

TEACHING-CUM-LESSON PLAN

1) Subject Code: Th-2

2) Subject Title: INTERNET OF THINGS

3) Semester: 6th

4) Branch: Computer Sc & Engg

5) No. of Classes / Week: 06

6) Pre Requisite for the Subject: NIL

7) Text Book to be referred by students:

SI No.	Book	Author	Publication	Year (Edition)	Whether available in Library
i	Internet of Things	Jeeva Jose	Khanna Books	2019	YES

8) Course Coverage Schedule:

SI No.	Week No.	Ch. No.	No. of classes planned	Topic to be covered	Article		Expected Date of Completion	Remark
					From	To		
i	1	01	06	Introduction to Internet of Things	1.1	1.8		
ii	2	01	02	Introduction to Internet of Things	1.9	1.10	24-03-2022	
iii		02	04	IoT Networking	2.1	2.4		
iv	3	02	02	IoT Networking	2.5	2.6	04-04-2022	
v		03	04	Connectivity Technologies	3.1	3.3		
vi	4	03	02	Connectivity Technologies	3.4	3.5	16-04-2022	
vii		04	04	Wireless Sensor Networks	4.1	4.8		
viii	5	04	04	Wireless Sensor Networks	4.9	4.14	23-04-2022	
ix		05	02	M2M Communication	5.1	5.2		
x	6	05	03	M2M Communication	5.3	5.4	30-04-2022	
xi		06	03	Programming with Arduino	6.1	6.2		
xii	7	06	02	Programming with Arduino	6.3	6.4	05-05-2022	
xiii		07	04	Programming with Raspberry Pi	7.1	7.3	07-05-2022	
xiv	8	08	06	Software defined Networking	8.1	8.7	14-05-2022	
xv	9	09	03	Smart Homes	9.1	9.4	17-05-2022	
xvi		10	03	Smart Cities	10.1	10.4		
xvii	10	10	02	Smart Cities	10.5	10.6	23-05-2022	

xviii	11	04	Industrial IoT	11.1	11.5	28-05-2022	
Total:	11	60					

9) Detail Class wise Plan:

Detailed Topic Plan:

Chapter No: 01_ Chapter Name:- Introduction to Internet of Things

- 1.1 Introduction
- 1.2 Characteristics of IoT
- 1.3 Applications of IoT
- 1.4 IoT Categories
- 1.5 IoT Enablers and connectivity layers
- 1.6 Baseline Technologies
- 1.7 Sensor
- 1.8 Actuator
- 1.9 IoT components and implementation
- 1.10 Challenges for IoT

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
01	01	01	- Introduction - Characteristics of IoT	1.1,1.2		
02		02	- Applications of IoT - IoT Categories	1.3,1.4		
03		03	IoT Enablers and connectivity layers	1.5		
04		04	Baseline Technologies	1.6		
05		05	Sensor	1.7		
06		06	Actuator	1.8		
07	02	07	- IoT components and implementation - Challenges for IoT	1.9,1.10		
08		08	Teachers Exam./ Doubt Clear/Revision:	1001	24-03-2022	

REVIEW:-

Detailed Topic Plan:

Chapter No: 02_ Chapter Name:- IoT Networking

- 2.1 Terminologies
- 2.2 Gateway Prefix allotment
- 2.3 Impact of mobility on Addressing
- 2.4 Multihoming
- 2.5 Deviation from regular Web
- 2.6 IoT identification and Data protocols

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
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01		9	Terminologies	2.1		
02		10	Gateway Prefix allotment	2.2		
03	02	11	Impact of mobility on Addressing	2.3		
04		12	Multihoming	2.4		
05	03	13	Deviation from regular Web IoT identification and Data protocols	2.5,2.6		
06		14	Teachers Exam./ Doubt Clear/Revision	1002	04-04-2022	

REVIEW:-

Detailed Topic Plan:

Chapter No: 03_

Chapter Name:- Connectivity Technologies

- 3.1 Introduction
- 3.2 IEEE 802.15.4
- 3.3 ZigBee, 6LoWPAN
- 3.4 RFID, HART and wireless HART
- 3.5 NFC, Bluetooth, Z wave, ISA100.11.A

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
01		15	Introduction	3.1		
02		16	IEEE 802.15.4	3.2		
03	03	17	ZigBee, 6LoWPAN	3.3		
04		18	ZigBee, 6LoWPAN	3.3		
05	04	19	RFID, HART and wireless HART NFC, Bluetooth, Z wave, ISA100.11.A	3.4,3.5		
06		20	Teachers Exam./ Doubt Clear/Revision:	1003	16-04-2022	

REVIEW:-

Detailed Topic Plan:

