PAPER – 7 : INFORMATION TECHNOLOGY AND STRATEGIC MANAGEMENT

SECTION – A : INFORMATION TECHNOLOGY

Question No. 1 is compulsory
Answer any five questions from the rest.

Question 1
Answer the following questions in brief:
(a) Advantages of using E-R Diagram.
(b) Name of any four devices that utilize Bluetooth technology.
(c) What do you understand by “Transmission mode”? Name three types of transmission modes.
(d) Explain the four components of Executive Information System (EIS).
(e) Explain Cryptographic Controls. (5 x 2 = 10 Marks)

Answer
(a) Advantages of using Entity-Relationship (E-R) Diagram are as follows:
   • ER Modeling is simple, graphical and easily understandable. It is represented in business users’ language and it can be understood by non-technical specialist.
   • Intuitive and helps in Physical Database creation/design.
   • Can be generalized and specialized based on needs.
   • Gives a higher level description of the system.

(b) Some of the devices that utilize Bluetooth technology are as follows:
   ♦ Keyboards and mice,
   ♦ Printers,
   ♦ Cell phones and headsets,
   ♦ PDAs (Personal Digital Assistants),
   ♦ Desktop and laptop computers,
   ♦ Digital cameras, and
   ♦ Remotes: replacing IR (infrared)/Remote Control.

(c) Transmission Mode: In telecommunication, the Transmission Mode is used to define the direction of signal flow between two linked devices.
   There are three types of transmission modes characterized according to the direction of the exchanges: Simplex, Half-Duplex and Duplex.
The four components of Executive Information Systems (EIS) are as follows:

- **Hardware**: This includes input data-entry devices, CPU, data storage files and output devices.
- **Software**: This includes text-based software, database, and graphic types such as time series charts, scatter diagrams, maps, motion graphics, sequence charts, and comparison-oriented graphs (i.e., bar charts), model base.
- **User Interface**: This includes hardware (physical) and software (logical) components by which people (users) interact with a machine. Several types of interfaces can be available to the Executive Information System structure, such as scheduled reports, questions/answers, menu-driven, command language, natural language, and input/output.
- **Telecommunication**: This involves transmitting data from one place to another in a reliable networked system.

**Cryptographic Controls**: These controls are exercised in the boundary subsystem and are designed to protect the privacy of data and to prevent unauthorized modifications of data. Cryptography achieves this goal by scrambling data into codes (cryptograms) so that it is meaningless to anyone who does not possess the authentication to access the respective system resource or file. Examples are encryption, digital signature etc.

**Question 2**

(a) Describe any four reasons why documentation is important to Information Systems.

(b) Discuss the types of Data Flow Diagrams (DFDs). Also briefly mention the major components of DFD. (2 x 4 = 8 Marks)

**Answer**

(a) Some of the reasons why documentation is important to Information Systems are as follows:

- **Depicting how the system works**: In computerized systems, the processing is electronic and invisible. Therefore documentation is required to help employees understand how a system works, assist accountants in designing controls for it, demonstrates to managers that it will meet their information needs, and assists auditors in understanding the systems that they test and evaluate.

- **Training users**: Documentation also includes user guides, manuals, and similar operating instructions that help people learn how an Information System operates. These documentation aids help train users to operate Information systems hardware and software, solve operational problems, and perform their jobs better.

- **Designing new systems**: Documentation helps system designers develop new systems in much the same way that blueprints help architects design buildings. Well-written documentation and related graphical systems-design methodologies play
key roles in reducing system failures and decreasing the time spent correcting emergency errors.

- **Controlling system development and maintenance costs**: Personal computer applications typically employ prewritten, off-the-shelf software that is relatively reliable and inexpensive. Good documentation helps system designers develop object-oriented software, which is software that contains modular, reusable code that further avoid writing duplicate programs and facilitate changes when programs must be modified later.

