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Q.P. code :- 53830

Solution sybbi Information technology sem III

Q1A) choose correct alternatives (any 8)

(8mks)

1. B) Vertical lookup
2. b) Core Banking Solutions
3. c) Electronic Fund Transfer
4. d) Insert
5. c) Ctrl+C
6. a) Spreadsheet
7. c) IT ACT 2008
8. a) Electric Data Interchange
9. c) Hacking
10. b) HTTP

Q1B) State whether statement are true or false (any 7)

(7mks)

1. False
2. True
3. False
4. True
5. True
6. True
7. False
8. True
9. True
10. False

Q2.A) What is Convergence and types of Convergence?

(15mks)

- Convergence is the concept of polling together all materials and resources at one place
- for easy and guide distribution. Amalgamation, absorption and merge are taking place in the
- electronic markets. The aim of such convergence is to reduce the risk of uncertainty in the global market.

Types of convergence

1. Multimedia convergence:

It refers to the convergence of text, sound, data, image, graphics and video into digital content.

2. Cross media convergence:

It refers to the convergence of various industries such as entertainment, publication, and communication media etc.

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3. **Storage convergence:** It refers to act of storing the digital data in a particular format in a particular mode. The data are stored in services and digital libraries for easy access by the needed consumers.

4. **Information convergence:**

It refers to the way of convergence of various types of information. The information may be related or not related but the convergence will be in such a way that accessing client need not have to go out for information required.

5. **Access device convergence:**

This type refers to method of standardizing the required access tools and equipment to facilitate easy and un-interrupted access to information. Even the modern telephone equipment's without personal computer keyboard, mouse or television with modem can be used to receive fax, e-mail etc., in the television itself. The ordinary television itself is now being modified in such a way that data are received through this equipment's.

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OR

Q2.B) Explain Ecommerce Architectural framework?

(15mks)

E-commerce is based on the client-server architecture.

A client can be an application, which uses a Graphical User Interface (GUI) that sends request to a server for certain services.

The server is the provider of the services requested by the client.

In E-commerce, a client refers to a customer who requests for certain services and the server refers to the business application through which the services are provided.

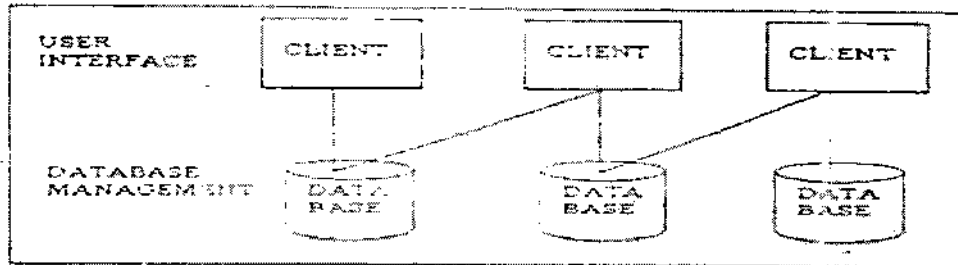
In client-server architecture, a machine can be both a client as well as a server.

There are two types of client server architecture that E-commerce follows: two-tier and three-tier.

Two-tier architecture:

In two-tier client-server architecture the user interface runs on the client and the database is stored on the server. The business application logic can either run on the client or the server. The user application logic can either run on the client or the server. It allows the client processes to run separately from the server processes on different computers.

The client processes provide an interface for the customer that gather and present the data on the computer of the customer. This part of the application is known as presentation layer. The server processes provide an interface with the data store of the business.



Three-tier architecture:

The three-tier architecture emerged in the 1990s to overcome the limitations of the two-tier architecture. In three-tier architecture, the user interface and the business application logic, also known as business rules and data storage and access, are developed and maintained as independent modules.