Chapter No: 04_

Chapter Name:- Wireless Sensor Networks

- 4.1 Introduction
- 4.2 Components of a sensor node
- 4.3 Modes of Detection
- 4.4 Challenges in WSN
- 4.5 Sensor Web
- 4.6 Cooperation and Behaviour of Nodes in WSN
- 4.7 Self Management of WSN

- 4.8 Social sensing WSN
 4.9 Application of WSN
 4.10 Wireless Multimedia sensor network
 4.11 Wireless Nanosensor Networks
 4.12 Underwater acoustic sensor networks
 4.13 WSN Coverage
 4.14 Stationary WSN, Mobile WSN

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
01	04	21	Introduction Components of a sensor node	4.1,4.2		
02		22	Modes of Detection Challenges in WSN	4.3,4.4		
03		23	Sensor Web Cooperation and Behavior of Nodes in WSN	4.5,4.6		
04		24	Self Management of WSN Social sensing WSN	4.7,4.8		
05	05	25	Application of WSN Wireless Multimedia sensor network	4.9,4.10		
06		26	Wireless Nanosensor Networks Underwater acoustic sensor networks	4.11,4.12		
07		27	WSN Coverage Stationary WSN, Mobile WSN	4.13,4.14		
08		28	Teachers Exam./ Doubt Clear/Revision:		23-04-2022	

REVIEW:-

Detailed Topic Plan:

Chapter No: 05_

Chapter Name:- M2M Communication

- 5.1 M2M communication
 5.2 M2M Ecosystem
 5.3 M2M service Platform
 5.4 Interoperability

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
01	05	29	M2M communication	5.1		
02		30	M2M Ecosystem	5.2		
03	06	31	M2M service Platform	5.3		
04		32	Interoperability	5.4		
05		33	Teachers Exam./ Doubt Clear/Revision:	1005	30-04-2022	

REVIEW:-

Detailed Topic Plan:

Chapter No: 06_ Chapter Name:- Programming with Arduino

- 6.1 Features of Arduino
- 6.2 Components of Arduino Board
- 6.3 Arduino IDE
- 6.4 Case Studies

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
01	06	34	Features of Arduino	6.1		
02		35	Components of Arduino Board	6.2		
03		36	Components of Arduino Board	6.2		
04	07	37	Arduino IDE Case Studies	6.3,6.4		
05		38	Teachers Exam./ Doubt Clear/Revision:	1006	05-05-2022	

REVIEW:-**Detailed Topic Plan:**

Chapter No: 07_ Chapter Name:- Programming with Raspberry Pi

- 7.1 Architecture and Pin Configuration
- 7.2 Case studies
- 7.3 Implementation of IoT with Raspberry Pi

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
01	07	39	Architecture and Pin Configuration	7.1		
02		40	Case studies	7.2		
03		41	Implementation of IoT with Raspberry Pi	7.3		
04		42	Teachers Exam./ Doubt Clear/Revision:	1007		

REVIEW:-**Detailed Topic Plan:**

Chapter No: 08_

Chapter Name:- Software defined Networking

10) Examination Schedule

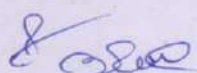
Sl No.	Particulars of Test	Schedule	Type
1	Weekly Test (2 nd Week onwards)	Wednesday (4 th Sem.) & Thursday (6 th sem.)	10 Short Questions (02 Marks):
2	Internal Exam.-1	4 th Week	30 Marks (Long Questions)
3	Internal Exam.-2	8 th Week	30 Marks (Long Questions)

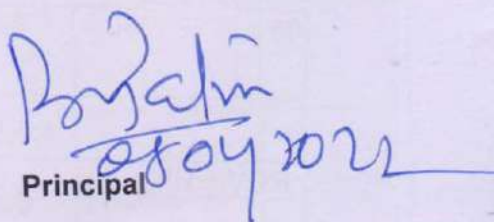
11) Assignment Collection/ Evaluation:

Sl No.	Assignment No.	Content	Schedule
1	Assignment-1	Long Questions 7 Nos.(10 Marks) Short Questions 6 Nos. (5 Marks)	3 rd Week
2	Assignment-2	Long Questions 8 Nos.(10 Marks) Short Questions 6 Nos. (5 Marks)	6 th Week
3	Assignment-3	Long Questions 11 Nos.(10 Marks) Short Questions 8 Nos. (5 Marks)	9 th Week
4	Assignment-4	VST 100 Marks	10 th /11 th Week


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Principal



TEACHING-CUM-LESSON PLAN

- 1) Subject Code: Th-1 2) Subject Title: CRYPTOGRAPHY & NETWORK SECURITY
 3) Semester: 6th 4) Branch: Computer Sc & Engg
 5) No. of Classes / Week: 06
 6) Pre Requisite for the Subject: NIL
 7) Text Book to be referred by students:

Sl No.	Book	Author	Publication	Year (Edition)	Whether available in Library
i	Cryptography & Network security	A. Kahate	TMH	3 RD	YES