- **Standardizing communications with others**: Documentation aids such as E-R Diagrams, System Flowcharts, and Data Flow Diagrams are more standardized tools, and they are more likely to be interpreted the same way by all parties viewing them. Thus, documentation tools are important because they help describe an existing or proposed system in a common language and help users communicate with one another about these systems.

- **Auditing Information Systems**: Documentation helps depict audit trails. For example- when investigation in an Accounting Information system, the auditors typically focus on internal controls. In such circumstances, documentation helps auditors determine the strengths and weaknesses of a system’s controls and therefore the scope and complexity of the audit.

- **Documenting business processes**: Understanding business processes can lead to better systems and better decision. Documentation helps managers better understand how their businesses operate what controls are involved or missing from critical organizational activities, and how to improve core business activities.

(b) The types of Data Flow Diagrams (DFDs) are as follows:

- **Logical Data Flow Diagram**: A Logical DFD focuses on the business and how the business operates. It describes the business events that take place and the data required and produced by each event. The logical model reflects the business.

- **Physical Data Flow Diagram**: A Physical DFD shows how the system will be implemented. The physical model depicts the system.

- **Context Diagram**: The Context Diagram is a high-level DFD that shows the entire system as a single process and shows the interaction between the system and external agents which act as data sources and sinks, and gives no clues as to its internal organization.

The major components of DFD are described as follows:

(i) **Entity**: An entity is the source or destination of data. The entities either provide data to the system (Source) or receive data from it (Sink).
(ii) **Process:** The process is the manipulation or work that transforms data, performing computations, making decisions (logic flow), or directing data flows based on business rules.

(iii) **Data Store:** A data store is where a process stores data between processes for later retrieval by that same process or another one.

(iv) **Data Flow:** Data flow is the movement of data between the entity, the process and the data store.

**Question 3**

(a) **Write any 8 Information Systems Control procedures covering the access safeguards over computer programs.**

(b) **Define the term ‘Cloud Computing Architecture’. Explain the two parts of Cloud Computing Architecture.**

**Answer**

(a) Information Systems Control procedures covering the access safeguards over computer programs are as follows:

- Strategy and direction;
- General Organization and Management;
- Access to IT resources, including data and programs;
- System development methodologies and change control;
- Operation procedures;
- System Programming and technical support functions;
- Quality Assurance Procedures;
- Physical Access Controls;
- Business Continuity Planning (BCP) and Disaster Recovery Planning (DRP);
- Network and Communication;
- Database Administration; and
- Protective and detective mechanisms against internal and external attacks.

(b) **Cloud Computing Architecture** refers to the components and subcomponents that typically consist of a Front End platform (fat client, thin client, mobile device), Back End platforms (servers, storage), a cloud based delivery, and a network (Internet, Intranet, Intercloud). Combined, these components make up Cloud Computing Architecture. Cloud architecture typically involves multiple cloud components communicating with each other over a tight or loose coupling of cloud resources, services, middleware, and software components.
A cloud computing architecture consists of two parts - **Front End** and a **Back End** that connect to each other through a network, usually the Internet.

- **Front End**: The front end is the side the computer user or client sees. The Front End of the cloud computing system comprises of the client's devices (or it may be a computer network) and some applications that are needed for accessing the cloud computing system. All the cloud computing systems do not give the same interface to users.

- **Back End**: Back End refers to some physical peripherals and is the “cloud” section of the system. In cloud computing, the back end is cloud itself which may encompass various computer machines, data storage systems and servers. Groups of these clouds make a whole cloud computing system.

**Question 4**

(a) What are the characteristics of Star Network? Write any two advantages and two disadvantages of Star Network.

(b) What is the basic objective for providing network security? Explain the major functions and services performed by the Physical Layer (Layer 1) of OSI Model of Network Architecture.  

2 x 4 = 8 Marks

**Answer**

(a) The characteristics of Star network are as follows:

- The star network, a popular network configuration, involves a central unit that has a number of terminals tied into it. In other words, it ties end user computers to a central computer.

