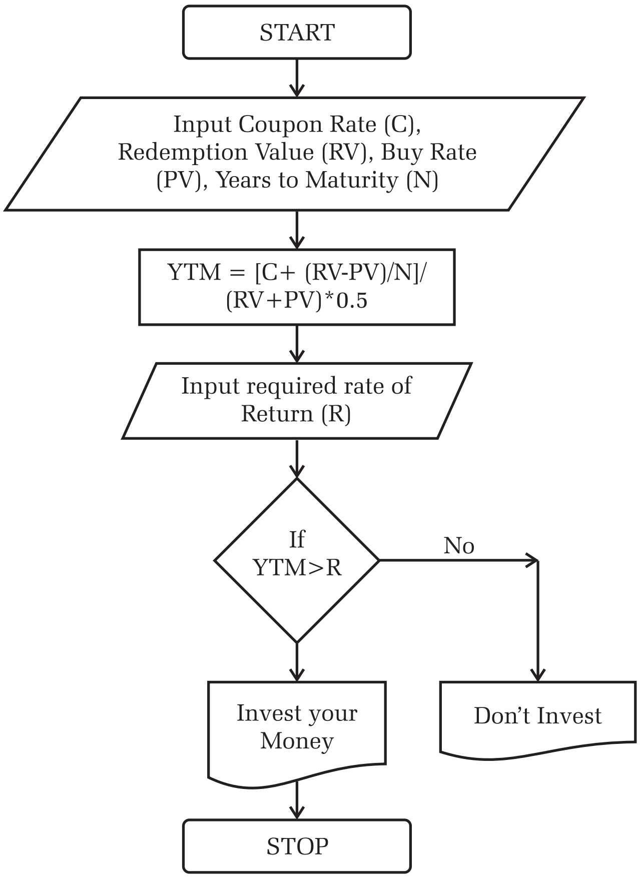
- It is listed/in the process of listing or Listed outside India
- Banking/Insurance or Financial Institution
- Sale is more than Rs.50 Crores
- Borrowing is more than Rs.10 Crores at any point of time
- It is holding/subsidiary of above companies

All the Accounting standards are applicable to Non-SMC's while to SMC's AS 3 and 17 are fully exempt while AS 15, 20,19,28,29 are partially exempt.

Flowchart Representing Solution to above-mentioned problem using Expert System



Use of Expert System to take Complex Investment Decision:



Limitations of Expert Systems

Although the Expert system technology has progressed substantially, it would be a mistake to overestimate the abilities of the technology. Limitations of the current expert systems include:

- The lack of *casual* knowledge. The expert systems do not have a real understanding of the causes and the effects in a system, mainly because it is much easier to program expert systems with shallow knowledge, based on empirical knowledge.
- Dealing with uncertainty. Human experts recognise the limits of their knowledge and can qualify their expertise when the program reaches their so called *limit of ignorance*. An expert system, unless this problem is *explicitly* catered for, will make confident recommendations even in the presence of incomplete and/or inaccurate data.

Future of Expert Systems

The future of Expert systems is bright. Expert systems are being already used in almost all aspects of our life, from space travel to agriculture, Internet to underwater devices. Whenever there is a need to solve ill-structured problems in real time, to be 99.9% reliable and unemotional, the expert system will be of a great use.

Conclusion

"Computers (Expert Systems) are magnificent tools for the realization of our dreams, but no machine can replace the human spark of spirit, compassion, love, and understanding."

To conclude, achieving strategic advantages with expert systems depends on successfully addressing the Limitations of expert systems. The reward of successfully implementing into Business can be significant.

References:

- ***Expert System – An innovative tool by*** *G.Gnana Sekari, Manorama Srinath & G.Veluchamy*
- ***Study Material on Information System Control and Audit issued by ICAI***

CROSSWORD

December, 2012

Solution

[1]M	[2]U	[3]L	[4]T	[5]I	T	[6]A	S	[7]K	[8]I	[9]N	[10]G	
[11]S	P	A	R	E		D		[12]I	D	I	O	T
D		[13]P	I	E		D		[14]N	A	N	O	
O		[15]S	P	R	[16]E	A	[17]D	S	H	E	E	[18]T
[19]S	U	E			M		O		O		Y	I
		[20]S	[21]E	M	I		M					L
[22]G			G			[23]B	E	[24]N	E	F	I	T
[25]O	[26]T	[27]C		[28]G	[29]R	O	S	S				
[30]L	R	O		[31]M	O	O	T	S		[32]B	[33]P	
[34]D	I	S	[35]C	R	E	T	I	O	N	A	R	[36]Y
	[37]C	T	R				C			[38]L	I	E
	K		E					[39]K		[40]E	C	N
[41]R			D		[42]R	E	[43]V	E	[44]R	S	E	
[45]A	U	D	I	O			[46]T	E	A			
M			[47]T	R	A	D	I	N	G			

Information Technology

Ajinkya Bhatambrekar

It is truly quoted that "***Change is the Rule of the Universe***". This can be very much applicable to the concept of Information Technology. As the world gradually advanced from Stone Age to Cement Age, there has been a drastic development in Information Technology, right from just a Computer Box to Computerised Space Crafts.

The first thought that comes to our mind when we hear of the word 'Information Technology' is Computers, Machines or Tablets. But is Information Technology only limited to these? The answer is "No". Information Technology is much a wider and an open-end concept than these. Simply said, Information Technology means getting Quality value of ***Information*** with the help of ever growing ***Technology***. Man created the computer and that gave birth to Information Technology. The earlier computers can be traced back to 1940-45 in UK & US, which were of the size of a room.

The earlier computers employed various components such as Vacuum tubes, integrated circuitry and Large-scale integrated circuitry according to the generations. The Machine language that they incorporated was very much difficult. Such obstinate language created hurdles while entering the commands which resulted in errors, and thus, the mechanism got defeated. However, the quick paced technology replaced this apparent weakness with user friendly languages.

The Computer technology can be counted in terms of Generations:

1. Ist Generation : Machine languages were used and difficult to programme.
2. IInd Generation : Symbols were used with an improvement in programming.
3. IIIrd Generation : Simple English-like commands were introduced, which were easy to use and remember.
4. IVth Generation : Graphical User Interface (GUI) was developed which then enhanced the features of computers.

> ***A lot of companies have chosen to downsize, and maybe that was the right thing for them. We chose a different path. Our belief was that if we kept putting great products in front of customers, they would continue to open their wallets.***
>
> **Steve Jobs**
> *Co-founder, Chairman & CEO, Apple Inc.*

Rightly said by (Late) Steve Jobs, who is known as the Charismatic Pioneer of the Personal Computer Revolution. It was him, who invented the concept of Graphical User Interface (GUI) in the field of computers and later, Macintosh. The invention of GUI was a major win in Information Technology as the layman started understanding and using a Computer.

Information Technology : An opportunity as well as a Threat

Nokia and Samsung

The aforesaid 2 companies depict a perfect example of how Technology can act as an opportunity as well as a threat to anyone.

Nokia, a Finnish Multinational Company, was a leader in world's largest number of cell phones for consecutive 14 years i.e. 1998-2012. It aimed at affordable cost smart phones and occupied a major market share in the whole world.

Samsung, a South Korean Company, earlier was at its lowest period. Samsung was just left with a minor share as compared to Nokia. Gradually, Samsung developed on its Operating System (Android), its touch screen systems and ventured into the world of Smartphones.

This suddenly turned the eyes of the public towards this cost affordable Smartphone producing company. In a flick, the position turned upside down. Samsung occupied and continues to share the largest market in the whole world in terms of market price and growth. Samsung has now come at par with Apple Inc. This left Nokia struggling for existence today.

Information Technology and E-Commerce

Now, Information Technology has seeped into our daily lives. It is often said that earlier it was a 'Luxury', and now, it is a 'Necessity'. Also the concept of Electronic Data Interchange has emerged from Information Technology.

Electronic Data Interchange envisages :

- Transfer of Data, Files or Money
- With the help of telecommunication lines (like Internet)

The author is a student of ICAI (Reg.No. WRO0313425)

- Or electronic transfer of funds using Smart Cards.

This EDI is also a major leap towards the gradual development of Information Technology. Exam forms, Online Shopping, Advertising, Auctions, E-payments, Inter Bank transfers and what not ! Today everything is done with a few strokes of keyboard, and that too at home. No shopping hours, no shutting hours.

This created the markets and shops into virtual shopping windows where a customer can compare between 2 or more product qualities and then arrive at a decision. One can shop at home as well as workplace and may get the desired products from a large variety. Just entering the Credit Card Number and minimal formalities and it is done.

Information Technology and Artificial Intelligence

With Information Technology, there comes another term which has recently been developed, termed as 'Artificial Intelligence'. It tried to emulate aspects of human behaviour to a certain extent inside a Computer system architecture. The computer is programmed in such a manner that the computer can hear, communicate, and reply to human beings on being given commands. In short, it acts as a companion to human beings. It also incorporates the concepts of Natural Language and Voice recognition techniques.

This technology has been actively incorporated by Apple Inc. which termed it as 'Siri' Software. This robotic intelligence software sets alarms, sends messages, reminds birthdays and a lot more. This concept is not yet completely developed and has its owns pros and cons, but is expected to be a major hit in the coming future.

Information Technology and Internet

There will be hardly anyone in today's world who is not familiar to the concept of Internet. Internet is a wide network of networks, where thousands of Computers are interconnected with each other by means of High-speed network cables. Internet has a huge Momentum and is growing at the rate of more than 10% pm. Internet is the foundation of the World Of E-commerce. Internet has, no doubt, eliminated the national boundaries and operates at a Global level mechanism.

Internet can be utilised and is available in many forms. Some of them being, Intranet, Extranet, Broadband, Dial-up, Wireless-fidelity (WiFi), etc. Wifi is also one of the latest trend where Internet can be accessed without the use of Wires and cables. Today, wifi is available almost at every corner and area, whether it is a hotel, cafes, restaurants, etc. The remaining aspects of advancement of Information Technology in Internet includes Email, Chat rooms, Airline Reservations, Online Exam Marking, and a lot more.

The darker side

No doubt Information Technology is a Boon for the mankind, but it sometimes proves to be a bane too. With the assistance of Information Technology, there has been a huge advancement in Nuclear Powers of the countries. It made the countries more powerful, but without the understanding that this would destroy the mankind.

Also, in cases of E-Commerce transactions, there are various unscrupulous and unethical dealers who take out money from the people through the means of Internet, promising them the products, which are never delivered. Many people are defrauded by means of electronic payment with super misappropriations. In particular, these areas do not have the control of any Government or a Nation.

Apart from these dark shades, its Advantages outweigh the dark side of the Information Technology. ■

ANNOUNCEMENT

12th All India Quiz Contest and 18th All India Elocution Contest, 2012-13

The Board of Studies of the Institute is organizing the 12th All India Quiz Contest and 18th All India Elocution Contest on 2nd February, 2013 as per the following details:-

Venue:	The Institute of Chartered Accountants of India, "ICAI Bhawan" 27, Cuffe Parade, Colaba, Mumbai-400 005.
Time:	Quiz Contest – 9.30 a.m. to 1 p.m. Elocution Contest – 1.30 p.m. to 6 p.m.

The participants to the Contests would be the winners of the Regional Level Contests held earlier by the respective Regions. Students from Mumbai and nearby places as also students, who happen to be in Mumbai on that day, are requested to join the programme and encourage the Contestants.