8) Course Coverage Schedule:

Sl No.	Week No.	Ch. No	No. of classes planned	Topic to be covered	Article		Expected Date of Completion	Remark
					From	To		
i	1	01	05	POSSIBLE ATTACKS ON COMPUTERS	1.1	1001	23-03-2022	
ii		02	01	CRYPTOGRAPHY CONCEPTS	2.1	2.2		
ii	2	02	06	CRYPTOGRAPHY CONCEPTS	2.3	2.4		
iii	3	02	03	CRYPTOGRAPHY CONCEPTS	2.5	1002	04-04-2022	
iv		03	03	SYMMETRIC & ASYMMETRIC KEY ALGORITHMS	3.1	3.2		
iv	4	03	06	SYMMETRIC & ASYMMETRIC KEY ALGORITHMS	3.3	3.5		
v	5	03	06	SYMMETRIC & ASYMMETRIC KEY ALGORITHMS	3.6	3.7, 1003	23-04-2022	
vi	6	04	06	DIGITAL CERTIFICATE & PUBLIC KEY INFRASTRUCTURE	4.1	4.2		
vii	7	04	04	DIGITAL CERTIFICATE & PUBLIC KEY INFRASTRUCTURE	4.3	4.4, 1004	05-05-2022	
vii		05	02	INTERNET SECURITY PROTOCOLS	5.1	5.2		
viii	8	05	06	INTERNET SECURITY PROTOCOLS	5.3	5.5		
ix	9	05	02	INTERNET SECURITY PROTOCOLS	5.6	1005	17-05-2022	
x		06	04	USER AUTHENTICATION	6.1	6.3		
x	10	06	01	USER AUTHENTICATION	6.4	6.5, 1006	23-05-2022	
xi		07	05	NETWORK SECURITY & VPN	7.1	7.4, 1007	28-05-2022	

Total:	07	60				
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9) **Detail Class wise Plan:**

Detailed Topic Plan:

Chapter No: 01_

Chapter Name:- POSSIBLE ATTACKS ON COMPUTERS

1.1 The need for security

1.2 Security approach

1.3 Principles of security

1.4 Types of attacks

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
01	01	01	- The need for security - Security approach	1.1,1.2		
02		02	- Security approach - Principles of security	1.2,1.3		
03		03	Types of attacks	1.4		
04		04	Types of attacks	1.4		
05		05	Teachers Exam./ Doubt Clear/Revision:	1001	23-03-2022	

REVIEW:-

Detailed Topic Plan:

Chapter No: __02__ Chapter Name: CRYPTOGRAPHY CONCEPTS

2.1 Plain text & Cipher Text

2.2 Substitution techniques

2.3 Transposition techniques

2.4 Encryption & Decryption

2.5 Symmetric & Asymmetric key cryptography

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	01	6	Plain text & Cipher Text Substitution techniques	2.1,2.2		
2	02	7	Transposition techniques	2.3		
3		8	Transposition techniques	2.3		
4		9	Transposition techniques	2.3		
5		10	Encryption & Decryption	2.4		
6		11	Encryption & Decryption	2.4		
7		12	Encryption & Decryption	2.4		
8		13	Symmetric & Asymmetric key cryptography	2.5		

	03	14	Symmetric & Asymmetric key cryptography	2.5		
10		15	Teachers Exam./ Doubt Clear/Revision:	1002	04-04-2022	

REVIEW:-

Detailed Topic Plan:

Chapter No: __03__ Chapter Name: SYMMETRIC & ASYMMETRIC KEY ALGORITHMS

- 3.1 Symmetric-key algorithm types
- 3.2 Overview of Symmetric key cryptography
- 3.3 Data encryption standards
- 3.4 Overview of Asymmetric key cryptography
- 3.5 The RSA algorithm
- 3.6 Symmetric & Asymmetric key cryptography
- 3.7 Digital signature

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	03	16	Symmetric-key algorithm types	3.1		
2		17	Overview of Symmetric key cryptography	3.2		
3		18	Overview of Symmetric key cryptography	3.2		
4	04	19	Data encryption standards	3.3		
5		20	Data encryption standards	3.3		
6		21	Overview of Asymmetric key cryptography	3.4		
7		22	Overview of Asymmetric key cryptography	3.4		
8		23	The RSA algorithm	3.5		
9		24	The RSA algorithm	3.5		
10	05	25	Symmetric & Asymmetric key cryptography	3.6		
11		26	Symmetric & Asymmetric key cryptography	3.6		
12		27	Symmetric & Asymmetric key cryptography	3.6		
13		28	Digital signature	3.7		
14		29	Digital signature	3.7		
15		30	Teachers Exam./ Doubt Clear/Revision:	1003	23-04-2022	

