

**MULTIMEDIA AND ANIMATION TECHNIQUES**  
(CST-605.E.iii)

FULL MARKS: 70

TIME: 03hrs

Answer any five questions:

Figures on right hand margin indicate marks.

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|-------|--|---|
| 1. a. | Give two examples of storage devices used for multimedia.                                    | 2 |
| b.    | Explain architecture of multimedia system.   | 5 |
| c.    | Give a brief description of all multimedia hardware devices.                                 | 7 |
| 2. a. | Define multimedia.   | 2 |
| b.    | Differentiate between JPEG and MPEG.   | 5 |
| c.    | What is multimedia authoring system? Explain different types of multimedia authoring system. | 7 |
| 3. a. | Define synchronisation.  | 2 |
| b.    | Explain RIF and TIFF file formats.   | 5 |
| c.    | What is flash? Explain different tools used for modifying an element.                        | 7 |
| 4. a. | What is distributed multimedia?  | 2 |
| b.    | Explain QOS Architecture.  | 5 |
| c.    | Define topology. Define different multiserver network topologies.                            | 7 |
| 5. a. | What is the function of Lassotool in flash?  | 2 |
| b.    | Define compression. Explain different types of compression.                                  | 5 |
| c.    | Discuss different video file formats.  | 7 |
| 6. a. | Define Orchestration.  | 2 |
| b.    | Explain Quantization.  | 5 |
| c.    | Explain distributed client server operation.   | 7 |
| 7. a. | Name two editing tools of flash.   | 2 |
| b.    | Write short notes on user Interface Design.  | 5 |
| c.    | What are the objectives of MPEG? Explain the architecture of MPEG.                           | 7 |

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170  
2 hrs

**COMPUTER SYSTEM MANAGEMENT PLANNING AND MAINTENANCE  
(CST-604)**

Full Marks: 70  
TIME: 03hrs

Answer any five questions:

Figures on right hand margin indicate marks.

1. a. Write the standard specification of a computer system. 2  
b. Classify the computer personnel engaged in an organization and explain their duties briefly. 5  
c. What is the need of a computer centre? Write the steps to establish a computer centre with installation of computers and peripherals. 7
2. a. Name two major vendors in computer hardware and software. 2  
b. What is the function of SMPS? Explain briefly. 5  
c. Name the network interconnecting devices and explain their functions briefly. 7
3. a. Define UPS. 2  
b. How different industries are classified as per their computer requirements? 5  
c. What do you mean by layout of a computer centre? Identify different features to establish a computer centre. 7
4. a. What is BIOS? 2  
b. What is HDD? Explain the functioning of and partitioning of HDD. 5  
c. Identify the power conditioning equipments. Explain the steps for actual installation and wiring diagram for site preparation of computer centre. 7
5. a. Define C MOS setup. 2  
b. Identify different standard expansion units and explain briefly. 5  
c. Name different components reside inside the system unit. Explain their function briefly. 7
6. a. Define POST. 2  
b. What is a fault? Explain different categories of fault and how they are removed? 5  
c. What do you mean by trouble shooting? Compare the synematic way versus adhoc way of trouble shooting. 7
7. a. Write basic components required to set up a computer laboratory. 2  
b. What do you mean by basic maintenance of a computer system? Explain the preventive and corrective measures. 5  
c. State and explain the steps for assembling a computer system. Write the advantages of a assembly computer system. 7

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## CRYPTOGRAPHY AND NETWORK SECURITY

(Code : CST-603)

