Q1. The top technology job is CIO (Chief Information Officer)

Q2. A(n)Systems analyst interfaces between users and programmers and determines information requirements and technical specifications for new applications.

Q1. The average amount spent by customers is an example of information. TRUE

Q2. A student’s first name and student’s last name who received an ATAR above 95 is not an example of information. FALSE

Q3. Data items refer to raw fact that are not organised to convey any specific meaning. TRUE

Q4. Information is data that has been organised to have meaning and value to a recipient. TRUE

Q1. Is information technology (IT) a part of information systems (IS)? TRUE

Q2. Procedures are the instructions for combining components to process information and generate the desired output.

Q3. **People** use the hardware and software, interface with it, or use its output.

Q1. A(n) TPS supports the monitoring, collection, storage, and processing of data from the organisation’s basic business transactions, each of which generates data.

Q2. Decision Support System (DSS) uses internal information from transaction processing system and management information system. TRUE

Q1. Procurement processes are NOT completed by sales. True

Q2. Increasing customer satisfaction is an example of efficiency. FALSE

Q1. Many organisations find BPR too difficult, too radical, too lengthy, and too comprehensive. TRUE

Q2. BPI is an incremental approach that focuses on reducing variation in the process outputs by searching for the root causes of the variation in the process itself or among process inputs. TRUE

Q3. BPM integrates disparate BPI initiatives to ensure consistent strategy execution. TRUE

Q1. Globalisation is a market pressure. TRUE

Q2. Information overload is a technology pressure. TRUE

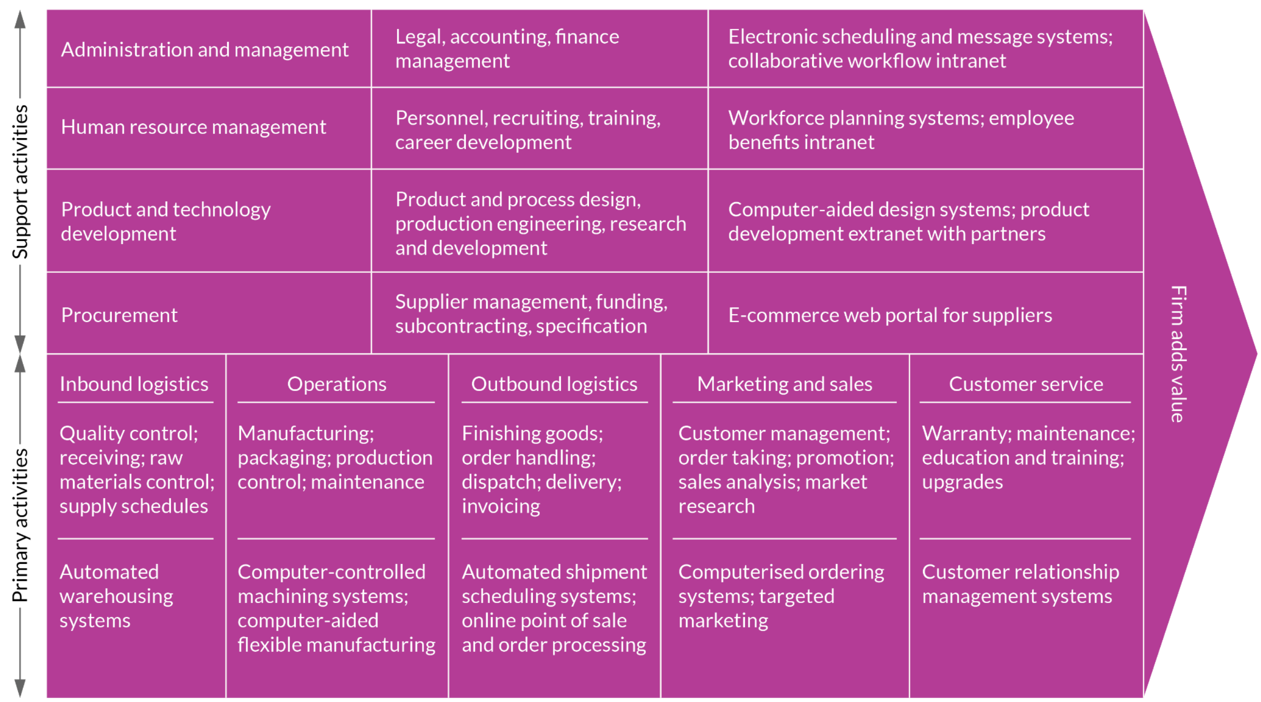
Q1. Porter’s competitive forces model identifies five major forces that can endanger or enhance a company’s position in a given industry.True