REVIEW:-

Detailed Topic Plan:**Chapter No: __04__ Chapter Name: Digital certificate & Public key infrastructure**

4.1 Digital certificates

4.2 Private key management

4.3 PKIX Model

4.4 Public key cryptography standards

SI No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	06	31	Digital certificates	4.1		
2		32	Digital certificates	4.1		
3		33	Private key management	4.2		
4		34	Private key management	4.2		
5		35	Private key management	4.2		
6		36	Private key management	4.2		
7	07	37	PKIX Model	4.3		
8		38	Public key cryptography standards	4.4		
9		39	Public key cryptography standards	4.4		
10		40	Teachers Exam./ Doubt Clear/Revision:	1004	05-05-2022	

REVIEW:-**Detailed Topic Plan:****Chapter No: __05__ Chapter Name: Internet security protocols**

5.1 Basic concept

5.2 Secure socket layer

5.3 Transport layer security

5.4 Secure Hyper text transfer protocol(SHHTTP)

5.5 Time stamping protocol (TSP)

5.6 Secure electronic transaction (SET)

SI No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	07	41	Basic concept	5.1		
2		42	Secure socket layer	5.2		
3	08	43	Transport layer security	5.3		
4		44	Transport layer security	5.3		
5		45	Secure Hyper text transfer protocol(SHHTTP)	5.4		
6		46	Secure Hyper text transfer protocol(SHHTTP)	5.4		
7		47	Time stamping protocol (TSP)	5.5		
8		48	Time stamping protocol (TSP)	5.5		

09	49	Secure electronic transaction (SET)	5.6		
10	50	Teachers Exam./ Doubt Clear/Revision:	1005	17-05-2022	

REVIEW:-

Detailed Topic Plan:

Chapter No: __06__ Chapter Name: User authentication

- 6.1 Authentication basics
- 6.2 Password
- 6.3 Authentication Tokens
- 6.4 Certificate based authentication
- 6.5 Biometric authentication

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	09	51	Authentication basics Password	6.1,6.2		
2		52	Authentication Tokens	6.3		
3		53	Certificate based authentication	6.4		
4		54	Biometric authentication	6.5		
5	10	55	Teachers Exam./ Doubt Clear/Revision:	1006	23-05-2022	

REVIEW:-

Detailed Topic Plan:

Chapter No: __07__ Chapter Name: Network Security & VPN

- 7.1 Brief introduction of TCP/IP
- 7.2 Firewall
- 7.3 IP Security
- 7.4 Virtual Private Network (VPN)

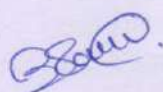
Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	10	56	Brief introduction of TCP/IP	7.1		
2		57	Firewall	7.2		
3		58	IP Security	7.3		
4		59	Virtual Private Network (VPN)	7.4		
5		60	Teachers Exam./ Doubt Clear/Revision:	1007	28-05-2022	

REVIEW:-**10) Examination Schedule:**

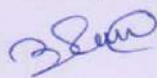
SI No.	Particulars of Test	Schedule	Type
1	Weekly Test (2 nd Week onwards)	Wednesday (4 th Sem.) & Thursday (6 th sem.)	10 Short Questions (02 Marks):
2	Internal Exam.-1	4 th Week	30 Marks (Long Questions)
3	Internal Exam.-2	8 th Week	30 Marks (Long Questions)

11) Assignment Collection/ Evaluation:

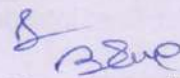
SI No.	Assignment No.	Content	Schedule
1	Assignment-1	Long Questions 7 Nos.(10 Marks) Short Questions 6 Nos. (5 Marks)	3 rd Week
2	Assignment-2	Long Questions 8 Nos.(10 Marks) Short Questions 6 Nos. (5 Marks)	6 th Week
3	Assignment-3	Long Questions 11 Nos.(10 Marks) Short Questions 8 Nos. (5 Marks)	9 th Week
4	Assignment-4	VST 100 Marks	10 th /11 th Week



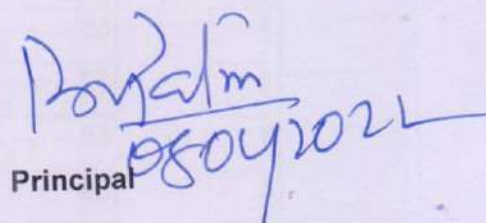
Signature of Faculty



Signature of Asst. HOD



Signature of HOD


Principal

TEACHING-CUM-LESSON PLAN

- 1) Subject Code: TH-4
- 2) Subject Title: E-Commerce
- 3) Semester: 6TH
- 4) Branch: Computer Science Engg
- 5) No. of Classes / Week: 04
- 6) Pre Requisite for the Subject: NIL
- 7) Text Book to be referred by students:

SI No.	Book	Author	Publication	Year (Edition)	Whether available in Library
i	E-commerce and Mobile Commerce Technology By	U.S Pandey and S Sukla	S.Chand	2007	YES

8) Course Coverage Schedule:

SI No.	Week No.	Ch. No	No. of classes planned	Topic to be covered	Article		Expected Date of Completion	Remark
					From	To		
i	1	1	04	INTORODUCTION TO E COMMERCE	1.1	1.7,1001	26-03-2022	
ii	2	2	04	BUSINESS MODELS OF E-COMMERCE	2.1	2.4		
iii	3	2	01	BUSINESS MODELS OF E-COMMERCE	2.5	2.6,1002	08-04-2022	
		3	03	B2B E-COMMERCE AND EDI	3.1	3.4		
iv	4	3	04	B2B E-COMMERCE AND EDI	3.5	3.11,1003	20-04-2022	
v	5	4	04	BUSINESS APPLICATIONS OF E-COMMERCE	4.1	4.8		
vi	6	4	01	BUSINESS APPLICATIONS OF E-COMMERCE	4.9	4.9,1004	30-04-2022	
		5	03	E-COMMERCE IN TECHNOLOGY	5.1	5.7		
vii	7	5	03	E-COMMERCE IN TECHNOLOGY	5.8	5.13,1005	09-05-2022	
		6	01	ELECTRONIC PAYMENT SYSTEM	6.1	6.2		
viii	8	6	04	ELECTRONIC PAYMENT SYSTEM	6.3	6.10		
ix	9	6	01	ELECTRONIC PAYMENT SYSTEM	6.11	6.12,1006	24-05-2022	
		7	03	SECURITY ISSUES IN E-COMMERCE	7.1	7.5		

x	10	7	01	SECURITY ISSUES IN E-COMMERCE	7.6	7.7,1007	29-05-2022	
		8	03	CURRENT TRENDS IN ELECTRONIC WORLD	8.1	8.3,1008	03-06-2022	
Total:		8	40					

9) Detail Class wise Plan:

Detailed Topic Plan:				Chapter Name: Introduction to E-Commerce		
Chapter No: 01						
1.1 Introduction 1.2 what is E-commerce 1.3 E-Business 1.4 Categories of E-Commerce Applications 1.5 Global Trading Environment & Adoption of E-commerce 1.6 Comparison between traditional and E-commerce 1.7 Advantage and Disadvantage						
Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	01	1	Introduction what is E-commerce E-Business	1.1,1.2,1.3		
2		2	Categories of E-Commerce Applications Global Trading Environment & Adoption of E-commerce	1.4,1.5		
3		3	Comparison between traditional and E-commerce, Advantage and Disadvantage	1.6,1.7		
4		4(Last Class)	Teachers Exam./ Doubt Clear/Revision:	1001		

REVIEW:-

Detailed Topic Plan:

Chapter No: 02

Chapter Name: Data Business Models of E-Commerce

- 2.1 Introduction
 2.2 Business Models of E-Commerce
 2.3 B2C
 2.4 B2B
 2.5 Difference between B2C and B2B
 2.6 C2C

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
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1	02	5	Introduction Business Models of E-Commerce	2.1,2.2		
2		6	B2C	2.3		
3		7	B2B	2.4		
4		8	Difference between B2C and B2B C2C	2.5,2.6		
5	03	9(Last Class)	Teachers Exam./ Doubt Clear/Revision:	1002		

REVIEW:-

Detailed Topic Plan:

Chapter No: 03

Chapter Name: B2B e-Commerce and EDI

Introduction
 3.1 Need for B2B
 3.2 EDI
 3.3 Paperless Transaction
 3.4 EDI standards
 3.5 Data Standards used in EDI
 3.6 Cost of EDI
 3.7 Reasons for Slow acceptability
 3.8 Electronic Fund Transfer (Canada case eliminated)
 3.9 XML and its application
 3.10 Comparison of HTML and XML
 3.11 Advantage of XML as a Technology

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1.	03	10	Introduction Need for B2B	3.1		
2.		11	EDI Paperless Transaction	3.2, 3.3		
3.		12	EDI standards Data Standards used in EDI Cost of EDI	3.4,3.5, 3.6		
4.	04	13	Reasons for Slow acceptability Electronic Fund Transfer (Canada case eliminated)	3.7,3.8		
5.		14	XML and its application	3.9		
6.		15	Comparison of HTML and XML Advantage of XML as a Technology	3.10,3. 11		
7.		16Last Class)	Teachers Exam./ Doubt Clear/Revision:	1003		

REVIEW:-**Detailed Topic Plan:****Chapter No: 04****Chapter Name: Business Applications of E-Commerce**

Introduction
4.1 Trade Cycle
4.2 Supply Chain
4.3 E-Procurement
4.4 Implementing E-Procurement
4.5 Competitive Advantage
4.6 E-Commerce Application in Manufacturing
4.7 E-Commerce Application in Wholesale
4.8 E-Commerce Application in Retail
4.9 E-Commerce Application in Service Sector

