

# **INTERMEDIATE COURSE**

## **STUDY MATERIAL**

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**PAPER : 7A**

# **Enterprise Information Systems**



**BOARD OF STUDIES**  
**THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA**

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## BEFORE WE BEGIN....

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The traditional role of a chartered accountant restricted to accounting and auditing, has now changed substantially and there has been a marked shift towards strategic decision making and entrepreneurial roles that add value beyond traditional financial reporting. The primary factors responsible for the change are the increasing business complexities on account of plethora of laws, borderless economies consequent to giant leap in e-commerce, emergence of new financial instruments, emphasis on corporate social responsibility, significant developments in information technology, to name a few. These factors necessitate an increase in the competence of chartered accountants to take up the role of not merely an accountant, auditor or more specifically an IS Auditor, but a global solution provider. Towards this end, the scheme of education and training is being continuously reviewed so that it is in sync with the requisites of the dynamic global business environment; the competence requirements are being continuously reviewed to enable aspiring chartered accountants to acquire the requisite professional competence to take on new roles.

Under the Revised Scheme of Education and Training, at the Intermediate Level, you are expected to not only acquire professional knowledge but also the ability to apply such knowledge in problem solving. Recognizing the importance of Information Technology in today's era, Chartered Accountancy course has included the subject as a part of the course curriculum at Intermediate Level. The process of learning should help you inculcate the requisite IT skill-sets necessary for achieving the desired professional competence. A paper on 'Enterprise Information Systems' forming the part of curriculum at Intermediate level of the Chartered Accountancy course is to provide the understanding of the fundamental concepts of Information systems and business process flows, Financial and Accounting systems, Core Banking Systems and e-commerce and m-commerce transactions.

The overall learning objective of this paper ***"To develop an understanding of technology enabled Information Systems and their impact on enterprise-wide processes, risks and controls"*** has been kept in mind while developing the material. The content for each chapter in the study material has been structured in the following manner:

- (i) **Learning Outcomes:** Learning outcomes which you need to demonstrate after learning each topic have been detailed in the first page of each chapter/unit. Demonstration of these learning outcomes would help you to achieve the desired level of technical competence.
- (ii) **Chapter Overview:** As the name suggests, this chart/table would give a broad outline of the contents covered in the chapter.
- (iii) **Introduction:** A brief introduction is given at the beginning of each chapter which would help you get a feel of the topic.
- (iv) **Content:** The concepts are explained in student-friendly manner and illustrated with the aid of examples/illustrations/diagrams/tables. These value additions would help you develop conceptual clarity and get a good grasp of the topic.
- (v) **Let us recapitulate:** A summary of the chapter is given at the end to help you revise what you have learnt. It would especially help you to revise the chapter quickly the day before the examination.
- (vi) **Test your Knowledge:** This comprises of Theory Questions and Multiple Choice Questions which test the breadth and depth of your understanding of the entire syllabus.

**Chapter-wise coverage of various topics in the study material are as follows:**

- ◆ **Chapter 1 - Automated Business Processes** introduces the concept of Business Processes and the impact of their automation with the help of Technology. The chapter focusses on Enterprise Risk Management, associated risks and their corresponding mitigating controls for some specific business processes like P2P, O2C etc. Further, it provides an insight to the mapping systems like Flowcharts and Data Flow Diagrams (DFDs).
- ◆ **Chapter 2 - Financial and Accounting Systems** familiarizes with the concept of integrated and Non-integrated systems and the Financial and Accounting systems as an Integrated system. It further discusses at length various business process modules and data flow involved in the system and their related risks and controls. The significance of XBRL and Reporting systems are also emphasized with the applicable regulatory and compliance requirements for the automated systems.
- ◆ **Chapter 3 - Information Systems and Its Components** disseminates the basic concept of Information Systems and its components – People,

Computer System, Data Resources, and Networking and Communication System. The chapter deals with controls, their need and classification of Information Systems' Controls on different perspectives. The objectives while Auditing Information Systems and their controls with an in-depth discussion on Organization structure and Responsibilities are well emphasized upon.