Q2. You have to offer online banking if you want to operate a bank. This is a(n) entry barrier.

Q2. Information overload is a technology pressure. TRUE

Q3. The digital divide is an issue associated with a technology pressure. FALSE

Q1. Marketing & Sales is an example of a support activity for most organisations. - False
Q2. Operations is an example of a primary activity for most organisations. TRUE



Q1. Which of the following has the strategy “I am better because I am different”? Differentiation.
Q2. Coles, a grocery store chain has a cost leadership strategy. TRue

Q1. IT services, IT personnel, and IT components make up the organisation’s IT infrastructure. TRUE

Q2. ERPs are organisation-wide systems that are designed to correct a lack of communication among FAISs. TRUE

Q3. A departmental information system can also be called an FAIS. TRUE

Q1. SCM systems are a type of inter-organisational IS. YES

Q2. Amazon uses a high-end CRM system to recommend products to returning customers. False

Q1. Routine reports are produced on demand with specific data requirements. False

Q2. Drill-down reports are type of exception report that display a greater level of detail. FALSE

Q1. The **Utilitarian a**pproach states that an ethical action is the one that provides the most good or does the least harm.

Q2. The **Fairness** approach posits that ethical actions treat all human beings equally, or, if unequally, then fairly, based on some defensible standard.

Q3.**Recognise an ethical issue i**s the first step in the general framework for ethics.

Q1. Which of the following is a privacy issue?

What information about oneself should an individual be required to reveal to others?

Q The Opt-out model of informed consent permits the company to collect personal information until the customer specifically requests that the data not be collected.

Q1. The exposure of an information resource is the harm, loss, or damage that can result if a threat compromises that resource.

Q An information resource's **Vulnerability** is the possibility that the system will be harmed by a threat.

Q1. You leave your laptop at your desk while you go to the restroom (washroom/toilet). This is **human error** and is an **unintentional** mistake.

Q2. Social engineering is an attack in which the perpetrator uses social skills to trick or manipulate legitimate employees into providing confidential company information such as passwords.

Q2. Sabotage is a deliberate act that involves defacing an organisation's website, potentially damaging the organisation's image and causing its customers to lose faith.

Q3. Virus is a remote attack requiring user action.

Q1. Espionage occurs when an unauthorised individual attempts to gain illegal access to organisational information.

Q1. A company gate is a physical control.

Q2. Authentication is an access control.

Q3. Firewall is a communications control.

Q1.Brick-and-mortar organisations are purely physical.

Q2.Virtual organisations are only online.
Q3. Clicks-and-mortar organisations have physical and online dimensions.

Q Online direct marketing :Manufacturers or retailers sell directly to customers. Very efficient for digital products and services. Can allow for product or service customisation (www.dell.com).

Q. Electronic tendering system: Businesses request quotes from suppliers. Uses B2B with a reverse auction mechanism.

Q Name-your-own-price: Customers decide how much they are willing to pay. An intermediary tries to match a provider (www.priceline.com).
Q. Find-the-best-price: Customers specify a need; an intermediary compares providers and shows the lowest price. Customers must accept the offer in a short time, or they may lose the deal (www.hotwire.com).

QAffiliate marketing: Vendors ask partners to place logos (or banners) on partner's site. If customers click on a logo, go to a vendor's site, and make a purchase, then the vendor pays commissions to the partners.

QViral marketing: Recipients of your marketing notices send information about your product to their friends.