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	05	17	Introduction Trade Cycle Supply Chain E-Procurement	4.1,4.2, 4.3		
2		18	Implementing E-Procurement Competitive Advantage	4.4,4.5		
		19	E-Commerce Application in Manufacturing E-Commerce Application in Wholesale	4.6,4.7		
		20	E-Commerce Application in Retail E-Commerce Application in	4.8,4.9		
3	06	21(Last Class)	Teachers Exam./ Doubt Clear/Revision:	1004		

REVIEW:-**Detailed Topic Plan:****Chapter No: 05****Chapter Name: E-Commerce Technology**

5.1 Introduction
5.2 IT infrastructure
5.3 Internet
5.4 Middleware
5.5 Intranet
5.6 Extranet
5.7 VPN
5.8 Firewall
5.9 Cryptography
5.10 Digital Signature

- 5.11 Digital Envelope
- 5.12 Digital certificates
- 5.13 Contents

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	06	22	Introduction IT infrastructure Internet	5.1, 5.2, 5.3		
2		23	Middleware Intranet Extranet VPN	5.4,5.5,5.6,5.7		
3		24	Firewall Cryptography	5.8,5.9		
4	07	25	Digital Signature Digital Envelope	5.10,5.11		
5		26	Digital certificates Contentss	5.12,5.13		
6		27(Last Class)	Teachers Exam./ Doubt Clear/Revision:	1005		

REVIEW:-

Detailed Topic Plan:

Chapter No: 06

Chapter Name: Electronic Payment System

- 6.1 Introduction
- 6.2 Electronic Payment Mechanism
- 6.3 Types of Payment System
- 6.4 Risks Associated with Electronic Payment
- 6.5 Risk Management option
- 6.6 Payment Gateway
- 6.7 Issues of Electronic Payment Technology
- 6.8 Recommendations
- 6.9 Internet Banking
- 6.10 Security Requirement
- 6.11 Secure Socket Layer
- 6.12 Biometrics

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	07	28	Introduction Electronic Payment Mechanism	6.1,6.2		
2	08	29	Types of Payment System Risks Associated with Electronic Payment	6.3,6.4		
3		30	Risk Management option Payment Gateway Issues of Electronic Payment Technology Recommendations	6.5,6.6,6.7,6.8		
4		31	Internet Banking Security Requirement	6.9,6.10		
5		32	Secure Socket Layer	6.11,6.12		

			Biometrics			
6	09	33(Last Class)	Teachers Exam./ Doubt Clear/Revision:	1005		

REVIEW:-

Detailed Topic Plan:

Chapter No: 07

Chapter Name: Security Issues in E-Commerce

- 7.1 Introduction
- 7.2 E-commerce security issues
- 7.3 Risks involved in e-commerce
- 7.4 Protecting e-commerce system
- 7.5 Common E-commerce Security Tools
- 7.6 Client server Network security
- 7.7 Data and Message Security

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	09	34	Introduction E-commerce security issues	7.1,7.2		
2		35	Risks involved in e-commerce Protecting e-commerce system Common E-commerce Security Tools	7.3,7.4,7.5		
3		36	Client server Network security Data and Message security	7.6,7.7		
4	10	37(Last Class)	Teachers Exam./ Doubt Clear/Revision:	1007		

RE VIEW:-

Detailed Topic Plan:

Chapter No: 08

Chapter Name: Current Trends in Electronic World

- 8.1 E-waste
- 8.2 E-Surveillance
- 8.3 E-governance

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	09	38	E-waste	8.1		
2		39	E-Surveillance E-governance	8.2,8.3		

4	10	40(Last Class)	Teachers Exam./ Doubt Clear/Revision:	1008		
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REVIEW:-

10) Examination Schedule:

Sl No.	Particulars of Test	Schedule	Type
1	Weekly Test (2 nd Week onwards)	Wednesday (4 th Sem.) & Thursday (6 th sem.)	10 Short Questions (02 Marks):
2	Internal Exam.-1	4 th Week	30 Marks (Long Questions)
3	Internal Exam.-2	8 th Week	30 Marks (Long Questions)

11) Assignment Collection/ Evaluation:

Sl No.	Assignment No.	Content	Schedule
1	Assignment-1	Long Questions 7 Nos.(10 Marks) Short Questions 6 Nos. (5 Marks)	3 rd Week
2	Assignment-2	Long Questions 8 Nos.(10 Marks) Short Questions 6 Nos. (5 Marks)	6 th Week
3	Assignment-3	Long Questions 11 Nos.(10 Marks) Short Questions 8 Nos. (5 Marks)	9 th Week
4	Assignment-4	VST 100 Marks	10 th /11 th Week

