



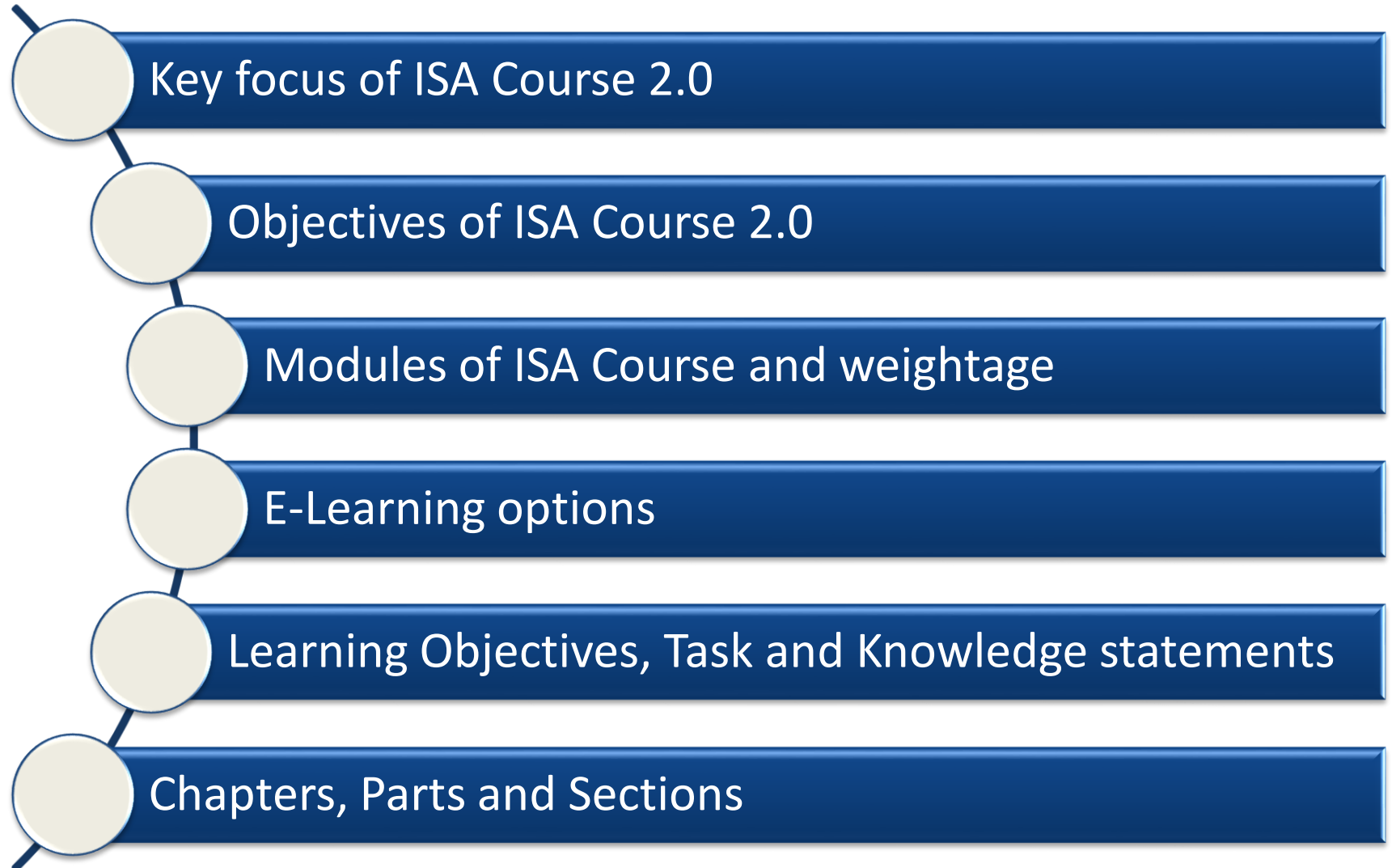
Committee on Information Technology  
The Institute of Chartered Accountants of India  
(Set up by an Act of Parliament)

