

**BCA  
030010313: Introduction to Information Systems**

**Objectives:** To introduce the concepts and types of Information Systems, e-Business, its technological infrastructure, security and integration approaches for enhanced business decision making.

**Course Outcomes:** Upon completion of the course, students shall be able to

- CO1: Recognize the need of information system in business.
- CO2: Describe the process of knowledge and how it transfer in decision making.
- CO3: Analyze the strategic impact on information system.
- CO4: Identify and analyze the e-business advertising methods and basic concept of e-business.
- CO5: Classify the e-business models currently being adopted by organization.
- CO6: Summaries current trends of e-business applications.

Unit	Sub Unit	No. of Lecture (s)	Topics	Reference Chapter/Additional Reading	Teaching Methodology to be used	Evaluation Parameters
<b>Unit 1: Introduction to Business Information Systems ( Total Hours : 08 )</b>						<b>[15%]</b>
1	1.1	2	Basic Concept of Data, Information, System and Information System	RCN#1 page no: 4,6,7,11	PowerPoint Presentation	
	1.2	1	Overview of IS Functions and Components	RCN#1 page no: 8,9,10,11	PowerPoint Presentation	
	1.3	1	Benefits of IS	RCN#1 page no: 22,23,24	Chalk Talk , PowerPoint Presentation	
	1.4	1	Overview of Nature, Types, Trends, Functions of business	RCN #2 page no: 32,33,34,36	Chalk Talk , PowerPoint Presentation	
	1.5	2	Introduction to Transaction Processing System Structure, functions, controlling	RCN #10 page no: 305 to 311  <a href="http://study.com/academy/lesson/transaction-processing-systems-tps-manual-and-automated-systems.htm">http://study.com/academy/lesson/transaction-processing-systems-tps-manual-and-automated-systems.htm</a>	Video	

	1.6	1	Types of BIS: Accounting, Financial ,Marketing, Manufacturing	RCN #2 page no:37 to 39	PowerPoint- Presentation	
<b>Unit 2: Decision Making and Information Systems (Total Hours : 10)</b>						<b>[20%]</b>
	2.1	2	Management and Decision Making, levels of decision and Characteristics	RCN #11 page no: 337 to 339  <a href="http://study.com/academy/lesson/management-information-systems-mis-manager-decision-making-tools.html">http://study.com/academy/lesson/management-information-systems-mis-manager-decision-making-tools.html</a>	PowerPoint- Presentation, Video	
	2.2	3	Structure and Functions of Management Information, Systems and Decision Support Systems	RCN #11 page no: 342 to 351	PowerPoint- Presentation, Chalk-Talk	<b>Quiz</b>
	2.3	2	Executive Support Systems and its needs	RCN #11 page no: 352 to 354	PowerPoint Presentation	
	2.4	1	Expert Systems	RCN #11 page no: 357 to 360  <a href="http://www.dailymotion.com/video/x199q1i_expert-system-lesson-1-using-an-expert-system-tech">http://www.dailymotion.com/video/x199q1i_expert-system-lesson-1-using-an-expert-system-tech</a>	PowerPoint Presentation, video	
	2.5	2	Knowledge Management systems	RCN #11 page no: 362 to 365	Presentation, Chalk-Talk	
<b>Unit 3: Strategic Impact of Information Systems (Total Hours : 07)</b>						<b>[15%]</b>
3	3.1	2	Strategic Impact and Inter- organizational Information Systems, Inter- organizational IS and Virtual Corporation	RCN #12 page no: 374 to 381	Chalk-Talk, PowerPoint Presentation	<b>Unit Test-1 Theory + Unit Test-1 Practical</b>

	3.2	2	Global information systems, characteristics, strategic impact and international Business	RCN #12 page no: 386 to 393	Chalk-Talk	
	3.3	2	Strategic information systems: characteristics and opportunities	RCN #12 page no: 394 to 398	PowerPoint Presentation	<b>Open Book</b>
	3.4	1	Partnership relationship management and collaboration commerce.	RCN #12 page no: 398	PowerPoint Presentation	
<b>Unit 4: e-Business (Total Hours : 05)</b>						<b>[10%]</b>
4	4.1	1	Definition of e-Business, e-Business versus e-Commerce and critical factors.	RCN #12 page no: 374 to 381 <a href="http://study.com/academy/lesson/e-businesses-types-examples.html">http://study.com/academy/lesson/e-businesses-types-examples.html</a>	Chalk-Talk, PowerPoint Presentation video	
	4.2	1	Characteristics of e-Business	MPPR#1,Page No:4,5	Group Dissuasion	
	4.3	1	Elements of an e-Business solution	MPPR#1,Page No: 5 to 8	PowerPoint Presentation	
	4.4	2	e-Business Requirements, Roles and Challenges, Impact	MPPR#1,Page No:- 8,9	Group Dissuasion, PowerPoint Presentation	
	4.5	2	e-Business enabled business models and e-payments	MPPR#1, Page No:- 12 to 14.	PowerPoint Presentation	
<b>Unit 5: Technological Infrastructure for e-Business (Total Hours : 08)</b>						<b>[20%]</b>