Bijayalaxmi Parida
Signature of Faculty

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Signature of Asst. HOD

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Signature of HOD

[Signature]
Principal

TEACHING-CUM-LESSON PLAN

- 1) Subject Code: TH-4
- 2) Subject Title: E-Commerce
- 3) Semester: 6TH
- 4) Branch: Computer Science Engg
- 5) No. of Classes / Week: 04
- 6) Pre Requisite for the Subject: NIL
- 7) Text Book to be referred by students:

SI No.	Book	Author	Publication	Year (Edition)	Whether available in Library
i	E-commerce and Mobile Commerce Technology By	U.S Pandey and S Sukla	S.Chand	2007	YES

8) Course Coverage Schedule:

SI No.	Week No.	Ch. No	No. of classes planned	Topic to be covered	Article		Expected Date of Completion	Remark
					From	To		
i	1	1	04	INTORODUCTION TO E COMMERCE	1.1	1.7,1001	26-03-2022	
ii	2	2	04	BUSINESS MODELS OF E-COMMERCE	2.1	2.4		
iii	3	2	01	BUSINESS MODELS OF E-COMMERCE	2.5	2.6,1002	08-04-2022	
		3	03	B2B E-COMMERCE AND EDI	3.1	3.4		
iv	4	3	04	B2B E-COMMERCE AND EDI	3.5	3.11,1003	20-04-2022	
v	5	4	04	BUSINESS APPLICATIONS OF E-COMMERCE	4.1	4.8		
vi	6	4	01	BUSINESS APPLICATIONS OF E-COMMERCE	4.9	4.9,1004	30-04-2022	
		5	03	E-COMMERCE IN TECHNOLOGY	5.1	5.7		
vii	7	5	03	E-COMMERCE IN TECHNOLOGY	5.8	5.13,1005	09-05-2022	
		6	01	ELECTRONIC PAYMENT SYSTEM	6.1	6.2		
viii	8	6	04	ELECTRONIC PAYMENT SYSTEM	6.3	6.10		
ix	9	6	01	ELECTRONIC PAYMENT SYSTEM	6.11	6.12,1006	24-05-2022	
		7	03	SECURITY ISSUES IN E-COMMERCE	7.1	7.5		

x	10	7	01	SECURITY ISSUES IN E-COMMERCE	7.6	7.7,1007	29-05-2022	
		8	03	CURRENT TRENDS IN ELECTRONIC WORLD	8.1	8.3,1008	03-06-2022	
Total:		8	40					

9) Detail Class wise Plan:

Detailed Topic Plan:				Chapter Name: Introduction to E-Commerce		
Chapter No: 01						
1.1 Introduction 1.2 what is E-commerce 1.3 E-Business 1.4 Categories of E-Commerce Applications 1.5 Global Trading Environment & Adoption of E-commerce 1.6 Comparison between traditional and E-commerce 1.7 Advantage and Disadvantage						
SI No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	01	1	Introduction what is E-commerce E-Business	1.1,1.2,1.3		
2		2	Categories of E-Commerce Applications Global Trading Environment & Adoption of E-commerce	1.4,1.5		
3		3	Comparison between traditional and E-commerce, Advantage and Disadvantage	1.6,1.7		
4		4(Last Class)	Teachers Exam./ Doubt Clear/Revision:	1001		

REVIEW:-

Detailed Topic Plan:

Chapter No: 02

Chapter Name: Data Business Models of E-Commerce

- 2.1 Introduction
 2.2 Business Models of E-Commerce
 2.3 B2C
 2.4 B2B
 2.5 Difference between B2C and B2B
 2.6 C2C

SI No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
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1	02	5	Introduction Business Models of E-Commerce	2.1,2.2		
2		6	B2C	2.3		
3		7	B2B	2.4		
4		8	Difference between B2C and B2B C2C	2.5,2.6		
5	03	9(Last Class)	Teachers Exam./ Doubt Clear/Revision:	1002		

REVIEW:-

Detailed Topic Plan:

Chapter No: 03

Chapter Name: B2B e-Commerce and EDI

Introduction
 3.1 Need for B2B
 3.2 EDI
 3.3 Paperless Transaction
 3.4 EDI standards
 3.5 Data Standards used in EDI
 3.6 Cost of EDI
 3.7 Reasons for Slow acceptability
 3.8 Electronic Fund Transfer (Canada case eliminated)
 3.9 XML and its application
 3.10 Comparison of HTML and XML
 3.11 Advantage of XML as a Technology

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1.	03	10	Introduction Need for B2B	3.1		
2.		11	EDI Paperless Transaction	3.2, 3.3		
3.		12	EDI standards Data Standards used in EDI Cost of EDI	3.4,3.5, 3.6		
4.	04	13	Reasons for Slow acceptability Electronic Fund Transfer (Canada case eliminated)	3.7,3.8		
5.		14	XML and its application	3.9		
6.		15	Comparison of HTML and XML Advantage of XML as a Technology	3.10,3. 11		
7.		16Last Class)	Teachers Exam./ Doubt Clear/Revision:	1003		

