

SUGGESTED ANSWERS TO

THE QUESTIONS SET AT

CHARTERED ACCOUNTANCY PROFESSIONAL (CAP)-III LEVEL

JUNE 2021 EXAMINATIONS

Group-II

**The Institute of Chartered Accountants of Nepal
(ICAN)**

Satdobato, Lalitpur

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Paper 5: Management Information and Control System

Attempt all questions.

1. *ABC Company has branches in 77 districts of Nepal. The company has around 3000 staff. Company is using different software solutions like payroll system, inventory system, accounting software, welfare management system, HR system, finance system to support their business functions. These solutions are using various heterogeneous hardware, database and operating system. Company is facing difficulty in maintaining different systems and getting timely and accurate integrated information.*
- a) *In order to resolve such problem what solution do you suggest? Why? What will be the challenges and benefits of the proposed solution? How do you minimize the resistance and maximize the acceptance of end users to use this solution?* **(1+2+4+3=10 marks)**
- b) *How do you select the product for the proposed solution? Which conversion technique do you suggest and why? Why is proper documentation required for successful implementation?* **(4+4+2=10 marks)**

Answer:

- a) In order to resolve such problem Enterprise Resource Planning solution can be used because of the following reasons
- ✓ For Management – to know what is happening in the company
 - ✓ One solution for better Management
 - ✓ For cycle time reduction
 - ✓ To achieve cost control & low working capital
 - ✓ To shun the geographical gaps
 - ✓ To satisfy the customers with high expectations
 - ✓ To be Competitive & for survival

Challenges to implement ERP solutions

An ERP implementation involves people as well as technology. Accordingly, it may face people-related challenges, such as resistance to change, as well as technical obstacles. Common ERP implementation challenges include:

- ✓ Project Management
- ✓ Project Planning
- ✓ Data Integration
- ✓ Data quality
- ✓ Change Management
- ✓ Cost overruns
- ✓ Continuous Improvement

Benefits of ERP solution

- ✓ Quality and efficiency – ERP creates a framework for integrating and improving a company's internal business processes that result in significant improvement in the quality and efficiency of customer service, production, and distribution etc.
- ✓ Decreased costs – many companies report significant reductions in transaction processing

costs and hardware, software, and IT support staff compared to the non-integrated legacy systems that were replaced by their new ERP systems.

- ✓ Decision support – ERP provides vital cross-functional information on business performance quickly to managers to significantly improve their ability to make better decisions in a timely manner across the entire business enterprise.
- ✓ Enterprise agility – ERP can be used in breaking down many former departmental and functional walls, which results in more flexible organizational structures, managerial responsibility, and work roles. The result is a more agile and adaptive organization and workforce that can more easily capitalize on new business opportunities.

End-user resistance can be minimized by formal technology implementation programs which end user managers and IS consultants can develop to encourage user acceptance and productive use of reengineered business processes and new information technologies. Some keys to solving problems of end user resistance include:

- Proper end user education and training
- Improved communications with IS professionals
- End user involvement in the development and implementation of new systems.
- Involvement and commitment of top management and all other business stakeholders.
- Developing innovative ways to measure, motivate, and reward performance.
- Designing programs to recruit and train employees in the core competencies required in a changing workplace.
- Analysing and defining all changes facing the organization, and developing programs to reduce the risks and costs and to maximize the benefits of change.
- Involve as many people as possible in reengineering and other change programs.
- Make constant change part of the culture.
- Tell everyone as much as possible about everything as often as possible, preferably in person.
- Make liberal use of financial incentives and recognition.
- Work within the company culture, not around it.

Direct end user participation in systems development projects before a system is implemented is especially important to reducing the potential for end user resistance. Allow end users members of e-business systems development teams or do their own developments work. This involvement helps ensure that end users “assume ownership” of a system, which is designed to meet their needs.

b) Using following parameters we will select the product for the solution

- ✓ Reputation of the ERP product
- ✓ Number of installations in the geographical vicinity
- ✓ % of the overall functional availability
- ✓ Customization possibilities
- ✓ After sales support
- ✓ Investment plan & budget
- ✓ Implementation partner’s track record

Conversion is the process in which the personnel, procedures, equipment, input/output media, and databases of an old information system must be converted to the requirements of a new system. Four major forms of system conversion include:

- Parallel Conversion:
- Phased Conversion:
- Pilot Conversion:
- Plunge/Direct Cutover:

For the ERP implementation I suggest the combination of parallel and phase conversion because ERP is a complex system with number of modules. If we carry out conversion of all modules at a time and problem occurs it will be difficult to manage. Only parts of a new application or only a few departments, branch offices, or plant locations at a time are converted and after the successful implementation of that module we implement other modules. We also carry out parallel conversion that is run both the system old and new one for some time in-order to compare and evaluate. During parallel run period errors can be identified and corrected, and the operating problems can be solved before the old system is abandoned.

Developing good user documentation is an important part of the implementation process.

- ✓ Documentation serves as a method of communicating among the people responsible for developing, implementing, and maintaining a computer-based system.
- ✓ Documentation is extremely important in diagnosing errors and making changes.

Documentation involves developing:

1. Manuals for operating procedures
2. Sample data entry display screens
3. Sample forms
4. Sample reports

2.

- a) *Explain about the analytical model of the Decision Support System.* **8 marks**
- b) *During the time of this COVID-19 crisis, one of the growing sectors is the e-Commerce. In this context answer the following question:*
- i) *What are the challenges associated with the business through e-Commerce?* **6 marks**
- ii) *How do you carry out the e-Commerce System operational level testing?* **6 marks**

Answer

- a) A decision support system is a computer-based information system which helps to make right decision to a middle level or high-level management in the case of unstructured or semi structured problems with the use of huge amount of data. Decision Support Systems (DSS) rely on **model bases** as well as databases as vital system resources to generate the analysis for the decision-making process. A DSS model base is a software component that consists of models used in computational and analytical routines that mathematically express relationships among variables. Examples include:
- Spreadsheet models
 - Linear programming models
 - Multiple regression forecasting models
 - Capital budgeting present value models

Typically, a manager uses a DSS software package at his workstation to make inquiries, get responses and to issue commands. This differs from the demand responses of information reporting systems, since managers are not demanding pre-specified information. Rather, they are exploring possible alternatives. They do not have to specify their information needs in advance. Instead they use the DSS to find the information they need to help them make a decision.

DSS involves four basic types of analytical modelling activities:

- **What-If Analysis:** - In what-if analysis, an end user makes changes to variables, or relationships among variables, and observes the resulting changes in the values of other variables.
- **Sensitivity Analysis:** - Is a special case of what-if analysis. Typically, the value of only one variable is changed repeatedly, and the resulting changes on other variables are observed. So, sensitivity analysis is really a case of what-if analysis involving repeated changes to only one variable at a time. Typically, sensitivity analysis is used when decision-makers are uncertain about the assumptions made in estimating the value of certain key variables.
- **Goal-Seeking Analysis:** - Reverses the direction of the analysis done in what-if and sensitivity analysis. Instead of observing how changes in a variable affect other variables, goal-seeking analysis sets a target value for a variable and then repeatedly changes other variables until the target value is achieved.
- **Optimization Analysis:** - Is a more complex extension of goal-seeking analysis. Instead of setting a specific target value for a variable, the goal is to find the optimum value for one or more target variables, given certain constraints. Then one or more other variables are changed repeatedly, subject to the specified constraints, until the best values for the target variables are discovered.

b)

- i) Although e-Commerce business is growing rapidly around the world, it also has a few challenges despite of a lot of opportunities. Some of the challenges associated with the e-Commerce business can be listed as:

Borderless competition:

The Internet and mobile based technologies have blurred the political boundary in the business. This has opened the doors to digital economy taking globalization into new level by expanding the online retailers around the globe. But at the same time the retailer is facing the challenges of extensive competition with local and international retailers as the retailer from America can do the business in Nepal and vice versa. The retailers should also comply with the rules and regulation of each state.

Building trust and brand as the key differentiator:

Brand loyalty and consumer trust are the essential factors for every business to grow. The traditional brand building exercise and methodologies are irrelevant in the e-Commerce sector. The chances of losing the customer for the next big thing is equally likely. Failure to deliver any one aspect of the customers' demand would lead to failure of retaining them.

Dependency on Various System:

The success of e-Commerce depends upon various types of system such as: Point of sale, Enterprise Resource Planning, Customer Relationship Management. Each of these systems are developed independently and have different architecture. Function (or non-function) of one system affect another. In case of Nepal, the payment process is also another constraint as the electronic payment is just growing. Still large number of people are hesitant or don't have trust on electronic payment process.

Personalization:

Modern e-Commerce thrives on delivering the best personalized experience to their consumers. Managing a repository of customer data is a challenge, added to that e-Commerce companies have to understand how to use those data.

Return:

As the return of the product is easy and free most of the customers order multiple products of same type leading to high number of returns. Because of this problem, some e-Commerce companies are changing their return policy.

Regulatory issues:

Because of the lack of contemporary laws and regulatory guidelines, there is constraint in the expansion of the e-commerce. Most of the government bodies are not changing the laws and regulation to make them compatible with the internet business. The case of Tootle and Pathao are the clear examples of such laws and regulations. On another hand, government is yet to change their tax laws to levy tax on such businesses.

Furthermore, during this time of Covid-19, the delivery of the product is also another hurdle as government is deploying restrictions in various things.

- ii) Operational level system testing is all about the evaluation of the compliance of e-Commerce system along with its all requirements and functionalities. System testing helps to identify the technical bugs and insufficiency functionalities and provide space for the rectification at the same time testing ensure the operability and reliability of the system. For the case of e-Commerce system some specific points have to be considered along with other general testing of the system. Some of them are specified herewith:

Compatibility of all types of browser

This test will be carried to evaluate the performance of the system in all types of browsers in use. e.g., Internet explorer, Chrome, Mozilla, Safari, mobile browsers etc.

Usability testing

This test will verify how convenient the web-application is to online buyers. This will help to improve user experience of the application as well as help to increase the business process. The usability testing can be carried out in various stages of the system development such as during prototype development, final application, mobile application and so forth. Some of the prominent features to be tested will be: confirmation, payment, notification etc.

Stress testing

Stress testing is all about the evaluation of the performance of the system with the increased amount of simultaneous access. Stress testing will be done with automated tools emulating system load to check stability, performance and scalability.

Integration testing

As the online trading application has to be interconnected with other application in the organization such as inventory, HR, account and payment system of the organization, the integration testing is very important. This will evaluate how the system is interacting with other components or modules.

Functional testing

Functional testing evaluates whether all the functional requirements of the System Requirement Specification are met or not. Functional testing will be done in various stages such as: designing, integration and during user acceptance testing as well.

3.

- a) *Discuss about the practical factors which influence the successful implementation of Information Technology.* **8 marks**

- b) *Are Transaction Processing System (TPS) and Management Information System (MIS) related? Explain with a simple example. (3+4 =7 marks)*

Answer

- a) The practical influencing factors which affect the successful implementation of Information Technology are summarized as:

Flexibility of changes in business and technology:

There should be sufficient room in any business and its involved technology for the improvement. This can lead to the use of information technology in broader sense. If business and the involved technology are confined within a small boundary new ideas and concept cannot be groomed.

Budget:

Budget is major influencing factor of any process or system. The size of the budget determines the level of integration, reliability and efficiency of technology to the business. Budget also determines the quality of Information Technology related work.

Speed to the market:

How fast system is brought to the market determines the life of the technology. If the technology is brought after expiration of its time value, then the success of the technology will not be as expected. Nowadays it is understood that the life of technology is limited for the specific purpose. Moreover, the right timing is very important.

Legal and Regulatory Body:

The regulatory and legal authorities are the major entities about the deployment of any technology. If any technology is banned by the legal authority its relevance will sink.

Other factors which influence the information technology are:

- International norms and practices about the technology
- Personnel self-interest and motivations towards the use of technology
- The functional business units of the organization
- Knowledge and qualifications of the personnel

So, while introducing any technology organization should be clear about these factors.

- b) Yes, TPS and MIS are related. TPS plays role of data provider for the MIS. MIS will process data collected by the TPS and generates several summary reports that will be of value for the managers. TPS helps to collect around 90% of the data in the organization. Information cannot be produced without data. So, for MIS, TPS acts like a data feeder.

For example, in banks the frequently occurring tasks are taking deposits, providing money for cheques, paying interests, issuing cards, cheque books, and statements. These are part of Transaction Processing System. TPS will help to collect deposits, cash cheques, calculate interest, print cheques, account statements, card information etc. Several data will be collected like customer information, deposit information, information about cashing cheques, issuing card. These collected data will become input for the MIS. MIS processes these data and will produce several reports like daily withdrawal amount, deposit amount, how many deposits each day, total interest paid in each day, week, how many clients have paid interest, what is frequency of withdrawal by each customer during the specific period time etc. These reports will be of great value for managers in making decisions such as if how many deposits arrive each day is known, then the managers can know whether bank is able to provide convenient service to its customers or not, do customers have to wait long to deposit or withdraw money etc. Then based on the information managers can act or decide to increase or decrease number of counters.

4.

- a) *Explain digital signature and its benefits in detail. How do copyright and patent protect digital content?* (4+4=8 marks)
- b) *Explain customer relationship management system. Why do we need sales force automation?* (4+3=7 marks)

Answer

- a) **First Part:** A digital signature is a mathematical technique used to validate the authenticity and integrity of a message, software or digital document.

The digital equivalent of a handwritten signature or stamped seal, but offering far more inherent security, a digital signature is intended to solve the problem of tampering and impersonation in digital communications. Digital signatures can provide the added assurances of evidence to origin, identity and status of an electronic document, transaction or message, as well as acknowledging informed consent by the signer. In many countries, digital signatures have the same legal significance as the more traditional forms of signed documents.

Benefits of digital signature:

- **Security** – Security is the main benefit of digital signatures. Security capabilities embedded in digital signatures ensure a document is not altered and signatures are legitimate.
- **Timestamping** – By providing the data and time of a digital signature, timestamping is useful when timing is critical, such as for stock trades, lottery ticket issuance and legal proceedings.
- **Globally accepted and legally compliant** – The public key infrastructure (PKI) standard ensures vendor-generated keys are made and stored securely. Because of the international standard, a growing number of countries are accepting digital signatures as legally binding.
- **Time savings** – Digital signatures simplify the time-consuming processes of physical document signing, storage and exchange, enabling businesses to quickly access and sign documents.
- **Cost savings** – Organizations can go paperless and save money previously spent on the physical resources and on the time, personnel and office space used to manage and transport them.
- **Positive environmental impact** – Reducing paper use also cuts down on the physical waste generated by paper and the negative environmental impact of transporting paper documents.
- **Traceability** – Digital signatures create an audit trail that makes internal record-keeping easier for business. With everything recorded and stored digitally, there are fewer opportunities for a manual signee or record-keeper to make a mistake or misplace something.

Second Part: Copyright is a statutory grant that protects creators of intellectual property from having their work copied by others for any purpose during the life of the author plus an additional 70 years after the author's death. For corporate-owned works, copyright protection lasts for 95 years after their initial creation. Most industrial nations have their own copyright laws, and there are several international conventions and bilateral agreements through which nations coordinate and enforce their laws. Copyright protects against copying of entire software programs or their parts; However, the ideas behind a work are not protected, only their manifestation in a work; A competitor can build new software that follows the same concepts without infringing on a copyright.

A **patent** grants the owner an exclusive monopoly on the ideas behind an invention for 20 years. The intent behind patent law is to ensure that inventors receive the full financial and other rewards

and yet still make widespread use of the invention possible for those wishing to use the idea under license from the patent's owner. The granting of a patent is determined by the Patent Office and relies on court rulings. The key concepts in patent law are originality, novelty, and invention. Patent protection is that it grants a monopoly on the underlying concepts and ideas of software. The difficulty is passing stringent criteria for novelty and invention.

- b) **First Part:** Firms use **Customer Relationship Management (CRM) systems** to help manage their relationships with their customers. CRM systems provide information to coordinate all of the business processes that deal with customers in sales, marketing, and service to optimize revenue, customer satisfaction, and customer retention. This information helps firms identify, attract, and retain the most valuable customers; provide better service to existing customers; and increase sales.

Customer Relationship Management (CRM) systems, capture and integrate customer data from all over the organization, consolidate the data, analyse the data, and then distribute the results to various systems and customer touch points across the enterprise. A **touch point** (also known as a contact point) is a method of interaction with the customer, such as telephone, email, customer service desk, conventional mail, Facebook, Twitter, website, wireless device, or retail store. Well-designed CRM systems provide a single enterprise view of customers that is useful for improving both sales and customer service.

Good CRM systems provide data and analytical tools for answering questions such as these: What is the value of a particular customer to the firm over his or her lifetime? Who are our most loyal customers? Who are our most profitable customers? What do these profitable customers want to buy? Firms use the answers to these questions to acquire new customers, provide better service and support to existing customers, customize their offerings more precisely to customer preferences, and provide ongoing value to retain profitable customers.