Director,
Board of Studies

Cloud Computing: A new era of Information Technology Management

Dr. Santosh K. Pandey

Introduction

Information Technology (IT) has become a vital enabler for the modern global economy. Putting business applications online is no longer optional, but it has become an essential part of every business strategy today. Global commerce as it exists at present seems to be impossible without complex distributiopn systems with the help of technology. One can undoubtedly say that business modules are either dependent or going to be reliant on IT tools and techniques. Management of IT resources is one of the most important areas for the organizations and cloud computing is the latest transformation in the same direction, which is basically the usage of computing resources (hardware and software) as a service over a network. This article provides an overview of the same along with its deployment and service models. In addition, benefits and challenges with reference to cloud computing are explored. Indian as well as International market scenario has also been visualized.

What is Cloud Computing?

National Institute of Standards and Technology (NIST) defines cloud computing *as a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g. networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.*

Cloud computing is basically the use of computing resources (hardware and software) that are delivered as a service over a network. Thus, Cloud Computing is simply IT services sold and delivered over the Internet. Economically, the main appeal of cloud computing is that customer '*only using what they need*', and '*only pay for what they actually use*'. The cloud is the next stage in the evolution of the Internet. It provides the means through which everything from computing power to business processes to personal collaboration is delivered as a service wherever and whenever we need it. One of the most common example of cloud computing is web based e-mail services offered by various providers like Yahoo, Google etc. E-mail can be accessed on anytime anywhere basis without knowing that where the data is stored.

Deployment Models of Cloud Computing

The cloud computing environment can consist of multiple types of clouds based on their deployment and usage. These are given as follows:

- **Public Clouds** – The public cloud is made available to the general public or a large industry group. They are administrated by third parties or vendors over the Internet, and services are offered on pay-per-use basis.
- **Private Clouds** - This cloud computing environment resides within the boundaries of an organization and is used exclusively for the organization's benefits. These are also called internal clouds. They are built primarily by IT departments within enterprises who seek to optimize utilization of infrastructure resources within the enterprise by provisioning the infrastructure with applications using the concepts of grid and virtualization.
- **Community Clouds –** This is the sharing of computing infrastructure in between organizations of the same community. For example, all Government organizations within India may share computing infrastructure on the cloud to manage data. The risk is that data may be stored in the data of competitors.
- **Hybrid Cloud** – It is maintained by both internal and external providers. It is a composition of two or more clouds (Private, Community or Public). They have to maintain their unique identity, but are bound together by data and application portability. With a hybrid cloud, organizations might run non-core applications in a public cloud, while maintaining core applications and sensitive data in-house in a private cloud.

Service Models of Cloud Computing

The service models are dynamically changing as cloud providers come out with new offerings focused on

The author is Executive Officer, ICAI

being competitive, increase market share, each with the aim to becoming one-stop shop. Mainly, there are three Cloud Computing Service based models. These are given as follows:

- **Infrastructure as a service (IaaS)** - It is the foundation of cloud services. It provides clients with access to server, hardware, storage, bandwidth and other fundamental computing resources. The service is typically paid for on usage basis.
- **Software as a Service (SaaS) -** In this model, cloud providers install and operate application software in the cloud and cloud users access the software from cloud clients. The cloud users do not manage the cloud infrastructure and platform on which the application is running. This eliminates the need to install and run the application on the cloud user's own computers simplifying maintenance and support.
- **Platform as a Service (PaaS) –** In this model, cloud providers deliver a computing platform typically including operating system, programming language execution environment, database, and web server. Application developers can develop and run their software solutions on a cloud platform without the cost and complexity of buying and managing the underlying hardware and software layers.

Enterprises have to select the right service model based on their specific requirements. The selection has to be done considering various factors such as cost benefit analysis, relevant risks, security and controls and the criticality of the data and services. Typically, the enterprises would choose the model, which offers them the best savings with the required security.

Benefits of Cloud Computing

Some of the key benefits of Cloud Computing are given as follows:

- *Reducing Capital Costs*: By using the cloud technology, capital costs on hardware, software or licensing fees can be easily brought down.
- *Improved Accessibility*: As discussed earlier, cloud offers improved accessibility on anytime, anywhere basis, which is the demand of the day.
- *Scalability and Flexibility*: Scalability and flexibility are highly valuable advantages offered by cloud computing, allowing customers to react quickly to changing IT needs, adding or subtracting capacity and users as and when required and responding to real rather than projected requirements.
- *Reducing Expenditure on Technology Infrastructure*: Cloud computing technology offers less expenditure as its fundamental principle is *pay only for actual usage.*
- *Improved Resource Utilization*: Combining resources into large clouds maximizes utilization by delivering resources only when they are needed.

Challenges to Cloud Computing

Like any new technology, the adoption of cloud computing is not free from challenges. These challenges require immediate attention from research community to properly address them. Although, a little work has been accomplished but still a lot needs to be done in the concerned areas. Some of the most important challenges are as follows:

- **Security and Privacy:** The key challenge to cloud computing is how it addresses the security and privacy concerns. As important data of the organization resides outside the organization, security assurance from the cloud services offering company is highly needed. Again, upto which level security is offered by them must be thoroughly examined by the clients.
- **Service Delivery and Billing:** It is difficult to assess the costs involved due to the on-demand nature of the services. Budgeting and assessment of the cost becomes very difficult unless the clod services provider has some good and comparable benchmarks to offer by adapting the related best practices and standards.
- **Interoperability and Portability:** Businesses should have the flexibility of migrating in and out of the cloud. In addition, the facility of switching the service providers should also be there without any lock-in period. On the other hand, cloud computing services should also have the capability to integrate smoothly with the other technologies.
- **Legal**: As the data in cloud computing may be stored in any part of the world, certain legal issues arise with the cloud computing, including

trademark infringement, security concerns and sharing of propriety data resources based on various jurisdictions.

- **Reliability and Availability:** Based on some case studies, it is found that some of the cloud services providers still lack round-the-clock service; this results in **frequent outages**. Therefore, it becomes very essential to monitor the services being provided using internal or third-party tools. It is vital to have plans to supervise usage, Service Level Agreements (SLAs), performance, robustness, and business dependency of these services.
- **Performance and Bandwidth Cost: As mentioned in the previous section that b**usinesses can save money on hardware but for utilizing cloud based services, they have to spend more for the bandwidth. Although, there can be a low cost for smaller applications but it can be significantly high for the large database applications. Delivering intensive and complex data over the network requires sufficient bandwidth.

All these aforementioned challenges require serious consideration and the possible mitigation mechanisms before adopting the technology.

Cloud Computing Market: Indian and International Scenario

In a research report entitled 'India Cloud Market Overview, 2011-2016'; International Data Corporation (IDC) has looked into cloud adoption in India and its future potential. "In 2011, the cloud computing market was estimated at $535 million and this will reach $909 million by this year-end, according to the IDC study. It is a market that is fast maturing and seeing many new entrants with a broad range of investments/ solutions taking key roles in the cloud computing ecosystem", said Mr. Venu Reddy, Director IDC Centre for Consultancy and Research. The study also estimated that from 2013-16, the Indian cloud computing market will grow at 50 per cent every year.

In a global scenario, cloud services revenue is expected to touch $149 billion in 2014 and $55 billion forecasted worldwide revenue from public IT cloud services alone. Further, it is also expected that 2.3 million new jobs will be created by cloud on a cumulative basis from 2010-2015. The impact of cloud computing will be very high on the nearly $60 billion outsourcing sector, whose emphasis is on cost savings.

In addition, the global cloud computing market is expected to grow at an 30% CAGR reaching $270 billion in 2020 as per the latest research report covering the cloud computing products, technologies and services for the global market, entitled 'Global Cloud Computing Market Forecast 2015-2020'.

Conclusion

Technology is evolving and developing day by day. There is no doubt that the cloud computing technology has facilitated the management of IT resources as well as business processes in a tremendous way. The most important aspect is pay-per-use for on-demand services along with accessibility of anytime, anywhere basis with the help of networks. Developing countries like India can take the benefits of cloud computing by implementing it in its e-governance projects. However, along with several benefits, it has certain drawbacks too. Security and privacy are the prime concerns for any business application; technological threats provide a significant risk for them, which must be mitigated before adapting the cloud computing. At the same time, researchers should also address the aforementioned challenges for smooth working of cloud computing resources for the accomplishment of the organizations' vision and mission.

References

[1] Peter Fingar, Andy Mulholland & Jon Pyke: Enterprise Cloud Computing: A Strategy Guide for Business and Technology Leaders, Meghan-Kiffer Press, Florida, USA, April, 2010.

[2] Michael Mille: Cloud Computing: Web-Based Applications That Change the Way You Work and Collaborate Online, Que Publishing, USA, 2009.

[3] Nick Antonopoulos & Lee Gillam: Cloud Computing: Principles, Systems and Applications, Springer, 2010.

[4] http://www.nsa.gov/research/_files/publications/cloud_computing_overview.pdf

[5] http://www.cloudtweaks.com/2012/08/top-five-challenges-of-cloud-computing/

[6] http://www.cloudcomputingmarket.com/

[7] http://www.thehindubusinessline.com/industry-and-economy/info-tech/article3832182.ece?homepage=true&ref=wl_home

Waterfall to Agile Methodology

Sukriti Arora

Introduction

A software development methodology or system development methodology in software engineering is a framework that is used to structure, plan, and control the developing an information system. Every software development methodology approach acts as a basis for applying specific frameworks to develop and maintain software. Several software development approaches have been used since the origin of information technology. This article highlights majorly on two methodologies - **Waterfall Methodology** and **Agile Model**.

Waterfall Model

Just like a waterfall flows down, the waterfall model is a linear sequential design process used in software development, with the progress of each phase having its own objectives to achieve and completion of one stage leads to another stage steadily.

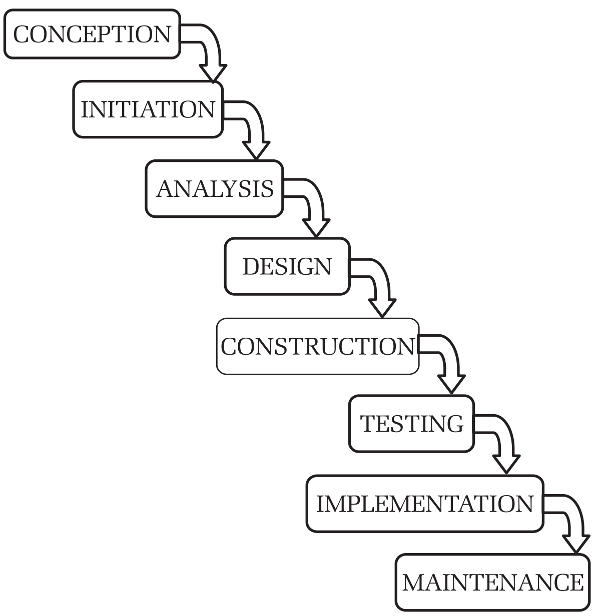


Figure: Waterfall Methodology

Waterfall methodology is one of the earliest software development models and adapts the linear approach. Waterfall still retains its relevance as a better method when the environment is stable with no room for changes in requirement, when frequent interactions with ends users and other stakeholders are not possible, or when there is a risk of key developers quitting the project midway. The team that is developing the model progresses to next stage only after completion of the previous stage. Documentation is an integral part of software development in Waterfall methodology.

A linear approach means a stage by stage approach for product building involving the following steps, one after another.