- The central unit in the star network acts as the traffic controller among all the other computers tied to it. The central computer is usually a mainframe (host), which acts as the file server.

- A star network is well suited to companies with one large data processing facility shared by a number of smaller departments. Many star networks take the form of hierarchical networks with a centralized approach.

Advantages of the Star network include the following:

- Several users can use the central unit at the same time.

- It is easy to add new nodes and remove existing nodes.

- A node failure does not bring down the entire network.

- It is easier to diagnose network problems through a central hub.

Disadvantages of the Star network are as follows:

- The whole network is affected if the main unit “goes down,” and all communications stop.
In the star network, other computers are heavily dependent on the central host computer. If it fails, there is no backup processing and communications capability and the local computers will be cut off from the corporate headquarters and from each other.

Cost of cabling the central system and the points of the star network together are very high.

(b) The basic objective for providing network security is two-fold –

- To safeguard assets, and
- To ensure and maintain the data integrity. The boundary subsystem is an interface between the potential users of a system and the system itself. Controls in the boundary subsystem have the following purposes:
  - To establish the system, resources that the users desire to employ; and
  - To restrict the actions undertaken by the users who obtain the system resources to an authorized set.

The major functions and services performed by the Physical Layer (Layer 1) of OSI Model of Network Architecture are as follows:

- Establishment and termination of a connection to a communications medium.
- Participation in the process whereby the communication resources are effectively shared among multiple users. For example – contention, resolution and flow control.
- Modulation or conversion between the representation of digital data in user equipment and the corresponding signals transmitted over a communications channel. These are signals operating over the physical cabling (such as copper and optical fiber) or over a radio link.

Question 5

(a) What do you mean by ‘Frame Based Expert System’? Also explain the various components of Executive Information System (EIS).

(b) Explain the ‘Dashboards’ and ‘Scorecards’ as tools of Business Intelligence.

(2 x 4 = 8 Marks)

Answer

(a) **Frame Based Expert System:** These systems organize all the information (data, description, rules etc.) about a topic into logical units called Frames, which are similar to linked records in data files. Rules are then established about how to assemble or inter-relate the frames to meet the user’s needs.

The components of an Executive Information System (EIS) are as follows:
• **Hardware:** This includes Input data-entry devices, CPU, Data Storage files and Output Devices.

• **Software:** This includes Text base software, Database, and Graphic types such as time series charts, scatter diagrams, maps, motion graphics, sequence charts, and comparison-oriented graphs (i.e., bar charts), Model base.

• **User Interface:** This includes hardware (physical) and software (logical) components by which people (users) interact with a machine. Several types of interfaces can be available to the Executive Information System structure, such as scheduled reports, questions/answers, menu driven, command language, natural language, and input/output.

• **Telecommunication:** This involves transmitting data from one place to another in a reliable networked system.

(b) **Dashboards:** This involves using the information gathered from the data warehouse and making it available to users as snapshots of many different things with the objective of getting response to the query: “Tell me a lot of things, but without too much effort”. Dashboards are flexible tools that can be bent into as many different shapes as per user requirements. It includes a collection of graphs, reports, and KPIs (Key Performance Indicators) that can help monitor such business activities as progress on a specific initiative.

**Scorecards:** This involves providing a visual representation of the enterprise strategy by taking critical metrics and mapping them to strategic goals throughout the enterprise. Scorecards offer a rich, visual gauge to display the performance of specific initiatives, business units, or the enterprise as a whole and the individual goals in the context of larger enterprise strategy. Scorecards distil information into a small number of metrics and targets and provide users with an at-a-glance perspective of information. A scorecard has a graphical list of specific, attainable strategic milestones, combined with metrics that serve as benchmarks. Specific measures on how well the company has actually performed specified activities are linked in the scorecard with graphical display highlighting the status of each goal.