Second Part: One important module in CRM system is Sales Force Automation (SFA) module. This module help sales staff increase productivity by focusing sales efforts on the most profitable customers, those who are good candidates for sales and services. SFA modules provide sales prospect and contact information, product information, product configuration capabilities, and sales quote generation capabilities. Such software can assemble information about a particular customer's past purchases to help the salesperson make personalized recommendations. SFA modules enable sales, marketing, and shipping departments to share customer and prospect information easily. SFA increases each salesperson's efficiency by reducing the cost per sale as well as the cost of acquiring new customers and retaining old ones. SFA modules also provide capabilities for sales forecasting, territory management, and team selling.

5.

- a) *Discuss about the need of International Standards for the IT Governance.* (8 marks)
- b) *What is a cybercrime? Outline the major computer-related crime defined by "Electronic Transaction Act 2063" and also mention the provision of punishment.* (1+3+3=7 marks)

Answer

- a) The international standards, may it be COBIT 5 for IT governance and control, ISACA for Information System Audit, ITIL for the set of best practices of IT services or ISO_IEC 17001 for securing the information system; provide standards procedures, practices, steps, codes and regulations for the best management of the Information system and its governance. Because of these standards or procedures, the efficiency, reliability, effectiveness of operation of Information system will be increased. Moreover, these standards help in the cost effective and secured use of the system and they also provide the consistent steps for the continuity of the business even in case of any disaster. If these standards are adopted in the operation and management of the system, the

chances of breaks are reduced tremendously and even if there are breaks it is easier to identify the cause and rectification will be easier. Financial and operational transparency are other advantages of adapting the international standards in IT governance.

Beside above points, the international standards help IT managers to bridge the gap between control requirements, technical issues and business risks. And these standards emphasize regulatory compliance, help organizations to increase the value attained from IT, enable alignment and simplifies implementation of the enterprises' IT governance and control framework. Thus, it can be concluded that the standards support business management in their supervision of the IT organization and helps them ensure that IT has a positive impact on the company's performance. The standard consists of six principles:

1. Responsibility
 2. Strategy
 3. Acquisition
 4. Performance
 5. Conformance
 6. Human behaviour
- b) Cybercrime is a crime committed by using cyber means/computer technology. Cybercrime is also known as computer-related crime. All the illegal activities committed by using or with the application as computer technology come under the category of cybercrime. Examples are –
- Damage to computer and computer system.
 - Acts to gain illegal access in to the system.
 - Use as weapons to commit other crimes.
 - Acts against the provision of cyber law.

Major computer-related crimes and punishments

Pirate/ Destroy/Alter computer source code

Unauthorized access in the computer system

Damage to computer and computer system

- *Up to 3 years of imprisonment, or up to 2 lakh fine or both*

Distribution of electronic materials in electronic form – Not to publish the prohibited materials which are prohibited by prevailing laws, the materials which may create jeopardy in social harmony, spread hate and jealousy, materials which may create harassment to women trafficking, pornography materials

- *Up to 5 years imprisonment or up to 1 lakh or both*

Disclosure of Confidentiality

Deform false statement by parties at the time of the electronic transaction

- *Up to 2 years imprisonment or 1 lakh fine of both*

Display and submit false license for electronic means

- *Only display: 1 lakh fine*
- *Display + submit and perform = 2 years imprisonment or 1 lakh fine or both*

Non-submission of prescribed statements

- *Up to 50,000 fine*

Computer fraud

1. Compensate claim amount
2. Fine up to 1 lakh and 2 years of imprisonment or both

Computer fraud

- For abetment fine up to 50,000 and up to 6 months' imprisonment

6. Write short notes.

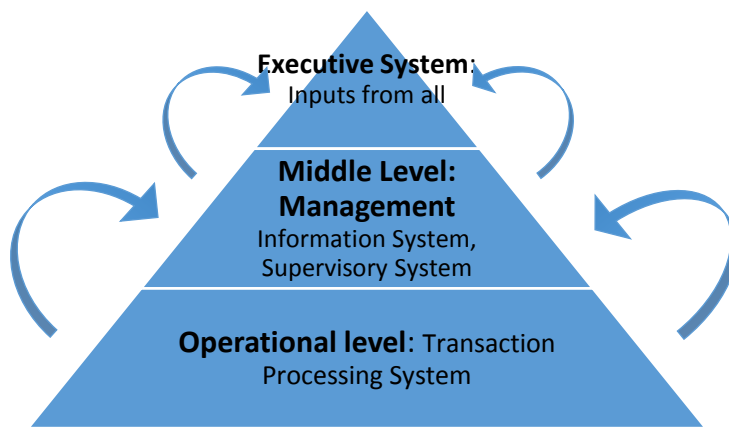
(5*3=15 marks)

- a) Executive Information System.
- b) Strategic E Business Planning.
- c) Business Continuity Plan
- d) Software as a Service
- e) Disk mirroring

Answer

- a) Executive level management is mainly responsible for the long-term policy formulation, strategy development and determining of the indicators to track progress. Their work mainly effects long term decisions and long-term goals of the organization. They are mainly responsible for unstructured decision-making process. In order to make such type of decision or planning they need the summary as well as the detail report from all activities in the organization.

The executive information system is that which provides the summary information about the performance of all activities or project and that system gives facility to executive's users to drill down the information into micro levels. For example, it provides the information about the net profit of fiscal year 2017 for an organization. Now, if executive wants to check how that profit is obtained then he can have detail information. Similarly, the executive can have the analytical information about the profit. They can analyse the effect on profit when the price of the product is reduced or increased, when extra incentive is given to salesperson keeping the price of the product constant, increasing promotional cost making the product cost constant etc.



- b) Strategic e-business planning involves an evaluation of the potential benefits and risks a company faces when using e-business strategies and technologies for competitive advantage.

Strategic planning models that can be used to generate ideas for the strategic use of information technologies to support e-business initiatives include:

- Competitive forces model – competitors, customers, suppliers, new entrants, and substitutes.
 - Competitive strategies model – cost, leadership, differentiation, growth, innovation, and alliances.
 - Value chain model – chain or network of basic activities that add value the products or services – support processes and primary business processes.
 - Strategic opportunities matrix – evaluate the strategic potential of proposed e-business opportunities, as measured by their risk/payoff.
- c) Business Continuity Plan (BCP) is the process of preventing and recovering system from potential threats to a company. The BCP ensures that the system is protected and is able to function quickly in the event of a disaster. BCP involves defining any and all kind of risks that can affect the system. It is an important component of the organization's risk management strategy. Risks may include natural disasters like fire, flood, earthquake or man-made risks such as cyber-attacks, arson, vandalism etc. To develop BCP it is necessary to determine how risk may arise, how those risks will affect operations; implement safeguards and procedures to reduce or remove the risks; perform rigorous testing procedures.
- d) Software as a Service (or SaaS) is a way of delivering applications over the Internet—as a service. Instead of installing and maintaining software, you simply access it via the Internet, freeing yourself from complex software and hardware management.

SaaS applications are sometimes called Web-based software, on-demand software, or hosted software. Whatever the name, SaaS applications run on a SaaS provider's servers. The provider manages access to the application, including security, availability, and performance.

Software as a Service (SaaS) is a software distribution model in which a cloud provider hosts applications and makes them available to end users over the Internet. In this model, an independent software vendor (ISV) may contract a third-party cloud provider to host the application. Or, with larger companies, such as Microsoft, the cloud provider might also be the software vendor.

A range of IT professionals, business users and personal users use SaaS applications. Products range from personal entertainment, such as Netflix, to advanced IT tools.

- e) Disk mirroring, also known as RAID 1, is the replication of data to two or more disks. Disk mirroring is a good choice for applications that require high performance and high availability, such as transactional applications, email and operating systems.

Because both disks are operational, data can be read from them simultaneously, which makes read operations quite fast. The RAID array will operate if one disk is operational. Write operations, however, are slower because every write operation is done twice.

Disk mirroring provides instantaneous failover for data required by mission-critical applications. If primary arrays are damaged, traffic is switched to secondary or mirrored backup arrays.

RAID, or redundant array of independent disks, is a method of grouping individual physical drives together to form one bigger drive called a *RAID set*. Because the server has more spindles to read from or write to when data is accessed from a drive, performance is improved.

The various ways in which data is grouped across drives is called the *RAID level*. Each RAID level is denoted by a number following the word RAID. The most common levels are RAID 0, RAID 1 and RAID 5. The RAID level depends on the application running on the server. RAID 0 is the fastest, RAID 1 is the most reliable and RAID 5 is considered a good combination of both.

Paper 6: Advanced Taxation

Attempt all questions. Working notes should form part of the answer.

1. Goyal S Private Limited, a private company located at Hetauda having equity capital of Rs. 20 crores. Royal S International UK based company holding 80 % share of this Goyal S Pvt. Ltd. Extracted the following information from the Income Statement for the year 2076/77.

Amount in thousand			
Particulars	Rs.	Particulars	Rs.
Opening stock	30,000	Export Sales	60,000
Purchase cost of imported raw materials	34,000	Local sales	15,000
Local purchase of finished goods	12,000	Vehicle transportation charge on local sales	1,500
Custom duty	1,500	Export incentive	1,200
Custom clearance expense	500	Gain on auction sale of factory machineries	200
Export duty	5	Miscellaneous income	500
Wages	5,000	Exchange gain	1,000
Freight inwards on import	1,200	Interest received	2,000
Freight outwards on export	2,000	Closing stock	32,000
Manufacturing expenses	650		
Salaries	4,000		
Deposit expenses on Social Security Fund (SSF)	1,700		
Office expenses	2,000		
Sales expenses	500		
Repair & maintenance	700		
Depreciation	2,000		
Interest expense	2,500		
Exchange loss	300		
Donation expenses	1,000		
Pollution control cost	600		
Advance tax expense	900		
Net Profit	10,345		
Total	113,400		113,400

Additional Information:

- i) Goyal S should sale the manufactured product (garments) to the Royal S at the ratio of the investment, i.e. 80% of the total sales. Total export sales includes the export of Rs. 44,000,000 to the Royal S International.

- ii) *Opening and closing stocks are valued including the factory overhead Rs. 50 per unit, administration overhead Rs. 20 per unit, repair & maintenance Rs. 75 per unit and depreciation is not included. The company produced 5,000 units during the income year, it has opening stocks 3,000 units and closing stocks 2,500 units. The company follows the FIFO method.*
- iii) *All local sales amount is related to the local purchased finished products, no opening and closing stocks of such products.*
- iv) *Miscellaneous income includes the amount recovered from the staff for their lunch expenses provided at the office premises.*
- v) *Exchange gain is calculated at year end UK Pound receivable on the export sales.*
- vi) *Interest credited on the bank's statement has been recorded interest received.*
- vii) *Government provides 3% incentive on such export if company produced the required authenticate documents with the application. The above incentive amount was calculated on the fourth quarter export sales of Income Year 2075/76, whereas claimed and received in this Income Year.*
- viii) *Purchase cost of imported raw materials includes the payment of Rs. 200,000 to the custom agent; no invoice was received so far.*
- ix) *Custom clearance expense was an advance paid amount to the custom agent, the details submitted by the agent as VAT paid at custom Rs. 250,000, service charge with invoice of Rs. 226,000 with VAT, and miscellaneous expenses Rs. 27,000 with business related invoices.*
- x) *Salary Rs. 120,000 was paid to an employee from Ashwin 01, 2076 without signing the contract with him as per the labour act. He has obtained the PAN but not opened the bank account. Amount was also not calculated for SSF related to his salary.*
- xi) *Office expenses include payment of Rs. 200,000 to a lawyer for defending a case against tax assessment. The lawyer provided a PAN invoice for such services.*
- xii) *Repair and maintenance is related to the maintenance of vehicles.*
- xiii) *The opening depreciation base and transactions of depreciable assets are as follows:*

<i>Block</i>	<i>Opening depreciation base</i>	<i>Transactions</i>
<i>A</i>	<i>5,000,000</i>	<i>No transactions during the year</i>
<i>B</i>	<i>2,000,000</i>	<i>One computer with VAT of Rs. 67,800 purchased on Poush 29, 2076 but amount was paid on Magh 02, 2076.</i>
<i>C</i>	<i>2,500,000</i>	<i>One Car for business use with VAT of Rs. 9,605,000 purchased on Baishakh 15, 2077.</i>
<i>D</i>	<i>7,500,000</i>	<i>One machinery depreciated value Rs. 2,000,000 was sold on Bhadra 15, 2076</i>

- xiv) *All interest expense is related to the borrowings for the business. Interest expense includes the payment of Rs. 1,500,000 to Zebor investment Pvt. Ltd., located at Bharatpur, Chitwan; remaining to the commercial bank. The Royal S International is a major shareholder of Zebor investment Pvt. Ltd.; it has 35% of equity share.*
- xv) *Exchange loss has been debited while making payment in foreign currency against the opening creditors' balance.*

- xvi) Fifty percent donation expense is related to deposit into federal level COVID-Fund established by GoN, 25% cash deposited into COVID Fund of Hetauda Sub-metropolitan city, remaining 25% given to the private hospitals to treat the COVID's affected people.
- xvii) Advance tax expense is related to the first instalment paid at the Poush end, 2076 with estimated tax return. Then after the company neither paid any tax nor submitted estimated tax return.

The company wants to full compliance of Income Tax Act, 2058 and Rules thereof; you are requested to assess the tax for the IY up to Ashoj 20, 2077. Answer the following as per the given information: **20 marks**

- a) Does the above information show any indication of transfer pricing arrangements?
- b) Calculate taxable income and tax liability.

Answer

- a) Transfer pricing arrangement applies only to transaction between associated enterprises. As given in the definition of associated person under section 2, associated person means any one or more than one person or group of persons who act as per the intention of each other including any entity which by itself or jointly with any other person related with it or with an assisting entity or any other person or entity related with such assisting entity controls 50 % or more of the income, capital or voting right of any entity or derives benefits therefrom.

As per section 33 of Income Tax Act, 2058 in any arrangements between associated persons, operated by them according to general market practices (arms' length), IRD may, by a notification in writing, distribute, apportion or allocate the amounts to be included or deducted in the income between the persons as to reflect their taxable income or tax liability. The Arm's Length Price (ALP) of a transaction between two associated enterprises is the price that would be paid if the transaction had taken place between two comparable independent and unrelated parties, where the consideration is only commercial. The OECD transfer pricing guidelines provides guidance on the application of the arm's length principle in order to arrive at the proper transfer pricing range between associated enterprises. Market forces determine business relations between independent parties. The Arm's length principle seeks to adjust the profits between two associated enterprises by comparing the same as if the transaction is carried out between two independent enterprises. It treats each enterprise as a separate independent entity rather than as inseparable parts of a single unified business.

Royal S International UK based company holding 80 % share of this Goyal S Pvt. and they have the transaction during the Fiscal Year. The test is required whether they have the transactions based on Arm's length principle. As given in the questions, there is no any indication about the cost sharing between two parties; however, interest is paid to another subsidiary of Royal S International with limited information to determine the cost. It is calculated allowable expenses under section 14 (2).

Information has been given on the export sales to this associated and independent buyer. There is 500 units different between opening and closing stocks, so company produced 5000 units and exported 5500 units, 4400 units (80 %) of 5500 units has been exported @ NRs. 10,000 (Rs.44,000,000/4400) to Royal S International whereas remaining 1100 units has been exported @ Rs. 14,545.45 (60,000,000-44,000,000/1100). It shows that reduction of selling price with associated persons, the company is not following the ALP. Inland Revenue Department may re-characterize such reduction amount, so section 33 is applied in this case.

- b) **Calculation of taxable income and tax liability**

Rs. in thousand

Particulars	Export	Local sales/income	Total	Remarks
Income	80,000	16,500	96,500	W.N. 1
Export incentive	1,800	-	1,800	W.N.2
Miscellaneous	-	-	-	W.N.4
Exchange Gain	-	-	-	W.N. 3
Interest received	-	2,000	2,000	
Total Income	81,800	18,500	100,300	
Allowable Expenses				
General deduction sec. 13	8,323.80	1,731.20	10,055	W.N.4
Interest Expenses Sec 14	2,047.5	452.5	2,500	W.N.5
Cost of stock in trade sec.15	40,579.50	12,000	52,579.50	W.N.6
Repair & Maintenance sec.16	505.93	70.37	576.30	W.N.7
Pollution control cost sec.17	600	-	600	W.N.8
Depreciation sec. 19	2,916.58	483.42	3,400	W.N.9
Donation sec. 12	614.25	135.75	750	W.N.10
Total allowable expenditures	55,587.56	14,873.24	70,460.80	
Taxable Profit	26,212.44	3,626.76	29,839.2	
Tax Rate	12.00%	25.00%		W.N. 11
Tax Liability	3,145.49	906.69	4,052.18	
Rebate as per finance Act			1,013.04	25 %
Tax liability after rebate			3,039.14	

Working Note 1

Export sales: $5500 @ 14,545.45 = 80,000,000$, as information given, the company wants full compliance of Income tax to avoid the further tax burden, so the arm's length price is considered for all exports.