REVIEW:-**Detailed Topic Plan:****Chapter No: 04****Chapter Name: Business Applications of E-Commerce**

Introduction
4.1 Trade Cycle
4.2 Supply Chain
4.3 E-Procurement
4.4 Implementing E-Procurement
4.5 Competitive Advantage
4.6 E-Commerce Application in Manufacturing
4.7 E-Commerce Application in Wholesale
4.8 E-Commerce Application in Retail
4.9 E-Commerce Application in Service Sector

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	05	17	Introduction Trade Cycle Supply Chain E-Procurement	4.1,4.2, 4.3		
2		18	Implementing E-Procurement Competitive Advantage	4.4,4.5		
		19	E-Commerce Application in Manufacturing E-Commerce Application in Wholesale	4.6,4.7		
		20	E-Commerce Application in Retail E-Commerce Application in	4.8,4.9		
3	06	21(Last Class)	Teachers Exam./ Doubt Clear/Revision:	1004		

REVIEW:-**Detailed Topic Plan:****Chapter No: 05****Chapter Name: E-Commerce Technology**

5.1 Introduction
5.2 IT infrastructure
5.3 Internet
5.4 Middleware
5.5 Intranet
5.6 Extranet
5.7 VPN
5.8 Firewall
5.9 Cryptography
5.10 Digital Signature

- 5.11 Digital Envelope
- 5.12 Digital certificates
- 5.13 Contents

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	06	22	Introduction IT infrastructure Internet	5.1, 5.2, 5.3		
2		23	Middleware Intranet Extranet VPN	5.4,5.5,5.6,5.7		
3		24	Firewall Cryptography	5.8,5.9		
4	07	25	Digital Signature Digital Envelope	5.10,5.11		
5		26	Digital certificates Contentss	5.12,5.13		
6		27(Last Class)	Teachers Exam./ Doubt Clear/Revision:	1005		

REVIEW:-

Detailed Topic Plan:

Chapter No: 06

Chapter Name: Electronic Payment System

- 6.1 Introduction
- 6.2 Electronic Payment Mechanism
- 6.3 Types of Payment System
- 6.4 Risks Associated with Electronic Payment
- 6.5 Risk Management option
- 6.6 Payment Gateway
- 6.7 Issues of Electronic Payment Technology
- 6.8 Recommendations
- 6.9 Internet Banking
- 6.10 Security Requirement
- 6.11 Secure Socket Layer
- 6.12 Biometrics

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	07	28	Introduction Electronic Payment Mechanism	6.1,6.2		
2	08	29	Types of Payment System Risks Associated with Electronic Payment	6.3,6.4		
3		30	Risk Management option Payment Gateway Issues of Electronic Payment Technology Recommendations	6.5,6.6,6.7,6.8		
4		31	Internet Banking Security Requirement	6.9,6.10		
5		32	Secure Socket Layer	6.11,6.12		

			Biometrics			
6	09	33(Last Class)	Teachers Exam./ Doubt Clear/Revision:	1005		

REVIEW:-

Detailed Topic Plan:

Chapter No: 07

Chapter Name: Security Issues in E-Commerce

- 7.1 Introduction
- 7.2 E-commerce security issues
- 7.3 Risks involved in e-commerce
- 7.4 Protecting e-commerce system
- 7.5 Common E-commerce Security Tools
- 7.6 Client server Network security
- 7.7 Data and Message Security

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	09	34	Introduction E-commerce security issues	7.1,7.2		
2		35	Risks involved in e-commerce Protecting e-commerce system Common E-commerce Security Tools	7.3,7.4,7.5		
3		36	Client server Network security Data and Message security	7.6,7.7		
4	10	37(Last Class)	Teachers Exam./ Doubt Clear/Revision:	1007		

RE VIEW:-

Detailed Topic Plan:

Chapter No: 08

Chapter Name: Current Trends in Electronic World

- 8.1 E-waste
- 8.2 E-Surveillance
- 8.3 E-governance

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	09	38	E-waste	8.1		
2		39	E-Surveillance E-governance	8.2,8.3		

4	10	40(Last Class)	Teachers Exam./ Doubt Clear/Revision:	1008		
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REVIEW:-

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Sl No.	Particulars of Test	Schedule	Type
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11) Assignment Collection/ Evaluation:

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3	Assignment-3	Long Questions 11 Nos.(10 Marks) Short Questions 8 Nos. (5 Marks)	9 th Week
4	Assignment-4	VST 100 Marks	10 th /11 th Week

Bijayalaxmi Parida
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Principal