ISA COURSE 2.0  
DVD  
Ver. 1.0

# **ISA: INFORMATION SYSTEMS AUDIT COURSE 2.0**

## **Overview of Module 1**

# Overview of Module1



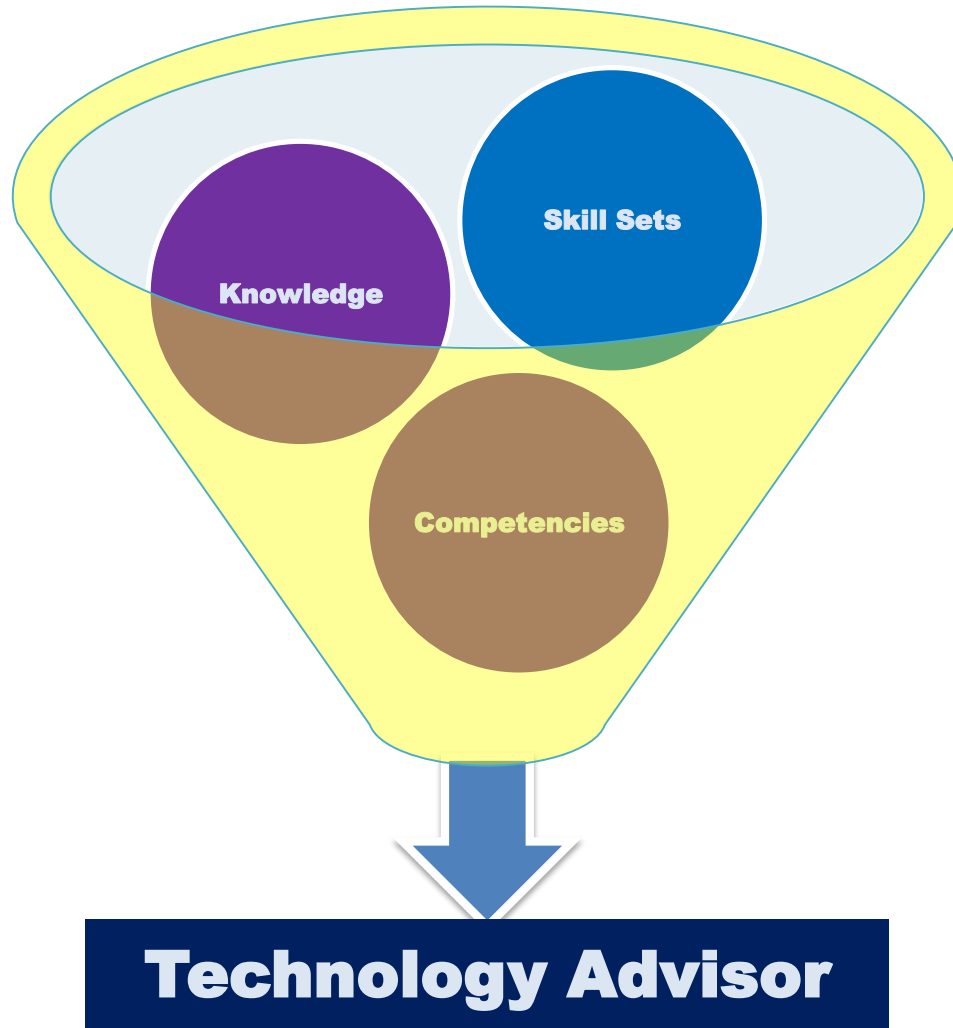
# Key focus of ISA Course 2.0

Provide relevant practical knowledge and Skills for planning and performing

Governance, Risk, Compliance, Assurance and Consulting assignments

Using relevant standards, frameworks, guidelines and best practices

# Unique Body of Knowledge



# **Objective of the ISA course 2.0**

**“To provide relevant practical knowledge and skills  
for  
planning and performing  
various types of assurance or consulting assignments  
in the areas of  
Governance, Risk management, Security, Controls and  
Compliance  
in the  
domain of Information Systems and  
in an  
Information Technology environment  
by using  
relevant standards, frameworks, guidelines and best practices.”**