The vehicle transportation amount collected on the sales is relating to local sales, so total local sales is Rs. 16,500,000 (Rs. 15,000,000+1,500,000)

Working Note 2

The company can produce the authenticate documents of the Export sales of Rs. 60,000,000 as given. Company requires following the accrual basis of accounting. During this Fiscal year's export, it has no received any incentive amount but it can receive as per the government policies. So, 3 % of 60,000,000 = 1,800,000 is considered the export incentive for this Income Year.

$5500 @ 14,545.45 = 80,000,000$, as information given, the company wants full compliance of Income tax to avoid the further tax burden, so the arm's length price is considered for all exports.

The vehicle transportation amount collected on the sales is relating to local sales, so total local sales is Rs. 16,500,000 (Rs. 15,000,000+1,500,000).

Working Note 3

As per 24 (4), exchange gain/losses has to be adjusted in receiving or making payment. The exchange gain calculated on the receivable amount is not considered the income for the Income Year as per this section. Further, exchange loss of Rs. 300,000 debited while making payment against the opening creditors' balance, such amount is allowable expenses.

Working Note 4: General Deduction

Sales ratio export: $80,000/96,500 = 82.9\%$, Local 17.1%

Particulars	Total Amount	Export	Local sales
Salaries	4,000	3,316	684
Deposit expenses on Social Security Fund (SSF)	1,700	1,409.30	290.70
Office expenses Rs. 2000 less miscellaneous expense Rs. 500	1,500	1,243.50	256.50
Sales expenses	500	0	500
Exchange loss (WN 3)	300	300	
Export duty	5	5	
Freight outwards on export	2,000	2,000	
Administrative overhead (2,500*20)	50	50	
Total deductible under sec 13	10,055	8,323.80	1,731.20

Additional Note:

- Salary Rs. 120,000 was paid in cash to an employee without signing the contract is allowable expenses, because the monthly cash paid amount limited only Rs. 10,000 and he has obtained the PAN.
- Payment of Rs. 200,000 to a lawyer for defending a case against tax assessment is allowable expense, because the amount is below than Rs. 500,000 as prescribed by VAT Act.
- Assumed that other lunch expenses are recorded under office expenses, so miscellaneous expenses deducted from office expenses.
- Sales expense is related to local sales only and exchange loss is incurred due to export transactions.
- Administrative overhead which is not allowable under section 15, it is allowable under this section, the expense incurred for the business which is related to this fiscal year is 2500 closing stocks @ Rs. 20 per unit.

Working Note 5: Interest Expenses

Royal S International UK based company holding 80 % share of Goyal S Pvt and 35 % of Zebor investment Pvt. Ltd. The associated control is more than 25 % ($80\% \times 35\%$). Adjusted taxable income is calculated without deducting expense u/s 12, and deducting actual incurred expenses u/s 14 (2) and 17, and deductible expenses under all other provisions of Income Tax Act, 2058.

ATI is

Total income 100,300

Less	General deduction sec. 13	10,055
	Cost of stock in trade sec.15	52,579.50
	Repair & Maintenance sec.16	576.30
	Depreciation	<u>3,400</u>
	ATI	33,689.20

Interest Rs. 1,500,000 paid to associate is less than interest income of Rs. 2,000,000 and 50 % ATI, so interest paid to the owner's associated entity is allowable under section 14(2). Purpose of the borrowings is not clear, so it is apportioned between export and local sales.

Working Note 6: cost of trading stock

Export sales

Particulars	Allowable as per tax
Opening stock Rs. 30,000,000- {3000*95 (20+75)}	29,715
Purchase cost of imported raw materials Rs. 34,000,000	33,800
Less payment of Rs. 200,000 to the custom agent without invoice	
Custom duty	1,500
Custom clearance expense (Rs. 250,000+200,000+27,000)	477
Wages	5,000
Freight inwards on import	1,200
Manufacturing expenses	650
Total expenditures	72,342
Less closing stock Rs. Rs. 32,000,000- {2500*95 (20+75)}	31,762.5
Cost of export in trade	40,579.50

Administrative overhead is not allowed under this section as per the provisions.

Local sales: Purchase cost of Materials: Rs. 12,000,000, it has not opening and closing stocks.

Working Note 7: Repair & Maintenance expenses

Repair and maintenance Rs. 2500*75 = Rs. 187,500 charged in finished goods is assumed for factory machineries and Rs. 700,000 is related to Block C.

Depreciation Base in Block D is 5,300,000, 7 % will be Rs. 371,000, so all amount is allowable

Depreciation Base in Block C is 5,554,333, 7 % will be Rs. 388,803, so only this amount is allowable, it is less than actual.

Total repair and maintenance for manufacturing/export: 187,500 + (388, 803*81.9%)

=505,929.65

For trading

=70,373.35

Total Rs.

576,303

Working Note 8: Pollution control cost

R&D cost is deductible to the extent minimum of following costs:

- (a) Actual Cost Incurred during the year, or
- (b) 50% of adjusted taxable income from all businesses

Adjusted taxable income is interpreted by Income Tax Manual issued by IRD as being taxable income which is calculated without deducting expense u/s 12, and deducting actual incurred expenses u/s 14 (2) and 17, and deductible expenses under all other provisions of Income Tax Act, 2058.

ATI (WN 5) = 33,689.20 50% of 33,689.20 = Rs. 16,844.60 or actual whichever is lower is allowable. Pollution control cost = Rs. 600, it is lower than 50 % of ATI, so allowable.

It is assumed that this cost is related to manufacturing activities.

Working Note 9: Depreciation

Particulars	Block-A	Block-B	Block-C	Block-D	Total
Opening depreciation base	5,000,000	2,000,000	2,500,000	7,500,000	17,000,000
Additions	-	60,000	3,054,333	-	3,114,333
Sales	-	-	-	2,200,000	2,200,000
Depreciation Base	5,000,000	2,060,000	5,554,333	5,300,000	17,914,333
Rate of Depreciation	5%	25%	20%	15%	
Depreciation (Normal)	250,000	515,000	1,110,867	795,000	2,670,866.60
Depreciation for manufacturing (81.9%)	204,750	421,785	909,799.75	651,105	2,187,439.75
Depreciation (Additional for manufacturing)	68,250	140,595	303,266.58	217,035	729,146.58
Total depreciation for Manufacturing					2,916,586.33
Depreciation for trading					483,426.85
Total depreciation					3,400,013.18

The computer cost is full allowable for depreciation base, because it was purchased on Poush, Car purchased with VAT Rs. 9,605,000; it is Rs. 8,500,000 without VAT. Only 40 % VAT can be claimed under the VAT Act, so, 60 % VAT is considered for the cost, total cost of the car is Rs. 8,500,000 plus 60 % of 1,105,000, i.e. Rs. 9,163,000. Out of this, 1/3 is considered for depreciation base.

The machinery with depreciated value Rs. 2,000,000 was sold, the gain on such sales given Rs.200,00. So that total disposal value is Rs. 2,200,00

Working Note 10: Donation

Donation deposited into COVID Fund established by Nepal government including local level government is allowed as expenses, donation given to private hospitals is not allowable. So, total donation expense is Rs. 1,000, 75 % is allowable.

Working Note 11: Tax Rate

Particulars	Export Income	Remarks
Normal tax rate	25%	Section 2 of schedule
Applicable tax rate	20%	11(2B) for special industry
Rebate-1 for Export, 20% of applicable tax	16%	u/s 11 (3) (Kha) for income from export reduced rate
Rebate for Export from manufacturing industry, additional 25 %	12%	u/s 11 (3) (ga) reduced rate
Applicable Tax Rate	12%	

2.

- a) Mr. Sitaram Dahal is working as financial manager of Star General Insurance Ltd. As per the requirement of Social Security Fund (SSF), Star General Insurance Ltd. is registered on 10th Poush, 2077. However, deposit in SSF is started from start of Magh, 2077. Insurance Company is complying Labour Act, 2074. Following is the details of income of Mr. Sitaram Dahal for FY 2077/078:

S.N.	Particulars	Amount (Rs.)
1	Monthly salary as per appointment letter	75,000
2	Medical Allowance	37,500
3	Festival Allowance	45,000
4	Children' Education Allowance	96,340
5	Bonus as per Bonus Act	387,400
6	Loan Installment of Vehicle Paid by Employer	240,000
7	Annual performance allowance	85,000
8	Insurance Compensation (For COVID 19 Insurance Policy- Entire Premium is paid by Company)	100,000
9	Leave encashment (one month salary)	75,000

- Before the deposit in SSF, company is depositing gratuity of its employee and CIT.
- Mr. Sitaram also donated Rs. 90,000 to a tax exempt organization.
- Mr. Sitaram also deposited Rs. 225,000 in CIT.

From the above information, you are required to compute the taxable income and tax liability of Mr. Sitaram Dahal. **7 marks**

- b) Ms. Kumari Karki is a married person got divorced this year, as part of settlement she got a house which was bought at Rs. 100 lakhs (market value Rs. 150 lakhs) as compensation from her husband. She had shares which she purchased for Rs. 10 lakhs (market value Rs. 15 lakhs). She leaves the country to settle abroad just after the divorce settlement.

Her only surviving parents dies and she inherits the property which was purchased at Rs. 200 lakhs and has a market value of Rs. 600 lakhs on the date she took over. After staying abroad for few years she comes back to Nepal and sells the shares for Rs. 20 lakhs and the building she got as part of her divorce settlement for Rs. 160 lakhs.

The inherited property has been taken over by the government as part of the road expansion plan after giving compensation of Rs. 590 lakhs. She chooses to apply involuntary disposal with replacement later buys similar property within 6 months of the takeover by the government for Rs. 600 lakhs.

What are the tax consequences on above transactions? Mention the incomings and outgoings value on each of the transactions. **7 marks**

c) *Mention the tax exemption or rebate in the tax rate available for the following industries and entities as per the provisions of Income Tax Act, 2058.* **6 marks**

i) *Dividend paid by a Cooperative Society doing the financial transactions in the village development committee.*

ii) *Income earned by a special industry operating throughout the year – operated by an entity.*

iii) *Information technology unit directly employing 125 employees throughout the year.*

iv) *Special industry operating in the least developed area for the first 10 years of operation.*

v) *Information Technology Company established in the information technology park.*

vi) *A new hydropower plant starting commercial production within Chaitra, 2080.*

Answer

a) Mr. Sitaram Dahal

Computation of Taxable Income:

Particulars	Amount (Rs.)
Basic Salary (75,000x60%) (W. N. 1)	540,000.00
Provident Fund (50% is deposited in ARF and 50% is deposited in SSF)	54,000.00
Gratuity (50% is deposited in ARF and 50% is deposited in SSF)	44,982.00
Additional Contribution in SSF (1.67% of Basic for 6 month by employer)	4,509.00
Allowance (75,000x40%) (W. N. 1)	360,000.00
Medical Allowance	37,500.00
Festival Allowance	45,000.00
Children Education Allowance	96,340.00
Bonus	387,400.00
Instalment of Vehicle Loan Paid by Employer	240,000.00
Annual performance allowance	85,000.00
Insurance Compensation (Compensation related to the physical injury and death of natural person is not goes to inclusion)	-
Leave Encashment	75,000.00
Total Assessable Income	1,969,731.00

Less: Allowable Contribution in ARF (W.N.2)	383,700.00
Less: Donation to Exempt Entity (W.N. 3)	79,301.55
Taxable Income	1,506,729.45

Computation of Income Tax Liability

Particulars	Taxable Amount	Tax Rate	Tax Liability
1st Slab	400,000.00	0%	-
2nd Slab	100,000.00	10%	10,000.00
3rd Slab	200,000.00	20%	40,000.00
4th Slab	806,729.45	30%	242,018.84
Total Amount	1,506,729.45		292,018.84

W. N. 1

As per SSF Act, if the total salary is not bifurcated into basic & DA/allowances, 60% of monthly salary shall be considered as basic & 40% as allowances.

W.N. 2

Ceiling of allowable reduction in ARF is lower of:

1. 1/3rd of Assessable Income
2. Rs. 300,000
3. Actual Contribution in ARF

In the given case, company is depositing Provident Fund and Gratuity in ARF till Poush end of 2077.

To, total amount deposited in ARF is:

1. Provident Fund	54,000.00
2. Gratuity	22,491.00
3. Deposit in CIT by Employee	225,000.00
Total Contribution in ARF	301,491.00

Ceiling of allowable reduction in ARF (when deposit is made in SSF) is lower of:

1. 1/3rd of Assessable Income
2. Rs. 500,000
3. Actual Contribution in ARF

In the given case, company has deposited in SSF from Magh 2077.

To, total amount deposited in SSF is:

1. Provident Fund	54,000.00
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2. Gratuity	22,491.00
3. Additional Contribution in SSF by Employer (1.67%)	4,509.00
4. Additional Contribution in SSF by Employee (1% of Basic for six month)	2700.00
Total Deposit in SSF	83,700.00

Aggregate deposit in ARF on behalf of Mr. Sitaram	385,191.00
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Allowable amount

1. 1/3rd of Assessable Income	656,577.00
2. Rs, 300,000	300,000.00
3. Actual Contribution in ARF	301,491.00

Allowable Reduction (A)	300,000.00
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Add: Additional Allowable Reduction for Deposit in SSF	83,700.00
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Total allowable reduction	383,700.00
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W.N. 3

Allowable reduction for donation given to exempt entity will be lower of:

1. 100,000	100,000.00
2. 5% of Adjusted Taxable income	
In this case (1,969,731-383,700)x5%	79,301.55
3. Actual Donation	90,000.00
So, allowable reduction for donation is	79,301.55

- b) Following will be the incomings in each of situations for Ms. Kumari Karki with respect to the transactions mentioned above:

Section 43 of Income Tax Act has defined the process and the outcome of the handover of assets between husband, wife or ex-husband and ex-wife. The person handing over the assets shall apply with the concerned Inland Revenue Office, for application of provisions of Section 43. Where the Section 43 is applied, the person who acquires the assets through transfer shall be deemed to have incurred the amount equal to the net expense incurred immediately before the disposal. In light of above Ms. Kumari Karki receiving the building as part of settlement the outgoing shall be Rs. 100 lakhs. Her husband on the other hand will not earn income on this transfer because the incoming for him will be equivalent to the cost incurred.

Section 40 (3) of Act provides for conditions in which an assets or liabilities is said to have been transferred. One of the conditions is related to transfer of assets other than land and building situated in Nepal which is considered to have been transferred immediately before the person becoming non-resident. Section 41 further clarifies that the incomings in this case shall be the market value of the assets. Considering the provisions of the Act, in case of shares, Ms. Karki is said to have been realized the incomings from shares for Rs. 15 lakhs with outgoing Rs. 10 lakhs.

Section 44 provides for the transfer of property in case of death of a person. It has been mentioned that in case of death, the assets is said to have been transferred at market value, equivalent amount is

considered as cost to the person receiving the assets. Ms. Karki is said to have incurred the outgoings of Rs. 600 lakhs.

When Ms. Karki returns Nepal and sells the property and shares the incoming and outgoing shall be as follows:

Incomings for land Rs. 160 lakhs outgoings Rs. 100 lakhs

Incomings for shares Rs. 20 lakhs outgoings Rs. 15 lakhs

The property which she inherited got acquired by the government and provided the compensation. Section 46 of the Act provides for situation when a property is disposed involuntarily and within one year similar property is acquired and person applies to the Inland Tax Office for application of this Section then the person need not pay tax at the time of involuntary transfer of assets. Only after the replacement assets is acquired, the gain on sale of assets is computed.

In the given case, Ms. Karki has purchased the replacement assets within one year, therefore the incoming and cost in this case shall be as follows:

Purchase price of new property Rs. 600 lakhs

Compensation received Rs. 590 lakhs

Net expenses for the property immediately before disposal Rs. 600 lakhs

Incomings = Net expenses for the property immediately before disposal + compensation on disposal – purchase of new property (where compensation is higher than cost of new assets)

= 600

Outgoings = Net expenses for the property immediately before disposal + purchase of new property - compensation on disposal (where cost of new assets is higher than compensation on disposal)

= 600 + 600 – 590 = 610

Loss = Rs. 10 lakhs

c) Following are the rebate available as per the provisions of Income Tax Act, 2058.

- i) Dividend paid by such entity is non-taxable as per Sec 11(2)
- ii) Rebate of 20% on the tax rate applicable to entity i.e. (25-20% = 20%) Sec 11(2) (Kha)
- iii) Applicable tax rate in this case will be 90% if the applicable tax. (90% of 25% = 22.5%) Sec 11(3)(Ka)
- iv) Relevant tax rate will be 10% of the applicable tax rate for special industry and this rebate is available for first 10 years. Tax rate for such industry will be 2% as per Sec 11(3) (Kha)
- v) These industry will be provided the rebate of 50% of the applicable tax, the applicable rate therefore will be 12.5% as per Sec 11(3) (ga)
- vi) 100% rebate for the first 10 years and 50% rebate for next 5 years as per Sec 11(3) (Gha)

3.