- Analysis phase carried out by the project team followed by decisive and prioritizing business requirements / needs.
- Design phase wherein business requirements collected during Analysis phase are translated into IT solutions in addition to the decision taken about underlying technology/tool to be used.
- Follows the coding part, once processes are defined and online layouts are built.
- The next stage of evolves into a fully tested solution for implementation and testing for evaluation by the end-user.
- The last and final stage incorporates evaluation and maintenance to ensure everything runs smoothly.

Some of the assumptions Waterfall method holds are as follows:

- Unwavering or stable Requirements;
- Technology familiar to the Project team;
- No surprises, no alterations, no divergences;
- Management has patience; and
- Customers have patience

But in practical scenario, following parameters are bound to happen. The Reality rules are as follows:

- Wavering requirements;
- Needs change, Priorities change, Fashion changes. Technology changes;

The contributor is Assistant Secretary, ICAI

- Management changes, Escalation happens; and
- End users change

The fact is that "Waterfall provides solutions for the ***known*** but is terrible at managing the ***unknown***." To succeed, we have to adapt to reality rules. Planning cannot control reality, regardless on how detailed it is.

Agile Model

Then entered the Agilists who created the Agile Manifesto, and defined its values, principles and methods. Agile is a recent software development methodology based on the agile manifesto. Agile software development is a process of:

o Continuous reflection and learning;

o Removing inefficiencies and waste;

o Building a collaborative team environment; and

o Working together to find better ways of delivering.

Four principles that constitute Agile methods are as follows:

(i) The reigning supreme of individuals and interactions over processes and tools.

(ii) As does, working software over comprehensive documentation.

(iii) Likewise, customer collaboration over contract negotiation.

(iv) And again, responding to change over plan follow-throughs.

Agile methodologies hold close the iterations. Small teams work together with stakeholders to define quick prototypes, proof of concepts, or other visual means to describe the problem to be solved. The team defines the requirements for the iteration, develops the code, and defines and runs integrated test scripts, and the users verify the results. Verification occurs much earlier in the development process than it is during waterfall, allowing stakeholders to fine-tune requirements while they're still relatively easy to change.

▪ ***Agile methods are adaptive rather than predictive***. The agile methods welcome change and have processes that adapt and thrive on change, even to the point of changing themselves.

▪ ***Agile methods are people-oriented rather than process-oriented***. Agile methods affirm that no process will ever make up the skill of the development team, so the role of a process is to support the development team in their work.

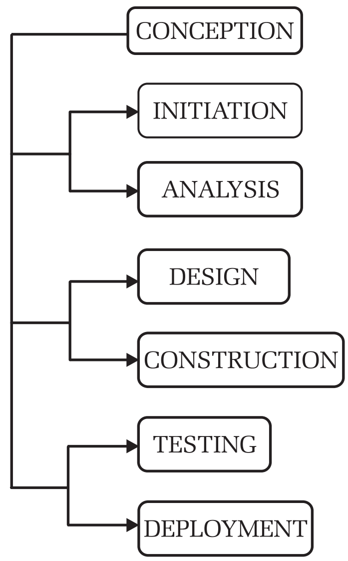


Figure: Agile Model

Key features behind Agile's Success

- **Iterative:** Agile software processes focus on short cycles (iterations). Within each cycle, a certain set of activities is completed. This short cycle is repeated many times to refine the deliverables.
- **Time-Bound:** Each iteration is scheduled for certain time limits. Functionality may be reduced or activities may be rescheduled if they cannot be completed within the allotted time period.
- **Modularity:** Allows a process to be broken into components/modules called activities. A software development process prescribes a set of activities capable of transforming the vision of the software system into reality.
- **Cost-cutting:** Agile software processes focus on cost-cutting by requiring a minimal number of activities necessary to mitigate risks and achieve their goals.
- **Adaptive:** The agile process adapts the process to attack the new found risks which were not planned.
- **Incremental:** An agile process does not deliver an entire system at once. Instead, it partitions the nontrivial system into increments and when an

increment is completed and tested, it is integrated into the system.

- **People-Oriented:** Developers that are empowered raise their productivity, quality, and performance who know how to make the changes recommended as and when suggested by the client.
- **Collaborative:** When a project is developed in pieces, quickly integrating a large project while increments are being developed in parallel requires collaboration.
- **Convergent:** Convergence states that we are actively attacking all of the risks worth attacking. As a result, the system becomes closer to the reality that we seek with each iteration.

Agile Model vs Waterfall Methodology

(i) No looking back once a stage is completed in the Waterfall method whereas Agile methods adapt to change. Most software designed and implemented under the waterfall method is hard to modify according to time and user needs whereas in Agile methodology, new ideas are allowed and changes are made easily.

(ii) In Agile methodology, one has a ready product at the end of each tested stage. This ensures bugs are caught and eliminated in the development cycle, and the product is double tested again after the first bug elimination. This is not possible for the Waterfall method, since the product is tested only at the very end, which means any bugs found results in the entire code having to be re-written.

(iii) Agile's modular nature means employing better suited object-oriented designs and programmes, which means one working model is always ready for timely release at each phase even if it does not entirely match customer specifications. Whereas in the waterfall method, there is only one foremost product release and any problems or delays mean highly dissatisfied customers.

(iv) Agile methods allow for specification changes as per end-user's requirements, achieving customer agreement. This is not possible in the waterfall method, since any changes to be made means the project has to be started all over again.

(v) However, both methods do allow for a sort of departmentalization e.g. in waterfall departmentalization is done at each stage. As for Agile, each coding module can be delegated to separate groups allowing several parts of the project to be done at the same time, though departmentalization is more effectively used in Agile methodologies.

(vi) Testing time cycle of Agile is relatively short compared to Waterfall methodology, because testing is done parallel to development. Waterfall model is very rigid and relatively less flexible than the agile model.

(vii) The flexibility to error check at any phase in the Agile methodology makes the product more bug free and less erroneous as compared to Waterfall which tests for bugs at the end of the development module only.

(viii) Since Agile provides flexibility to make changes as per customer requirements it is more inclined towards better client satisfaction. This is a real set back for the Waterfall model which doesn't allow any modifications once the module has been completed.

Conclusion

Waterfall and Agile are two different approaches to software development that also find use in project management. Both methods have their advantages and disadvantages, and the selection of either method will depend on various project-centric factors. In conclusion, though on one side, waterfall model defines stages that allow for thorough planning, especially for logical design, implementation and deployment, on the other side, Agile methodology is a sound choice for software development and web design projects. More and more firms are becoming Agile!

References

- http://faculty.salisbury.edu/~xswang/Research/Papers/SERelated/Agile/12510385.pdf
- http://agileintro.wordpress.com/2008/01/04/waterfall-vs-agile-methodology/
- http://www.modelmetrics.com/model-viewpoint/waterfalls-demise-agiles-rise/
- http://www.brighthubpm.com/agile/50473-agile-vs-waterfall-is-there-a-real-winner/

Electronic Voting by Shareholders

CA. Rajagopal.V

Shareholder participation in the affairs of the Company has for long, meant an annual visit by some of the shareholders to the Company's Annual General Meeting. For listed companies with shareholders spread across the globe a visit to the area where the registered office of the Company is located to attend the Annual General Meeting is hardly feasible. Hence, the management of the Company is by and large left to the promoters and their appointees.

Section 192 A of the Companies Act, 1956

To address the situation voting through postal ballot was introduced by section 192 A of the Companies Act, 1956 brought in with the Companies (Passing of Resolution by Postal Ballot) Rules, 2001 later superseded by the Companies (Passing of the Resolution by Postal Ballot) Rules 2011. Section 192 A is saliently reproduced below:

192 A. *(1) Notwithstanding anything contained in the foregoing provisions of this Act, a listed public company may, and in the case of resolutions relating to such business as the Central Government may, by notification, declare to be conducted only by postal ballot, shall, get any resolution passed by means of a postal ballot, instead of transacting the business in general meeting of the company.*

(2) Where a company decides to pass any resolution by resorting to postal ballot, it shall send a notice to all the shareholders, along with a draft resolution explaining the reasons therefore, and requesting them to send their assent or dissent in writing on a postal ballot within a period of thirty days from the date of posting of the letter.

(4) If a resolution is assented to by a requisite majority of the shareholders by means of postal ballot, it shall be deemed to have been duly passed at a general meeting convened in that behalf.

(6) If a default is made in complying with sub-sections (1) to (4), the company and every officer of the company, who is in default, shall be punishable with fine, which may extend to fifty thousand rupees in respect of each such default.

Explanation.–For the purposes of this section, "postal ballot" includes voting by electronic mode.]

Pertinently "postal ballot" was defined to include voting by electronic mode.

Post the introduction of section 192 A shareholders could vote on resolutions wherein postal voting is applicable thereby enabling greater participation in the Company's affairs.

Companies (Passing of the Resolution by Postal Ballot) Rules 2011

In terms of the Companies (Passing of the Resolution by Postal Ballot) Rules 2011 the list of businesses wherein the resolutions shall be passed through Postal Ballot by the listed companies are:

(*a*) Alteration in the Object Clause of Memorandum;

(*b*) Alteration of Articles of Associations in relation to insertion of provisions defining private company;

(*c*) Buy-back of own shares by the company under sub-section (1) of section 77A;

(*d*) Issue of shares with differential voting rights as to voting or dividend or otherwise under sub-clause (*ii*) of clause (*a*) of section 86;

(*e*) Change in place of Registered Office outside local limits of any city, town or village as specified in sub-section (2) of section 146;

(*f*) Sale of whole or substantially the whole of undertaking of a company as specified under sub-clause (*a*) of sub-section (1) of section 293;

(*g*) Giving loans or extending guarantee or providing security in excess of the limit prescribed under sub-section (1) of section 372A;

(*h*) Election of a director under proviso to sub-section (1) of section 252 of the Act;

(*i*) Variation in the rights attached to a class of shares or debentures or other securities as specified under section 106.

Procedures for conducting business through postal ballots

The salient procedures prescribed for conducting business through postal ballots are:

(1) The company may make a note below the notice of General Meeting for understanding of members that the transaction(s) at Sl. No. requires consent of shareholders through postal ballot;

(2) The board of directors shall appoint one scrutinizer, who is not in employment of the company, may be a retired judge or any person of

The author is Member of ICAI (Mem.No.27318)

repute who, in the opinion of the board can conduct the postal ballot voting process in a fair and transparent manner;

(3) The scrutinizer shall maintain a register to record the consent or otherwise received, including electronic media, mentioning the particulars of name, address, folio number, number of shares, nominal value of shares, whether the shares have voting, differential voting or non-voting rights and the Scrutinizer shall also maintain record for postal ballot which are received in defaced or mutilated form. The Postal Ballot and all other papers relating to postal ballot will be under the safe custody of the Scrutinizer till the Chairman considers, approves and sign the minutes of the meeting. Thereafter, the Scrutinizer shall return the ballot papers and other related papers/register to the company so as to preserve such ballot papers and other related papers/register safely till the resolution is given effect to;

(4) The consent or otherwise received after thirty days from the completion of dispatch of notice shall be treated as if reply from the member has not been received.