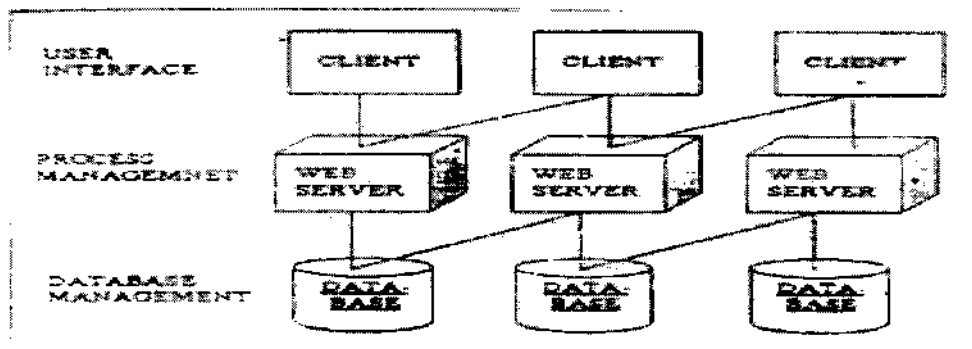
The three-tier architecture includes three tiers: top tier, middle tier and third tier.

The top tier includes a user interface where user services such as session, text input, and dialog and display management reside.

The middle tier provides process management services such as process development, process monitoring and process resourcing that are shared by the multiple applications.

The third tier provides database management functionality. The data management component ensures that the data is consistent throughout the distributed environment, the centralized process logic in this architecture, which makes administration easier by localizing the system functionality, is placed on the middle tier.

The following Figure shows the outline of the e commerce system Three - tier architecture diagram.



Q3.A) Explain features and advantages of E-commerce in detail . (15mks)

➤ Features

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1. Ubiquity
 2. Global reach
 3. Universal standards
 4. Richness
 5. Information density
- Advantages
1. Low cost
 2. flexibility and speed
 3. Time saving
 4. Available 24/7
 5. Fast One stop shopping

OR

Q3.B) Explain different market forces influencing the I-way. (15mks)

1. Cost
2. Subsidies
3. Store resource allocation
4. local regulations
5. information privacy
6. global access

Q4.A) What is E-banking? Explain Advantages and limitations of E-banking? (15mks)

E-banking refers to electronic banking. It's like e-business in the banking industry. Electronic banking is also known as "Virtual Banking" or "Online Banking". Electronic banking is based on banking based on information technology. Under this I.T system, banking services are delivered through a computer-controlled system. This system involves a direct interface with customers. Customers do not have to visit the bank's facilities.

Advantages

1. The cost of operation per unit of services is lower for banks.
2. Offers convenience to customers since they are not required to go to the bank's facilities.
3. There is a very low incidence of errors.
4. The customer can obtain funds at any time from ATMs.
5. Credit cards and debit cards allow customers to get discounts at points of sale.
6. The customer can easily transfer the funds from one place to another place electronically.

Limitations

- Savings and credit cooperatives, and in particular small local cooperatives, strive to match the level of convenience (ATMs and branches) that many banks offer their

customers, although many are part of shared networks that increase channels available to its members

- Some Credit Units are limited in their product offerings
- One must qualify for membership
- One must pay a membership fee to join

Q4.B) What is cyber law? Why it is needed in India.

(15mks)

Cyberlaw is the area of law that deals with the Internet's relationship to technological and electronic elements, including computers, software, hardware and information systems (IS). Cyberlaw is also known as Cyber Law or Internet Law.

The computer-generated world of internet is known as cyberspace and the laws prevailing this area are known as Cyber laws and all the users of this space come under the ambit of these laws as it carries a kind of worldwide jurisdiction. Cyber law can also be described as that branch of law that deals with legal issues related to use of inter-networked information technology. In short, cyber law is the law governing computers and the internet. The growth of Electronic Commerce has propelled the need for vibrant and effective regulatory mechanisms which would further strengthen the legal infrastructure, so crucial to the success of Electronic Commerce. All these governing mechanisms and legal structures come within the domain of Cyber law. Cyber law is important because it touches almost all aspects of transactions and activities and on involving the internet, World Wide Web and cyberspace. Every action and reaction in cyberspace has some legal and cyber legal angles.