- a) *What are the threats that may affect an auditor while providing tax planning and other tax advisory services to audit client? Briefly mention factors and safeguarding measures by mentioning relevant provision of ICAN Code of Ethics, 2018.* **5 marks**
- b) *Dr. Ram Joshi is a renowned heart surgeon and is resident of Nepal during income year 2076/77. On Magh 5, 2076, he went to Delhi as heart consultant of Delhi Hospital and provided consultancy in 10 cases during 2 months of his stay there. He was remunerated with Rs. 50,000 per case. He has not visited India or other countries in that year, and he has no any fixed base regular income from India. Discuss the tax liability of Dr. Ram considering the agreement between Nepal and India for avoidance of double taxation and prevention of fiscal evasion with respect to taxes on income.* **5 marks**

Answer

- a) According to subsection 604 of ICAN Code of Ethics 2018, providing tax planning and other tax advisory services to an audit client might create a self-review or advocacy threat.

In general, factors that are relevant in evaluating the level of threats created by providing any tax service include:

- The particular characteristics of the engagement.
- The level of tax expertise of the client's employees.
- The system by which the tax authorities assess and administer the tax in question and the role of the firm or network firm in that process.
- The complexity of the relevant tax regime and the degree of judgment necessary in applying it.

In addition to above factors that are relevant in evaluating the level of self-review or advocacy threats created by providing tax planning and other tax advisory services to audit clients include:

- The degree of subjectivity involved in determining the appropriate treatment for the tax advice in the financial statements.
- Whether the tax treatment is supported by a private ruling or has otherwise been cleared by the tax authority before the preparation of the financial statements.

For example, whether the advice provided as a result of the tax planning and other tax advisory services:

- Is clearly supported by a tax authority or other precedent.
- Is an established practice.
- Has a basis in tax law that is likely to prevail.
- The extent to which the outcome of the tax advice will have a material effect on the financial statements.
- Whether the effectiveness of the tax advice depends on the accounting treatment or presentation in the financial statements and there is doubt as to the appropriateness of the accounting treatment or presentation under the relevant financial reporting framework

Examples of actions that might be safeguards to address such threats include:

- Using professionals who are not audit team members to perform the service might address self-review or advocacy threats.
- Having an appropriate reviewer, who was not involved in providing the service review the audit work or service performed might address a self-review threat.
- Obtaining pre-clearance from the tax authorities might address self-review or advocacy threats

- b) According to Article 14 of the agreement between Nepal and India for avoidance of double taxation and prevention of fiscal evasion with respect to taxes on income, income derived by an individual who is resident of a Contracting State in respect of professional service or other independent activities of similar character shall be taxable only in that State unless he has a fixed base regularly available to him in the other Contracting State for performing his activities or he is present in that other State for a period or periods exceeding in the aggregate 183 days in any twelvemonth period. If he has such a fixed base or is present in that other State for the aforesaid period or periods, the income, may be taxed in that other State but only so much of it as is attributable to that fixed base or is derived in that other State during the aforesaid period or periods.

Here Dr. Joshi was resident in Nepal during FY 2076/77 and neither his stay in India has not exceeded 183 days in twelve-month period nor he has any fixed base regular income from India. Therefore, remuneration of total Rs.500,000 received by Dr. Joshi during income year 2076/77 is exempt from tax in India. However, the income is taxable in Nepal, as he is resident of Nepal and present for a period exceeding 183 days in Nepal.

4.

a) Below is transactions of Himal Beverage Private Limited for the month of Shrawan 2077 to Magh 2077. It has not yet filed any VAT return for these periods.

Particulars	Shrawan 2077	Bhadra 2077	Asoj 2077	Kartik 2077	Mangsir 2077	Poush 2077	Magh 2077
Export Sales	20,00,000	30,00,000	40,00,000	50,00,000	60,00,000	70,00,000	20,00,000
Domestic Sales	80,00,000	90,00,000	1,00,00,000	1,10,00,000	1,00,00,000	1,00,00,000	30,00,000
Vatable Purchase of Goods and Services	5,00,00,000	30,00,000	20,00,000	35,00,000	40,00,000	5,00,00,000	
Purchase of Car for CEO	1,00,00,000						
Purchase of Truck for transportation of goods			50,00,000				
Petrol Expenses	50,000					10,000	
Diesel Expenses			30,000	50,000			
Consultancy fee (invoice dated 2076.07.25)		2,00,000					

You are required to compute VAT payable/receivable for each month and advise management regarding VAT refund process for all the relevant months. All the above figures are excluding VAT.

10 marks

b) Ms. Kathmandu Trading House deals in used goods and has following transaction details for the month of Chaitra 2077. Calculate the VAT payable/receivable for the month.

10 marks

	Purchase (including VAT)	Sales (excluding VAT)
Chairs	20,000	25,000
Motorbike	35,000	45,000
Refrigerator	10,000	9,000
Cupboard	8,000	7,000
Bookshelf	12,000	15,000
Scooter	25,000	in stock

How the VAT payable is determined in case of used goods by Kathmandu Trading House?

What would be your calculation if the transaction were of trading assets of Kathmandu Trading House and not the used goods?

Answer

a)

Calculation of VAT Payable/Receivable amount

Particulars	Shrawan 2077	Bhadra 2077	Asoj 2077	Kartik 2077	Mangsir 2077	Poush 2077	Magh 2077
VAT on Export Sales	0	0	0	0	0	0	0
VAT on Domestic Sales	1,040,000.00	1,170,000.00	1,300,000.00	1,430,000.00	1,300,000.00	1,300,000.00	390,000.00
Total VAT Payable	1,040,000.00	1,170,000.00	1,300,000.00	1,430,000.00	1,300,000.00	1,300,000.00	390,000.00
VAT Credit:							
Vatable Purchase of Goods and Services	6,500,000.00	390,000.00	260,000.00	455,000.00	520,000.00	6,500,000.00	
Purchase of Car for CEO [only 40% VAT Credit available as per Rule 41)	520,000.00						
Purchase of Truck for transportation of goods [Full Credit is available for transport purpose]			650,000.00				
Petrol Expenses [VAT Credit not allowed]	-					-	
Diesel Expenses [VAT Credit not allowed]			-	-			
Consultancy fee (invoice dated 2076.07.25) [Invoice is within 12 months period, hence VAT Credit allowed]		26,000.00					
Total VAT Credit	7,020,000.00	416,000.00	910,000.00	455,000.00	520,000.00	6,500,000.00	-
VAT Payable for the month		754,000.00	390,000.00	975,000.00	780,000.00		390,000.00
VAT Receivable for the month	5,980,000.00					5,200,000.00	
Opening VAT Credit	-	5,980,000.00	5,226,000.00	4,836,000.00	3,861,000.00	3,081,000.00	8,281,000.00
Closing VAT Credit	5,980,000.00	5,226,000.00	4,836,000.00	3,861,000.00	3,081,000.00	8,281,000.00	7,891,000.00
Sales Ratio							

Export Sales	2,000,000.00	3,000,000.00	4,000,000.00	5,000,000.00	6,000,000.00	7,000,000.00	2,000,000.00
Domestic Sales	8,000,000.00	9,000,000.00	10,000,000.00	11,000,000.00	10,000,000.00	10,000,000.00	3,000,000.00
Total Sales	10,000,000.00	12,000,000.00	14,000,000.00	16,000,000.00	16,000,000.00	17,000,000.00	5,000,000.00
Export Sales %	20%	25%	28.57%	31.25%	37.50%	41.18%	40%

In the above case, Himal Beverage Private Limited has not to pay any VAT for these months since it has VAT Credit of Rs 72,51,000 at the end of Magh 2077.

VAT Refund Process:

VAT Act, 2052 prescribes that a Tax Payer may file application for VAT refund if –

- (a) It has unadjusted VAT credit for continuous 6 months, or
- (b) If in any month it has export sales of more than 40%, and there is VAT credit in such month, then Tax Payer may file application for VAT refund of such month.

In the given case, in the month of Poush 2077, the Company has Export sales of 41.18% which is more than 40%, and there is VAT receivable of Rs 52,00,000 for the month. Hence, it may file application for refund of VAT of Rs 52,00,000.

Further, after filing application for VAT refund of Rs 52,00,000 for the month of Poush 2077, the net VAT credit balance of Rs 26,11,000 is there at the end of Magh 2077. Company can also file application for such VAT refund since the same has been unadjusted for the continuous 6 months starting Shrawan 2077.

- b) Section 17(5) of Value Added Tax Act provides that for dealers registered to deal in the used goods, the VAT set off facility shall be as prescribed by the VAT Rules. It means that VAT paid on purchase is not allowed to be claimed straight way. Rule 33 of Value Added Tax Rules 2053 provides for the process of determination of VAT payable in case of used items. A person dealing on used goods should maintain the full record of items purchased and sold, including the description of the items bought etc. In case of used goods, VAT is collected on the difference between the sales and cost of purchase (including VAT). Therefore the taxable value in such case is as follows:

Taxable value = Sales price – purchase price including VAT on individual basis

Invoice shall be raised for each items sold and separate record shall be kept for purchase and sales items. When the goods are sold at price lower than the cost including VAT then in such case tax invoice need not be issued and no tax needs to be collected. There shall be no VAT credit or refund in case of used goods dealer because the payable arises only after the item is sold and no input credit is computed as the purchase price itself is including VAT. Proper records prescribed by Rules needs to be maintained; if such records are not kept then tax officer may assess the tax on the full sales value.

Calculation of VAT payable for the month of Chaitra 2077.

	Purchase	Sales	taxable value	VAT
Chairs	20,000	25,000	5,000	650
Motorbike	35,000	45,000	10,000	1,300
Bookshelf	12,000	15,000	3,000	390
Total	67,000	85,000	18,000	2,340

If the goods were brand new then the calculation of VAT would be as follows:

Purchase	VAT Receivable	Sales	VAT Payable
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Chairs	20,000	2,301	25,000	3,250
Motorbike	35,000	4,027	45,000	5,850
Refrigerator	10,000	1,150	9,000	1,170
Cupboard	8,000	920	7,000	910
Bookshelf	12,000	1,381	15,000	1,950
Scooter	25,000	2,876	-	-
Total		12,655		13,130
Net VAT Payable		Rs. 475		

5.

- a) *Ms. Jupiter Furnishing is a VAT registered entity. It had in stock items worth Rs. 50 lakhs as per its record on which VAT credit was claimed earlier. There was a major fire in the store three months ago where it lost its stock and only could salvage items worth Rs. 10 lakhs in good condition. As per the surveyors report Rs. 20 lakhs worth of stock was lost for which compensation was provided by the insurance company. Remaining stock could not be traced. On further scrutiny of internal records it was found that stock worth Rs. 10 lakhs were returned to the supplier due to their quality, the supplier had not provided the replacement of the goods as on the date of fire.*

As an expert in this matter mention the consequence to Jupiter Furnishing on above loss as per VAT, Tax and Rules. **7 marks**

- b) *Liquor World (Pvt.) Ltd. has the following stocks. Analyse and suggest the company about the shortages as per Excise Rules, 2064.* **7 marks**

	<i>Stock as per Record</i>	<i>Stock as per Physical Verification</i>
<i>Liquor</i>	<i>10,000 litres</i>	<i>9,890 litres</i>
<i>Beer bottles while bottling</i>	<i>Stock as per flow-meter</i>	<i>Stock as per bottle counter</i>
	<i>10,000 bottles</i>	<i>9,800 bottles</i>
<i>Beer bottles after pasteurization, packaging and storing</i>	<i>Stock as per record</i>	<i>Stock as per physical verification</i>
	<i>10,000 bottles</i>	<i>9,600 bottles</i>

- c) *Ms. P.T. Footware which got the license of bonded warehouse did not renew the license before Ashadh, 2077, however the license was renewed on 25th Ashwin, 2077 after paying additional fee. In the meantime on 5th Ashwin, 2077 it imported goods worth 1 crore from India and Customs Office demanded the payment of duty instead of bank guarantee.*

On 5th Kartik, 2076 it imported items valued Rs. 20 crores as raw material to execute an order under bonded warehouse facility and on 5th Poush, 2077 exported the ordered quantity valued at Rs. 25 crores that were manufactured with the imported raw materials. It normally executes the orders within 6 months but this time due to pandemic situation it took longer to fulfil the order. Customs Office serves the notice to recover the duty from bank guarantee, whether such act was valid, was there any remedy available to P.T. Footware? Examine citing the provisions of Customs Act and Rule. **6 marks**

Answer

- a) Section 16 Kha of VAT Act allows for the VAT credit on items that are lost due to fire, theft, accident, breakage or sabotage. Similarly Rule 39 Ka of VAT Rules provides for the procedure for claiming the credit in case the goods are lost due to above circumstances.

In above case, the stock that got lost due to fire is of Rs. 10 lakhs, because out of Rs. 40 lakhs worth goods in stock Rs. 10 lakhs worth of stock has been salvaged in good condition. Similarly Rs. 20 lakhs was assessed by the surveyor for which the insurance company has provided the compensation.

Jupiter Furnishing should apply to concerned tax office within 30 days of the incidence for the adjustment of the credit claimed for the items that were lost on fire. Tax office after necessary checking satisfied about the loss, it will approve the claim of credit in the lost items. For the items that were insured and compensation received, the tax payer itself can adjust the stock and the VAT.

In the given case, there is short fall of stock. As per Rule 40, if during the inspection by the Tax Officer, if the items are not there in the stock i.e. if there is shortage of the goods, then the shortfall is considered as sold at the prevailing market price. In this case therefore the stock worth Rs. 10 lakhs will be considered as sold in the normal situation. If the entity has maintained the correct record of the goods return then it can justify the difference. As per the defined procedure, on such goods return case, it should reverse the VAT credit in the books and the tax return and as and when the goods are again supplied it should claim the VAT credit.

It can be expected that while investigating the loss due to fire, the Tax Officer must have done the full review of the stock, if Jupiter Furnishing is not able to provide the proof of stock transfer, then Tax Officer can treat the items as sold and can demand the tax along with fees & penalty u/s 29 to be deposited on the coming months tax return or immediately as directed by the Tax Officer.

b) **Calculation of Shortages of the quantity**

	Stock as per Record	Stock as per Physical Verification	Difference	% Difference
Liquor	10,000	9,890	110	1.10%
Beer bottles while bottling	Stock as per Flow-meter	Stock as per Bottle Counter	Difference	% Difference
	10,000	9,800	200	2.00%
Beer bottles after pasteurization, packaging and storing	Stock as per Record	Stock as per Physical Verification	Difference	% Difference
	10,000	9,600	400	4.00%

Rule Nos. 23 and 24 stipulate about the shortages in liquor and beer. According to Rule No. 23 liquor reduced due to vaporization, pilferage, in course of bottling etc. can be exempted up to 1%. Likewise, Rule No. 24 stipulates that the beer manufacturer can get exemption for reduction of beer up to 1.5% while bottling and 2% after bottled. Any excess loss beyond the ceilings shall be taxed.

Accordingly, the losses shall be taxed for excess of the ceilings which are found in all the given cases.

- c) An industry operating a bonded warehouse is allowed to import the goods on bank guarantee facility. A licensed industry is allowed need not pay the duty upfront instead the goods can be imported on bank guarantee facility and when the goods are later exported through banking channel it can release the bank guarantee provided in favour of Customs Office after it met all the conditions set out there. Rule 9 of requires the industry to renew the bonded warehouse license before the commencement of the new financial year, though it allows for renewal subsequently with additional fees, for the period the license is not renewed the industry will not be provided with the bonded warehouse facility.

In this case Ms. P.T Footware did not renew the license on due date and the import has taken place in before the license was renewed therefore the demand for payment of customs duty by the customs officer is valid as per the provisions of the law.

On the second instance the import has taken place on 5th Kartik 2076 and the related export is taking place on 5th Poush 2077. Two aspects needs to be seen in this case, first is the value addition and second is time gap between the import and the export.

Law prescribes for at least 10 percent value addition based on the value determined by Customs. In this case, the value addition in terms of the customs value is 25%, therefore the first test is met. In second test, there is more than 11 months' time gap between import and export. The Rules allows for 6 additional months if the industry applies with valid reason for not being to export within 11 months' time. The export has not happened within 11 months and Ms. P.T. Footware has not applied for extended timeline therefore this condition is not met. There is special relaxation given in the year 2077 due to COVID-19 pandemic. The relaxation provides that if the industry receiving bank guarantee facility cannot export within prescribed period due to the effect of COVID-19, export finished goods within 2077 Chaitra end and can apply for release of bank guarantee. Therefore as per the relaxation provided for this year, the entity it is automatically allowed the relaxation till Chaitra 2077 and no recovery from bank guarantee could take place.