Implementation of e-voting by SEBI

While the empowering provisions to enable electronic voting have been there in the Companies Act, 1956 for some time now SEBI has taken the first step to implement electronic voting vide its Circular No. CFD/DIL/6/2012 dated 13.7.2012. The circular has been issued with the objective of enabling wider participation of shareholders in the decisions of the companies through electronic voting process. Enabling e-voting facility to the shareholders in respect of those businesses which are transacted through postal ballot has been made mandatory to the top 500 listed entities at the BSE and NSE chosen based on the market capitalisation computed as on the date of this SEBI circular. The Listing Agreement has been amended and a new clause 35 B has been inserted which states:

"35B. (i) The issuer agrees to provide e-voting facility to its shareholders, in respect of those businesses, which are transacted through postal ballot. Such e-voting facility shall be kept open for such period specified under the Companies (Passing of the Resolution by Postal Ballot) Rules, 2001 for shareholders to send their assent or dissent.

(ii) Issuer shall continue to enable those shareholders, who do not have access to e-voting facility, to send their assent or dissent in writing on a postal ballot pursuant to the provisions of the Companies (Passing of the Resolution by Postal Ballot) Rules, 2001 or amendments made thereto.

(iii) Issuer shall utilize the service of any one of the agencies providing e-voting platform, which is in compliance with conditions specified by the Ministry of Corporate Affairs, Government of India, from time to time.

(iv) Issuer shall mention the Internet link of such e-voting platform in the notice to their shareholders".

The new clause 35B shall be applicable for the shareholders' meetings (postal ballots), for which notices are issued on or after October 1, 2012. However, listed companies are at liberty to provide e-voting facility to their shareholders even for the meetings for which notices are being sent prior to October 1, 2012.

Secured electronic platform for e-voting

In order to have secured electronic platform for capturing accurate electronic voting processes, Ministry of Corporate Affairs has vide circular dated December 27, 2011 clarified that any agency providing e-voting platform is required to obtain a certificate from Standardization Testing and Quality Certification (STQC) Directorate, Department of Information Technology, Ministry of Communication and IT, Government of India, New Delhi. Presently, both the Depositories - Central Depository Services (India) Limited (CDSL) and National Securities Depository Limited (NSDL) - are providing e-voting platform, after obtaining necessary certifications. A shareholder would be required to register with the concerned depository for this purpose. The registration would be linked to the demat account held by the shareholder. Once this one time procedure is done the shareholder can login and e vote on resolutions of Companies whose shares are held by him in the said demat account. For example NSDL would send the account login and password to the registered mail id of the each of its account holders who would thereafter be required to login and complete the registration process. Once this is done, the account holder can login and vote on resolutions for any of the Companies whose shares are held in the said demat account during the stipulated time period for which the voting remains open.

Conclusion

E-voting would enable shareholders to vote at the time and place of their convenience and eliminate postal delays. It is however to be noted that e-voting will apply to only such businesses as are presently transacted through postal ballots. We are yet to reach the stage wherein shareholders can e-vote on the resolutions being passed in the Company's General Meetings. Hence this can be considered as a positive step towards greater participation of the shareholders in the Company's decision making process. Mandatory e-voting on all members resolutions would be the ultimate goal. ■

Algo Trading: Replacement of Human Brain with Software

CA. Ashish Gupta

Today the use of computer software has become so vital in the commercial world that we cannot even think of survival without them. Gone are the days when students, undergoing Articleship Training used to burn mid-night oil to tally the trial balances of the client during audit. This paradigm shift has occurred mainly because of the easy availability of Accounting Software's at affordable prices. As even a small shopkeeper can afford them, the hard job of manual calculations is now over.

With such developments happening all around in different areas concerning management and operations, there is no reason that stock markets would stay behind in using advanced software's for trading operations. It is a well-known fact that the Bombay Stock Exchange started its operations in 1875 under a banyan tree, and then moved to ring trading and thereafter to line computer trading through use of internet. National Stock Exchange started its online trading in 1994 using computer terminals.

In all systems operating with a profit motive, human emotions play a great role. The basic objective of every trader is to earn profit i.e. buy at low price and sell at higher prices. With the advent of advanced technology, a new concept called 'Arbitrage' took birth involving buying and selling intra-market or inter-market to make profit within a short span of time. For carrying out arbitrage operations, alertness of human mind and prompt action are very important but human brain cannot run at the speed of computer. Therefore, it may so happen that many a times some very important opportunity to earn profits may go unnoticed by a human mind. As with the advent of new technology the work of the brain has been replaced with computer software's solving tedious problems within fraction of seconds, issues of arbitrage may be best understood and resolved by the use of the same. In today's IT driven environment, the use of Algorithm Trading is understood to facilitate solutions to complex arbitrage issues, which need to be resolved and acted upon quickly in order to generate timely profits. However, as mentioned earlier, software lacks human emotions; hence, even a slight mistake in its use can lead to havoc resulting in the entire situation going out of control.

This article discusses the concept of Algorithm Trading, its advantage, and disadvantages and other related aspects.

What is Algorithm Trading (AT)

Algorithm Trading (AT) can be defined as the use of computer programmes and software to execute trades based on pre-defined criteria or instructions without any human intervention. It is also known as Automated Trading, Alog Trading, Black Box Trading or Robo Trading. It can also be defined as orders that are automatically placed in the market by software programmes built on certain mathematical models.

If we go by the dictionary meaning, the term 'Algorithm' means a process or a set of processes or else ,a set of rules, used for calculation or problem solving, especially with a computer. Defining otherwise, it is a definite list of well-defined instructions for completing a task, which from the initial state, will proceed through a well-defined series of successive states, eventually terminating in an end state. This kind of system is used not only in stock market but also for currency and commodity trading.

AT strategy uses formulae to keep track of real market data and execute trading with minimum impact on the market. However, complex algorithm allows investors to get the best possible price without significantly impacting stock's price or/and increasing purchasing costs.

AT can be used for any type of investment strategy, such as market making, inter-market spreading, arbitrage, pure speculation etc.

The main advantage of AT is that 'human emotions' do not play a part as the computer executes orders according to a pre defined programme.

High Frequency Trading (HFT)

A special class of AT is HFT. In this system, computer makes elaborate decisions to initiate orders based on real time information received electronically. The processing of this information and subsequent

(The contributor is Sr. Assistant Director, ICAI)

decision making would happen even before a human trader could observe the same.. HFT has reduced the opportunities for day traders, arbitrageurs and jobbers, who rely mainly on traditional manual methods for profit booking. It can also be defined as a subset at AT involving buying and selling of shares in fractions of a second.

HFT is different from AT in the context that every HFT is algorithmic but every algorithmic is not necessarily HFT. While AT uses pre-programmed mathematical models or programmes to track real time market data, HFT employs advanced software's to track down even the minutest price discrepancy (even slightest price differential) in stock, currencies and commodities and executes orders of buying and selling in millionth part of a second in order to generate profits.

Categories of Algos

Basically, Algos can be classified under the following two broad categories:

(I) Execution Algos - This can be further classified as follows:

- (a) Volume Weighted Average Price (VWAP)
- (b) Time Weighted Average Price (TWAP)

(II) Alpha-Generating Algos - This can be further sub-divided as follows:

- (a) Arbitrage Algos
- (b) Trend Following Algos

Let us discuss each of these algos one by one.

(I) Execution Algos

These programmes execute stock trade in such a manner that price secured by traders is not influenced by ups and downs in the market.

Two common types of these algos are as follows:

(a) **VWAP**- It is the ratio of the value traded to the total volume traded over a period of time or a trading session (usually a day). It is often used as a trading benchmark, as the objective of this algo is that the price should be as close as possible to the weighted average. Mainly used by passive investors such as pension funds, mutual funds etc, VWAP ensures that the orders are executed in line with the volume.

Suppose, the stock of company X is traded in a range of ₹ 2093 to ₹ 2107 and its VMAP is ₹ 2103. In such a case, investor selling at VMAP could make a profit of ₹ 10 instead of the day's lowest quote.

(b) **TWAP**- In this programme a large order is broken up into equal parts and then buying or selling orders is carried out in market evenly over the trading session. This type is being used by high volume traders interested in executing their orders over a specific period in order to keep prices close to the price that reflects market sentiments. For example, the execution of 50% of volume in the first half of trading session and remaining 50% in the second session.

Thus, it is like a Systematic Investment Plan of a Mutual Fund with a difference of time period horizon i.e. instead of months it is based on hours or minutes.

(II) Alpha Generating Algos

These algos track the historical relationship between securities, assets or markets and exploit even a minor deviation for quick gains.

These can be further sub-divided into the following categories:

(a) **Arbitrage**- It is much like traditional practice of taking advantage of price difference between two or more markets, securities or asset classes. In simple terms, it is the possibility of a risk-free profit at zero cost. This profit can also be earned by exploiting differentials between futures and cash markets.

(b) **Trend Following**- These alogs try to take advantage of long-term moves that seem to play out in various markets. These algos follow the simple maxim - the trend is your friend. The technique applied is to identify a reversal in trends and then book profit at an early stage of momentum (ups and downs) of stock or future market.

Traders can use current price calculations, moving averages and channel breakouts to determine the general direction of the market and to generate trade signals. The strategy does not aim to forecast or predict specific price level for making profits, rather, it simply jumps on the trend and rides upon it.

(c) **Pair Trading**- This strategy enables the traders to gain profit from virtually any market conditions: uptrend, down trend or sideway movement. In this strategy, performance of two historically correlated securities is monitored. When the correlation between two securities temporarily weakens, i.e. one stock moves up while other moves down, the pair trade would be to short the outperforming stock and to long the underperforming stock on the assumption that spread between these would eventually converge.

(d) **Delta Neutral**- This strategy involves long and short position in related securities in which options are taken, as due to small changes in the value of the underlying security, the portfolio value remains unchanged. This portfolio contains options and their corresponding underlying securities such that positive and negative delta components offset each other, thereby making the portfolio's value being insensitive to changes in the value of the underlying security. In this strategy, algos shall check market's underlying and shall calculate the quantity of the underlying to be traded to validate the Delta.

(e) **Mean Reversion**- In this strategy, the basic idea is that a stock's high and low prices are temporary, and that a stock's price will tend to have an average price over time. It involves the identification of the trading range using various analytical techniques. When current market price is less than the average price, it is considered for short position (selling). The basis of this strategy is that average prices are expected to be on the average.

(f) **Scalping-** Normally it happens in foreign exchange trading where profit is made by gaining the difference between bid/ask prices. This allows for profit even when prices do not move at all.

This strategy involves establishing and liquidating position quickly within minutes or even seconds.

Advantages and Disadvantages of AT

Following are main advantages of AT or HFT.

(a) It is free from human error and it is 100% disciplined. Since parameters are fixed in advance, it is away from greed and fear.

(b) These strategies are subject to time limitations and can be used 24X7 and even in different asset classes in a number of exchanges.

(c) It is beneficial not only for FIIs or institutional investors but also for small investors.

(d) It has helped in improving liquidity and trade as buy or sell could be executed automatically.

Following are some of the disadvantages of AT or HFT.

(a) The cost of installing and running trading platform is very high due to use of sophisticated technology and equipments.

(b) Presently the in-built strategies are suitable for bigger institutions and not for small retail investors.

(c) There is a lack of experienced personnel in this field.

(d) There is always a fear of misuse of these technologies by large institutions to get undue advantage over small investors who lack access to sophisticated technologies of AT or HFT.

(e) Since AT and HFTs pump large volumes of trades into the markets an erroneous algorithm can create havoc in the market itself. Such instances shall be discussed later on.

(f) There can also be a technological malfunction within the algorithm that can impact the order placement.