# Modules of ISA Course 2.0 and weightage

<b>Mod.</b>	<b>Modules for Revised ISA Course</b>	<b>%</b>
<b>1.1</b>	<b>Primer on Information Technology, IS Infrastructure and Emerging Technologies - Online</b>	<b>12</b>
<b>1.2</b>	<b>Primer on Information Technology, IS Infrastructure and Emerging Technologies - Facilitated</b>	<b>6</b>
<b>2</b>	<b>Information Systems Assurance Services</b>	<b>12</b>
<b>3</b>	<b>Governance and Management of Enterprise Information Technology, Risk Management and Compliance Reviews</b>	<b>12</b>
<b>4</b>	<b>Protection of Information Systems Infrastructure and Information Assets</b>	<b>18</b>
<b>5</b>	<b>Systems Development: Acquisition, Maintenance and Implementation.</b>	<b>12</b>
<b>6</b>	<b>Business Applications Software Audit</b>	<b>12</b>
<b>7</b>	<b>Business Continuity Management</b>	<b>6</b>
	<b>Project report on IS Audit</b>	<b>10</b>

# E-Learning of module-1

Module-1: Primer on Information Technology, IS Infrastructure and Emerging Technologies (18%) includes:

E-Learning (12% to be studied online) before joining the class – 12 hours

Facilitated E-Learning (6% covered in class room training) – 6 hours

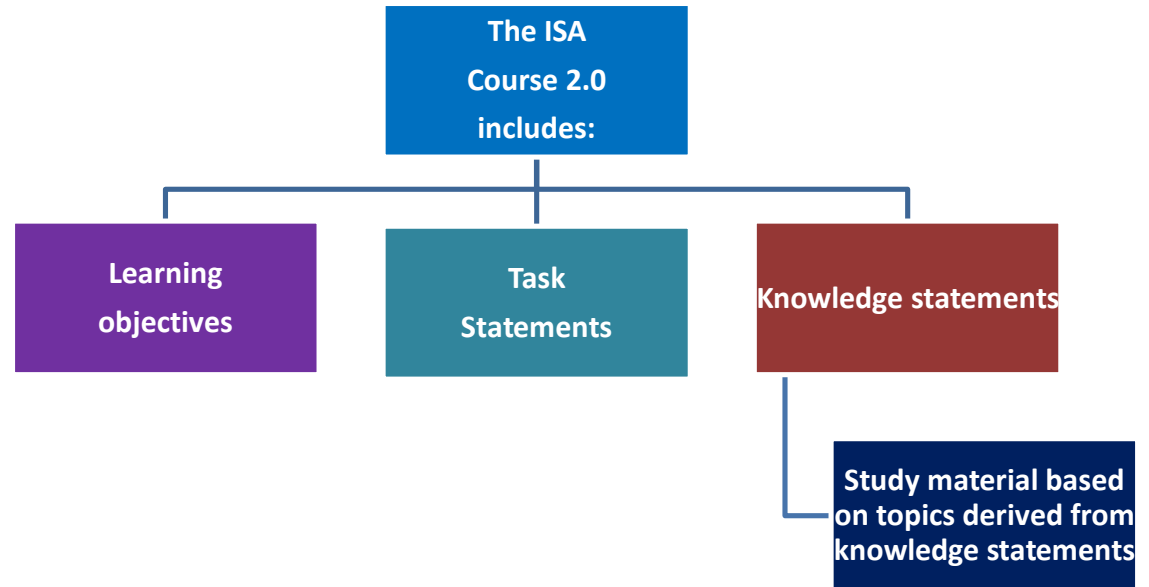
- 4 Sessions of 90 minutes in class room.