6.

- a) *Explain the concept of Permanent Establishment as per OECD Model Tax Convention?* **5 marks**
- b) *Explain “Base Erosion and Profit Shifting (BEPS)” in the context of international taxation. Explain its relevance to Nepal and legal provisions governing it.* **5 marks**

Answer

- a) As per the OECD Model Tax Convention 2017, the term “permanent establishment” means a fixed place of business through which the business of an enterprise is wholly or partly carried on. The term “permanent establishment” includes especially
 - a) a place of management;
 - b) a branch;
 - c) an office;
 - d) a factory;
 - e) a workshop, and
 - f) a mine, an oil or gas well, a quarry or any other place of extraction of natural resources.

A building site or construction or installation project constitutes a permanent establishment only if it lasts more than twelve months.

The term “permanent establishment” shall be deemed not to include:

- a) the use of facilities solely for the purpose of storage, display or delivery of goods or merchandise belonging to the enterprise;
- b) the maintenance of a stock of goods or merchandise belonging to the enterprise solely for the purpose of storage, display or delivery;
- c) the maintenance of a stock of goods or merchandise belonging to the enterprise solely for the purpose of processing by another enterprise;
- d) the maintenance of a fixed place of business solely for the purpose of purchasing goods or merchandise or of collecting information, for the enterprise;

- e) the maintenance of a fixed place of business solely for the purpose of carrying on, for the enterprise, any other activity;
- f) the maintenance of a fixed place of business solely for any combination of activities mentioned in subparagraphs a) to e), provided that such activity or, in the case of subparagraph f), the overall activity of the fixed place of business, is of a preparatory or auxiliary character.

Where a person is acting in a Contracting State on behalf of an enterprise and, in doing so, habitually concludes contracts, or habitually plays the principal role leading to the conclusion of contracts that are routinely concluded without material modification by the enterprise, and these contracts are a) in the name of the enterprise, or b) for the transfer of the ownership of, or for the granting of the right to use, property owned by that enterprise or that the enterprise has the right to use, or c) for the provision of services by that enterprise, that enterprise shall be deemed to have a permanent establishment in that State in respect of any activities which that person undertakes for the enterprise, unless the activities of such person are limited to those mentioned in paragraph 4 which, if exercised through a fixed place of business would not make this fixed place of business a permanent establishment under the provisions of that paragraph.

The above paragraph shall not apply where the person acting in a Contracting State on behalf of an enterprise of the other Contracting State carries on business in the first mentioned State as an independent agent and acts for the enterprise in the ordinary course of that business. Where, however, a person acts exclusively or almost exclusively on behalf of one or more enterprises to which it is closely related, that person shall not be considered to be an independent agent within the meaning of this paragraph with respect to any such enterprise.

The fact that a company which is a resident of a Contracting State controls or is controlled by a company which is a resident of the other Contracting State, or which carries on business in that other State (whether through a permanent establishment or otherwise), shall not of itself constitute either company a permanent establishment of the other.

- b) Base erosion and profit shifting refers to tax planning strategies used by multinational entities that exploit gaps and mismatches in tax rules to avoid paying tax. Developing countries' higher reliance on corporate income tax means they suffer from BEPS disproportionately. BEPS costs the countries a lot of lost revenue every year. To control the tax avoidance in a large scale OECD and the over 135 countries/ jurisdictions are collaborating on the implementation of various measures to improve the international tax rules that ensures a more transparent tax environment.

BEPS refers to tax planning strategies that exploit gaps and mismatches in tax rules to artificially short profits to low or no-tax locations where there is little or no economic activity or to erode tax bases through deductible payments such as interest or royalties. While some of such practices may be illegal, most of which are allowed practices. This undermines the fairness and integrity of tax systems because businesses that operate across borders can use BEPS to gain competitive advantage over enterprises that operate at domestic level. Moreover, when taxpayers see multinational corporations legally avoiding income tax, it undermines voluntary compliance by all tax payers.

BEPS is of major significance for developing countries like Nepal due to increase of FDI and technology transfer in to the country and possible gap it creates in the existing legal provisions and the tax practices in the country. It is the need of the hour for the country to develop and implement the standards in line with the international practices, as that will facilitate the investments in to the country by eliminating the uncertainty in the tax matters for the investor; at the same time it will be helpful for the country to administer the tax in fair and transparent manner.

Income Tax Act 2058 has adopted the principle of taxation based on the residency where the non-residents person is taxed for Nepal source income while resident person is taxed for world income. Act has provided relief to the taxpayers either through treaty or by giving foreign tax so as to avoid

the double taxation on income. The Act has also adopted the mechanism of transfer pricing and other arrangements between the related parties. These legal provisions are aimed at curbing the loopholes in taxation related to foreign investments. As the international trade practices and transactions keep evolving, the tax authorities in the country should constantly be evaluating the current legal framework and practices so that it is fair and just to both foreign and domestic investments from taxation angle.

Paper 7: Advanced Cost and Management Accounting

Attempt all questions. Working notes should form part of the answer. Make assumptions wherever necessary.

1. A telecom service provider of Nepal is upgrading its Landline Service to fibre based FTTH Service. FTTH Service is a triple play service through which the company will be able to provide telephone service, internet service and television service through a single line. Since the demand of high bandwidth internet is increasing, the demand of FTTH service is also increasing. It is being quite popular among Nepalese household due to its reliability and availability of services as promised.

Among 4,000 employees of the company, 20% are directly employed in this segment of business. In maximum, they work for 250 days in a year with average 7 hours a day. In the past years, the company witnessed several labour related problems which adversely impacted its effective installation and distribution capacity; and in the financial year 2076/77, the company assessed a 20% loss in the working hours of the employees. While preparing budget for the FY 2077/78, the management of the company recognized that though labour related problems will be minimized, but COVID will play new role in massive loss of working hours. Besides, due to the impact of COVID, the consumption of data is increasing day by day and the demand for the FTTH Service.

The company well understands that the future of its business is in FTTH Service. Therefore, it is planning to achieve effective installation and distribution capacity to cater the soaring demand of FTTH Service. Specifically to cater households and hotels, it has come up with three types of packages in FTTH Service. These packages are developed based on the demand of internet bandwidth which is procured an international internet bandwidth supplier. As a consulting management accountant, you are asked by the company to evaluate the installation and distribution plan of the company for the financial year 2077/78. The forecast data for the financial year is given below:

Particulars	Types of FTTH Service Package		
	HBP	MBP	LBP
Sales (Installation & Distribution) (No. of packages)	30,000	75,000	50,000
Annual price per package (Rs.)	25,000	20,000	15,000
Annual costs per package (Rs.):			
Internet bandwidth cost	11,000	7,000	4,000
Installation materials	2,500	2,500	2,500
Other variable costs relating to installation and distribution	4,000	4,500	5,000
Allocated fixed costs	1,500	3,000	1,500

Other variable costs are, mostly labour incentive, therefore incurred at the rate of Rs. 400 per hour of employee working. Besides, fixed costs are segmental allocation to FTTH Service business of the company and are further allocated to the packages on the basis of revenue earned.

The company has planned for partial outsourcing of sales and distribution function to achieve the annual sales forecast, and made a procedure for the same. Since this was a kind of trial of outsourcing function, the company negotiated with a supplier of skilled manpower and finalized to hire 100 persons with conditions of 8 hours duty per day and 250 working days in a year.

The company has also identified a sub-contract company to completely outsource the installation and distribution function with installation materials in case the demand of FTTH service exceeds its ability to supply. The subcontract company has quoted the following prices for the installation and distribution function meeting specifications and quality of the company:

Particulars	Types of FTTH Service Package		
	HBP	MBP	LBP
Quoted price of installation and distribution per package (Rs.)	8,500	8,200	8,000

Required: (3+7+8+2=20 marks)

- Determine and quantify the constraint that will directly impact the plan.
- Determine the optimal installation and distribution plan without considering the procurement of complete outsourcing service from the sub-contract company. Also determine the expected level of profitability arising from the implementation of this plan.
- Determine the optimal installation and distribution plan considering the procurement of complete outsourcing service from the sub-contract company. Also determine the expected level of profitability arising from the implementation of this plan.
- Which plan should the company opt for and why? Give any two appropriate reasons.

Answer

- a) Determination and quantification of the constraining factor:

Particulars	HBP	MBP	LBP	Total
Other variable costs (Rs.)/ Package	4,000	4,500	5,000	
Other variable cost/ Employee hour	400	400	400	
Employee hours/ Package	10	11.25	12.50	
Forecast sales (Package)	30,000	75,000	50,000	
Total employee hours required (A)	300,000	843,750	625,000	1,768,750
Actual employee hours available:				
Effective hours [80% of (4,000 x 20% x 250 x 7 hours)]				1,120,000
Hours available from partial outsourcing (100 x 250 x 8 hours)				200,000
Total employee hours available (B)				1,320,000
Shortfall employee hours (A-B)				448,750

Conclusion:

As anticipated, the limiting factor to achieve the forecast sales is employee hours with a shortfall of 448,750 hours.

- b) Determine the optimal installation and distribution plan without considering the procurement of complete outsourcing service from the sub-contract company

- i) Statement showing contribution per constraining factor and package ranking

Particulars	HBP	MBP	LBP
Annual price per package (Rs.) (A)	25,000	20,000	15,000
Annual variable cost per package (Rs.): (B=a+b+c)	17,500	14,000	11,500
Internet bandwidth cost (a)	11,000	7,000	4,000

Installation materials (b)	2,500	2,500	2,500
Other variable costs (c)	4,000	4,500	5,000
Contribution per package (Rs.) (C=A-B)	7,500	6,000	3,500
Employee hours per package (D)	10	11.25	12.50
Contribution/ employee hour/ package (Rs.) (C÷D)	750	533.33	280
Ranking	I	II	III

ii) Optimal installation & distribution plan and profitability forecast without considering the procurement of complete outsourcing service from the sub-contract company

Package (In order of ranking)	No. of Package	Employee hours/ package	Total employee hours required	Contribution/ package (Rs.)	Total contribution (Rs.)
HBP	30,000	10	300,000	7,500	225,000,000
MBP	75,000	11.25	843,750	6,000	450,000,000
LBP (WN1)	14,100	12.50	176,250	3,500	49,350,000
Total			1,320,000		724,350,000
Less:					
Fixed costs (WN2)		Unit FC (Rs.)	Total FC (Rs.)		345,000,000
HBP	30,000	1,500	45,000,000		
MBP	75,000	3,000	225,000,000		
LBP	50,000	1,500	75,000,000		
Net Profit					379,350,000

WN1:

The available employee hour (1,320,000 hours) should first be utilized as per ranking of packages as below:

<u>Packages</u>	<u>Required</u>	<u>Available</u>	<u>Used</u>	<u>No. of packages</u>
HBP	300,000	1,320,000	300,000	30,000
MBP	843,750	1,020,000	843,750	75,000
LBP	625,000	176,250	176,250	14,100

WN2:

Fixed costs are allocated costs; hence it should be taken for full forecast sales packages.

- c) Determine the optimal installation and distribution plan considering the procurement of complete outsourcing service from the sub-contract company
- i) Procurement from sub-contractor shall be made only where the cost-saving by self-implementation is the lowest; or self installation and distribution should be done when the cost-saving by self implementation is higher. And, purchase should be made after full utilization of available employee hours (475,000 hours) in self implementation on the basis of ranking of cost saving.

ii) Statement showing cost-saving by self implementation and package ranking

Particulars	HBP	MBP	LBP
Purchase price/ package (Rs.) (Including installation material) (A)	8,500	8,200	8,000
Variable costs/ package (Rs.) (B = a+b):	6,500	7,000	7,500
Installation materials (a)	2,500	2,500	2,500
Other variable costs (b)	4,000	4,500	5,000
Cost saving/ package (Rs.) (C = A-B)	2,000	1,200	500
Employee hours/ package (D)	10	11.25	12.50
Cost saving per employee hour/ package (Rs.) (C÷D)	200	106.67	40
Ranking for own production	I	II	III

iii) Statement showing contribution from purchasing

Particulars	HBP	MBP	LBP
Price/ package (Rs.) (A)	25,000	20,000	15,000
Less: Variable costs/ package (Rs.) (B = a + b)	19,500	15,200	12,000
Internet bandwidth cost (a)	11,000	7,000	4,000
Purchase price/ package (b)	8,500	8,200	8,000
Contribution/ package (Rs.) (A – B)	5,500	4,800	3,000

iv) Optimal installation & distribution plan and profitability forecast considering the procurement of complete outsourcing service from the sub-contract company

Package (In order of ranking)	No. of Package	Employ ee hours/ package	Total employee hours required	Contribution/ package (Rs.)	Total contribution (Rs.)
HBP	30,000	10	300,000	7,500	225,000,000
MBP	75,000	11.25	843,750	6,000	450,000,000
LBP (WN1)	14,100	12.50	176,250	3,500	49,350,000
LBP (WN3)	35,900			3,000	107,700,000
Total contribution			1,320,000		832,050,000
Less:					
Fixed costs (as above)					345,000,000
Net Profit					487,050,000

WN 3:

LBP No. of Package 50,000 - LBP No. of Package 14,100 = 35,900

- d) The company should opt for installation and distribution plan considering the procurement of complete outsourcing service from the sub-contract company due to:

- It will increase the total profitability of the company.

- It will help in meeting soaring market demand, and thereby maintaining the goodwill of the product and the company as well.

2.

- a) Kalanki Mai Ltd. is engaged in marketing of wide range of consumer goods. A, B, C and D are regional sales officers for four regions. The Company fixes annual sales target for them individually.

You are furnished with the following information:

- 1) The standard costs of sales target in respect of A, B, C and D are Rs. 5,756,800, Rs. 2,848,000, Rs. 3,840,000 and Rs. 5,731,200 respectively.
- 2) A, B, C and D respectively earned Rs. 358,800, Rs. 188,000, Rs. 245,000 and Rs. 361,200 as commission at 5% on actual sales effected by them during the previous year.
- 3) The relevant variances as computed by a qualified cost accountant are as follows:

Products	A	B	C	D
	Rs.	Rs.	Rs.	Rs.
Sales price variance	40,000 (F)	60,000 (A)	50,000 (A)	20,000 (A)
Sales volume variance	60,000 (A)	260,000 (F)	150,000 (F)	80,000 (F)
Sales margin mix variance	140,000 (A)	80,000 (F)	170,000 (F)	30,000 (A)

(A) = Adverse variance and (F) = Favourable variance.

Required:

(4+6=10 marks)

- 1) Compute the amount of sales target and the actual amount of contribution earned in case of each of the zonal sales officers.
 - 2) Evaluate the overall performance of these zonal officers taking three relevant base factors and then recommend whose performance is the best.
- b) Ever Trust Bank is examining the profitability of its Flexi Account, a combined Savings & Cheque account. Depositors receive a 7% annual interest on their average deposit. ABC Bank earns an interest rate spread of 3% by lending money for home loan purpose at 10%.

The Flexi Account allows depositors unlimited use of services such as deposits, withdrawals, cheque facility and foreign currency drafts. Depositors with Flexi Account balances of Rs. 50,000 or more receive unlimited free use of services. Depositors with minimum balance of less than Rs. 50,000 pay Rs. 1,000-a-month service fee for their Flexi Account.

Ever Trust Bank recently conducted an Activity Based Costing study of its services. The use of these services in 2077 BS by three customers is as follows:

	Activity based cost per transaction	Account Usage		
		Customer X	Customer Y	Customer Z
Deposits/withdrawals with teller	Rs. 125	40	50	5
Deposits/withdrawals with ATM	Rs. 40	10	20	16
Deposits/withdrawals on prearranged monthly basis	Rs. 25	0	12	60

Bank cheques written	Rs. 400	9	3	2
Foreign currency drafts	Rs. 600	4	1	6
Inquiries about account balance	Rs. 75	10	18	9
Average Flexi Account balance for 2077 BS		Rs. 55,000	Rs. 40,000	Rs. 1,250,000

Assume Customer X and Z always maintains a balance above Rs. 50,000, whereas Customer Y always has a balance below Rs. 50,000.

Required:

10 marks

- Compute the 2077 BS profitability of the customers X, Y and Z Flexi Account.
- What evidence is there of cross-subsidization among the three Flexi Accounts? Why might Ever Trust Bank worry about this cross-subsidization, if the Flexi Account product offering is profitable as a whole?
- What changes would you recommend for the Bank's Flexi Account?