5	5.1	1	Client-server technology for e-Business	MPPR#6 Page No:- 129 to 133	PowerPoint Presentation	
	5.2	2	Web Technologies and applications: Web-based applications and its Architectural	MPPR#6,Page No:- 133 to 143	PowerPoint Presentation, Chalk talk	
	5.3	1	Collaborative technologies: EDI and Workflow Systems	MPPR#6,Page No:- 143 to 162	Chalk-Talk, PowerPoint Presentation	
	5.4	2	XML, Characteristics and Structure of XML Documents	RCN #12 page no: 398	PowerPoint Presentation	
	5.5	1	Processing XML documents for e-Business	MPPR#7,Page No:- 190 to 191	Chalk-Talk	
	5.6	1	XML support for EDI and e- Business	MPPR#7,Page No:- 191 to 193	PowerPoint Presentation	
	5.7	1	Model Driven Architecture for e-Business	MPPR#7,Page No:- 194 to 195	PowerPoint Presentation	<b>Unit Test-2 Theory + Unit Test-2 Practical</b>
<b>Unit 6: e-Business Security and Integration (Total Hours : 07)</b>						<b>[20%]</b>
6	6.1	1	Need for reliability and quality considerations for e-Business	MPPR#13,Page No:-351 to 353	PowerPoint Presentation	
	6.2	2	Quality requirements and Trust, e- Business risks Architectural	MPPR#13,Page No:- 353 to 361	Chalk- Talk	
	6.3	1	e-Business security : Application security and security mechanisms	MPPR#13,Page No:- 361 to 367	PowerPoint Presentation	

6.4	1	Secure e-Business infrastructure: Availability, Network level security, Secure communications, Digital certifications, Trusted Third Parties, Trust services	MPPR#13,Page No:-367 to 381	Presentation	
6.5	1	Business processes and e-Processes	MPPR#18,Page No:-545 to 547, 548 to 549	PowerPoint Presentation	
6.6	1	e-Business integration: Types, Standards	MPPR#18,Page No:-551 to 553	PowerPoint Presentation	<b>Internal Exam Theory + Section Exam Practical + Semester End Exam Practical</b>

**Text Books:**

1. Robert C. Nickerson: Business and Information Systems, PHI.
2. M. Papazoglou, P.Ribbers –e-Business Organization and Technical Foundations-Wiley.

**Reference Books:**

1. Dave Chaffey -E-Business and E-Commerce Management, Strategy, Implementation And Practice - Prentice Hall.
2. Efraim Turban, Dorothy Leidner,Ephraim Mclean, James Wetherbe -Information Technology for Management: Transforming Organizations in the Digital Economy -Wiley India Edition.
3. H.M.Deitel - P.J.Deitel - K.Steinbuhler "E-Business & E-Commerce for Managers", Pearson Education.

**Note: # denotes chapter number.**

❖ **Course Objectives and Course Outcomes Mapping:**

- To introduce the concepts and types of Information Systems: C01, C02, C03.
- To introduce the concepts of e-Business, its technological infrastructure: C04, C05.
- Security and integration approaches for enhanced Business decision making: C06

❖ **Course Units and Course Outcomes Mapping:**

Unit No.	Unit	Course Outcome					
		C01	C02	C03	C04	C05	C06
1	Introduction to Business Information System	✓					
2	Decision Making and Information Systems	✓	✓	✓			
3	Strategic Impact of Information System	✓	✓	✓			
4	e-Business				✓		
5	Technological Infrastructure for e-Business				✓	✓	✓
6	e-Business Security and Integration				✓		✓

❖ **Programme Outcomes:**

PO1: Ability to understand the concepts of key areas in computer science.

PO2: Ability to design and develop system, component or process as well as test and maintain it so as to provide promising solutions to industry and society.

PO3: Effective communication and presentation skill.