Flash Crash

Although computerization in financial markets of developed countries, such as the New York Stock Exchange started in early 1970s, electronic and electronic communication networks developed in the late 1980s and 1990s and have since become very popular among traders.

HFT came into spot light about 3 years ago when Goldman Sachs sued one of their former employee for stealing the banks propriety code that was used in one of their programmes of AT.

However, on 6 May 2010 in the US, a 'Flash Crash' took place on Dow in which several blue chips and other companies lost a lot of their values in a matter of minutes and shares of big companies like Accenture and P&G saw ridiculous prices ranging from a cent to $100000. The prices were later resorted to their original levels.

The term 'Flash Crash' was coined due to massive plunge of 700 points on the Dow Jones Industrial Average (one of the most closely watched US benchmark indices) before recovering in a matter of minutes. The execution was so fast that it set a sudden and wild fluctuation on index wiping off nearly $ 1 trillion of investor wealth within minutes.

This was the first and last incidence of Flash Crash in the US. It gave a wakeup call to Securities Exchange

Commission (SEC). SEC investigated this and it was found that the starting point of this crash was a mutual fund, which was legitimately hedging its position by selling Mini S&P Futures primarily amongst which were HFTs who initiated aggressive selling which contributed directly to the quick price decline.

This 'Flash Crash' highlighted some dangers of fast trading. Further investigation also revealed that HFT aggravated volatility and sell off with its rapid fire trading techniques.

AT in India

Although it was recommended that AT should be started in India by the end of 2007, it was initiated only during January 2010 at the NSE whereas the BSE introduced the same in November 2010 on Diwali. However, during Muhurat trading session on 26th October 2011 a faulty algorithm caused unusually large trades on BSE because of which the latter had to cancel all derivatives after volumes spiked to about ₹ 27000 crores, almost 10 times the average daily volumes on BSE's cash segment.. To avoid recurrence of such an incidence, SEBI came out with its guidelines on March 31, 2012, major features of which are as follows:

(1) SEBI asked Exchanges to put in place effective economic disincentives with regard to high daily order to trade ratio of algo orders of stock brokers.

(2) Exchanges shall put in place monitoring systems to identify and initiate measures to impede any possible instance of order flooding by algos.

(3) Exchange shall ensure that all orders are necessarily routed through broker servers located in India and stock exchanges have appropriate risk control mechanism to address risk emanating from algorithm orders and trades.

(4) Stock Exchanges shall put in place a system to identify dysfunctional algo and take suitable measures.

(5) Stock exchanges may seek details of trading strategies used by the algos for various purposes such as inquiry, surveillance, investigation etc.

(6) Stock exchange shall synchronize its system clock with atomic clock before the start of market such that the clock has precision to deal with microseconds and accuracy of at least +1-1 millisecond.

For further details, reference can be made to SEBI Circular No. CIR/MRD/DP/09/2012 dt 30/3/12.

Flash Crash in India

Just after a few days of SEBI's Broad Guidelines on AT were announced; a 'Flash Crash' in S&P Nifty took place on 20th April 2012, where, in the middle of a regular trading day, in matter of seconds, a huge sell order dragged Nifty future by nearly 7%. In fact, the Infosys stock fell 20% before recovering in earlier trading part of session. This incident refreshed the memories of BSE's Muhurat Day Trading on 26th October 2011 as discussed above.

The NSE instructed their members not to use any Algorithm, pending completion of investigation. On preliminary investigation it was found that, it was due to huge selling order was punched without a selling price and orders got executed till the last available trade.

The latest incidence of Flash Crash occurred on 5 October 2012 at NSE, when a broking firm from its terminal placed 59 erroneous orders for an institutional client leading to a sudden drop of more than 900 points on Nifty at 4888.20 points, 15.5% lower than 4th October close. Mirroring this, the BSE Sensex also dropped over 200 points. As per the reports, due to this erroneous order, the value of shares, instead of selling worth of Rs. 34 lakh ended up selling stocks worth Rs. 650 crore.

NSE has claimed that there were no technical glitches in its system and it was due to entering wrong orders placed by a particular broking firm, which now had been disabled. Meanwhile SEBI has initiated an investigation into the affairs to avoid recurrence of such an incidence in future.

Conclusion

On the basis of the above discussions, it can be concluded that, with AT and HFT strategies, stock traders in India and the world are getting faster access to streaming real-time market data and are executing orders in milliseconds. However, incidences of Flash Crashes have given birth to fear of misuse of these technologies. This has resulted in resorting to extreme measures in order to bring about some uniformity in the risk-management processes. This will also check the recurrences of such instances in future and without compromising on the speed of execution and trading.

References

SEBI Guidelines on Algorithmic Trading

Websites/ Newspapers

Accounting

Review of the Prudential Guidelines on Restructuring of Advances by Banks/Financial Institutions

While reviewing the prudential guidelines on restructuring of advances by banks/ financial institutions, Reserve Bank of India has decided the following :

i) To enhance the provisioning requirement for restructured accounts classified as standard advances from the existing 2.00 per cent to 2.75 per cent in the first two years from the date of restructuring. In cases of moratorium on payment of interest/principal after restructuring, such advances will attract a provision of 2.75 per cent for the period covering moratorium and two years thereafter; and that

ii) Restructured accounts classified as non-performing advances, when upgraded to standard category will attract a provision of 2.75 per cent in the first year from the date of upgradation instead of the existing 2.00 per cent.

In accordance with the above, loans to projects under implementation, when restructured due to change in the date of commencement of commercial operations (DCCO) beyond the original DCCO as envisaged at the time of financial closure and classified as standard advances in terms of guidelines contained in RBI circular DBOD.No.BP.BC.85 /21.04.048/2009-10 dated March 31, 2010, would attract higher provisioning at 2.75 per cent as against the present requirement of 2.00 per cent as per the details given below:

Infrastructure projects

Particulars	Provisioning Requirement
If the revised DCCO is within two years from the original DCCO prescribed at the time of financial closure	0.40 per cent
If the DCCO is extended beyond two years and upto four years or three years from the original DCCO, as the case may be, depending upon the reasons for such delay (Ref.: DBOD.No.BP.BC.85/21.04.048/ 2009-10 dated March 31, 2010)	2.75 per cent - From the date of such restructuring till the revised DCCO or 2 years from the date of restructuring, whichever is later.

Non-infrastructure projects

Particulars	Provisioning Requirement
If the revised DCCO is within six months from the original DCCO prescribed at the time of financial closure	0.40 per cent
If the DCCO is extended beyond six months and upto one year from the original DCCO prescribed at the time of financial closure (Ref.: DBOD.No.BP.BC.85 /21.04.048/2009-10 dated March 31, 2010)	2.75 per cent - From the date of such restructuring for 2 years.

All other extant guidelines on Income Recognition, Asset Classification and Provisioning pertaining to advances will remain unchanged.

---

1. Refer to the paragraph 90 to 92 of the Second Quarter Review of Monetary Policy 2012-13 announced on October 30, 2012, wherein it was proposed to enhance the provisioning requirements on restructured advances from the existing rates as prescribed in RBI circular DBOD.No.BP.BC.94/21.04.048/2011-12 dated May 18, 2011.

2. vide circular no.DBOD.No.BP.BC.63/21.04.048/2012-13 applicable for all scheduled commercial banks excluding RRBs dated November 26, 2012.

(Compiled by CA. Seema Gupta, BoS)

Company Law

Paving the way for the new modern Company Law

The long awaited Companies bill, which will overhaul the country's corporate law to strengthen governance and increase transparency, was passed in the Lok Sabha on 18th December, 2012. The Companies Act was enacted in 1956. The amendment bill was introduced way back in 2008 but due to the dissolution of the 14th Lok Sabha, it was referred to the Parliamentary Standing Committee in 2009. After incorporating several recommendations, it was decided to introduce the bill again as the Companies Bill, 2011. Through its around 470 Clauses, 29 Chapters and 7 Schedules, the new law proposes to make it mandatory for firms to maintain their documents in electronic format, introduces the concept of One Person Company, asks big companies to set aside funds for corporate social activity and suggests rotation of auditors. The Bill provides for self-regulatory process and stringent compliance regime.

The salient features of the bill are highlighted below:

(i) Independent Director

(ii) Appointment of Key Managerial Personnel

(iii) One person Company

(iv) Scope of Annual Return

(v) Woman Director

(vi) Some percentage of profits towards Corporate Social Responsibility

(vii) Class Action Suits

(viii) Special Court

(ix) Cross Border Amalgamation

(x) Serious Fraud Investigation Office (SFIO)

Contributed by CS. Megha Goel, BoS

REPORT

Phoenix- Ensemble but Together

Life is hard, life is a struggle, life is a fight....

Life doesn't come so easy, amongst all these negatives, there was one positive that came as a 28 days phase in our life, I love myself for this decision...

This 28 phases of our life has taught us how to make friends, how to live life, but also made very difficult for all of us to say bye after loving each other so much. Here there is no race, here we grow with the growth of others, here we stay together and share all the craziest and heart touching moments. Here we live life and only live life....

Today life has taught us a lot, emotions are something that separate man from machine and We are HUMANS, We always had friends but never felt so much close to anyone. COE, Hyderabad has made the dream come true for all the CA students. Here we have the best of faculties, who motivate us, who teach us how to control stress, improve our confidence to face people, improve our public speaking skills, teaching us 'THE ART OF LIVING' and also few programmes, which taught us to face practical life like Mock Interviews, Mock Tribunal and the most important Devil's Advocate, going beyond we laughed, we cried, we actually has it all.....

We got the profile of our mentors, we got to know about them and they made us to know ourselves. They made us belief that there is something special in all of us and made us realise that we all are together yet unique and from this, we got our Team name "PHOENIX – ENSEMBLE BUT TOGETHER".

No doubt, Institute has given us the best possible Faculties, Residential block, Classes and Food.

To all those who have had the experience, it needs to elaboration and to the freshers don't give it a second thought, just go for it and you will definitely thank SOUL-WAAH (16th Batch) for this suggestion for life time...

(Contributed jointly by 16th batch of CoE, Hyderabad)

Applicability of the Institute's Pronouncements and other Notifications for CA Final Examination May 2013

Paper 1: Financial Reporting

A. Pronouncements

I. Statements and Standards

1. Framework for the Preparation and Presentation of Financial Statements
2. Accounting Standards - AS 1 to AS 32.

II. Guidance Notes on Accounting Aspects

1. Guidance Note on Treatment of Reserves created on Revaluation of Fixed Assets.
2. Guidance Note on Accrual Basis of Accounting.
3. Guidance Note on Accounting Treatment for Excise Duty.
4. Guidance Note on Terms Used in Financial Statements.
5. Guidance Note on Accounting for Depreciation in Companies.
6. Guidance Note on Availability of Revaluation Reserve for Issue of Bonus Shares.
7. Guidance Note on Accounting Treatment for MODVAT/CENVAT.
8. Guidance Note on Accounting for Corporate Dividend Tax.
9. Guidance Note on Accounting for Employee Share-based Payments.
10. Guidance Note on Accounting for Credit Available in respect of Minimum Alternate Tax under the Income Tax Act, 1961.
11. Guidance Note on Measurement of Income Tax for Interim Financial Reporting in the context of AS 25.
12. Guidance Note on Applicability of Accounting Standard (AS) 20, Earnings per Share.
13. Guidance Note on Remuneration paid to key management personnel – whether a related party transaction.
14. Guidance Note on Applicability of AS 25 to Interim Financial Results.
15. Guidance Note on Turnover in case of Contractors.