Answer

a) Statement of Sales Target

Product	A	B	C	D
Commission	358,800	188,000	245,000	361,200
Actual				
Actual Sales [Commission/0.05]	7,176,000	3,760,000	4,900,000	7,224,000
Sales Price Variance	(40,000)	60,000	50,000	20,000
Sales Volume Variance	60,000	(260,000)	(150,000)	(80,000)
Sales Target	7,196,000	3,560,000	4,800,000	7,164,000

Statement of Actual Profit

Product	A	B	C	D
Target Sales	7,196,000	3,560,000	4,800,000	7,164,000
Standard Cost	5,756,800	2,848,000	3,840,000	5,731,200
Budgeted Profit	1,439,200	712,000	960,000	1,432,800
Sales Margin Variance				
i. Price	40,000	(60,000)	(50,000)	(20,000)
ii. Volume (Mix)	(140,000)	80,000	170,000	(30,000)
Actual Profit	1,339,200	732,000	1,080,000	1,382,800

Note: The Sales Margin Mix Variance is assumed as equal to Sales Margin Volume Variance. It is possible in a situation where Sales Margin Quantity Variance is Nil.

Statement of Evaluation of Performance (based on 3 relevant factors)

Product	A	B	C	D
Factors (for Profit Margin)				
Price Variance	40,000	(60,000)	(50,000)	(20,000)
Mix Variance	(140,000)	80,000	170,000	(30,000)

Quantity Variance	0	0	0	0
Total	(100,000)	20,000	120,000	(50,000)
Rank	4th	2nd	1st	3rd

b) Working Notes

Earning from Interest Rate Spread

Customer X = Rs. 55000 x 3/100 = Rs. 1650

Customer Y = Rs. 40000 x 3/100 = Rs. 1200

Customer Z = Rs. 1250000 x 3/100 = Rs. 37500

Earnings from Service Fee

Customer Y = Rs. 1000 x 12 months = Rs. 12000

i) Statement of Profitability during 2077 BS

Particulars	Activity based cost per transaction (Rs.)	Customer X		Customer Y		Customer Z	
		No.	Amount (Rs.)	No.	Amount (Rs.)	No.	Amount (Rs.)
a) Cost of Services							
Deposits/ withdrawals with teller	125	40	5000	50	6250	5	625
Deposits/ withdrawals with ATM	40	10	400	20	800	16	640
Deposits/ withdrawals on prearranged monthly basis	25	-	-	12	300	60	1500
Bank cheques written	400	9	3600	3	1200	2	800
Foreign currency drafts	600	4	2400	1	600	6	3600
Inquiries about account balance	75	10	750	18	1350	9	675
			12150		10500		7840
b) Earnings from Services							
Interest rate spread @ 3%			1650		1200		37500
Service fee			-		12000		-
			1650		13200		37500
Customer wise Profit/(Loss)	(a)-(b)		(10500)		2700		29660

Total profit of Ever Trust Bank on Flexi Account = Rs. 21860

- ii) From the above analysis it is observed that the cost of services utilized by customer X is Rs. 12150 and the income earned by the Bank for rendering of services to him is only Rs. 1650, causing a loss of Rs. 10500 towards customer X. The cost of services rendered to customer Y & Z are Rs. 10500 & Rs.7840 respectively, whereas the incomes earned by the bank from operating their accounts are Rs. 13200 & Rs.37500, resulting in profits of Rs.2700 and Rs. 29660 respectively. Even though there is an overall profitability of Flexi account, there is a

clear evidence of cross-subsidization among the three premier accounts. The profit earned from customers Y & Z A/c have cross-subsidized the loss incurred on customer X A/c.

iii) Changes recommended on Flexi Account

- The bank may increase the minimum balance from Rs. 50000 to Rs. 100000, to avail services at free of cost.
- The bank may impose restrictions on number of transactions.
- The bank may collect special service charges from those customers whose cost of service is high.
- The bank may charge for value added services like transfer of funds, issue of DDs in foreign currency etc.
- Don't allow deposits and withdrawals below Rs. 10000 at the teller.
- Inquiries of account balance to be allowed only through the phone banking or ATM.

3.

a) *Srikant Bearings P Limited has been asked to give a quote for the production of 50 units of a new product. Estimates for the assembly of the first unit are:*

Direct Material - Rs. 500

Direct Labour - Rs. 600

Variable Overhead - Rs. 300

Following additional information is provided.

- 1) *Labour cost are Rs. 60 an hour*
- 2) *Variable overhead is based on labour hours (activity based) at a rate of Rs. 30 per labour hour.*
- 3) *The company quotes prices on a 20% mark-up on the estimated costs to cover fixed overheads and profits.*
- 4) *The company operates an 80% learning curve.*
- 5) *Learning coefficient at 80% Learning curve = (-) 0.3219; Log 10 = 1; Log 50 = 1.6990; Anti Log 0.4531 = 2.84.*

Required: (2×5 = 10 marks)

- i) *The company wishes to estimate the marginal cost of making the 50 units and hence calculate the quoted price per unit.*
 - ii) *What will be the impact, if Srikant Bearings P Ltd. decides to ignore the learning curve effect while providing the quote? Present the comparative data showing price per unit.*
- b) *Z Limited operates two assembly lines, Line 1 and Line 2. Each line is used to assemble the components of three types of product A. The expected daily production of each line is as follows:*

Type	Line 1	Line 2
Economy	3	1
Standard	1	1
Deluxe	2	6

The daily running costs for 2 lines average Rs. 60,000 for Line 1 and Rs. 40,000 for Line 2. It is given that the company must produce at least 24 "Economy", 16 "Standard" and 48 "Deluxe" products for which an order is pending.

You are required to formulate the above problem as a LPP so as to minimize the total cost and solve the problem using graphical method. **10 marks**

Answer

- a) Calculation of average time to be taken for different given levels.

Equation approach; i.e. $Y_x = K X^s$

Where,

X is the cumulative number of units produced i.e. 50

Y_x is the cumulative average unit time required to produce X units (= 50 Units)

K is the average time taken to produce the first unit i.e. 10 hours

S is the learning coefficient @ 80% Learning Curve i.e. 0.3219 [Given]

For 50 units, $\log Y_x = \log K + S \log X$

Or, $\log Y_x = \log 10 - 0.3219 \log 50$

Or, $= 1 - 0.3219 \times 1.6990$

Or, $= 1 - 0.5469$

Or, $= 0.4531$

Or, $Y_x = \text{Anti Log } 0.4531 = 2.84 \text{ hours}$

Total time for 50 Units = $50 \times 2.84 \text{ hours} = 142 \text{ Hours}$

Hence, estimated marginal cost of 50 Units will be

Direct Material (50 x 500) Rs. 25,000

Direct Labour (142 hours x Rs 60) Rs. 8,520

Variable Overhead (142 hours Rs 30) Rs. 4,260

Total Rs. 37,780

Price to be quoted for 50 Units = $\text{Rs } 37,780 \times 1.2 = \text{Rs. } 45,336$ i.e. Rs. 906.72 per item.

If the company does not appreciate that a learning curve effect was present, the estimated price based on the first unit cost would be:

	Price based on 1 st unit cost (Rs)	Price based on learning curve (Rs)
Direct Material	500.00	500.00
Direct Labour [(10 X 60) & (2.84 X 60)]	600.00	170.40
Variable Overhead [(10 X 30) & (2.84 X 30)]	300.00	85.20
Total	1,400.00	755.60
Add 20% Mark Up	280.00	152.12
Price	1,680.00	906.72

Hence ignoring the learning curve, effect would lead to substantial overpricing to the competitors advantage.

- b) Let X_1 : the number of days the line 1 is run, and

X_2 : the number of days the line 2 is run

The formulation of the LPP would be as follows:

Minimize $Z = 60000 X_1 + 40000 X_2$ (Cost)

Subject to $3X_1 + X_2 \geq 24$ [Production Requirement]

$X_1 + X_2 \geq 16$ [Production Requirement]

$2X_1 + 6X_2 \geq 48$ [Production Requirement]

$X_1, X_2 \geq 0$ [Non negative condition]

Converting inequalities into equations and finding the value of variable for each equation.

Equation 1: $3X_1 + X_2 = 24$

X_1	0	8
X_2	24	0

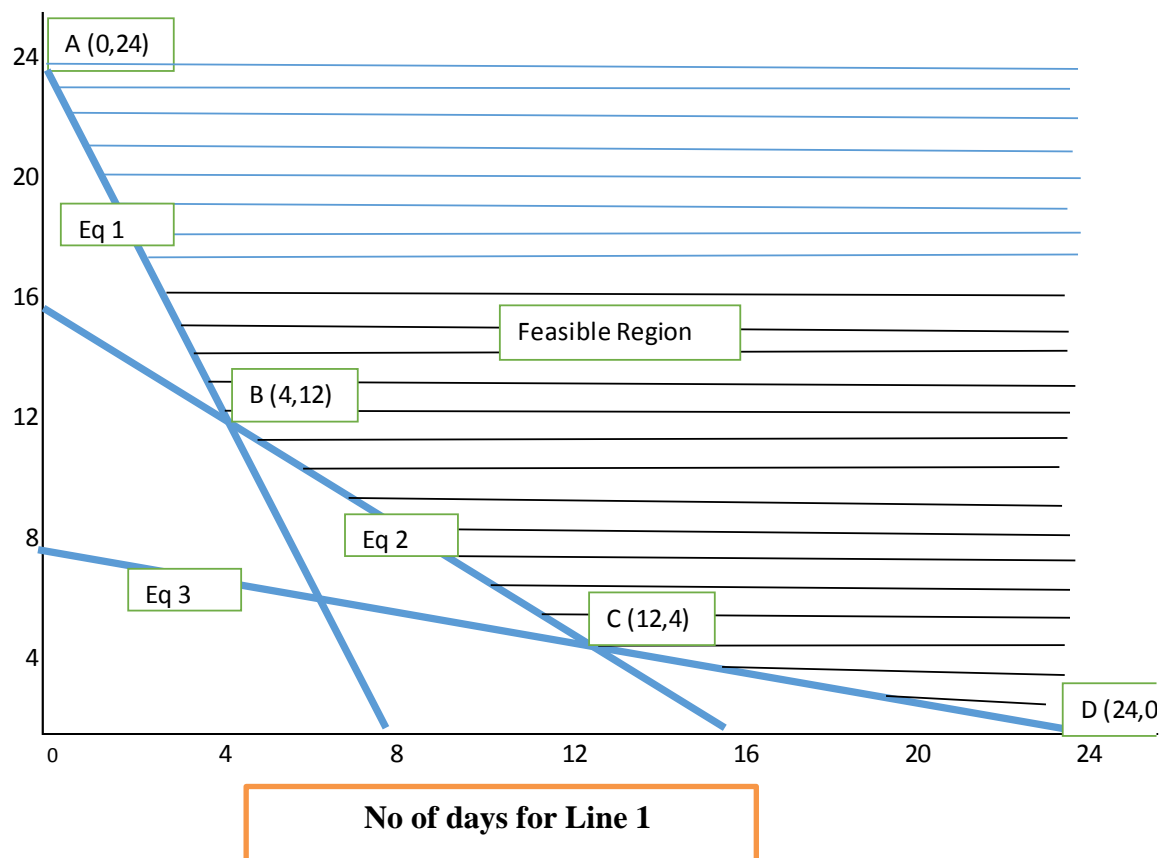
Equation 2: $X_1 + X_2 = 16$

X_1	0	16
X_2	16	0

Equation 3: $2X_1 + 6X_2 = 48$

X_1	0	24
X_2	8	0

The information in the problem is depicted below. The feasible region is shown by the shaded area and feasible solution would be at the extreme points.



To determine the optimal solution we shall evaluate the objective function at various points (Extreme Points of the feasible region) i.e. Points A (0,24), B (4,12), C (12,4) and D (24,0). And the resultant Z value at each of the points would be as follows:

$$A: (0 \times 60000 + 24 \times 40000) = 960,000$$

$$B: (4 \times 60000 + 12 \times 40000) = 720,000$$

$$C: (12 \times 60,000 + 4 \times 40000) = 880,000$$

$$D: (24 \times 60000 + 0 \times 40000) = 1,440,000$$

Line 1 should run for 4 days and Line 2 should run for 12 days to achieve minimum cost of Rs 720,000.

4.

- a) *The Top Company Ltd. has two divisions X and Y. One of the parts produced by X is being used by Division Y in its manufacturing process. This part is not unique and there is readily defined market such that X can sell to outside firms and Y can buy from outside.*

The following data is available in respect of division X:

<i>Capacity to produce the part</i>	<i>125,000 units</i>
<i>External sales at Rs. 100 per unit</i>	<i>100,000 units</i>
<i>Transfer to division Y</i>	<i>25,000 units</i>

Costs:

<i>Variable manufacturing cost per unit</i>	<i>Rs. 84</i>
<i>Variable selling cost per unit</i>	<i>Rs. 2</i>
<i>Fixed manufacturing cost (based on 125,000 units)</i>	<i>Rs. 6</i>
<i>Fixed selling cost (based on 100,000 units)</i>	<i>Rs. 1</i>

(Variable selling cost per unit incurred on external sales only but not incurred on internal transfer)

The division Y represents the following data on the assumption of volume of 25,000 units. Variable manufacturing expenses per unit Rs. 100 (excluding internal transfer price/outside purchase)

<i>Variable selling expenses per unit</i>	<i>Rs. 6</i>
<i>Fixed manufacturing cost</i>	<i>Rs. 10</i>
<i>Fixed selling expenses</i>	<i>Rs. 4</i>
<i>Selling price per unit</i>	<i>Rs. 240</i>

Required:

(2+3+3=8 marks)

- i) *If division X could sell 125,000 units at Rs. 100 each in the open market what transfer price, the central management would prefer in order to provide proper motivation to division Y?*
 - ii) *As a management accountant would you advise division Y to buy the product at the transfer price determined in (i) above?*
 - iii) *Assume transfer price as in (i) above and if selling price for division Y's product drops to Rs. 200 should you buy at that price? Would this be desirable from the point of the firm, why?*
- b) *Aum Transport Company provides full truck load (FTL- 6 MT) freight services. It operates 5 trucks to provide its services between Bhairahawa and Kathmandu. The standard freight charges published in the website of the company shows a rate of Rs. 5,000 per MT from Bhairahawa to Kathmandu and Rs. 4,000 per MT for the return journey to Bhairahawa. While carrying truck load*

to Kathmandu, the company also carries goods for Narayangadh, but it charges same freight rate to Narayangadh as well. The distance from Bhairahawa to Narayangadh and Kathmandu are 142 km and 282 km respectively.

In Chaitra, 2077 each of the trucks made 12 FTL journeys from Bhairahawa to Kathmandu out of which 2 MT were unloaded twice in the way to Narayangadh. One of the trucks carried 2 MT extra loads in its return journey for 5 times but was once caught by traffic police and Rs. 5,000 was paid as fine. For the remaining trips the truck carried specified full load out of which all the goods on load were unloaded once at Narayangadh.

The company spent running charges of Rs. 288,000 per truck in the month of Chaitra, 2077. The company is incurring Rs. 360,000 annually in each cost head of the maintenance costs and fixed costs for a truck.

Required:

(5+2=7 marks)

- i) Calculate the cost per absolute MT-Km for the month of Chaitra, 2077.
- ii) Calculate profit for the month of Chaitra, 2077.

Answer

a)

- i) X selling the product to outsiders at Rs.100

	(Rs.)
Selling Price	100
-Variable Cost (Production)	84
-Variable Cost (Selling)	<u>2</u>
Contribution	14
-Fixed Cost (Production)	6
-Fixed Cost (Selling)	<u>1</u>
Profit	<u>7</u>

Minimum Transfer Price Could be = Variable Cost of production + Contribution Lost = Rs.84 + Rs.14 = Rs.98.

Justification:

For transferring, the product X must get its VC of Production Rs.84, FC of Production Rs.6, FC of selling Rs.1 and profit Rs.7. So, X must charge a transfer pricing of Rs.98.

- ii) As a management accountant of Division Y would you advise the purchase at transfer Pricing of Rs.98

Particulars	Rs.
Purchase from X at transfer pricing	98

Particulars	Rs.
Y Purchase from Outside	100

Selling Price	240
Variable Cost (Production)	100

Selling Price	240
Variable Cost (Production)	100

Variable Cost (Bought Out Item)	98	Variable Cost (Bought Out Item)	100
Variable Cost (Selling)	6	Variable Cost (Selling)	6
Contribution	36	Contribution	34

Since the option to purchase the item from X at Transfer Price of Rs.98 gives better contribution, division Y should go for this transaction.

- iii) If sales price of division Y's product drops to Rs 200, whether the transfer price of Rs. 98 will be acceptable Co.

uses product of X in division	100
-------------------------------	-----

Selling Price	200
Variable Cost (Production)	100
Variable Cost (Bought Out Item)	84
Variable Cost (Selling)	6
Contribution	10

Company opts to sell the Product of X in Open market at 100:

Particulars	Rs.
uses product of X in division	100

Selling Price	100
Variable Cost (Production)	84
Variable Cost (Selling)	2
Contribution	14

From Company's point of view selling the product of division X to outside buyer gives better contribution than transferring it to division Y.