PO4: Ability to understand professional and ethical responsibility.

PO5: Recognition of the need for life-long learning.

❖ **Course outcome and Programme Outcome mapping:**

Course Outcome	P01	P02	P03	P04	P05
C01	✓	✓	✓	✓	✓
C02	✓	✓	✓		
C03	✓	✓	✓		
C04	✓	✓	✓		✓
C05	✓	✓	✓		
C06	✓	✓	✓	✓	✓

❖ **Modes of Transaction (Delivery):**

Unit No	Topic Detail	Teaching Approach	PO mapped
4	4.4 e-Business Requirements, Roles and Challenges, Impact	Textbook study (Students shall be given questions with puzzle and they have to find the answers from the book)	P01, P02, P04, P05
5	5.1 Client-server technology for e-Business	Group Discussion (Group of 2-3 students shall be framed and specific definition shall be given by course teacher)	P01, P02, P03, P04, P05
6	6.3 e-Business security : Application security and security mechanisms 6.4 Secure e-Business infrastructure: Availability, Network level security, Secure communications, Digital certifications, Trusted Third Parties, Trust services		

❖ **Activities/Practicum:**

<b>Learner</b>	<b>Activities to be done</b>	<b>PO mapped</b>
For slow learners	Oral and written test of approximately 30 minutes for important topic will be taken once in a week.	P01, P02, P03, P04, P05
For advanced learners	List of popular tools currently used for managing information systems and e-commerce website contents. Students shall be demonstrating that after compilation of topic.	P01, P02, P03, P04, P05
For all	<ol style="list-style-type: none"><li>1. To improve writing skill: Course teacher shall provide question based on previous lecture and students have to write answer on the spot.</li><li>2. Case Study based on types of Information Systems.</li></ol>	P01, P02, P04, P05



❖ **Number of Practical Problems in Journal:**

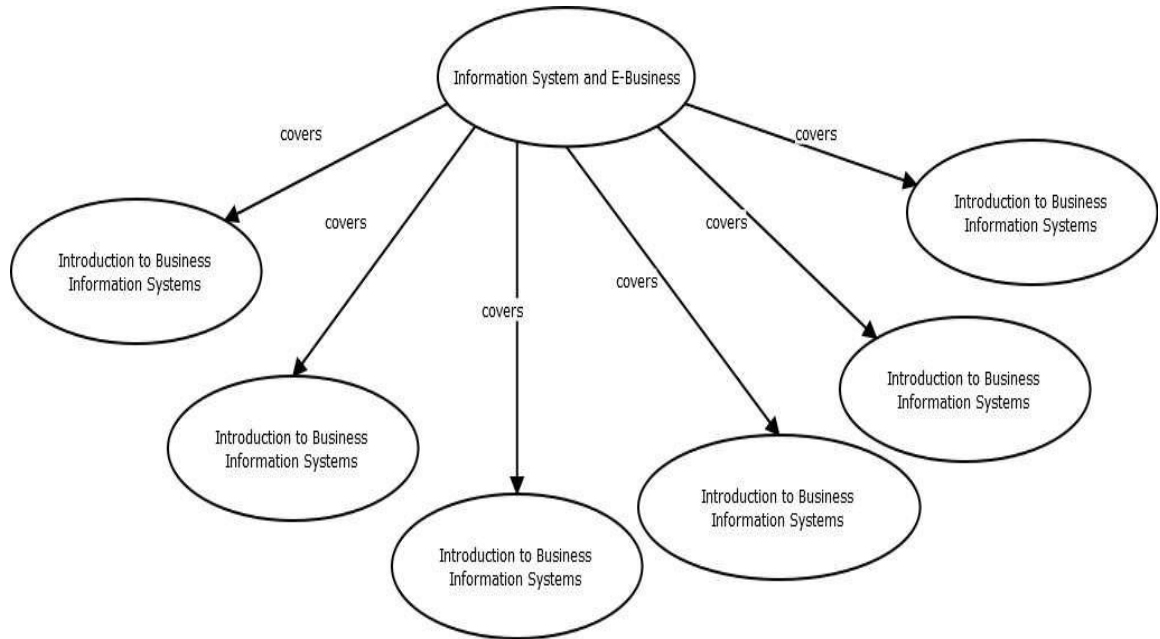
Number of practical problem in journal: 17

Total sets to be developed for each division: 3 (Groups)