[*]16. Guidance Note on The Revised Schedule VI to the Companies Act, 1956

B. Notifications/Circulars relevant for May, 2013 examination

Clarification on Para 46A of notification number G.S.R. 914(E) dated 29.12.2011 on Accounting Standard 11 relating to "The Effects of Changes in Foreign Exchange Rates"

In order to resolve the problems faced by industry in proper implementation of Para 46A of AS 11 inserted vide notification 914(E) dated 29.12.2011, on account of Para 6 of AS 11 and Para 4(e) of AS 16, MCA had further clarified vide Circular No. 25/2012 dated 09.08.2012 that Para 6 of AS 11 and Para 4(e) of the AS 16 shall not apply to a company which is applying clause Para 46A of AS 11.

Notes:

1. Students are expected to have thorough knowledge of the Accounting Standards (AS 1 to AS 29) and Guidance Notes on various aspects issued by ICAI.
2. As far as AS 30, 31 and 32 are concerned, in view of the complexities involved, the questions involving conceptual issues (not involving application issues) may be asked. Since a separate topic of 'Financial

[*] *This Guidance Note is newly added in the list and is made applicable for the first time in May, 2013 examination.*

Instruments' is included in the curriculum, simple practical problems based on AS 30, 31 and 32 may be asked.

Text of all applicable Accounting Standards and Guidance Notes are available in the Appendices, Volume II of Financial Reporting Study Material.

Applicability of Ind ASs

3. The Core Group was constituted by the Ministry of Corporate Affairs (MCA) for convergence of Indian Accounting Standards with International Financial Reporting Standards (IFRS). This Core Group decided that there will be two separate sets of Accounting Standards viz.

   (i) Indian Accounting Standards converged with the IFRS (Known as Ind AS)

   The MCA has hosted on its website 35 converged Indian Accounting Standards (Ind AS) without announcing the applicability date. These are the standards which are being converged by eliminating the differences of the existing Indian Accounting Standards vis-à-vis IFRS.

   (ii) Existing Accounting Standards

   The companies not falling within the threshold limits prescribed for IFRS compliance in the respective phases shall continue to use these standards in the preparation and presentation of financial statements.

   Students may note that Ind ASs are not applicable for the students appearing in May, 2013 Examination.

The following List of Institute's Pronouncement is relevant for the forthcoming examination i.e. May, 2013. Students may kindly take it into consideration while preparing for the examinations.

GROUP – 1 – Paper 3: Advanced Auditing and Professional Ethics

I. Professional Topics/Subjects

1. Code of Ethics

II. A. Framework for Assurance Engagements

II. B. Engagements and Quality Control Standards on Auditing (SQC/SA/SRS/SRE/SAE)

I. Quality Control and Engagement Standards

S.No.	SA	Title of Standard on Auditing	Effective Date
1	SQC 1	Quality Control for Firms that Perform Audits and Reviews of Historical Financial Information, and Other Assurance and Related Services Engagements	April 1, 2009
2	SA 200	Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with Standards on Auditing	April 1, 2010
3	SA 210	Agreeing the Terms of Audit Engagements	April 1, 2010
4	SA 220	Quality Control for Audit of Financial Statements	April 1, 2010
5	SA 230	Audit Documentation	April 1, 2009
6	SA 240	The Auditor's responsibilities Relating to Fraud in an Audit of Financial Statements	April 1, 2009
7	SA 250	Consideration of Laws and Regulations in An Audit of Financial Statements	April 1, 2009
8	SA 260	Communication with Those Charged with Governance	April 1, 2009
9	SA 265	Communicating Deficiencies in Internal Control to Those Charged with Governance and Management	April 1, 2010
10	SA 299	Responsibility of Joint Auditors	April 1, 1996
11	SA 300	Planning an Audit of Financial Statements	April 1, 2008

S.No.	SA	Title of Standard on Auditing	Effective Date
12	SA 315	Identifying and Assessing the Risks of Material Misstatement through Understanding the Entity and its Environment	April 1, 2008
13	SA 320	Materiality in Planning and Performing an Audit	April 1, 2010
14	SA 330	The Auditor's Responses to Assessed Risks	April 1, 2008
15	SA 402	Audit Considerations Relating to an Entity Using a Service Organization	April 1, 2010
16	SA 450	Evaluation of Misstatements Identified during the Audits	April 1, 2010
17	SA 500	Audit Evidence	April 1, 2009
18	SA 501	Audit Evidence - Specific Considerations for Selected Items	April 1, 2010
19	SA 505	External Confirmations	April 1, 2010
20	SA 510	Initial Audit Engagements-Opening Balances	April 1, 2010
21	SA 520	Analytical Procedures	April 1, 2010
22	SA 530	Audit Sampling	April 1, 2009
23	SA 540	Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures	April 1, 2009
24	SA 550	Related Parties	April 1, 2010
25	SA 560	Subsequent Events	April 1, 2009
26	SA 570	Going Concern	April 1, 2009
27	SA 580	Written Representations	April 1, 2009
28	SA 600	Using the Work of Another Auditor	April 1, 2002
29	SA 610	Using the Work of Internal Auditors	April 1, 2010
30	SA 620	Using the Work of an Auditor's Expert	April1, 2010
31	SA 700**	Forming an Opinion and Reporting on Financial Statements	April 1, 2011
32	SA 705**	Modifications to the Opinion in the Independent Auditor's Report	April 1, 2011
33	SA 706**	Emphasis of Matter Paragraphs and Other Matter Paragraphs in the Independent Auditor's Report	April 1, 2011
34	SA 710	Comparative Information – Corresponding Figures and Comparative Financial Statements	April 1, 2011
35	SA 720	The Auditor's Responsibility in Relation to Other Information in Documents Containing Audited Financial Statements	April 1, 2010
36	SA 800	Special Considerations-Audits of Financial Statements Prepared in Accordance with Special Purpose Framework	April 1, 2011
37	SA 805	Special Considerations-Audits of Single Purpose Financial Statementsand Specific Elements, Accounts or Items of a Financial Statement	April 1, 2011
38	SA 810	Engagements to Report on Summary Financial Statements	April 1, 2011
39	SRE 2400	Engagements to Review Financial Statements	April 1, 2010
40	SRE 2410	Review of Interim Financial Information Performed by the Independent Auditor of the Entity	April 1, 2010
41	SAE 3400	The Examination of Prospective Financial Information	April 1, 2007
42	SAE 3402	Assurance Reports on Controls At a Service Organisation	April 1, 2011

S.No.	SA	Title of Standard on Auditing	Effective Date
43	SRS 4400	Engagements to Perform Agreed Upon Procedures Regarding Financial Information	April 1, 2004
44	SRS 4410	Engagements to Compile Financial Information	April 1, 2004

* Effective date means that the SA is effective for audits of the financial statements for periods beginning on or after the specified date

** "The Council, in partial modification of the decision taken by it at its 291st meeting held in December, 2009, decided that the effective date/applicability of the following Standards on Auditing a) SA 700 (Revised), "Forming an Opinion and Reporting on Financial Statements"; b) SA 705, "Modifications to the Opinion in the Independent Auditor's Report"; c) SA 706, "Emphasis of Matter Paragraphs and Other Matter Paragraphs in the Independent Auditor's Report" be postponed by one year and consequently the said Standards shall now be effective/applicable for audits of financial statements for periods beginning on or after 1st April, 2012 (instead of audits of financial statements for periods beginning on or after 1st April, 2011 as was earlier decided and referred to above). **However above said SA 700, 705 and 706 are applicable for May 2013 examination.**

III. Statements

1. Statement on Reporting under Section 227 (1A) of the Companies Act, 1956
2. Statement on the Companies (Auditor's Report) Order, 2003 (2005 Edition)

IV. Guidance Notes/Study Guide/Monograph

1. Guidance Note on Independence of Auditors.
2. Guidance Note on Audit Reports and Certificates for Special Purposes.
3. Guidance Note on Audit under Section 44AB of the Income-tax Act (2005 Edition).*
4. Guidance Note on Audit of Abridged Financial Statements.
5. Guidance Note on Audit of Inventories.
6. Guidance note on Audit of Debtors, Loans and Advances.
7. Guidance note on Audit of Investments.
8. Guidance note on Audit of Miscellaneous Expenditure.
9. Guidance Note on Audit of Cash and Bank Balances.
10. Guidance Note on Audit of Liabilities.
11. Guidance Note on Audit of Revenue.
12. Guidance Note on Audit of Expenses.
13. Guidance Note on Sections 227(3)(e) and (f) of the Companies Act, 1956.
14. Guidance Note on Certificate of Corporate Governance (2006 Edition)
15. Guidance Note on Computer Assisted Audit Techniques (CAATs).
16. Guidance Note on Audit of Payment of Dividend.
17. Guidance Note on Audit of Capital and Reserves.
18. Guidance Note on Provision for Proposed Dividend.
19. Guidance Note on Auditing of Accounts of Liquidators.
20. Guidance Note on Section 293A of the Companies Act and the Auditor.
21. Guidance Note on Audit of Consolidated Financial Statements.

* Guidance Note on Audit under section 44AB of the Income-tax Act, 1961 (2005 edition) alongwith the supplementary guidance note (excluding the portion relating to Fringe Benefit Tax Provisions) published in September 2006.

Applicability of relevant Amendments/Circulars/Notifications/Regulations etc. relating to Corporate and Allied Laws (Final) for May 2013, Examination:

SUBJECT	AMENDMENT	CONTENT	LINKS FOR REFERENCE
The Companies Act, 1956	Filing of returns under XBRL taxonomy	The Ministry of Corporate Affairs vide General Circular No. 16/2012 dated 6th July, 2012 has mandated one more class of company to file their Balance Sheet and Profit and Loss Account in XBRL mode for the financial year commencing on or after 1st April, 2011.	http://www.mca.gov.in/Ministry/pdf/General_Circular_16_1_2012_XBRL.pdf
The SEBI Act, 1992	SEBI (Issue of Capital and Disclosure Requirement) Regulations, 2009	SEBI vide Notification No. LAD-NRO/GN/2012-13/12/18951 dated 24th August, 2012 has issued SEBI (Issue of Capital and Disclosure Requirements) (Third Amendment) Regulations, 2012 by amending SEBI (Issue of Capital and Disclosure Requirement) Regulations, 2009.	http://www.sebi.gov.in/cms/sebi_data/attachdocs/1346045569469.pdf
The SEBI Act, 1992	SEBI (Issue of Capital and Disclosure Requirement) Regulations, 2009	SEBI vide Notification No. LAD-NRO/GN/2012-13/18/5391 dated 12th October, 2012 has issued SEBI (Issue of Capital and Disclosure Requirements) (Fourth Amendment) Regulations, 2012 by amending SEBI (Issue of Capital and Disclosure Requirement) Regulations, 2009.	http://www.sebi.gov.in/cms/sebi_data/attachdocs/1350292380663.pdf

Non-Applicability of the following Amendments/Circulars/Notifications in Corporate and Allied Laws (Final)

S.No.	Subject Matter	CA Final - Corporate and Allied Laws
1.	The Companies Bill, 2011	Not Applicable
2.	Companies (Second Amendment) Act, 2002 [relating to Winding up]	Not Applicable **[Only General Provisions of winding up as covered under Paragraph 9.4 of the study material is applicable for the examination.** Students are being advised accordingly.] In view of the paradox of the new provisions relating to winding-up, as introduced by the Companies (Second Amendment) Act, 2002, have not yet fully been notified and proposed Bill on company law were contemplated upon one time or other, since now and then, it was thought that neither all the provisions relating to winding-up as contained in the existing Act, 1956 nor new provisions as introduced by the Companies (Second Amendment) Act, 2002 should not be made applicable from the view point of examinations. However, instead of making neither of them as applicable, there are certain practical common problems which students may study for the time being and those provisions/problems have been stated in the aforesaid para 9.4 of the study material. Though study material contains literature on the new law as per (Second Amendment) Act, 2002, questions will be based only on para 9.4 and not outside the same.
3.	Provisions relating to Revival and Rehabilitation of Sick-Industrial Companies	Not Applicable

Applicability of the Institute's Pronouncements and other Notifications for CA IPCC Examination May 2013

IPCC Paper 1: Accounting

Pronouncements

Accounting Standards 1, 2, 3, 6, 7, 9, 10, 13 and 14 are covered in the syllabus.