- b) Calculation of the cost per absolute MT-Km:

<u>Costs for the month of Chaitra, 2077</u>	<u>Rs.</u>
Running charges (Rs. 288,000 x 5)	1,440,000
Maintenance costs (Rs. 360,000 x 5/12)	150,000
Fixed costs (Rs. 360,000 x 5/12)	<u>150,000</u>
Total costs	<u>1,740,000</u>

Absolute MT-Km for the month of Chaitra, 2077 MT-Km

For Bhairahawa (B) to Kathmandu (K) via Narayangadh (N):

From B to K:

5 trucks x 10 journeys x 282 km x 6 MT = 84,600

From B to N:

$$5 \text{ trucks} \times 2 \text{ journeys} \times 142 \text{ km} \times 6 \text{ MT} = 8,520$$

From N to K:

$$5 \text{ trucks} \times 2 \text{ journeys} \times 140 \text{ km} \times 4 \text{ MT} = \underline{5,600}$$

$$\text{Total} \quad \underline{98,720}$$

For K to B via N (Return journey):

From K to B:

$$1 \text{ truck} \times 5 \text{ journeys} \times 282 \text{ km} \times 8 \text{ MT} = 11,280$$

From K to B:

$$1 \text{ truck} \times 6 \text{ journeys} \times 282 \text{ km} \times 6 \text{ MT} = 10,152$$

From K to N:

$$1 \text{ truck} \times 1 \text{ journey} \times 140 \text{ km} \times 6 \text{ MT} = 840$$

From K to B:

$$4 \text{ trucks} \times 12 \text{ journeys} \times 282 \text{ km} \times 6 \text{ MT} = \underline{81,216}$$

$$\text{Total} \quad \underline{103,488}$$

$$\begin{aligned} \text{Grand total absolute MT-Km for the month of Chaitra, 2077} &= 98,720 + 103,488 \\ &= 202,208 \text{ MT-Km} \end{aligned}$$

$$\begin{aligned} \text{Cost per absolute MT-Km for the month of Chaitra, 2077} &= \text{Rs. } 1,740,000 / 202,208 \\ &= \text{Rs. } 8.605 \end{aligned}$$

ii) Calculation of profit for the month of Chaitra, 2077:

Net revenue for the month of Chaitra, 2077 Rs.

From B to K journey:

$$5 \text{ trucks} \times 12 \text{ journeys} \times 6 \text{ MT} \times \text{Rs. } 5,000 = 1,800,000$$

From K to B journey:

$$1 \text{ truck} \times 5 \text{ journeys} \times 8 \text{ MT} \times \text{Rs. } 4,000 = 160,000$$

$$1 \text{ truck} \times 7 \text{ journeys} \times 6 \text{ MT} \times \text{Rs. } 4,000 = 168,000$$

$$4 \text{ trucks} \times 12 \text{ journeys} \times 6 \text{ MT} \times \text{Rs. } 5,000 = \underline{1,152,000}$$

$$3,280,000$$

$$\text{Less: Fine paid} \quad \underline{(5,000)}$$

$$\text{Net Revenue} \quad \underline{3,275,000}$$

$$\begin{aligned} \text{Profit for the month of Chaitra, 2077} &= \text{Net Revenue} - \text{Costs} \\ &= \text{Rs. } 3,275,000 - \text{Rs. } 1,740,000 \\ &= \text{Rs. } 1,535,000 \end{aligned}$$

4. Write short notes/Distinguish between:

(5×3=15 marks)

- a) *Traditional budgeting and Activity based budgeting*
- b) *Basic elements for accounting measures of Theory of Constraints*
- c) *Short-term financial performance measures*
- d) *Benchmarking and its types*
- e) *Assumptions in formulation of linear programming model*

Answer

- a) Traditional budgeting and Activity based budgeting

Traditional budgeting creates budgets for hierarchical organizational units and functional silos, such as production, marketing and administration departments. It then allocates (or 'pushes') functional budgets to products. Traditional budgeting system rebalances by changing the product mix or resources available.

ABB focuses instead on the major activities of an organization in response to (or 'pulled' by) sales orders or forecasted future sales. ABB reflects an organization's activities that describe how the organization performs and balances its work across functional silos. ABB modifies the traditional budgeting process to better reflect the operational processes in the organization.

The operational plan is the first ABB budgeting phase, in which future market demand/ sales for goods and services are forecasted, which drives the product quantity/ mix decision, which then drives the expected production activities. Activity based drivers help to estimate the resources needed to fulfil the product demand. Activity rates define the type and number of activities needed to produce the expected product/service mix. Resource consumption rates define the resources needed to execute the productive activities required. Resource capacity is analysed by comparing the resources needed with the resources available to see if the activity plan is feasible in the short term or requires adjustments.

After reaching operational balance, the second phase is the financial plan, which is typically broken down into information by resources, activities, products or other cost objects. The financial budget balance is achieved when the targeted financial results are met. If the initial financial plan does not meet the target, the ABB system again reviews product decisions, activity costs and resource costs.

The ABB tries to make budgeting more relevant by combining a more complete operational plan with a detailed financial plan. The activity-based approach also leads to a process-based, horizontal view of the organization, which crosses departmental borders. This contrasts with the traditional budgeting orientation, which is predominantly vertical. Having a feasible operational plan from the start also avoids that unnecessary financial projections are being made for unrealistic plans.

The ABB model requires more detailed operational and financial information than traditional budgeting systems.

- b) Basic elements for accounting measures of Theory of Constraints

Every organization with a complex system has a constraint or bottleneck that prevents it from reaching its potential. A constraint is considered the weakest link in the chain. Therefore, theory of constraints (TOC) posits that working on the constraint stops it from being a limiting factor. TOC provides tools that businesses in different sectors can use to enhance processes. It is not restricted to optimization of the use of installed capacity, but extends to the improvement of performance by reducing system bottlenecks in any location in the organization's value chain.

In the TOC, the traditional accounting measures like net profit, ROI and cash flow are translated from the company wide perspective to the level of operational managers. All indirect cost allocations and other accounting allocations that are designed to calculate total (allocated) product costs, may lead to distorted information for operational management decisions. The TOC approach, therefore, has developed its own cost accounting measures where the operational managers'

primary task is to maximize throughput, maintaining appropriate levels of inventories (or investment) and minimizing operational expenses by actively managing internal and external constraints.

The three basic elements for accounting measures of TOC are the following:

- Throughput (T) - represents the rate of generating cash by an organization. It is a measure of added value: the value of outputs minus the incremental costs of inputs. For example, throughput may be calculated as revenue from sales less direct material costs for goods sold. Costs for committed direct labour and indirect costs are expensed and never allocated to the product.
- Investment (I) (or inventory) - money tied up to make the production functions run efficiently. It includes facilities, capital assets, equipment and materials (things purchased that the company intends to sell).
- Operating expense (OE) - the money needed to generate throughput. These expenses are used to sustain operational activities. Operating expenses are all the committed overhead and fixed costs of the organization.

Taking as accumulated figures:

$$\text{Return on Investment (ROI)} = (T - OE) / I$$

$$\text{Net profit (NP)} = T - OE$$

$$\text{Cash flow (CF)} = T - OE \pm \Delta I$$

c) Short-term financial performance measures

Measurements selected to gauge managerial performance must be appropriate for the types of responsibility assigned and behaviour desired. Traditionally, managerial performance was judged primarily on monetary measures such as profits, achievement of and variations from budget objectives, and cash flow. Common short-term financial performance measures are:

- Divisional profit or the segment margin

Divisional profit is compared with budgeted income, and variances are computed to determine where targets were exceeded or not achieved. It is calculated as segment sales minus direct variable expenses and avoidable fixed expenses.

- Cash flow

It identifies the relationships between segment margin and net cash flow from operating activities. Further, depicting cash flow from investing and financing activities, it assists in judging reliability of the earnings. Analysis of cash flow in conjunction with budgets and other financial reports provides information on cost reductions, collection policies, dividend pay-out, impact of capital projects on total cash flows, and liquidity position.

- Return on Investment

It can be used to evaluate the generation of income relative to the resources. It is also used to make intra-company, inter-company, and multinational comparisons based on expected results, prior results, or results of other similar entities.

- Residual Income

It shows the earnings capability of a firm in excess of the amount charged for funds committed. It is calculated as income earned above a target rate on the asset base.

- Economic Value Added

It measures the profit earned in excess of the cost of capital in market value terms. It is used to assess the generation of income relative to the market value of the resources used to produce that income.

d) Benchmarking and its types

Benchmarking refers to investigating, comparing, and evaluating a company's products, processes, and/ or services against those of competitors or companies believed to be "best in class." A company benchmarks to obtain an understanding of another's production and performance methods so that the company can identify its strengths and weaknesses.

Benchmarking may be one of four types:

- Internal benchmarking, in which organizational units are compared to each other, with the lower performers "learning" from the higher performers;
- Results benchmarking, in which an end product or service is examined using reverse engineering to focus on product/service specifications and performance results; this type of benchmarking is performed on competitors' products or services;
- Process benchmarking, in which a specific process is examined to determine how a "best-in-class" company achieves its results; this type of benchmarking is often performed on non-competitors although competitors may also be used; and
- Strategic benchmarking, in which the focus is on understanding how successful companies compete.

e) Assumptions in formulation of linear programming model

Linear programming is a model, which is used for optimum allocation of scarce or limited resources to competing products or activities. It is one of the most versatile, powerful and useful techniques for making managerial decisions. It may be used for solving broad range of problems arising in business, government, industry, hospitals, libraries, etc. As a decision making tool, it has demonstrated its value in various fields such as production, finance, marketing, research and development and personnel management.

The following are some important assumptions made in formulating a linear programming model:

- It is assumed that the decision maker here is completely certain (i.e., deterministic conditions) regarding all aspects of the situation, i.e., availability of resources, profit contribution of the products, technology, courses of action and their consequences etc.
- It is assumed that the relationship between variables in the problem and the resources available i.e., constraints of the problem exhibits linearity. Here the term linearity implies proportionality and additivity. This assumption is very useful as it simplifies modelling of the problem.
- It is assumed that there is fixed technology. Fixed technology refers to the fact that the production requirements are fixed during the planning period and will not change in the period.
- It is assumed that the profit contribution of a product remains constant, irrespective of level of production and sales.
- It is assumed that the decision variables are continuous. It means that the companies manufacture products in fractional units. For example, a company manufactures 2.5 vehicles, etc. This is referred to as the assumption of divisibility.
- It is assumed that only one decision is required for the planning period. This condition shows that the linear programming model is a static model, which implies that the linear programming problem is a single stage decision problem.

- It is assumed that all variables are restricted to non-negative values (i.e., their numerical value will be ≥ 0).

5.

- a) *ABC Ltd. implemented a quality improvement program during FY 2076/77 and had the following results:*

	<i>FY 2076/77</i>	<i>FY 2075/76</i>
<i>Sales</i>	6,000	6,000
<i>Scrap</i>	300	600
<i>Rework</i>	400	500
<i>Production inspection</i>	240	200
<i>Product warranty</i>	150	300
<i>Quality Training</i>	150	75
<i>Material Inspection</i>	60	80

Required:

(4+1=5 marks)

- Classify the quality of costs as prevention, appraisal, internal failure and external failure and express each class as a percentage of sales.*
 - Compute the amount of increase in profit due to quality improvement.*
- b) *What do you mean by 'Back flushing' in JIT system? Explain briefly the problems with back flushing that must be corrected before it will work properly.* **5 marks**

Answer

a)

- i) **Classification of quality cost**

Particulars	2076/77		2075/76	
	Rs.	% of sales	Rs.	% of sales
Sales	6,000		6,000	
Prevention				
Quality Training	150	2.50%	75	1.25%
Appraisal				
Product inspection	240		200	
Material Inspection	60		80	
	300	5.00%	280	4.67%
Internal Failure				
Scrap	300		600	
Rework	400		500	
	700	11.67%	1,100	18.33%

External Failure				
Product Warranty	150	2.5%	300	5%
Total	1,300	21.67%	1,755	29.25%
Profit	4,700		4,245	

- ii) Cost reduction was effected by 7.58% (from 29.25% to 21.67%) of sales, which is an increase in profit by Rs 455,000

b) Back flushing in a JIT system:

Traditional accounting systems record the flow of inventory through elaborate accounting procedures. Such systems are required in those manufacturing environment where inventory/WIP values are large. However, since JIT systems operate in modern manufacturing environment characterized by low inventory and WIP values, usually also associated with low cost variances, the requirements of such elaborate accounting procedures does not exist.

Back flushing requires no data entry of any kind until a finished product is completed. At that time the total amount finished is entered into the computer system which is multiplied by all components as per the Bill of materials (BOM) for each item produced. This yields a lengthy list of components that should have been used in the production process and this is subtracted from the opening stock to arrive at the closing stock to arrive at the closing stock/inventory.

The problems with back flushing that must be corrected before it works properly are:

- The total production quantity entered into the system must be absolutely correct, if not then wrong components and quantities will be subtracted from the stock.
- All abnormal scrap must be diligently tracked and recorded. Otherwise materials will fall outside the back flushing system and will not be charged to inventory.
- Lot tracing is impossible under the back flushing system. This is required when a product in case all the items in a lot need be recalled.

The inventory balance may be too high at all times because the back flushing transactions that relieves inventory usually does so only once a day, during which time other inventory is sent to the production process. This makes it difficult to maintain an accurate set of inventory records in the warehouse.

Paper 8: Strategic Management and Decision Making Analysis

Attempt all questions.

1. Read the following and answer the questions accordingly:

Yammy Foods (YF) is one of the chain restaurants in Kathmandu, established in 2013 in Balaju Kathmandu, by two energetic investors. Initially, they started only one restaurant thinking that they would have a good business transaction as the Balaju Park was popular among city people for being the nearest Public Park from the main city. YF, as expected, started its business with good sales records from its very beginning. They have not only served the fast food customers but also served for the small and medium sized picnic catering. They were excited with increasing business volume. Within two years of time, their daily sales scaled up to 0.1 million and hired 10 full time employees. They had good network with different people working in star hotels and hotel management colleges. Till 2014, they operated their business without any hassle. But, from the beginning of 2014, the road expansion project was initiated. But due to conflict between roadside people and the builders it has not completed within estimated time. At the same time, different recreational projects within Kathmandu valley like Waterland, Cable car and Fun Park came into operation with more amusements. These well-infrastructure businesses have reduced the popularity of Balaju Park and obviously the business of YF.

Subin, one of the major entrepreneurs of the restaurant started searching new ways to maintain the business volume but could not get the ways out. He thought to shift or sell out the restaurant but could not do so because of low interest of people to invest in restaurant business. Suddenly, they have developed new idea of expanding the same business through college operating canteens. Although they planned to operate college canteens in Kathmandu Valley, but one obstacle was to get fulltime operators. To come out from this obstacle they have developed a new business model. They developed an idea to form a holding company inviting fresh investors. They set the Yammy Foods as parent company and invited different investors to operate canteens under YF in different proportion of investment. For example, in one of the canteens they operate, YF has 20 percent investment, two investors of YF has 10 percent each and remaining 60 percent investment made by the new partner. Each business unit manager is independent to decide the business scale and operation; though central management used to visit frequently and provide guidance. They currently run 10 canteens in large colleges in Kathmandu with hostels and one restaurant at its place of origin. To reduce the cost of operation, they handover the operation to the major investor in the respective canteen. As a result, the internal demands of supplies had increased sharply. Applying this business model, they observed increasing employees' salary expenses and the job allocation among the employees were not in proportion in all canteens. They decided to establish the central processing unit (CPU) for supplies to each canteen. With this backward integration, they could fulfil the supplies at the uniform quality and comparatively very low cost of production. Currently, they have only six employees in CPU who supply foods to each canteen in the evening to serve in the following day. As a result, they have decreased salary expenses by 30 percent and the cost of production by 50 percent as they receive volume purchase discount with low wastage. Customer satisfaction from the food prepared and supplied from the CPU has been increased. The employees at each canteen focused in service rather than in production. They enjoyed this business format for almost 5 years at their fullest and have expanded their business in other colleges too.

Business could not be uniform and opportunities do not remain the same forever. They have managed their internal environment well. However, external environment was not stable. Admission of the college was the major determinant of their business. The business almost collapsed with the beginning of Covid-19 pandemic, as it happened in other hospitality businesses. They were not even able to operate their business in comfortable period as the colleges remained closed for almost more than a year, except 3 months in between. Even during these three months, their sales were not as much as before the pandemic. Currently, they have 57 full time employees, and more than 10 million of investment in infrastructure and vehicles. Many investing partners in

small canteens have reported that they cannot bear further losses though they need not to pay rental charge of canteens. Now, top management has to prepare the strategy to sustain their business as there is no clear indication about when the colleges will be ready to operate their classes in future.