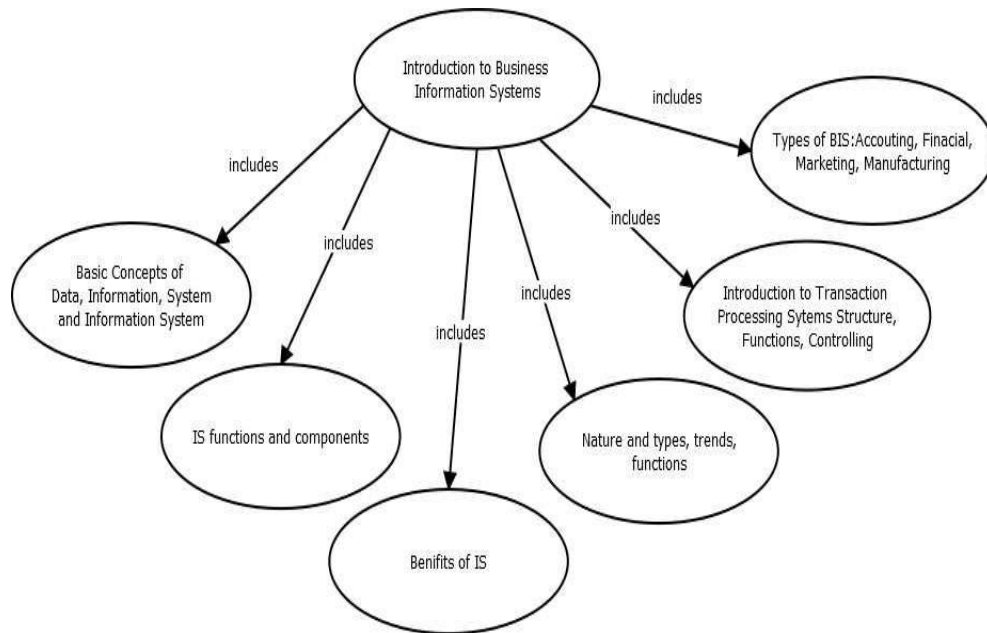
<b>Numbers of Covered Topic In Opencart</b>	<b>Number of Questions</b>	<b>Time required to implement and debug the question (in hours)</b>	<b>Minimum required of Journal Certification</b>
Theme	2	6	1
Catalog	3	7	3
Orders	3	6	3
Customers	3	6	2
Price Rules	3	6	3
Module & Services	1	3	1
Sales	1	3	1
Marketing	1	3	2
Reports	1	3	1
<b>Total</b>	<b>18</b>	<b>48</b>	<b>17</b>