IPCC Paper 5: Advanced Accounting

A. Pronouncements

Accounting Standards 4, 5, 11, 12, 16, 19, 20 26 and 29 are covered in the syllabus.

B. Notification relevant for May, 2013 examination

1. Maintenance of Cash Reserve Ratio at 4.25 per cent.
2. **Clarification on Para 46A of notification number G.S.R. 914(E) dated 29.12.2011 on Accounting Standard 11 relating to "The Effects of Changes in Foreign Exchange Rates"**

   In order to resolve the problems faced by industry in proper implementation of Para 46A of AS 11 inserted vide notification 914(E) dated 29.12.2011, on account of Para 6 of AS 11 and Para 4(e) of AS 16, MCA had further clarified vide Circular No. 25/2012 dated 09.08.2012 that Para 6 of AS 11 and Para 4(e) of the AS 16 shall not apply to a company which is applying clause Para 46A of AS 11.
3. Statutory Liquidity Ratio for Local Area Banks be reduced from 25 per cent to 23 per cent of their Net Demand and Time Liabilities (NDTL) with effect from the fortnight beginning August 11, 2012.

Note (Common for IPCC Paper 1 and Paper 5)

Non-Applicability of Ind ASs for May, 2013 examination

The MCA has hosted on its website 35 converged Indian Accounting Standards (Ind AS) without announcing the applicability date. These are the standards which are being converged by eliminating the differences of the Indian Accounting Standards vis-à-vis IFRS. These standards shall be applied for all companies falling under Phase I to Phase III as prescribed under the roadmap issued by the core group.

Students may note that Ind ASs are not applicable for the students appearing in May, 2013 Examination. However, Accounting Standards as specified in the syllabus are applicable for the students appearing in May 2013 Examination.

The following List of Institute's Publications is relevant for the forthcoming examination i.e. May, 2013. Students may kindly take it into consideration while preparing for the examinations.

GROUP - 2 - PAPER 6: Auditing and Assurance

I. Standards on Auditing (SAs)

S.No.	SA	Title of Standard on Auditing	Effective Date
1	SA 200	Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with Standards on Auditing	April 1, 2010
2	SA 210	Agreeing the Terms of Audit Engagements	April 1, 2010
3	SA 220	Quality Control for an Audit of Financial Statements	April 1, 2010
4	SA 230	Audit Documentation	April 1, 2009
5	SA 240	The Auditor's responsibilities Relating to Fraud in an Audit of Financial Statements	April 1, 2009
6	SA 250	Consideration of Laws and Regulations in An Audit of Financial Statements	April 1, 2009
7	SA 260	Communication with Those Charged with Governance	April 1, 2009
8	SA 265	Communicating Deficiencies in Internal Control to Those Charged with Governance and Management	April 1, 2010

S.No.	SA	Title of Standard on Auditing	Effective Date
9	SA 299	Responsibility of Joint Auditors	April 1, 1996
10	SA 300	Planning an Audit of Financial Statements	April 1, 2008
11	SA 315	Identifying and Assessing the Risks of Material Misstatement through Understanding the Entity and its Environment	April 1, 2008
12	SA 320	Materiality in Planning and Performing an Audit	April 1, 2010
13	SA 330	The Auditor's Responses to Assessed Risks	April 1, 2008
14	SA 402	Audit Considerations Relating to an Entity Using a Service Organization	April 1, 2010
15	SA 450	Evaluation of Misstatements Identified during the Audits	April 1, 2010
16	SA 500	Audit Evidence	April 1, 2009
17	SA 501	Audit Evidence - Specific Considerations for Selected Items	April 1, 2010
18	SA 505	External Confirmations	April 1, 2010
19	SA 510	Initial Audit Engagements-Opening Balances	April 1, 2010
20	SA 520	Analytical Procedures	April 1, 2010
21	SA 530	Audit Sampling	April 1, 2009
22	SA 540	Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures	April 1, 2009
23	SA 550	Related Parties	April 1, 2010
24	SA 560	Subsequent Events	April 1, 2009
25	SA 570	Going Concern	April 1, 2009
26	SA 580	Written Representations	April 1, 2009
27	SA 600	Using the Work of Another Auditor	April 1, 2002
28	SA 610	Using the Work of Internal Auditors	April 1, 2010
29	SA 620	Using the Work of an Auditor's Expert	April1, 2010
30	SA 700**	Forming an Opinion and Reporting on Financial Statements	April 1, 2011
31	SA 705**	Modifications to the Opinion in the Independent Auditor's Report	April 1, 2011
32	SA 706**	Emphasis of Matter Paragraphs and Other Matter Paragraphs in the Independent Auditor's Report	April 1, 2011
33	SA 710	Comparative Information - Corresponding Figures and Comparative Financial Statements	April 1, 2011
34	SA 720	The Auditor's Responsibility in Relation to Other Information in Documents Containing Audited Financial Statements	April 1, 2010

* Effective date means that the SA is effective for audits of the financial statements for periods beginning on or after the specified date

** "The Council, in partial modification of the decision taken by it at its 291st meeting held in December, 2009, decided that the effective date/applicability of the following Standards on Auditing a) SA 700 (Revised), "Forming an Opinion and Reporting on Financial Statements";b) SA 705, "Modifications to the Opinion in the Independent Auditor's Report";c) SA 706, "Emphasis of Matter Paragraphs and Other Matter Paragraphs in the Independent Auditor's Report" be postponed by one year and consequently the said Standards shall now be effective/applicable for audits of financial statements for periods beginning on or after 1st April, 2012 (instead of audits of financial statements for periods beginning on or after 1st April, 2011 as was earlier decided and referred to above). However above said **SA 700, 705 and 706 are applicable for May 2013 examination.**

II. Statements

1. Statement on Reporting under Section 227 (1A) of the Companies Act, 1956
2. Statement on the Companies (Auditor's Report) Order, 2003 (2005 Edition)

III. Guidance Notes /Study Guide / Monograph

1. Guidance Note on Audit of Inventories.
2. Guidance Note on Audit of Debtors, Loans and Advances.
3. Guidance Note on Audit of Investments.
4. Guidance Note on Audit of Miscellaneous Expenditure.
5. Guidance Note on Audit of Cash and Bank Balances.
6. Guidance Note on Audit of Liabilities.
7. Guidance Note on Audit of Revenue.
8. Guidance Note on Audit of Expenses.
9. Guidance Note on Provision for Proposed Dividend

Applicability of relevant Amendments/Circulars/Notifications/Regulations etc. relating to Paper- 2: Business Laws, Ethics and Communication(IPCC) for May 2013, Examination:

SUBJECT	AMENDMENT	CONTENT	LINKS FOR REFERENCE
The Companies Act, 1956	Delegation of power to Regional Directors	The Ministry of Corporate Affairs vide Notification F.No.1/1/2003-CL.V dated 30th August, 2012, has delegated the powers from the CLB (Company Law Board) to the Regional Directors under Sections 17, 18, 19, 141 and 188 of the Companies Act, 1956.	http://www.mca.gov.in/Ministry/pdf/Delegation_30aug.pdf
The Companies Act, 1956	Guidelines for declaring a financial institution as Public Financial Institution	The Ministry of Corporate Affairs vide General Circular No. 10/2012 dated 21st May 2012 & 34/2011 dated 2nd June 2011, framed certain criteria for declaring a Financial Institution as Public Financial Institution under Section 4A of the Companies Act, 1956.	http://www.mca.gov.in/Ministry/pdf/General_Circular_No_10_2012.pdf
The Companies Act, 1956	Delegation of power from Central Government to Registrar of Companies	The Ministry of Corporate Affairs vide Notification No. S.O.1538(E) dated 10th of July, 2012, delegates the powers and functions vested in the Central Government to the Registrar of Companies under the Sections 21, 25, 31(1), 108(1D), 572 of the Companies Act, 1956.	http://www.mca.gov.in/Ministry/pdf/S.O_1538E.pdf
The Companies Act, 1956	Delegation of power to the Regional Directors	The Ministry of Corporate Affairs vide Notification No. S.O.1539(E) dated 10th of July, 2012, delegates the powers and functions vested in the Central Government to the Regional Directors at Mumbai, Kolkata, Chennai, Noida, Ahmedabad & Hyderabad under the Sections 17, 18, 19, 22, 224, 188, 297 394A of the Companies Act,1956.	http://www.mca.gov.in/Ministry/pdf/S.O_1539E.pdf
The Companies Act, 1956	Notifying of certain sections of Companies (Second Amendment) Act, 2002	The Ministry of Corporate Affairs vide Notification No. S.O.1540(E) dated 10th of July, 2012, notified certain sections of the Companies(Second Amendment) Act, 2002 to come into force from 12th of August, 2012.	http://www.mca.gov.in/Ministry/pdf/S.O_1540E.pdf

Non-Applicability of the following Amendments/Circulars/Notifications in Business Laws, Ethics and Communication(IPCC)

S.No.	Subject Matter	Business Laws, Ethics and Communication(IPCC)
1.	The Companies Bill, 2011	Not Applicable

Journey of Yuvians

21st November 2012- while the participants were seated in the classrooms it can be said without any fear of contradiction that unanimously all of us were running the same thought that whether this programme of 28days will bring any change in our life, that whether we'll be able to accept our fellow batch mates from different parts of the country. And on the very first day of the programme we got all our answers. Gampa Nageshwar Rao whom we say Gampa Sir happened to take our first lecture. The eminence with which he welcomed us to the institute was sufficient enough to settle all the fears and turned them into lots of enthusiasm and hope which all of us were looking forward to.

And there after the 17TH batch came to be known as "YUVIANS- League of Legends."

This centre of excellence was a home away from home for all of us. We laughed, we cried, we fought, we played and above all we LEARNED. We got an opportunity to swim in pool of knowledge. The knowledge of the dignified mentors which cant be acquired from anywhere in the world.

The sessions made us fight with our stage fear, fear of facing people. There were many fantabulous sessions but sessions such as Devils Advocate- where even the those who had took their maiden chances to speak in public did it in such a way that we all were forced to give standing ovation. Yuvians simply outperformed in that session.

The management games that we play gave us a tag line Yuvians- ONE FOR ALL, ALL FOR ONE. And we proved ourselves in each and every session.

So is centre of excellence all about sessions and lectures. NO !!! Its also about Weekly Off. And we showed our classroom learning and skills in planning those offs too. Be it ramoji film city or be it shopping or be it snow world, Yuvians simply ROCKED. !!!