Full Marks : 70

Time : 3 hours

Answer any five questions

*Figures in the right-hand margin indicate marks*

1. (a) Distinguish between Plain text and Cipher text with example. 2  
 (b) Write the comparison between Symmetric and Asymmetric key cryptography. 5  
 (c) What do you mean by Secure Electronic Transaction ? Explain the Set process. 7
2. (a) Name various types of attack on computer system. 2  
 (b) Explain Digital Certificate. What are certificate creation procedures ? 5  
 (c) Explain the RSA algorithm. Describe the example of RSA. 7
3. (a) Define Smart Card. 2  
 (b) Describe Biometric Authentication. 5  
 (c) Define Authentication Tokens. How does this work ? Explain its type. 7
4. (a) Define IP security. 2  
 (b) Write the comparison between Symmetric and Asymmetric key cryptography. 5  
 (c) Describe Substitution Technique and transposition technique. 7
5. (a) Define time stamping protocol. 2  
 (b) Explain private key management. 5  
 (c) What do you mean by DES ? Explain how DES works ? 7
6. (a) Distinguish between Encryption and Decryption. 2  
 (b) What are different principles of Security explain with example. 5  
 (c) Explain Virtual Private Network. Describe VPN Architecture. 7
7. (a) Define Password. What do you mean by Plain Text password ? 2  
 (b) Describe the position of SSL in TCP/IP protocol suite with Diagram. 5  
 (c) Write short notes on any two :  $3\frac{1}{2} \times 2$   
 (i) TCP/IP  
 (ii) Certificate-based Authentication  
 (iii) Firewall  
 (iv) Digital Signature.

VI— Sem/CSE/IT/2019(S)(New)

E-COMMERCE  
(Code : CST-601)

Full Marks : 70

Time : 3 hours

Answer any five questions

Figures in the right-hand margin indicate marks

1. (a) Define e-commerce. 2  
(b) Compare between traditional and electronic commerce. 5  
(c) What is trade cycle ? Explain various phases and types of trade cycle. 7
2. (a) What is e-procurement ? 2  
(b) What is B<sub>2</sub>B. Explain its various benefits. 5  
(c) Define EDI. Discuss different EDI standards. 7
3. (a) What do you mean by Intranet ? 2  
(b) Define firewall. Explain different types of firewall. 5  
(c) Define and differentiate between XML and HTML. 7
4. (a) What is secure socket layer ? 2  
(b) Define and contrast between B<sub>2</sub>B and B<sub>2</sub>C. 5  
(c) Explain some common e-commerce security tools. 7
5. (a) Define e-governance. 2  
(b) Explain the role of e-commerce in service sector. 5  
(c) Discuss the security requirement for electronic payment system. 7
6. (a) What is payment gateway ? 2  
(b) Explain client-server network security. 5  
(c) Define e-payment system. Explain the following types of electronic payment system in brief : 7  
(i) Debit card  
(ii) Credit card  
(iii) Smart card  
(iv) e-money.
7. Write short notes on any four : 3½ × 4  
(i) Electronic fund transfer  
(ii) Supply chain  
(iii) VPN  
(iv) e-waste  
(v) Biometric  
(vi) Internet banking.



## INTERNET AND WEB TECH.

(Code : CST-602)

Full Marks : 70

Time : 3 hours

Answer any five questions

*Figures in the right-hand margin indicate marks*

1. (a) Define Protocol. 2  
 (b) What do you mean by reliable delivery system ? Explain the properties of reliable delivery service. 5  
 (c) Explain TCP/IP 5-layer reference model with suitable diagram. 7
2. (a) Write the function of TCP checksum field. 2  
 (b) Why sliding window concept is used ? Explain the working of sliding window with suitable diagram. 5  
 (c) State and explain the fields of TCP segment format. 7
3. (a) Define POP3, IMAP4. 2  
 (b) What is subnet address extension ? Write the techniques to minimize the network members. 5  
 (c) Write the important features of FTP and explain the FTP process model by a suitable diagram. 7
4. (a) Write the format of subnet address and subnet masks represented in 3 tuples. 2  
 (b) What do you mean by routing of an internet ? Differentiate Direct and Indirect delivery service. 5  
 (c) What is DNS ? Explain the mapping of domain names to address. 7
5. (a) Name four internet connectivity types. 2  
 (b) Who is ISP ? State the factors for choosing an ISP. 5  
 (c) Define E-mail. Write the advantages of E-mail. Write the format of an E-mail message. 7
6. (a) What is URL ? 2  
 (b) Define WWW. What is a browser ? Write the important components of a WWW. 5  
 (c) Write the salient features of HTML briefly. 7
7. Write short notes :  $3\frac{1}{2} \times 4$   
 (i) UDP  
 (ii) TELNET  
 (iii) DTD  
 (iv) Classful addressing scheme.