**Question 6**

(a) **Describe the Information Systems Management Controls usually performed by Top Management.**

(b) **Discuss the constraints that need to be taken into consideration while developing a secured Grid Architecture.**  
(2 x 4 = 8 Marks)

**Answer**

(a) **Top Management and Information Systems Management Controls:** Top management must ensure that information systems function is well managed. It is responsible primarily for long – run policy decisions on how information Systems will be used in the
organization. Information Systems management has overall responsibility for the planning and control of all information system activities.

It also provides advice to top management in relation to long-run policy decision making and translates long-run policies into short-run goals and objectives. The senior managers who take responsibility for Information System function in an organization face many challenges. The major functions that a top/senior manager must perform are as follows:

- **Planning** – determining the goals of the information systems function and the means of achieving these goals;
- **Organizing** – gathering, allocating, and coordinating the resources needed to accomplish the goals;
- **Leading** – motivating, guiding, and communicating with personnel; and
- **Controlling** – comparing actual performance with planned performance as a basis for taking any corrective actions that are needed.

Top management must prepare two types of information systems plans for the information systems function: a **Strategic Plan** and an **Operational Plan**. The **Strategic Plan** is the long-run plan covering, say, the next three to five years of operations whereas the **Operational Plan** is the short-plan covering, say, next one to three years of operations.

(b) To develop a secured Grid architecture, following constraints are needed to be taken into consideration:

- **Single Sign-on**: A user should authenticate once and they should be able to acquire resources, use them, and release them and to communicate internally without any further authentication.
- **Protection of Credentials**: User passwords, private keys etc. should be protected.
- **Interoperability with local security solutions**: Access to local resources should have local security policy at a local level. Despite of modifying every local resource there is an inter-domain security server for providing security to local resource.
- **Exportability**: The code should be exportable i.e. they cannot use a large amount of encryption at a time. There should be a minimum communication at a time.
- **Support for secure group communication**: In a communication there are number of processes which coordinate their activities. This coordination must be secure and for this there is no such security policy.
- **Support for multiple implementations**: There should be a security policy which should provide security to multiple sources based on public and private key cryptography.
Question 7

Write short notes on any four of the following:

(a) Six Sigma
(b) I-Pod
(c) Secure Socket Layer (SSL)
(d) Nucleus FinnOne
(e) Storage Virtualisation

(2 x 4 = 8 Marks)

Answer

(a) Six Sigma: Six Sigma is a set of strategies, techniques, and tools for process improvement. It seeks to improve the quality of process outputs by identifying and removing the causes of defects and minimizing variability in manufacturing and business processes. Each Six Sigma project carried out within an organization follows a defined sequence of steps and has quantified value targets, for example: reduce process cycle time, reduce pollution, reduce costs, increase customer satisfaction, and increase profits. It follows a life-cycle having phases: Define, Measure, Analyze, Improve and Control (or DMAIC).

(b) iPod: The iPod is a line of portable media players designed and marketed by Apple Inc. There are four current versions of the iPod: the ultra-compact iPod Shuffle, the compact iPod Nano, the touch screen iPod Touch, and the hard drive-based iPod Classic. Like other digital music players, iPods can serve as external data storage devices. Storage capacity varies by model, ranging from 2 GB for the iPod Shuffle to 160 GB for the iPod Classic.

(c) Secure Socket Layer (SSL): It is a protocol that provides a secure channel between two machines operating over the Internet or an internal network. In today’s Internet focused world, the SSL protocol is typically used when a web browser needs to securely connect to a web server over the inherently insecure Internet. In practice, SSL is used to secure online credit card transactions, system logins and any sensitive information exchanged online, to secure webmail and applications like Outlook Web Access, Exchange and Office Communications Server, to secure the connection between an email client such as Microsoft Outlook and an email server such as Microsoft Exchange, to secure intranet based traffic such as internal networks, file sharing, extranets, and database connections etc.