# Learning objectives, Task and Knowledge statements

Learning objectives show what ISA candidate will learn

Task statements show what ISA candidates will learn to do and

Knowledge statements explain what ISA candidate will know





# **Module 1 : Primer on Information Technology, IS Infrastructure and Emerging Technologies - Objectives:**

**Demonstrate  
understanding of functioning of  
key components of  
existing and emerging information  
Technologies  
and their  
practical deployment**

# Task Statements

1.1 Identify deployment of different components of IT and their functions: Computer Hardware, Operating system software, database management software, application software, middleware, Client Server Model, Communications technologies and networks, internet, peripherals, devices, accessories, etc.

1.2 Recognise the configuration of hardware, operating system software, database management software and application software.

1.3 Recognise function of Telecommunications and Network security including wireless, encryption, firewalls, Cryptography etc.

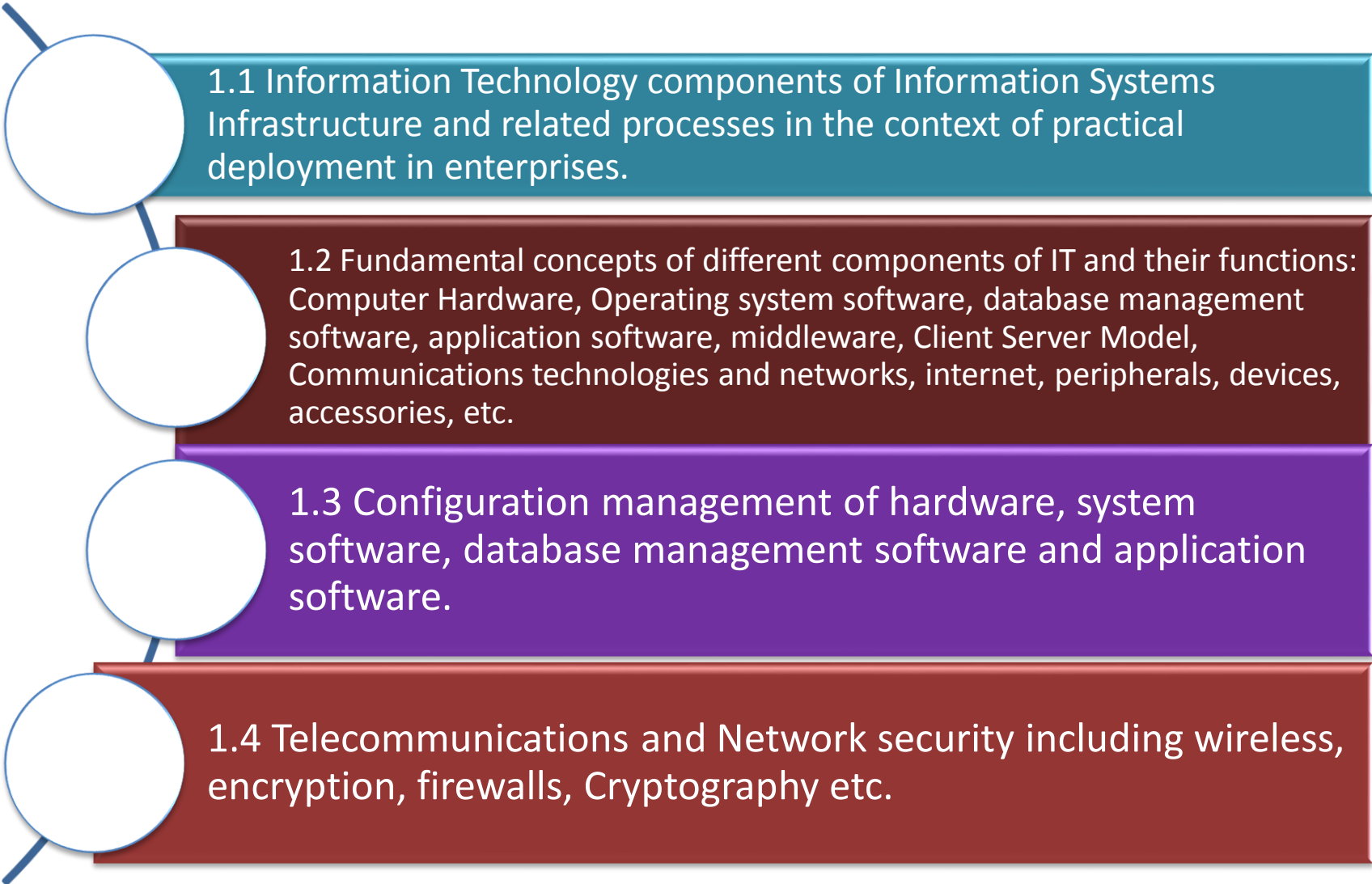
# Task Statements

1.4 Analyze baseline security procedures, firewall configurations, user administration and user management.

1.5 Distinguish the technology architecture of a typical data centre in a centralised environment and ERP Software identifying different layers/components of technology and their functions.

1.6 Consider the impact of deployment of key existing and emerging technologies such as: XML, XBRL, Cloud computing, Geo Location, Mobile computing, Social media, Bring Your Own Device (BYOD), Business Intelligence (BI), Big Data, Network Technologies – web services, Web 2.0, Data warehouse, Data Mining, Data Mart, Decision Support Systems (DSS), Executive Support Systems (ESS), Artificial Intelligence (AI), Electronic Funds Transfer (EFT), Electronic Transactions, Green IT, etc.

# Knowledge Statements (Knowledge of)




1.1 Information Technology components of Information Systems Infrastructure and related processes in the context of practical deployment in enterprises.

1.2 Fundamental concepts of different components of IT and their functions: Computer Hardware, Operating system software, database management software, application software, middleware, Client Server Model, Communications technologies and networks, internet, peripherals, devices, accessories, etc.


1.3 Configuration management of hardware, system software, database management software and application software.

1.4 Telecommunications and Network security including wireless, encryption, firewalls, Cryptography etc.

# Knowledge Statements (Knowledge of)



1.5 Concepts related to applied cryptography, including plain-text, cipher-text, symmetric cryptography, asymmetric cryptography, digital signature, message authentication code, hash functions, and modes of encryption operations.