**VI- SEM CSE/IT/2019(W)**

**CST-601- E-COMMERCE**

Full Marks: 80

Time : 3 Hours

Answer any Five Questions including Q No. 1 & 2

Figures in the right hand margin indicates marks

1. Answer all questions. (2X10)
  - a. What is E-Business?
  - b. Define XML.
  - c. Name two data standards used in EDI?
  - d. What do you mean by e-waste?
  - e. Define supply chain.
  - f. What do you mean by cryptography?
  - g. What is e-procurement?
  - h. Define VPN?
  - i. What do you mean by Electronic Fund Transfer?
  - j. Define digital signature.
  
2. Answer any **Six** questions (5X6)
  - a. Define firewall. Explain different types of firewall.
  - b. What is trade cycle? Explain various phases and types of trade cycle.
  - c. Discuss the ecommerce application in wholesale sector.
  - d. Differentiate between traditional commerce and e-commerce.
  - e. Write short notes on Biometrics.
  - f. Compare between internet and intranet.
  - g. Explain client server network security.
  
3. What is IT? Explain the role of IT in e-commerce. 10
  
4. Explain various advantages and disadvantages of e-commerce. 10
  
5. Define EDI. What are its various components? Explain its various features. 10
  
6. What is Internet Banking? Explain different types of risks associated with it. 10
  
7. Define EPS. Explain the different types of electronic payment system. 10

**VI-SEM -CSE /IT-2019(W)**  
**CST-602-INTERNET & WEB TECHNOLOGY**

FULL MARK : 80

Time: 3hrs

Answer any Five including Q.no.1 &2  
 Figures in the right hand margin indicates marks

1.	Answer ALL questions.	(2X10)
(a)	Define Internet protocol.	
(b)	What is port and end point?	
(c)	Who is the Internet addressing authority?	
(d)	Define IP header.	
(e)	Define Browser.	
(f)	What is CGI?	
(g)	Define Checksum.	
(h)	Name the function of a default router.	
(i)	What do you mean by Dotted Decimal Notation?	
(j)	Define UB Script.	
2.	Answer any <b>SIX</b> questions	(5X6)
(a)	Explain connectionless datagram delivery.	
(b)	Define reliable stream transport service. Write the properties of reliable delivery service.	
(c)	Define XML. What are the applications and rules of XML?	
(d)	Define ISP. Write role of ISP and factor for choosing an ISP.	
(e)	Define UDP. Describe UDP message format with suitable diagram.	
(f)	Distinguish between indirect and direct delivery system.	
(g)	Explain the idea behind sliding window protocol.	
(h)	Describe the functions of Telnet protocol.	
3.	Define E-mail. Write the format of E-mail and explain its working principle.	(10)
4.	Explain internet layering of TCP/IP with suitable diagram.	(10)
5.	Define DNS. Name various types of domain names. Describe the mapping of domain name to address.	(10)
6.	What is subnet addressing? Explain techniques for minimizing the network number.	(10)
7.	Write shot notes on any <b>TWO</b>	(5x2)
	(a) JAVA Script.	
	(b) IRC network	
	(c) TCP segment format.	
	(d) Properties of Internet	