(d) Nucleus FinnOne: The Nucleus FinnOne is a banking suite, made and marketed by India-based Company Nucleus software, and comes with a wide variety of integrated applications that cover different aspects of global web banking. These applications support banks and financial solution companies in dealing with assets, liabilities, core financial accounting and customer service. The solution is wholly focused on banking and financial services spanning across solutions in the areas of Retail and Corporate
Banking, Cash Management, Relationship Banking, Financial CRM, Credit Risk & Appraisal, Enterprise Application Integration (EAI), Internet Banking, Data warehousing and Analytics.

(e) Storage Virtualization: Storage virtualization is the apparent pooling of data from multiple storage devices, even different types of storage devices, into what appears to be a single device that is managed from a central console. Storage virtualization helps the storage administrator perform the tasks of backup, archiving, and recovery more easily - and in less time - by disguising the actual complexity of a Storage Area Network (SAN). Administrators can implement virtualization with software applications or by using hardware and software hybrid appliances. The servers connected to the storage system aren't aware of where the data really is. Storage virtualization is sometimes described as “abstracting the logical storage from the physical storage”.
SECTION – B : STRATEGIC MANAGEMENT

Question No. 8 is compulsory
Answer any five questions from the rest.

Question 8

(a) Discuss the areas one should examine while developing a logistics strategy. (3 Marks)

(b) “TQM espouses a philosophy of continuous improvement in all areas of an organization”. Justify the statement. (3 Marks)

(c) How a firm will be benefitted by using ideas of Strategic Business Unit (SBU)? (3 Marks)

(d) ‘Objectives’ and ‘Goals’ provide meaning and sense of direction to organizational endeavour. Explain. (3 Marks)

(e) “A Manager working on a strategic decision has to balance socio-cultural opportunities, influences and constraints”. Discuss. (3 Marks)

Answer

(a) Logistics management is a process which integrates the flow of supplies into, through and out of an organization to achieve a level of service. It helps in efficient flow of required material. While formulating effective logistics strategy following areas may be considered:

♦ Sources of raw materials and components. Timely availability of quality materials.
♦ Different manufacturing locations and the products being manufactured at each location.
♦ Nature of distribution facilities. Mode of transportation and whether it is owned or outsourced.
♦ Method for deploying inventory in the logistics network.
♦ Obsolescence, Safety stock, reorder level, etc.

(b) TQM is a total system approach and an integral part of high level strategy. It works horizontally across functions and departments, involves all employees, top to bottom, and extends backward and forward to include the supply chain and the customer chain. TQM stresses learning and adaptation to continual change as keys to organizational success.

TQM espouses a philosophy of continuous improvement in all areas of an organization. This philosophy ties in closely with the quality measurement and universal quality responsibility concepts. Quality measurement is needed in order to focus improvement efforts appropriately.
Continuous improvement is part of the management of all systems and processes. Achieving the highest levels of performance requires a well-defined and well-executed approach to continuous improvement and learning.

(c) As the number, size, and diversity of divisions in an organization increase, controlling and evaluating divisional operations become increasingly difficult for strategists. The span of control becomes too large at top levels of the firm and creates difficulty in management. These difficulties can be overcome by using the ideas of SBU.

1. In multidivisional organizations, an SBU structure can greatly facilitate strategy implementation efforts.
2. The SBU structure helps in managing very large business organisations.
3. SBUs help to overcome the limitations of managers to process complex strategic information, problems related to isolation of functional area managers, and increasing diversification.
4. Creating separate strategic structures help in better planning, faster and focussed decisions, improved control and proper execution of strategy.

(d) Business organization translates their vision and mission into objectives. Objectives are open-ended attributes that denote the future states or outcomes. Goals are close-ended attributes which are precise and expressed in specific terms. Thus the goals are more specific and translate to objectives to short term perspective.

All organizations have objectives. The pursuit of objectives is an unending process such that organizations sustain themselves. They provide meaning and sense of direction to organizational endeavour. Organizational structure and activities are designed and resources are allocated around the objectives to facilitate their achievement. They also act as benchmarks for guiding organizational activity and for evaluating how the organization is performing.