Q. Group purchasing: Small buyers aggregate demand to create a large volume; the group then conducts tendering or negotiates a low price.

Q. Online auctions: Companies run auctions of various types on the Internet. Very popular in C2C, but gaining ground in other types of EC as well (www.ebay.com).

Q. **Product customisation:** Customers use the Internet to self-configure products or services. Sellers then price them and fulfill them quickly (build-to-order) (www.jaguar.com).

Q. E-marketplaces and exchanges: Transactions are conducted efficiently (more information to buyers and sellers, lower transaction costs) in electronic marketplaces (private or public).

Q. Bartering online: Intermediary administers online exchange of surplus products or company receives “points” for its contribution, which it can use to purchase other needed items (www.bbu.com).

Q.Deep discounters: Company offers deep price discounts. Appeals to customers who consider only price in their purchasing decisions (www.ebay.com).
Q.Membership: Only members can use the services provided, including access to certain information, conducting trades, and so on.

The degree of digitization is the extent to which commerce has been transformed from physical to digital.

This concept is related to the TWO dimensions below:

- The product or service being sold
- The delivery agent or intermediary

Traditional Commerce - brick-and-mortar organisations..
Pure E-Commerce - virtual (or pureplay) organisations.

Partial E-Commerce - clicks-and-mortar organisations (or clicks-and-bricks).

THREE major types of controls: physical control, access control and communication control

Authentication confirms the identity of the person requiring access. To authenticate (identify) authorised personnel, an organisation can use one or more of the following methods:

- Something the user is (e.g., biometrics)
- Something the user has (e.g., ID card, smart card, tokens)
- Something the user does (e.g., voice and signature recognition)
- Something the user knows (e.g., password)

These software attacks are grouped into THREE categories:

- Remote attacks requiring user action
- Remote attacks requiring no user action
- Software attacks initiated by programmers during the development of a system

Ethics in the Corporate Environment

Many companies and professional organisations develop their codes of ethics. A code of ethics is a collection of principles intended to guide decision-making by organisation members.

A General Ethical Framework

Privacy is the right to be left alone and free of unreasonable personal intrusions.

Information privacy is the right to determine when and to what extent information about you can be gathered or communicated to others.

Privacy is acknowledged as a fundamental human right.

Privacy Laws

- The right to privacy is not absolute. Privacy must be balanced against the needs of society.
- The public's right to know supersedes the individual's right to privacy.

digital dossier, an electronic profile of you and your habits.

The process of forming a digital dossier is called profiling.

Opt-out model

The opt-out model of informed consent permits the company to collect personal information until the customer specifically requests that the data not be collected.

The **opt-in model** of informed consent, prohibits an organisation from collecting any personal information unless the customer specifically authorises it.

Reports

All information systems produce reports, irrespective of systems with a single organisation or among multiple organisations.

These reports generally fall into THREE categories: Routine, Ad hoc (on-demand) and Exception.

Ad hoc (on-demand) reports

Ad hoc (on-demand) reports are the out-of-the-routine reports that include special information from different times, Ad hoc reports can also include requests for the following types of information:

- Drill-down reports display a greater level of detail.
- Key indicator reports summarize the performance of critical activities.
- Comparative reports compare,

Exception reports include only information that falls outside certain threshold standards.

Porter's Competitive Forces Model-The best-known business framework for analysing competitiveness is Michael Porter's competitive forces model. Companies use Porter's model to develop strategies to increase their competitive edge.Porter's model identifies FIVE major forces that can endanger or enhance a company's position in a given industry.

- The threat of entry of new competitors:
- The bargaining power of suppliers:
- The bargaining power of customers (buyers):
- The threat of substitute products or services:
- The rivalry among existing firms in the industry:

Porter's Value Chain Model-Organisations use the Porter competitive forces model to design general strategies. To identify specific activities in which they can use competitive strategies for the greatest impact, they use Porter's value chain model.

The Value Chain Model:

A value chain is a sequence of activities through which the organisation's inputs, whatever they are, are transformed into more valuable outputs, whatever they are.