- ◆ **Chapter 4 - E-Commerce, M-Commerce and Emerging Technologies** provides the meaning, components, architecture and process flows involved in E-commerce with a basic understanding on the paradigms of various Computing Technologies like Cloud Computing, Grid Computing, Mobile Computing, Green Computing, BYOD and Blockchain etc.
- ◆ **Chapter 5 - Core Banking Systems** brings into light the core concepts of CBS that includes the components and architecture of CBS and impact of related risks and controls. Furthermore, the chapter highlights various regulatory and compliance requirements applicable to CBS such as Banking Regulations Act, RBI regulations, Prevention of Money Laundering Act and Information Technology Act, 2000.

This study material covers both concepts and practical aspects and hence, you are advised to read the study material not only from examination point of view but also from practical perspective of how this is relevant and can be applied in any work environment.

***HAPPY READING AND BEST WISHES!***

# SYLLABUS

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## PAPER – 7A: ENTERPRISE INFORMATION SYSTEMS

(50 MARKS)

### OBJECTIVE

*“To develop an understanding of technology enabled Information Systems and their impact on enterprise-wide processes, risks and controls.”*

### CONTENTS

#### 1. AUTOMATED BUSINESS PROCESSES

- (i) Introduction to Enterprise Business Processes, Benefits, Risks and Controls.
- (ii) Diagrammatic representation of business processes using Flowcharts.
- (iii) Risks and controls for specific business processes: Procure to pay (P2P), Order to Cash, Inventory Cycle, Hire to Retire, Supply Chain Management, Fixed As- sets etc.
- (iv) Applicable regulatory and compliance requirements including computer related offences, privacy, cyber-crime, Sensitive Personal Data Information of Information Technology Act, 2000.

#### 2. FINANCIAL AND ACCOUNTING SYSTEMS

- (i) Integrated (ERP) and non-integrated systems with related risks and controls.
- (ii) Business process modules and their integration with Financial and Accounting systems.
- (iii) Reporting Systems and MIS, Data Analytics and Business Intelligence.
- (iv) Business Reporting and fundamentals of XBRL (eXtensible Business Reporting Language).
- (v) Applicable regulatory and compliance requirements.

### **3. INFORMATION SYSTEMS AND ITS COMPONENTS**

- (i) Components of Automated Information Systems: Application Systems, Data- base, Network and Operating System with related risks and controls.
- (ii) Mapping of Organization structure with segregation of duties in Information Systems.

### **4. E-COMMERCE, M-COMMERCE AND EMERGING TECHNOLOGIES**

- (i) Components and Architecture of E-Commerce and M-Commerce with related risks and controls.
- (ii) Business process flow with its related risks and controls.
- (iii) Applicable regulatory and compliance requirements.
- (iv) Emerging technologies with its related risks and controls.

### **5. CORE BANKING SYSTEMS**

- (i) Components and Architecture of CBS and related risks and controls.
- (ii) Core modules of banking and Business process flow and its related risks and controls.
- (iii) Reporting Systems and MIS, Data Analytics and Business Intelligence.
- (iv) Applicable regulatory and compliance requirements.

## SIGNIFICANT UPDATES OVER 2020 EDITION

Chapter Name	Sections/Sub Sections wherein major updations have been done	Page Numbers
Chapter 1: Automated Business Processes	1.4.4 Risk Management Strategies	1.29 – 1.30
Chapter 3: Information Systems and its components	Fig 3.2.1 Functions of Information Systems	3.4
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Chapter 4: E-Commerce, M-Commerce and Emerging Technologies	4.1.6 E-marketing iii. e-Mall	4.13
	4.7.1 New Methods of Digital payments ix. e-Rupi	4.55 - 4.56
	4.8.10 Blockchain	4.101 - 4.104
Chapter 5: Core Banking Systems	5.1.2 Overview of Banking Services IX. Other Banking Services o Non-life Insurance	5.10
	5.2.2 Technology Component of CBS I. Network Security and Secure Configuration	5.19
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