Question 1

I. **What is meant by computer base information system?**
- The general term, computer-based information systems (CBIS), is a constellation of a variety of information systems, such as office automation systems (OAS), transaction processing systems (TPS), management information systems (MIS), and management support systems (MSS).

II. **Who are the peoples in an organization?**
- ✓ Senior management
- ✓ Middle management
- ✓ Operational management
- ✓ Knowledge workers
- ✓ Data workers
- ✓ Production or service work

III. **What is the intelligence system?**
- An intelligent system is an advanced computer system that can gather, analyze and respond to the data it collects from its surrounding environment. It can work and communicate with other agents, such as users or other computer systems. It can also learn from experience and adapt according to current data.

IV. **a). Define the term business process?**
- A business process is a collection of linked tasks that find their end in the delivery of a service or product to a client. A business process has also been defined as a set of activities and tasks that, once completed, will accomplish an organizational goal.

b). How information system improves business processes?
- Business Information System eases the process of decision making and simplifies the process of delivering the required information and hence assists in taking better decisions instantly.

Question 2

I. **What are the major types of enterprise application systems?**
   - ✓ Customer Relationship Management (CRM)
   - ✓ Who uses CRM systems?
   - ✓ Enterprise Resource Planning (ERP)
   - ✓ Supply Chain Management (SCM)
   - ✓ Benefits of Supply Chain Management.

II. **What is the mean of customer relationship management system?**
   - Customer relationship management (CRM) is a technology for managing all your company's relationships and interactions with customers and potential customers. The goal is simple: Improve business relationships to grow your business.

III. **What is Augmented reality (AR)?**
   - Augmented reality (AR) is an enhanced version of the real physical world that is achieved using digital visual elements, sound, or other sensory stimuli and delivered via technology. It is a growing trend among companies involved in mobile computing and business applications in particular.

IV. **What is meant by sociotechnical system?**
   - A socio-technical system (STS) is one that considers requirements spanning hardware, software, personal, and community aspects. It applies an understanding of the social structures, roles, and rights (the social sciences) to inform the design of systems that involve communities of people and technology.

Question 3

I. **What is mean by niche market?**
- A niche market is a specialized section of the larger market that may be focused on the sale of a single product or service or theme. Niche markets as a term generally refer to the business strategy of cornering the sale of products or services to a niche audience rather than attempting to break into the broader market.

II. **What are the four generic strategies?**
- Cost Leadership Strategy or Low-cost strategy.
- Differentiation strategy.
- Best-cost strategy.
- Market-niche or focus strategy.

III. **What are the advantages of strategic planning steps?**
- The Promise of Long-Term Sustainability
- Helps your people
- Provides a touchstone for on-going decision-making
- Better allocation of resources
- It gets everyone off the bus

IV. **Define the SWOT analysis and describe it with an example.**

- ***What is a SWOT analysis?***

A SWOT analysis is a technique used to identify strengths, weaknesses, opportunities, and threats for your business or even a specific project. It's most widely used by organizations—from small businesses and non-profits to large enterprises—but a SWOT analysis can be used for personal purposes as well. While simple, a SWOT analysis is a powerful tool for helping you identify competitive opportunities for improvement. It helps you improve your team and business while staying ahead of market trends.

- ***SWOT analysis example***

One of the most popular ways to create a SWOT analysis is through a SWOT matrix—a visual representation of strengths, weaknesses, opportunities, and threats. The

matrix comprises four separate squares that create one larger square. A SWOT matrix is great for collecting information and documenting the questions and decision-making process. Not only will it be handy to reference later, but it's also great for visualizing any patterns that arise. Check out the SWOT matrix below for a simple example. As you can see, each of the quadrants lists out the company's strengths, weaknesses, opportunities, and threats.

Strengths
Characteristics of a business which give it advantages over its competitors

Weaknesses
Characteristics of a business which make it disadvantageous relative to competitors

Opportunities
Elements in a company's external environment that allow it to formulate and implement strategies to increase profitability

Threats
Elements in the external environment that could endanger the integrity and profitability of the business

Question 4

I. **What is cloud computing?**
- Cloud computing is on-demand access, via the internet, to computing resources—applications, servers (physical servers and virtual servers), data storage, development tools, networking capabilities, and more—hosted at a remote data center managed by a cloud services provider (or CSP). The CSP makes these resources available for a monthly subscription fee or bills them according to usage.

II. **What are the advantages of cloud databases?**
- Overall cost
- Flexible solutions
- Mobile access
- Disaster recovery
- Safe and secure

III. **Define the term Data mart.**
- A data mart is a subject-oriented archive that stores data and uses the retrieved set of information to assist and support the requirements involved within a particular business function or department. Data marts exist within a single organizational data warehouse repository. Data marts improve end-user response time by allowing users to have access to the specific type of data they need to view most often by providing the data in a way that supports the collective view of a group of users.

IV. **Information technology can promote variety degrees of organizational changes. What are them.**
- Information technology can promote various degrees of organizational change, ranging from incremental to far-reaching:

    - ✓ Automation
    - ✓ Rationalization
    - ✓ Business Process Redesign
    - ✓ Paradigm Shifts

Automation

- ✓ the most common form of IT-enabled organizational change is automation.
- ✓ Information technology involved assisting employees with performing their tasks more   efficiently and effectively.
- ✓ Eg: Calculating paychecks and payroll registers.

Rationalization

- ✓ A deeper form of organizational change one that follows quickly from early automation is rationalization of procedures.
- ✓ Rationalization of procedures is the streamlining of standard operating procedures.
    - For example, Angostura's new mobile order system is effective not only because it uses computer technology but also because the company simplified
    - its business processes for this function. Fewer manual steps are required.

Business Process Redesign

- ✓ A more powerful type of organizational change is business process redesign, in which business processes are analyzed, simplified, and redesigned.
- ✓ Business process redesign reorganizes workflows, combining steps to cut waste and eliminate repetitive, paper-intensive tasks.

Paradigm shift

- ✓ Rationalizing procedures and redesigning business processes are limited to specific parts of a business.
- ✓ More radical form of business change is called a paradigm shift. A paradigm shift involves rethinking the nature of the business and the nature of the organization

Question 5

I. **What is malicious software?**
    - Malware, short for "malicious software," refers to any intrusive software developed by cybercriminals (often called "hackers") to steal data and damage or destroy computers and computer systems. Examples of common malware include viruses, worms, Trojan viruses, spyware, adware, and ransomware. Recent malware attacks have exfiltrated data in mass amounts.

II. **What is Spoofing and sniffing?**
    - *Spoofing* is a type of cybercrime whose method is to impersonate another computer or network in the form of an ordinary user to convince the user of the reliability of the source of information. Hackers use this method as a variant of hacking an operating system to steal sensitive data, abuse a captured computer, launch attacks such as DDoS (Denial of Service), and others.

    - *Sniffing* is a way to monitor the data packet and records through the network. System or network administrators fix problems with sniffers for monitoring. However, sniffing is convenient for hackers in its way. With sniffing, they intercept sensitive data packets, including account information or passwords. Cybercriminals install sniffers in the system like software.

III. **What are the new Authentication technologies?**
    - Authentication is the process of determining if someone is, in fact who they say they are. Authentication technology provides access control for systems by checking to see if a user's credentials match those within a database, Authentication Technologies.

IV. **What are the advantage of big data processing?**
    - ✓ Cost optimization
    - ✓ Helps in Understanding the Market Conditions
    - ✓ Improve efficiency
    - ✓ Better Decision Making
    - ✓ Improving Customer Service and Customer Experience