(e) A manager working on a strategic decision has to balance opportunities, influences and constraints. These opportunities emanate from various sources including the socio-cultural elements of environment. Socio-cultural factors consist of factors such as traditions, values and beliefs, literacy and education, the ethical standards, stratification, conflict, cohesiveness and so forth. These factors are also evolving in the sense that there are changes in the preferences, value systems, education level and so on. Managers must segregate the factors that have a bearing on the organisation and consider them while taking strategic decisions. Some of these factors can be managed to an extent, however, there will be several others that are beyond the control of a manager.

Question 9

(a) State with reasons which of the following statement is correct or incorrect:

(i) BCG Growth Share Matrix is popularly used for resource allocation.
(ii) E-commerce technology close up the opportunities for reconfiguring industry and company value chains. (2 x 2 = 4 Marks)

(b) Elaborate the reasons necessary for the globalization of companies. (3 Marks)

Answer

(a) (i) Correct: BCG Growth share matrix also known for its cow and dog metaphors is popularly used for resource allocation in a diversified company. Primarily, it categorises organisations/products on the basis of two factors consisting of the growth opportunities and the market share enjoyed.

(ii) Incorrect: The impact of e-commerce technology on industry and company value chains is profound, paving the way for fundamental changes in the ways business is conducted both internally, and with suppliers and customers. Using the network to link the customers and the suppliers enables just-in-time delivery, reducing inventory costs and allowing production to match demand.

(b) There are several reasons for the globalization of companies. These are as follows:

1. **Shrinking of Time and Distance** owing to faster communication, speedier transportation, growing financial flows and rapid technological changes.

2. **Domestic Markets** are no longer adequate and rich.

3. **High Transportation Cost**: Companies often set up overseas plants to reduce high transportation costs. The higher the ratio of the unit cost to the selling price per unit, the more significant the transportation factor becomes.

   Reasons may also vary by industry. For example, The motivation to go global in high-tech industries is slightly different. Companies in electronics and telecommunications must spend large sums on research and development for new products and thus may be compelled to seek ways to improve sales volume to support high overhead expenses.

**Question 10**

Describe the concept of corporate culture. Elaborate the problems that business houses are facing while changing their culture to remain adaptive with the globally changing scenario. (7 Marks)

Answer

The phenomenon which often distinguishes good organizations from bad ones could be summed up as ‘corporate culture’. Corporate culture refers to a company’s values, beliefs, business principles, traditions, and ways of operating and internal work environment. Every corporation has a culture that exerts powerful influences on the behaviour of managers. Culture affects not only the way managers behave within an organization but also the decisions they make about the organization's relationships with its environment and its strategy.
Changing a company’s culture to align it with strategy is among the toughest management tasks-easier to talk about than do. Changing culture and making it to remain adaptive with the globally changing scenario is very difficult because of the heavy anchor of deeply held values and habits. It takes concerted management action over a sustained period of time to replace an unhealthy culture with a healthy culture or to root out certain unwanted cultural obstacles and instil ones that are more strategy-supportive.

The following needs to be done to change the culture for making it to remain adaptive with globally changing scenario:

1. To diagnose which facets of the present culture are strategy supportive and which are not.
2. Managers have to talk openly and forthrightly to all concerned about those aspects of the culture that have to be changed.
3. Talk has to be followed swiftly by visible, aggressive actions to modify the culture-actions that everyone will understand are intended to establish a new culture more in tune with the strategy.
4. The culture-changing actions include revising policies and procedures in ways that will help drive cultural change, altering incentive compensation (to reward the desired cultural behaviour), praising and recognizing people who display the new cultural traits, recruiting and hiring new managers and employees who have the desired cultural values and can serve as role models for the desired cultural behaviour, replacing key executives who are strongly associated with the old culture, and taking every opportunity to communicate to employees the basis for cultural change and its benefits to all concerned.