At centre of excellence we also got an opportunity to undertake Yes+ course that is an art of living course. This course not only helped us in stress management but its teaching made us to unfold the hidden sides of humanity. It taught us to accept the people and situation as they are. Yes+ course gave a new shape to our journey of 28 days and yes Yuvians did it with utmost sincerity and dedication. This course groomed our personality in a magnificent way

As this beautiful journey was coming to an end, we thought of continuing it for few more moment with the same zeal and enthusiasm and held a wonderful and memorable CULTURAL EVE and in just 5 hours we attempted to relive our 28 days. And we did it with a tiff between our head and hearts as the head knew that it was going to get over but our heart wanted to continue.

All happy moments ended more ecstatically in which a pinch of sadness also joined as the course reached its conclusion. To conclude in a nutshell I am taken to these beautiful lines:-

Life in here is purely fun,
Joy and Happiness all around;
We know to laugh and never cry
And our tear glands were always dry
For friendship is the only religion we know
Follow us and take a bow
Ego is a word we never know
Though our self-esteem is never low
Real life problems doesn't enter our gate
If you think we are reckless, blame our fate

(Contributed jointly by 17th batch of CoE, Hyderabad)

ANNOUNCEMENT

ICAI Four Weeks Residential Programme on Professional Skills Development at the Centre of Excellence, Hyderabad

The Board of Studies is pleased to announce the 18th & 19th Batch of ICAI Four Weeks Residential Programme on Professional Skills Development from 2nd February, 2013 to 1st March, 2013 at Centre of Excellence, Hyderabad. The programme offers an unique opportunity and would focus on development of communication skills, leadership skills, personal traits for effective functioning in business organization and profession. More emphasis is given on soft skills, developing personality trait and communication skills of the participants.

For online registration and further details visit the Board of Studies Announcements under the Students Icon on the Home Page of ICAI www.icai.org or follow the link "http://220.227.161.86/28637bos-A-18257.pdf".

Director, Board of Studies

National Convention for CA Students - Mumbai

Dates: 11th & 12th January, 2013
Venue: Rama Watumull Auditorium, K.C. College,
Dinshaw Wachha Road, Churchgate, Mumbai-400 020.

Organized by: Board of Studies of ICAI

Hosted by: WIRC of ICAI & WICASA
Fee: Rs. 500/-

Programme Details

Time	Particulars
11/01/2013	**Day-1**
10:00 AM – 11:00 AM	Inaugural Session
11:00 AM – 01:00 PM	**Technical Session - I** Modern Financial Instruments (Accounts) XBRL & E-Filing (ROC) Chartered Accountants as an Entrepreneur
2:00 PM – 3:15 PM	Interaction with Board of Studies
3:30 PM – 5:30 PM	**Technical Session - II** D.T.C. (Direct Tax) DTAA - Interpretation Techniques (Direct Tax) “A framework for new emerging industries in Indian Market” Select one industry with detailed analysis and working, considering live example. (Example)
06:00 PM onwards	Cultural Evening with Dinner
12/01/2013	**Day-2**
10:30 AM – 12:45 PM	**Technical Session - III** Transfer Pricing (Direct Tax) Recent Developments in Global Economy (Economics) DETAILED ANALYSIS ON VODAFONE CASE CONCLUDING SESSION
02:00 PM – 04:00 PM	**Technical Session - IV** “IFRS” (Accountancy) Revised Schedule VI of Companies 1956 (Accounts) Cyber Law & Ethical Hacking

For details & registration contact
WIRC of ICAI on 022-39802923/22 or
visit www.wirc-icai.org

MESSAGE

Dear Students,

At the outset, we extend our warm greetings to each one of you and wish you all a Happy and Wonderful New Year 2013. We would like to take this opportunity to express our sincere thanks to all of our students who are contributing and backing the Board all the way. When biding farewell to the old year and ushering in the new, we reflect on the last year—the Board of Studies has had an incredibly successful year, and that 2013 promises to be just as exciting and inspiring.

Each New Year brings an opportunity to the students to start afresh. It brings an opportunity to set aside old habits or attitudes, to recommit to worthy academic goals, and to redirect or devote new energies toward those goals. It is also an opportunity to try new approaches, and to apply what was learned from prior experiences. While there is much to cherish and value at the Board, this is also a time to capitalize on opportunities that new beginnings bring. We invite you to join in the excitement and commitment to these goals of excellence, prominence, and faithfulness. As you know, the Institute provides a wide range of support to its students for the enhancement of their technical knowledge and enrichment of their professional know-how.

The high quality study material provided to the students is developed keeping in view the requirements of the concerned job sectors in the corporate and professional world. Our educational programs set the standard for both their quality and breadth. This has helped our students to blend rigorous study with practical experience, applying what they learn in the classroom to situations they face in their work and lives.

These accomplishments were achievable because of our commitment to the students. It is important that we keep up this momentum in the New Year also.

Year's end is neither an end nor a beginning but a going on. In the New Year, many of our initiatives will move from the idea stage to implementation. To bring them to fruition, it will take the efforts of many. But we have the determination and strength to continue to innovate and grow.

To the end, we want to thank all of our students with whom we have had the privilege of meeting last year. You have been integral in all of our successes. Your contributions have allowed us to shine. We expect that in 2013 we will have the opportunity to get to know even more of you.

Wishing you all a fabulous 2013 with full of great achievements and experiences. We wish all the best for those who are awaiting their results. Our sincere wishes for those who are preparing for the next examinations. A meaningful chapter is waiting to be written **HAPPY NEW YEAR**!

Director, Faculty and all Staff members, Board of Studies, ICAI.

WIRC Students' Conference

CA. Jaydeep Narendra Shah, President ICAI inaugurating the WIRC Students' Conference by lighting the auspicious lamp at Jamnagar. Seen in picture (L to R) CA. Anand Raichura, Committee Member, CA. Mahesh Sarda, Central Council Member, CA. Umesh Ravani, Branch Chairman and CA. Kirit Bheda, Branch Secretary.

WIRC Students' Conference

CA. Mahesh Sarda, Central Council Member, addressing the WIRC Students Conference at Jamnagar.

Students' Conference, Mangalore

Padma Shree CA. T.N. Manoharan, Past President, ICAI inaugurating the State Level CA Students' Conference by lighting the auspicious lamp at Mangalore in the presence of Shri. Vijay Kapur, Director, Board of Studies and the Managing Committee Members of Mangalore and Udupi Branches of SIRC of ICAI.

Students' Conference, Jodhpur

Regional Conference for CA Students, Jodhpur. Seen in Dais, CA. Kailash Bhansali, MLA, Jodhpur, Shri Rahul Mohonot, Senior President of Ultra Cement Tech. Birla White Cement, Shri Vijay Kapur Director, Board of Studies, CA. Nitin Vyas, Jaipur, CA. P.K. Mehta, Jodhpur Branch Chairman, CA. Arpit Haldia, Jodhpur branch Secretary and CIRC Members, CA Ankush Gulecha, CA. O.P.Maheshwari.

Residential Programme, COE

Shri Vijay Kapur, Director, Board of Studies and CA. P.K. Agrawal, Senior Consultant with the participants of the 16th batch of Residential Programme at Centre of Excellence, Hyderabad.

Residential Programme, COE

Shri Vijay Kapur, Director, Board of Studies and CA. P.K. Agrawal, Senior Consultant with the participants of the 17th batch of Residential Programme at Centre of Excellence, Hyderabad.

RNI No. 66180/97

REGISTERED: DL- (C)-01/1280/2012-2014
LICENSED TO POST WITHOUT PREPAYMENT U(C)-208/2012-2014
POSTED AT N.D.P.S.O. ON 26th, 27th and 28th DECEMBER 2012
Date of Publication: 26.12.2012

CROSSWORD

1		2	3	4	5		■	6	■	7		8
	■	9				■	10					
	■	■	11				■		■		■	
12						■	13			■	14	■
	■	■	15			■	■	■	■	16		
	■	17					18		19	■		■
20	21		■	■	■	■		■	22	23		24
25												
26		■	■	■	■	■	■	■	27			
	■	28			■	29	■	■	■	■		■
30			■	■	31		32	33	34			■
	■	35			■	36					■	37
38						■	39		■	40		

ACROSS

1. At the time of admission of a partner, inference of goodwill arises only in the case of proportionate _____.
7. A facility in a word-processing program used for advancing to a sequence of set positions in tabular work.
9. Under section 80D, deduction is also available for contribution to______.
10. The auditor shall prepare audit documentation on a _______ basis.
11. A finance lease is a lease that transfers substantially the _____ and reward incident to ownership of an asset.
12. _____ is an application that allows you to share files from mobile to mobile, mobile to computer, or computer to mobile.
13. No companies, association or partnership with more than ——— persons can be formed for the purpose of banking business unless it is registered as a company under the law.
15. ____ is a method of conversing on half-duplex communication lines, including two-way radio, using a momentary button to switch from voice reception mode to transmit mode.
16. Generally, an ______ is a Bill approved by both the Houses of Parliament.
17. ______verification is a process conducted by auditors to confirm that a company's assets actually exist.
20. A rate of return used in capital budgeting to measure and compare the profitability of investments.
22. A company specializing in lifts.
25. With effect from July 1, 2012, India has ushered a _____ approach of taxation of services.
26. BC and ____ are the designations used to label or number years used with the Julian and Gregorian calendars.
27. A state of agitation.
28. To perceive by eye.
30. A student of ICAI has to complete 100 hours of ____ before starting his articleship.
31. Consideration for right to use of computer software is ________ within the meaning of section 9(1)(vi).
35. A fixed periodic payment by the borrower to the lender over the course of several years with the goal of retiring the loan.
36. To long persistently.
38. A Revised Service tax return can be filed within _____ days from the date of submission of the original return.
39. A negative vote or decision
40. Capital gains exemption under section 54B has been extended to a ____________ , in addition to individuals.

DOWN

1. Process of exchange of ideas is termed as______.
2. Any general-purpose computer useful for individuals, and which is intended to be operated directly by an end-user with no intervening computer operator.
3. ______ is a collection of software packages for graph theory and network analysis.
4. An employer shall pay the amount of Gratuity within————— days from the date it becomes payable.
5. Land and Building and Debtors are _____ for a company.
6. The presiding officer of a Tribunal shall hold office for the term of—— years.
7. Sri Lanka is the highest ____ exporting country of the world.
8. Adios in English.
14. Under Service tax, service means any _____ for consideration carried out by a person for another.
17. ____ designation is an independent validation of skills and commitment to the highest standard of professionalism and integrity.
18. Four Weeks Residential Programme for CA students on Personality Development is presently being conducted at ____, Hyderabad.
19. Debit ____, Credit gain is the rule of Nominal Account.
21. Spare the _____, spoil the child.
23. An initiative by Income Tax Department of India for the modernization of the current system for collection, processing, monitoring and accounting of direct taxes using information technology.
24. Mathematically, a collection of well defined and distinct objects, considered as an object in its own right.
28. A family of British 9 mm submachine guns used extensively by British forces throughout World War II.
29. Showing reluctance to make a definite commitment.
32. Japanese currency.
33. Subcompact notebook computer.
34. _______ AC curve is also known as Planning Curve of a firm.
37. Means on the condition that.

If undelivered, please return to:
The Institute of Chartered Accountants of India
ICAI Bhawan, Indraprastha Marg
New Delhi - 110 104