Q5. A) Explain different types of Cyber crime

(8 mks)

1. Hacking
2. Phishing
3. Denial-of-attack
4. E-mail related crimes virus dissemination
5. Web Jacking
6. Data diding
7. Credit card fraud
8. Software piracy

B) Explain the issues(risks) and challenges in Electronic payment system and how to overcome the problem of the system.

(7 mks)

- Lack of usability
- Lack of security
- Issues with e-cash
- Lack of trust
- Users perception

- Lack of awareness
- Online payment not for all
- Highly expensive
- Fraud and chargebacks
- Card data security
- Multi-currency and payment method
- Virus and worms

OR

Q.5 Short notes(any 3)

(15mks)

1. Phishing and Hacking

Phishing is a form of fraud in which an attacker masquerades as a reputable entity or person in email or other communication channels. The attacker uses phishing emails to distribute malicious links or attachments that can perform a variety of functions, including the extraction of login credentials or account information from victims. Phishing is popular with cybercriminals, as it is far easier to trick someone into clicking a malicious link in a seemingly legitimate phishing email than trying to break through a computer's defenses. How phishing works Phishing attacks typically rely on social networking techniques applied to email or other electronic communication methods, including direct messages sent over social networks, SMS text messages and other instant messaging modes. Phishers may use social engineering and other public sources of information, including social networks like LinkedIn, Facebook and Twitter, to gather background information about the victim's personal and work history, his interests, and his activities. Pre-phishing attack reconnaissance can uncover names, job titles and email addresses of potential victims, as well as information about their colleagues and the names of key employees in their organizations.

2. HTTP and URL

HTTP means *HyperText Transfer Protocol*. HTTP is the underlying protocol used by the World Wide Web and this protocol defines how messages are formatted and transmitted, and what actions Web servers and browsers should take in response to various commands.

For example, when you enter a URL in your browser, this actually sends an HTTP command to the Web server directing it to fetch and transmit the requested Web page. The other main standard that controls how the World Wide Web works is HTML, which covers how Web pages are formatted and displayed.

URL is the abbreviation of **Uniform Resource Locator** and is defined as the global address of documents and other resources on the World Wide Web. To visit this website, for example, you'll go to the URL *www.webopedia.com*.

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We all use URLs to visit webpages and other resources on the web. The URL is an address that sends users to a specific resource online, such as a webpage, video or other document or resource. When you search Google, for example, the search results will display the URL of the resources that match your search query. The title in search results is simply a hyperlink to the URL of the resource.

A URL is one type of *Uniform Resource Identifier (URI)*; the generic term for all types of names and addresses that refer to objects on the World Wide Web.

3. Electronic payment system

E-commerce sites use electronic payment, where electronic payment refers to paperless monetary transactions. Electronic payment has revolutionized the business processing by reducing the paperwork, transaction costs, and labor cost. Being user friendly and less time-consuming than manual processing, it helps business organization to expand its market reach/expansion. Listed below are some of the modes of electronic payments

- Credit Card
- Debit Card
- Smart Card
- E-Money
- Electronic Fund Transfer (EFT)

4. Use of Ms-EXCEL

- i. number crunching
- ii. creating charts
- iii. organizing lists
- iv. accessing other data
- v. automating complex task
- vi. creating graphics and diagrams

5. Cryptography

Definition: Cryptography is associated with the process of converting ordinary plain text into unintelligible text and vice-versa. It is a method of storing and transmitting data in a particular form so that only those for whom it is intended can read and process it. Cryptography not only protects data from theft or alteration, but can also be used for user authentication.

Earlier cryptography was effectively synonymous with encryption but nowadays cryptography is mainly based on mathematical theory and computer science practice.

Cryptography involves creating written or generated codes that allow information to be kept secret. Cryptography converts data into a format that is unreadable for an unauthorized user, allowing it to be transmitted without unauthorized entities decoding it back into a readable format, thus compromising the data.

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Information security uses cryptography on several levels. The information cannot be read without a key to decrypt it. The information maintains its integrity during transit and while being stored. Cryptography also aids in nonrepudiation. This means that the sender and the delivery of a message can be verified.