❖ **Concept Map:**

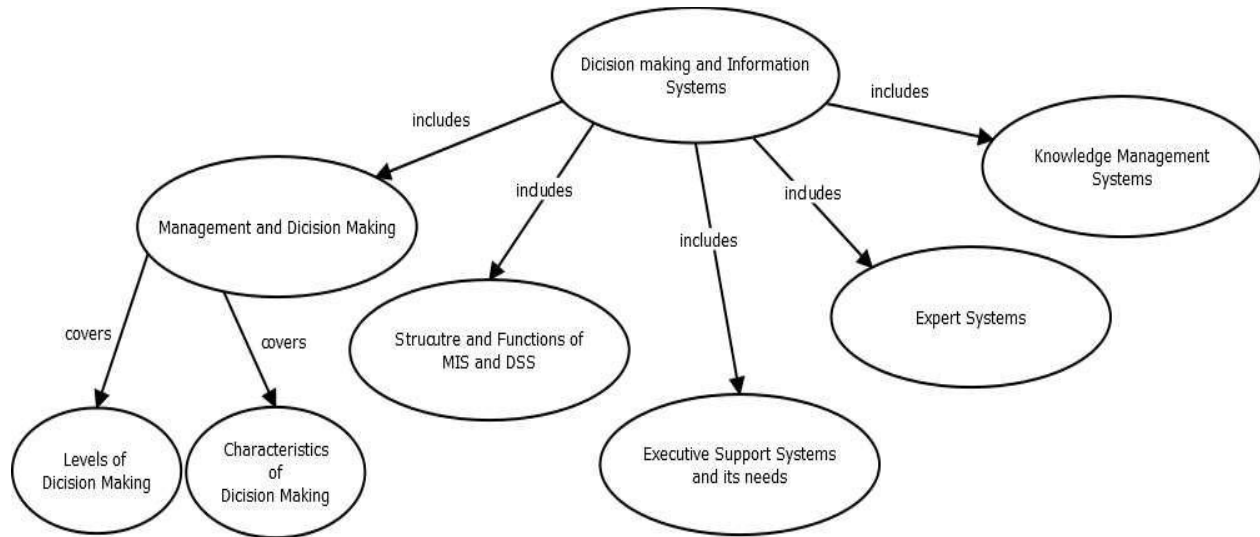
**Introduction to Information Systems**



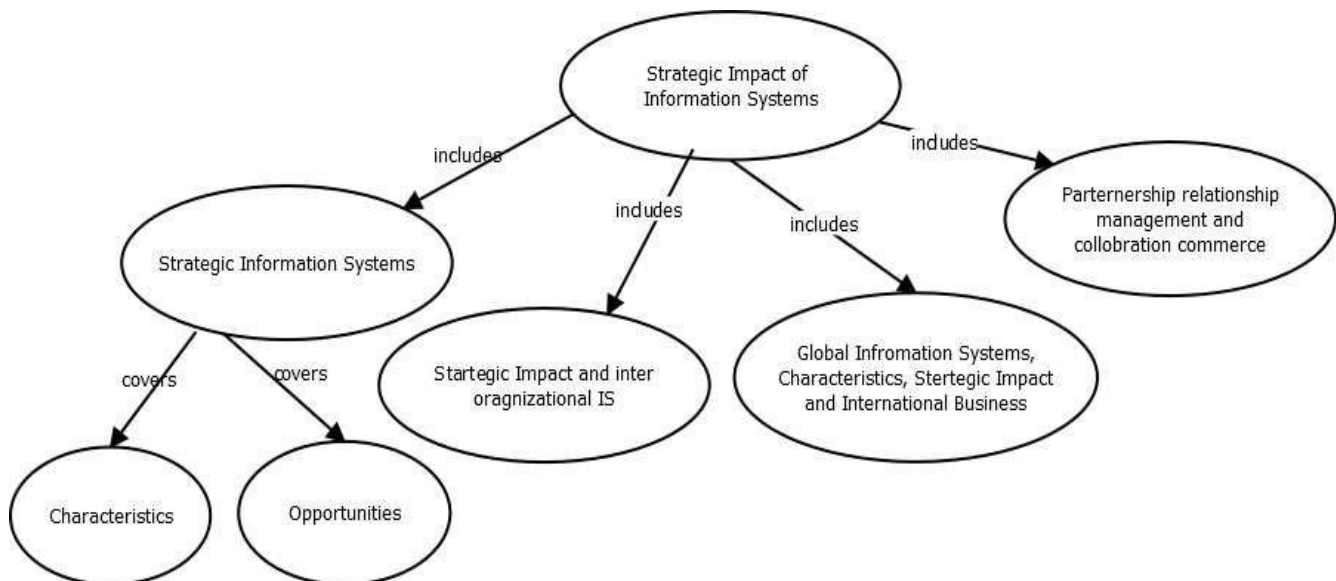
**Unit: 1: Introduction to Business Information Systems**