**VI- SEM /IT/CSE/2019(W)/NEW**

**CST-603-C&N SECURITY**

Full Marks: 80

Time : 3 Hours

Answer any Five Questions including Q No. 1 & 2

Figures in the right hand margin indicates marks

Q.1	Answer ALL the questions: a) Define attack? List the types of attack. b) What do you mean by plaintext and cipher text? c) List out some Transposition techniques. d) List down some functions of firewall. e) What is VPN? f) What are the major threats to Data or Information? g) What is the role of hash function in cryptography? h) What do you know about Vernam Cipher? i) How authentications vary from authorization? j) Define Encryption and Decryption.	2X10
Q.2	Answer any SIX questions: a) Explain Digital Signature algorithm. b) Write the difference between block cipher and stream cipher. c) Write the procedure of DES algorithm. d) Write short notes on i) SHTTP ii) Secure Socket Layer e) Describe the principle of security f) List down difference between substitution and transposition techniques. g) Briefly describe the certificate based techniques of authentication.	5X6
Q.3	Describe Asymmetric key cryptography with RSA algorithm.	10
Q.4	What is the role of SET protocol in Internet Security? Describe in detail.	10
Q.5	Explain the layering architecture of TCP/IP.	10
Q.6	What do you mean by secret key cryptography and Public Key Cryptography? How they are different from one another?	10
Q.7	Write short notes on i) PKIX Model ii) Biometric Authentication	10



Answer any FIVE including Q.no.1 &2  
 Figures in the right hand margin indicates marks

1.	Answer ALL the questions.	
(a)	Name two Antivirus Software.	(2)
(b)	What is the need of management in Computer center?	(2)
(c)	What is the function of Isolation circuit and CVT?	(2)
(d)	What is the function of Keyboard Interface?	(2)
(e)	Name two diagnostic program and Tools.	(2)
(f)	What is CMOS-setup?	(2)
(g)	List out 5 components are inside the computer.	(2)
(h)	Name various computer make and installation in India.	(2)
(i)	Name software required after the installation of computer.	(2)
(j)	Name four vendors in computer hardware and software.	(2)
2.	Answer any <b>SIX</b> questions.	(5X6)
(a)	Name and explain the basic maintenance concepts of computer.	
(b)	Write the steps for assembling of a computer.	
(c)	Explain hardware BIOS interaction.	
(d)	Describe different layout factors and their effects.	
(e)	Describe interpretation of the installation and wiring diagram in brief.	
(f)	What is Firmware (POST) concept? Describe the fault elimination process	
(g)	Explain the need for training staff and duties and responsibilities of personnel involved.	
(h)	Describe about different types of industries and their computer requirements.	
3.	Explain the need of power conditioning equipment like CVT, UPS isolation Circuit. Describe With their principle of functioning.	(10)
4.	Describe the system unit and functioning of motherboard, HDD/FDD.	(10)
5.	Explain systematic way of trouble of trouble shooting versus adhoc trouble shooting.	(10)
6.	Describe systematic way of trouble shooting versus adhoc trouble shooting.	(10)
7.	Discuss hierarchy of position of different and describe types of job carried out in computer in an organization.	(10)

VI- SEM CSE/ 2019(W)

CST-605(E-iii)-MULTIMEDIA AND ANIMATION TECHNIQUES

Full Marks: 80

Time : 3 Hours

Answer any FIVE questions including Q.Nos. 1 & 2

Figures in the right hand margin indicates marks

1.	Answer ALL the questions.	2X10
(a)	What is storage media in multimedia? Give two examples.	
(b)	What do you mean by Orchestration?	
(c)	What is distributed multimedia system?	
(d)	Mention the use of Lasso tool in Flash?	
(e)	What is multimedia?	
(f)	Define synchronisation.	
(g)	Define animation.	
(h)	Define multimedia object server.	
(i)	Write the function of pen tool in Flash?	
(j)	What is AVI?	
2.	Answer any SIX questions.	(5X6)
(a)	Explain evaluation of multimedia system and its types.	
(b)	What is compression? Explain different types of compression.	
(c)	What are the various components of Distributed Multimedia systems?	
(d)	Write short notes on Information access.	
(e)	Explain different video file formats.	
(f)	Differentiate between TIFF and RIFF.	
(g)	What are the object display playback issues for authoring system?	
3.	What are the input and output devices used for multimedia? Explain their features in brief.	10
4.	What is the objective of JPEG? How it is differ from MPEG?	10
5.	Define multimedia authoring system. Explain different types of multimedia authoring tools.	10
6.	Explain the architecture of multimedia systems.	10
7.	What is Flash? What are the different tools used in Flash. Explain in brief.	10