Question 11

(a) What are the objectives that must be kept in mind while designing a pricing strategy of a new product? (4 Marks)

(b) Analyse the role of Enterprise Resource Planning (ERP) in strategic implementation. (3 Marks)

Answer

(a) For a new product pricing strategies for entering a market needs to be designed. In pricing a really new product at least three objectives must be kept in mind.

i. Making the product acceptable to the customers.
ii. Producing a reasonable margin over cost.
iii. Achieving a market that helps in developing market share.

For a new product an organization may either choose to skim or penetrate the market. In skimming prices are set at a very high level. The product is directed to those buyers who are relatively price insensitive but sensitive to the novelty of the new product. For
example call rates of mobile telephony were set very high initially. Even the incoming calls were charged. Since the initial off take of the product is low, high price, in a way, helps in rationing of supply in favour of those who can afford it.

In penetration pricing firm keeps a temptingly low price for a new product which itself is selling point. A very large number of the potential customers may be able to afford and willing to try the product.

(b) ERP stand for enterprise resource planning which is an IT based system linking isolated information centers across the organisation into an integrated enterprise wide structured functional and activity bases. ERP is successor to MRP systems (material requirements and manufacturing resource planning systems). ERP is used for strengthening the procurement and management of input factors.

Modern ERP systems deliver end-to-end capabilities to support the entire performance management of an organisation. It helps in consolidated financial reporting, financial management, planning, budgeting, and performance management and so on.

Question 12

(a) Explain briefly following areas on which the strategic planners concentrate to achieve the long term prosperity:

(i) Profitability

(ii) Competitive position

(iii) Employee development

(iv) Public responsibility (1 x 4 = 4 Marks)

(b) Discuss General Electric model of analyzing current business portfolio. (3 Marks)

Answer

(a) Following are the areas on which the strategic planners concentrate to achieve the long term prosperity:

(i) Profitability: The ability of an organization to operate in the long run depends on achieving an adequate level of profits. These profits usually expressed in terms of earnings per share or return on equity.

(ii) Competitive position: The method of knowing the organization’s success is based on the relative dominance of an organization in the market place. Organizations commonly establish an objective in terms of competitive position, using total sales or market place as measures of their competitive position.

(iii) Employee development: Providing employee value education and training leads to increased compensation and job security. Providing such opportunities often increases productivity and decreases turnover.
(iv) **Public responsibility:** Managers recognize their responsibilities towards their customers and to society at large. Many organizations work not only to develop reputations for fairly priced products and services but also to establish themselves as responsible corporate citizens.

(b) To analyse business portfolio the General Electric Company used a model which is also known as **Business Planning Matrix**, **GE Nine-Cell Matrix** and **GE Electric Model**. The strategic planning approach in this model has been **inspired from traffic control lights**. The lights that are used at crossings to manage traffic are: green for go, amber or yellow for caution, and red for stop. This model uses two factors while taking strategic decisions: Business Strength and Market Attractiveness. The vertical axis indicates market attractiveness and the horizontal axis shows the business strength in the industry.

![Business Strength Matrix](image)

<table>
<thead>
<tr>
<th>Business Strength</th>
<th>Market Attractiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong</td>
<td>High</td>
</tr>
<tr>
<td>Average</td>
<td>Medium</td>
</tr>
<tr>
<td>Weak</td>
<td>Low</td>
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</tbody>
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**Figure: The GE Portfolio Matrix**

- **Green** (Invest/Expand)
- **Yellow** (Select/Earn)
- **Red** (Harvest/Divest)

If a product falls in the green section, the business is at advantageous position. To reap the benefits, the strategic decision can be to expand, to invest and grow. If a product is in the amber or yellow zone, it needs caution and managerial discretion is called for making the strategic choices. If a product is in the red zone, it will eventually lead to losses that would make things difficult for organisations. In such cases, the appropriate strategy should be retrenchment, divestment or liquidation.

**Question 13**

*Distinguish between the following:*

(a) ‘Concentric diversification’ and ‘Conglomerate diversification’. 