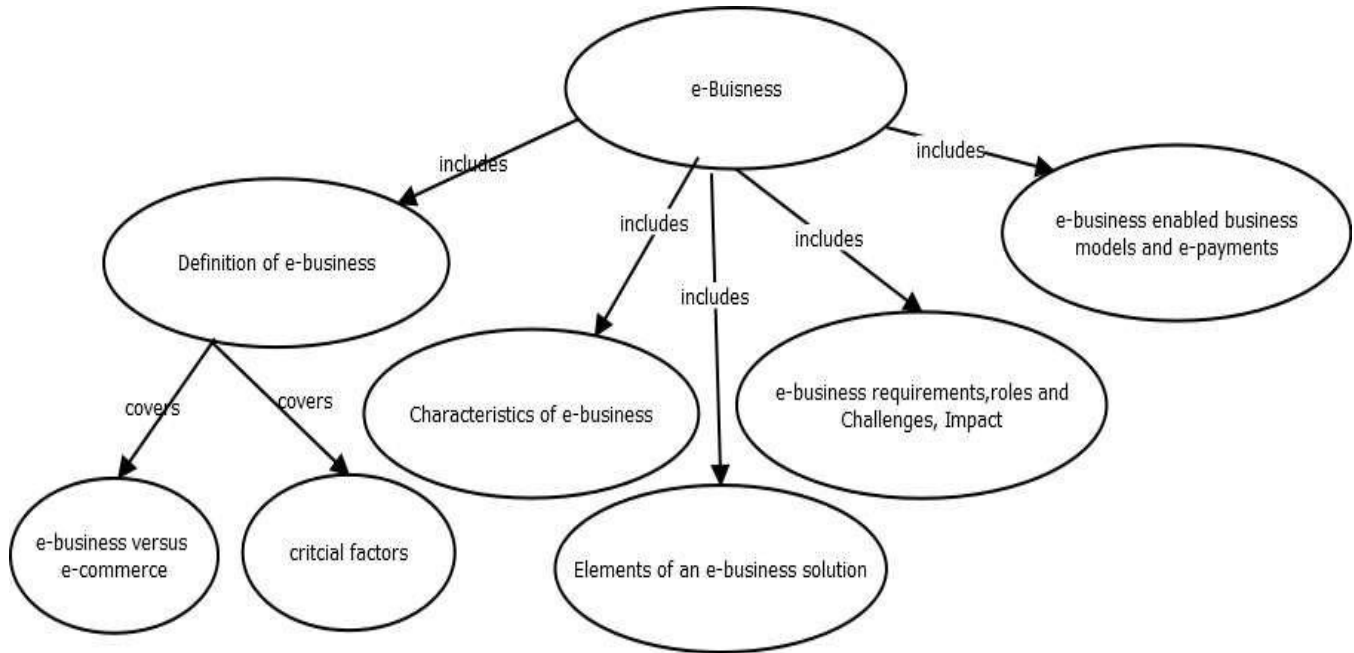
**Unit: 2: Decision Making and Information Systems**



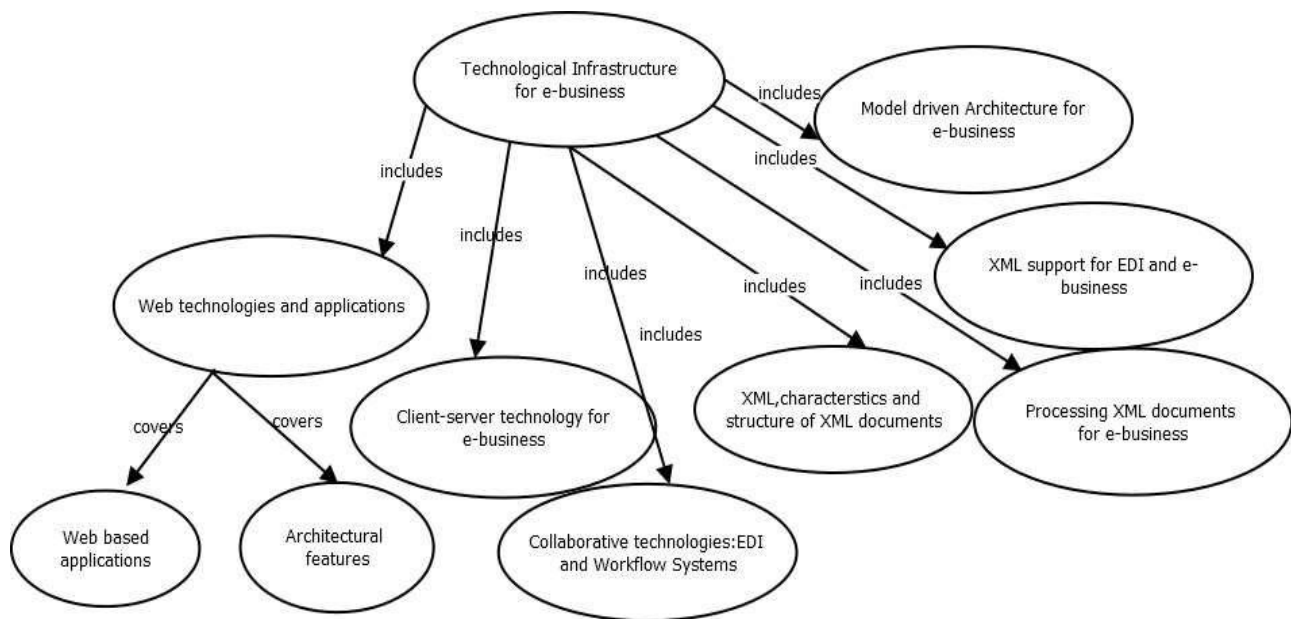
**Unit: 3: Strategic Impact of Information Systems**



**Unit: 4: e-Business**



**Unit: 5: Technological Infrastructure for e-business**



**Unit: 6: e-business Security and Integration**