1.6 Baseline security procedures, firewall configurations, user administration and user management.



1.7 Information Technology components of a Data centre in centralised environment/ERP software.

# Knowledge Statements (Knowledge of)



**1.8 Functioning and impact of key emerging technologies such as:**

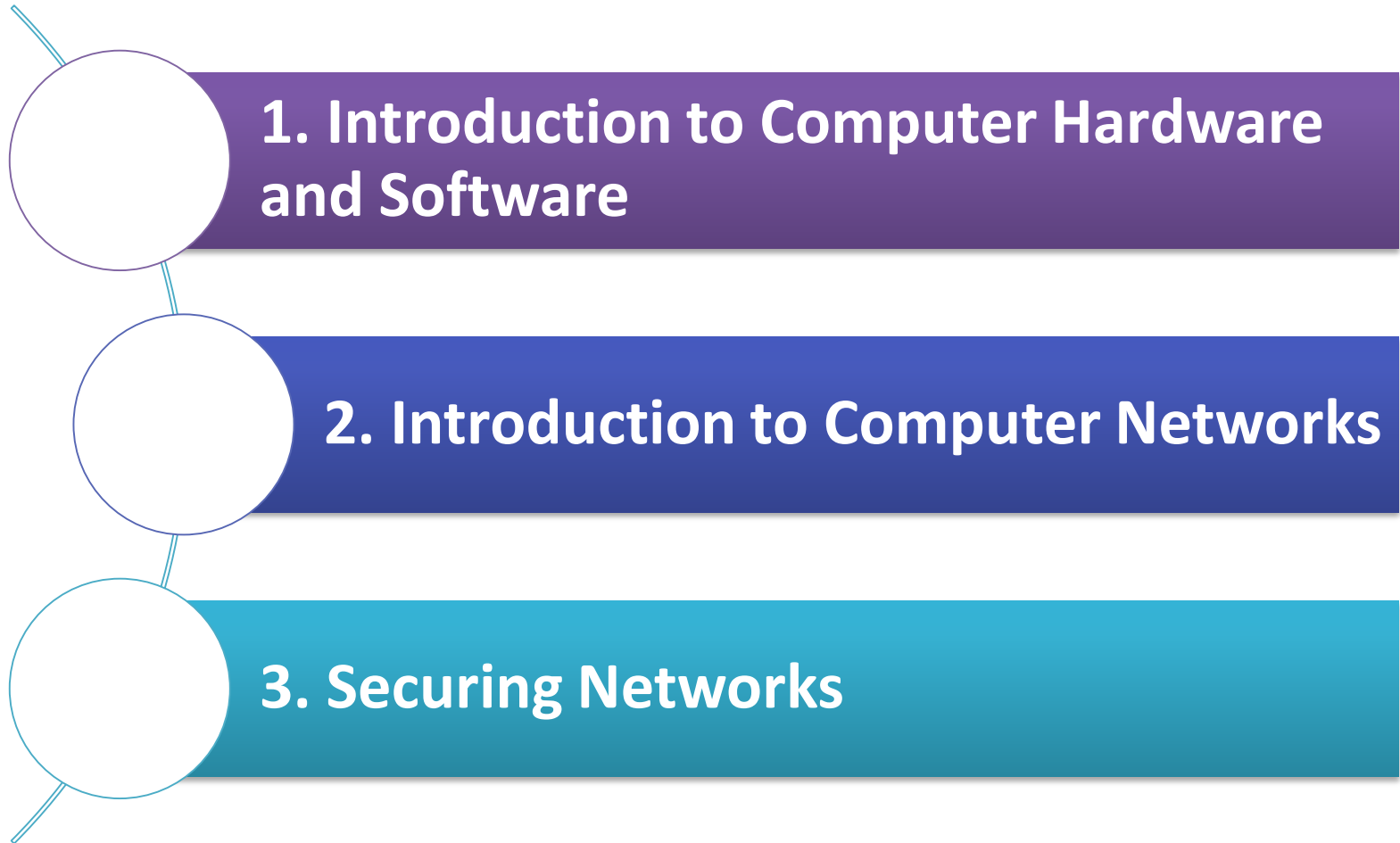
**XML, XBRL,**

**Cloud computing, Geo Location,**

**Mobile computing, Social media,**

**BYOD, BI, Big Data, Network Technologies – web services, Web 2.0, Data warehouse, Data Mining, Data Mart, DSS, ESS, AI, EFT, Electronic Transactions, Green IT, etc.**