- Primary Activities
- Support Activities

Strategies for Competitive Advantage-There are THREE strategies for establishing a competitive advantage:

- Cost Leadership
- Differentiation
- Focus (Cost-focus and Differentiation-focus)

Business–IT alignment is the tight integration of the IT function with the organisation's strategy, mission and goals

why do so many organisations fail to implement this policy? The major reasons are the following:

- Business managers and IT managers have different objectives.
- The business and IT departments are ignorant of the other group's expertise.
- A lack of communication.

IT/IS systems within an organisation are intended to support internal processes, regardless of who owns the systems.

A transaction is any business event that generates data worthy of being captured and stored in a database.

A transaction processing system (TPS) supports the monitoring, collection, storage, and processing of data from the organisation's basic business transactions, each of which generates data.

TPSs are inputs for the functional area information systems (FAIS), business intelligence (BI) systems, decision support systems (DSS) and other systems (e.g., customer relationship management (CRM), knowledge management (KM), and e-commerce).

The collection of application programs in a single department is usually referred to as a functional area information system.

ERP systems are an evolution of FAIS.ERP systems are designed to correct a lack of communication among the FAIS due to the problem of information silos.
Tight integration means changes in one functional area are immediately reflected in all other pertinent areas.

Examples: Some companies have developed their ERP systems, and most organisations use commercially available ERP software. Leading ERP vendors are SAP and Oracle.

IOSs -Information systems connecting two or more organisations are called inter-organisational information systems (IOSs).

Salesforce is one of the popular CRM vendors.

Ethics refers to the principles of right and wrong that individuals use to make choices that guide their behaviour.

Ethical Approaches/Standards

- **The Utilitarian Approach** -ethical action is the one that **provides the most good or does the least harm** for all affected parties.
- The Rights Approach - maintains that ethical action **best protects and respects the moral rights** of the affected parties,
- The Common Good Approach-highlights the interlocking relationships that underlie all societies. This approach argues that respect and compassion for all others are the basis for ethical actions.
- The Fairness Approach-The fairness approach proposes that ethical actions treat all human beings equally, or, if unequally, fairly, based on some defensible standard.
- The Deontology Approach - morality of an action is based on whether that action is right or wrong under a series of rules rather than based on the consequences of that action.

***The purpose of information systems has been defined right information to the right people at the right time, in the right amount, and the right format*.**

A **computer-based information system (CBIS)** is an information system that uses computer technology to perform some or all of its intended tasks.

IS is a system that include information technology components (hardware, software, databases, networks) + procedures and people.

IS = IT + procedures + people

Types of CBIS - Operational,management, strategic level systems

Operational Level -Transaction Processing Systems (TPS)

Management level - Management Information Systems (MIS), Decision-Support Systems (DSS)

Strategic Level System - Executive Support Systems (ESS)

A <u>business process</u> is an ongoing collection of related activities that create a product or a service of value to the organisation, its business partners and/or its customers.

THREE fundamental elements - Input, Resources, output

TWO fundamental metrics that organisations employ in assessing their processes are efficiency and effectiveness.

Information Systems play a vital role in THREE areas:

Executing the process

Capturing and storing process data

Monitoring process performance

- ***Business Process Reengineering (BPR), - BPR is a methodology that involves the <u>radical redesign</u> of a business process that improves its*** *efficiency and effectiveness, often by beginning with a "clean sheet" (i.e., from scratch).*

- ***Business Process Improvement (BPI)-BPI is a methodology where process owners use different methods to analyse, redesign, implement, and optimise their existing processes. It is done for the sole purpose of increasing efficiency across the entire organisation. Six Sigma, Lean, and TQM (Total Quality Management) are popular methodologies for BPI initiatives. Steps to implement BPI - DMAIC - define, measure,analysis,improve control less risky and less costly.***

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- ***Business Process Management (BPM) To sustain BPI efforts over time, organisations can adopt business process management (BPM), a management system that includes methods and tools to support the design, analysis, implementation, management, and continuous optimisation of core business processes throughout the organisation.Steps to implement BPM -Process modelling & Business Activity Monitoring (BAM)***