(b) ‘Market development’ and ‘Product development’.

(4 Marks)  
(3 Marks)
Answer

(a) Concentric and conglomerate diversification are different forms of diversification with the following key differences:

1. Concentric diversification occurs when a firm adds related products or markets. On the other hand conglomerate diversification occurs when a firm diversifies into areas that are unrelated to its current line of business.

2. In concentric diversification, the new business is linked to the existing businesses through process, technology or marketing. In conglomerate diversification, no such linkages exist; the new business/product is disjointed from the existing businesses/products.

3. The most common reasons for pursuing a concentric diversification are that opportunities in a firm’s existing line of business are available. However, common reasons for pursuing a conglomerate growth strategy is that opportunities in a firm’s current line of business are limited or opportunities outside are highly lucrative.

(b) Market Development and product development are two different growth strategies. The following are the differences between these two:

<table>
<thead>
<tr>
<th>Market Development</th>
<th>Product Development</th>
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<tbody>
<tr>
<td>1. Market development refers to a growth strategy where the business seeks to sell its existing products into new markets. It is a strategy for company growth by identifying and developing new markets for current company products.</td>
<td>1. Product development refers to a growth strategy where business aims to introduce new products into existing markets. It is a strategy for company growth by offering modified or new products to current markets.</td>
</tr>
<tr>
<td>2. Market development strategy may be achieved through new geographical markets, new product dimensions or packaging, new distribution channels or different pricing policies to attract different customers or create new market segments.</td>
<td>2. Product development strategy may require the development of new competencies and requires the business to develop modified products which can appeal to existing markets.</td>
</tr>
</tbody>
</table>

Question 14

Write short notes on the following:

(a) ‘Kieretsus’, a cooperative network of business in Japan. (4 Marks)

(b) Concept of driving forces.

OR

Strategy is partly proactive and partly reactive. (3 Marks)
Answer

(a) The benefits of cooperation are also seen in Japan, where large cooperative networks of businesses are known as *kieretsus*. These are formed in order to enhance the abilities of individual member businesses to compete in their respective industries. A *kieretsu* is a loosely-coupled group of companies, usually in related industries. *Kieretsu* members are peers and may own significant amounts of each other's stock and have many board members in common.

*Kieretsus* are different from conglomerates (common in western countries and also found in India) wherein all members are lineated through ownership pattern. A *kieretsu* also differs from a consortium or an association, as the primary purpose of a *kieretsu* is not to share information or agree industry standards, but to share purchasing, distribution or any other functions. In *Kieretsu* members remain independent companies in their own right: the only strategy they have in common is to prefer to do business with other *kieretsu* members, both when buying and when selling.

(b) **Driving Forces**: Industry conditions change because there are external forces that are driving industry participants to modify their actions. Industry and competitive conditions change because forces are in motion that creates incentives or pressures for changes. The most dominant forces are called driving forces because they have the biggest influence on what kinds of changes will take place in the industry's structure and competitive environment. Analyzing driving forces has two steps: identifying what the driving forces are and assessing the impact they will have on the industry. Many events can affect an industry powerfully enough to qualify as driving forces. Some are unique and specific to a particular industry situation, but many drivers of change fall into general category affecting different industries simultaneously.

**OR (Alternative / choice)**

It is true that strategies are partly proactive and partly reactive. In proactive strategy, organizations will analyze possible environmental scenarios and create strategic framework after proper planning and set procedures and work on these strategies in a predetermined manner. However, in reality no company can forecast both internal and external environment exactly. Everything cannot be planned in advance. It is not possible to anticipate moves of rival firms, consumer behaviour, evolving technologies and so on.

There can be significant deviations between what was visualized and what actually happens. Strategies need to be attuned or modified in the light of possible environmental changes. There can be significant or major strategic changes when the environment demands. Reactive strategy is triggered by the changes in the environment and provides ways and means to cope with the negative factors or take advantage of emerging opportunities.