# Chapters of e-Learning of Module-1



# Parts of Chapter 1: Introduction to Computer Hardware and Software



1. Introduction to Computer Hardware and Software

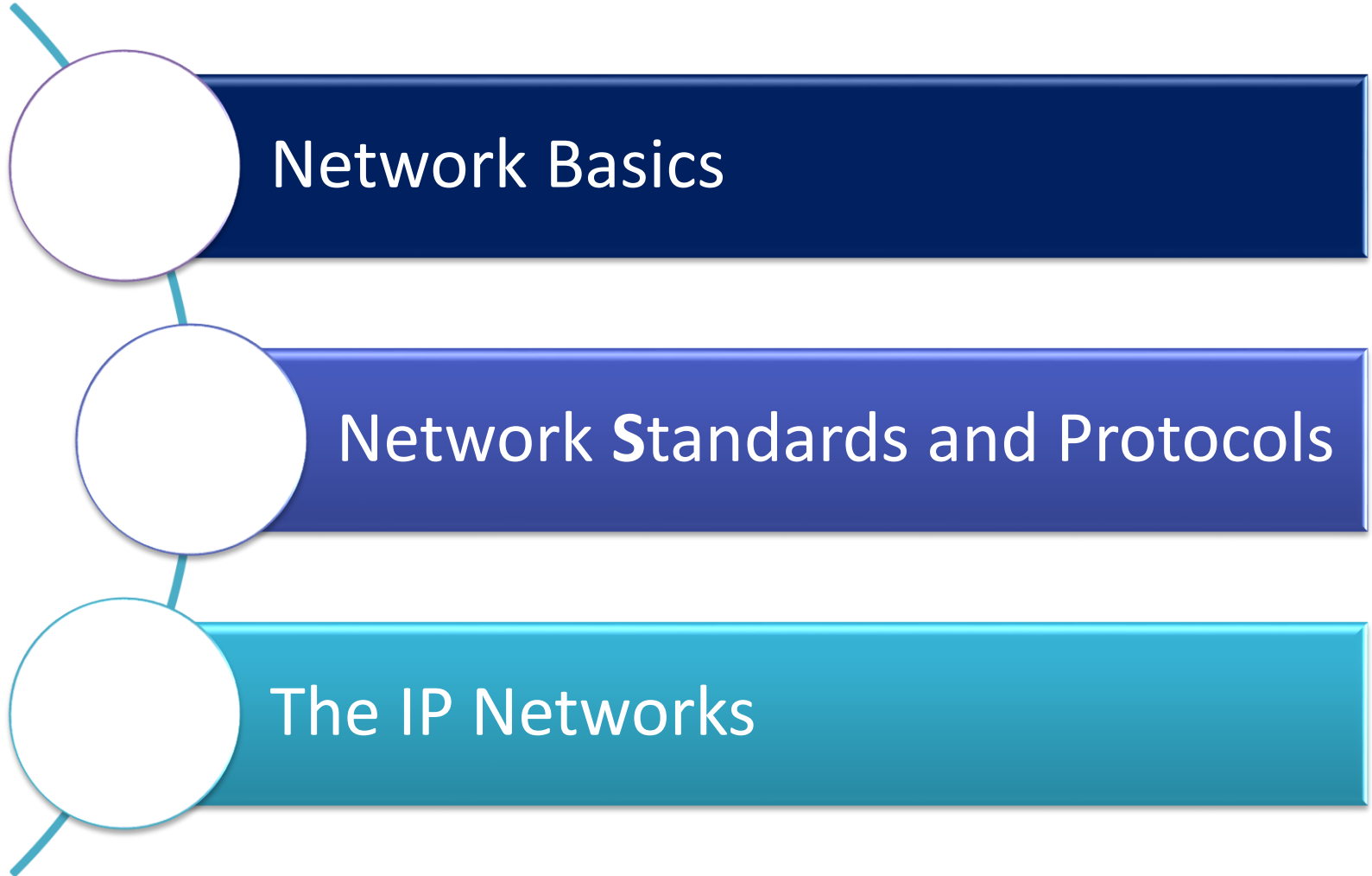
2. Systems Software

3. Data Base Management Systems

4. Hardware/Software Deployment Strategies



# Parts of Chapter 2: Introduction to Computer Networks



# Parts of Chapter 3: Securing Networks



1. Firewalls

2. Configuring Personal Firewalls and IDS

3. Cryptography and PKI

4. Application of Cryptographic Systems

# Sections of e-Learning contents

Section-1: Introduction

Section-2: Chapters

Section-3: Appendices

Thank you!

**Questions?**

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