Questions

- a) Explain the different strategies of the Yammy Foods from its establishment. **10 marks**
- b) Suggest and support the strategies that could fit for Yammy Foods to get rid of current situation. **10 marks**

Answer

- a) Yammy Foods is the well-established food chain having almost 8 years of operating experience. It has followed different strategies based on the situation. Following the contingency approach, YF has set different approaches in business operations. Its strategies can be realized in the following timeline.
- a. **Establishment strategy:** During time of establishment, YF deemed to be have stability strategy as it was operating in the same level. Though, it was increasing the volume of sales, business modality and the operating system remained the same. It has just planned for immediate market opportunities.
 - b. **Corporate strategy:** As crisis emerged, YF has set growth strategy as the main corporate strategy. To expand the business scale, it has set the strategy to operate its business as holding company. It has increased the business in a networking format.
 - c. **Business level strategy:** For business level strategy, YF operates two types of business organizations as 1 restaurant and 10 canteens. It followed the focused strategy and concentrated in colleges only. For product development, YF focused on need and choice of college students.
 - d. **Operation strategy:** As operation strategy, YF has given more focus on managing capital and people. For capital collection, it used holding company format with investment of company as well as individuals. In each business centre, the ownership pattern was different. For the management of people, it has employed full time as well as the on-call employees i.e. part time employees. For reducing the cost of production, YF followed the CPU format which significantly lowered the cost of production and raised the quality. It used to follow the central purchasing and production systems.
 - e. **Organizational culture:** All the business operations are controlled by central management with operational autonomy to each business unit. Unit managers are free to choose their business scale and operations. Though the case is salient, employees were taken care in organization
- b) Current crisis situation is not unique for the Yammy Foods; it is global crisis especially for hotel and restaurants. Yammy Foods is special type of business in its category, as it cannot serve other than college students, teachers, and staff that poses the additional challenge to them. But, they have low rental charge which could be their advantages over other similar businesses. Owners of the network are afraid of future situation but they need not to be worried. Following strategies are suggested to YF to get rid of current situation.
- i. **Corporate level strategy:** Since YF has set a good organizational image because of its food and service quality, it should continue the growth strategy for long. But for the current situation they need to follow hold and see strategy. The following strategies are suggested at this situation:
 - **Market penetration strategy:** YF should start up its new branches in major parts of Kathmandu as it has already settled machinery, manpower and market. This could be the right time to acquire other businesses at major parts of the cities as many restaurant investors are in a mood of selling their businesses. They need to extend their canteen

business to different colleges as the situation improve. College operation mode will be back to on-class mode and again the canteen business will catch up its level.

- **Diversification strategy:** YF need to diversify its business to hostel business as the cost of living to middle level people and students at their own is being high. Since a decade, the hostel business in Kathmandu is increasing and the pandemic situation will again increase the opportunities in this sector. They can also diversify their business to the cold storage packing business. Many departmental stores sale such products to household consumers and hotels also use such cold store supplies for quick service. It can also start home delivery service for food items using college network.
- **Holding strategy:** This could be the least possible strategy for YF as it can hold on, wait and see the situation till it becomes normal. Having low rental charges, it can hold till the face-to-face classes start.

ii. **Operational strategies:** YF should take the appropriate operational strategy especially for people management. It can reduce the employees at operation level ensuring they will be called back when the business situation will be normal. This can reduce the salary expenses.

2.

- a) *Discuss the different directions of strategy development. Which of them is most suitable in the current COVID crisis?* (8+2=10 marks)
- b) *Explain the BCG matrix and GE matrix. In what ways GE business screen is superior to BCG Matrix?* 10 marks

Answer

- a) Directions for strategy development are the strategic options available to an organization in terms of product and market coverage. Directions are based on strategic capability of the organization and stakeholders' expectations. However, they are not mutually exclusive. For example, development into new markets usually requires some product changes too. The following table exhibits the directions for strategy development.

Protect and Build on Current Position

This is concerned with protecting and building on the current position of an organization. There are a number of strategic options under this category which are mentioned below:

- **Consolidation:** Consolidation refers to protecting and strengthening the organization's position in existing market with existing product. Consolidation does not mean rigidity since market situations are likely to change. Hence, the organizations adopt and develop their resources and competencies to maintain their competitive position. Consolidation requires attention that organization's resources and competencies fit the market needs and they are developed to maintain the competitive position.
- **Market penetration:** Market penetration refers to increasing the market share of existing product in existing markets to protect and build market position. It is possible through aggressive marketing tactics like trade allowances, advertising, price reduction, and package improvements. It is also possible through sustaining or improving quality and innovation.

Product Development

An organization can achieve growth through product development strategy. It includes delivery of modified or new products to the existing market. The new product can be brought about by:

1. Innovation: Product new to the world
2. Modification: Product new to the market
3. Imitation: Product new to the organization

Product development involves development of products with new and different features to improve performance. It requires core competences and research and development efforts. Therefore, product development can be risky and unprofitable. However, it is the essence of survivable and growth for an organization.

Market Development

An organization can also increase sales of its existing product by market development strategy. Market development implies a firm's entry into new market with existing product. This is required when there are no further opportunities in existing markets and/or organization has excess production capacity. Using a market development strategy, a company can capture a larger share of an existing market for current products through market penetration and develop new uses and/or markets for current products.

Diversification

It is a decision to enter into the new business. This strategy is pursued if the opportunities for growth in the original business have been depleted. The two basic diversification strategies are concentric and conglomerate.

1. Concentric (related) diversification: It is diversifying into an industry related to the current one. It may be a very appropriate strategy when a firm has a strong competitive position but industry attractiveness is low.
2. Conglomerate (unrelated) diversification: It is diversifying into an industry unrelated to its current one. It is pursued if the current industry is unattractive and that the firm lacks outstanding abilities or skills that it could easily transfer to related products or services in other industries.

The present COVID crisis is posing threats to almost all the businesses throughout the world. However, its effects are not same to all the industries and firms. Hence, the firms in different industries may adopt different directions for strategy development.

In the current COVID crisis, most of the businesses are likely to adopt either consolidation or diversification strategy since the business situation is highly complex and threatening. They seek to build their current position in terms of the products and markets. The product and market development strategy requires huge investments and capabilities. Likewise, some businesses may move to other businesses where they expect more opportunities. Hence, they are equally likely to adopt diversification strategy.

- b) BCG matrix, developed by Boston Consulting Group of USA, is one of the widely used portfolio matrix which evaluates a company's strategic business units in terms of market growth rate and the company's market share. This matrix is usually used by the companies which have investments in several business units. The matrix provides a firm the guidelines for the investment in the units with high share of market in high growth rate business and divestment in the units with low market share in low market growth rate.

Based on the dimensions of market growth rate and market share, the business units of a company are categorized into four types:

- I. Stars: The business units which enjoy a relatively high market share in a strongly growing market. Star units are potentially profitable and have chances to grow. These units attract further investments while may require more cash than they generate.
- II. Cash cows: The business units which are characterized by low market growth and high market share indicating saturating business cycle. As a result of high market share, cash cows units generate more cash which may be strong source for investments in other needing units. Since these units are in saturation stage, no further investments are required.

- III. Question marks: The units which are in high market growth but have low market share. These units are called 'question mark' because they require investments as they are in high market growth but have not generated cash because of not having high market share. The company should decide whether to strengthen these units through further investments or to sell them.
- IV. Dogs: Dogs are the units which are in low market growth and low market share. These units are highly unattractive in terms of their growth and profits.

GE matrix, developed by general Electric company, is based on two dimensions each categorized into three levels to categorize the business units for investments or divestments. The dimensions include market attractiveness and competitive position. Market attractiveness is categorized into high, medium, and low and competitive position is categorized into strong, medium, and weak. This matrix presents nine categories of business units three of which are labelled 'Green unit', another three are labelled 'Yellow unit', and last three units are called 'Red units'.

The purposes of BCG matrix and GE matrix are similar in that both tools are concerned with the investment decision in different portfolios. However, there are major distinctions between these matrixes. The distinctions could be presented as follows:

BCG Matrix	GE Matrix
Two dimensions such as market share and market growth are used to categorize the business units.	Two dimensions such as competitive position and market attractiveness are used to categorize the business units.
No specific description is provided to describe the dimensions used.	The dimensions are defined in relatively specific manner.
The dimensions are classified as 'high' and 'low' without any clear descriptions	The dimensions are classified as; high', 'medium', and 'low'.

3.

- a) *You are outsourced as an expert consultant to implement strategic change in a poor performing company. As an expert for that matter, enlist alternative approaches that can be used to implement changes in the company.* **10 marks**
- b) *Discuss about resource loading, resource levelling, and resource scheduling.* **10 marks**

Answer

- a) As an expert, followings are the alternative approaches that can be used to implement changes in the poor performing company. These approaches are briefly described.

- i. *Change in structure & control system*
- ii. *Styles of managing strategic change*
- iii. *Changes in organizational routines*
- iv. *Changes in symbolic activity*
- v. *Power & political processes*
- vi. *Communicating change*
- vii. *Change tactics*

i) *Change in structure & control system*

Organizational structure & control system shall be changed in line with the strategic changes to ensure change implementation. But the risk always exists that even post changes in structure & control system may not affect the old behaviour.

ii) *Styles of managing strategic change*

Following alternative styles that are context based.

-Education & communication

Education & communication may be effective if the problem in managing change is based on misinformation and/or lack of information. The change agent needs to communicate the reasons & strategic intent of change. It can be done through newsletter, notice boards, circulars, face to face communication etc.

-Participation

Small group *taskforce*, i.e. *workshop* or *project teams* are created and involved in change management. In other words, involvement in the change processes of wider group than just the most senior executives is another variation of this method. It helps them internalize the change rather than being imposed on them.

-Intervention

Here, the change agent retains the coordination authority of change process but delegates some aspects of the change process to *task forces/project teams*. Though the change process is guided & controlled, yet involvement of other organizational members also takes place. However, sometimes manipulation is also required, e.g. *to present an apparent crisis if change is not brought in or a favourable picture of change. The evidence becomes trigger to occur change especially if transformation change is required.*

-Coercion or edict

Here, power is explicitly used to impose change, e.g. issuing direction/order. It is the top down approach of strategic change. Evidence is found that coercion or edict is the least favoured style of managing change. This method is used when time is short and crisis or state of confusion in the organization makes people welcome it as a solution or smoothing the situation.

iii) Changes in organizational routines

Managers implement strategy & make mistakes by assuming that routines will be automatically changed in line with the new strategy, as internalized routines are difficult to change. Changing routines is challenging the deep-rooted beliefs & assumptions in the organization and hence the first step towards strategic change.

So, managers, in charge of effecting changes, should take personal responsibility not only for identifying such changes in routines but also for monitoring and ensuring they actually occur.

iv) Changes in symbolic activity in managing change

Symbolic activities may include exemplary organizational stories, status symbols such as cars, carpets, sizes of office, car parking, technical jargon & technology used, organizational rituals, change in dress & uniforms, change of head office, transfer of employees etc. Many of the rites & rituals of organization are implicitly concerned with effecting or consolidating change. New rituals can be introduced or old ritual done away with. They should use these to galvanize change. The most powerful symbol is the behavioural change in line with new strategy. Senior executives should ensure that, having made pronouncements about the need for strategic change, it is vital that their behaviour is in line with such change. This is because actions speak louder than speech. *For example, a change strategy "customer care" was adopted by a company. On his visit to the branch, the CEO himself ignored staff & customers and went to branch manager's cabin. But later having found his mistake he exhibited his care for staff & customer on his next visit of the retail store. This became "story" that spread & substantially supported the strategic directions of the firm.*

Symbolic mechanisms of change: Symbolic mechanisms of change should be consciously employed, i.e. *applause & rewards for those who most willingly accept change.* They need to use such symbols (*like new structures, titles, office allocation change*) that will be regarded as

important & not reversible. They need to challenge & remove rituals & symbols that sustain old paradigm. They need to identify & use such symbols, which preserve & reinforce the new paradigm or challenge old paradigm.

v) **Power & political processes in managing change**

Change may require reconfiguration of power structure in the organization, especially for transformational change. This needs powerful advocacy, typically from the chief executive or a powerful board member or an influential outsider, for the need of change. Political activities, within the organization, help or hinder strategic change.

Problems with managing political systems within the organization

-it is one thing to change the commitment of a few senior executives at the top of an organization, it is quite another to convert the body of the organization to an acceptance of significant change. Change agents also have to cope with the tactical political manoeuvring of other managers resistant to change. For this political tactics such as the followings may be used to implement strategic change.

Control & manipulation of organizational resources as a source of power

-and can be used to overcome resistance to change or persuade to accept change, *e.g., the Board can use its ability to withdraw or allocate such resources.*

-Careful use of news & information can counter rumours or arguments used to justify opposition to change.

-Powerful groupings/elites in the organization

Association with powerful groupings or securing their support can build a power base needed for the change agent to galvanize strategic change or overcome resistant to change.

Alliance with sympathizers

Sympathizers are not strong supporters but sympathize with the change agent regarding strategic change. They should be approached with information and their cooperation should be sought in overcoming the resistance from more powerful groups.

vi) **Communicating change**

The change agent needs to communicate the reason & vision for change, using newsletters, notice board, circular, or face-to-face communication etc. For two-way communications, use feedback & survey technique.

vii) **Change tactics**

Many change tactics are available such as:

Timing

Wait until the right time arrives and then start the change process. This is because if the timing is wrong then change process will stifle.

-Initiate change when windows of opportunity appear

Windows of opportunity e.g., just after takeover, arrival of a new CE, arrival of a major competitor etc. should be capitalized to start changes.

-To elevate problems to perceived crisis

Problems may be elevated to so high to the level of perceived crisis (*e.g. possibility of takeover*), in order to galvanize change. If people at work perceive a higher risk in maintaining the status quo than change then they seek changes desperately by themselves.

-Job losses & de-layering

Sometimes, removal of one or few layers of management, that are the blocking blocks, may be necessary to implement change. *This should be done before change begins.* Responsible & caring approach to the job losers is not only ethical but a tact too (*e.g. offer the job losers: redeployment, outplacements*)

-Visible short term wins

Although strategy is long-term direction, yet some visible short-term wins (*e.g. bonus, some facilities, rewards etc.*) due to new strategy shall galvanize commitment to the strategy.

- b) Resource loading is the process of loading employees' total available hours with different assignments. It is also called limited resource allocation. Hence, the main purpose of resource loading is to maximize workforce capacity. Under this, an employee is assigned a certain percentage of a project, and can then be assigned additional project percentages until he/she reaches 100% of his/her hourly work week capacity. Once an employee reaches 100%, he/she is not scheduled for more work. By looking at a resource loading chart, a manager can adjust each team member's assignments accordingly.

An organization faces multiple problems if the resources are not allocated properly. In some cases, some resources may be over-allocated and others may be under-allocated. Both of these situations become counterproductive to the organization.

Resource levelling is a process of allocating the resources efficiently, so that the project can be completed in the given time period. It can be broken down into two main areas; projects that can be completed by using the available resources and projects that can be completed with limited resources. The projects with limited resources can be extended until the resources required are available. When the number of projects exceeds the resources available, it is wiser to postpone the project for a later date.

Resource scheduling is a technique to analyse the resources required to deliver the work and when they will be required. The primary goal of resource scheduling is to ensure efficient and effective utilization of resources.

4.

- a) *What is the significance of strategic decisions in strategic management? Explain the differences between strategic decisions and operational decisions.* (3+4=7 marks)
- b) *Define strategic control system. Explain the various strategic control useful in strategic management.* 8 marks

Answer

- a) Decision making is an indispensable as well as pervasive function of management. Strategic management as believed to be set of decisions actions which have long-run effect on organizational effectiveness obviously requires sound and proper decisions. Decisions having long-run effect are called strategic decisions which are essential in strategic management. The significance of strategic decisions is pervasive as they (i) provide long-run direction to an organization as its focus is far-reaching, (ii) help in strategy formulation, (iii) facilitate availability and allocation of resources, (iv) help to recognize organization's own position and identify opportunities of competitive advantage, (v) help to boost managerial effectiveness, and (vi) aid to devise appropriate and sound control mechanism.

Along with the strategic decisions, organizations need to make operational decisions as well. Operational decisions primarily affect day-to-day activities which provide underpinning supports to realize strategic decisions. The distinctions between strategic decisions and operational decisions can be drawn in the ways as:

- i. Strategic decisions are of long-term nature whereas operational decisions cover a period of less than one year.

- ii. Strategic decisions are big decisions which affect the whole organization or a large part whereas, operational decisions are regular decisions and affect only a part of organization.
 - iii. Strategic decisions provide scope and direction of business whereas operational decisions are made to smoothen the activities as directed by strategic decisions.
 - iv. Strategic decisions are made rarely and cannot be reversed easily whereas operational decisions are frequently made and can be reversed or mended.
- b) Strategic control systems are the formal target, measurement, and feedback systems that allow strategic managers to evaluate whether a company is achieving superior efficiency, quality, innovation, and customer responsiveness or not while implementing its strategy. The strategic control identifies the key assumptions and keeps track of any change in them so as to assess their impact on the strategy and its implementation. Further, strategic control monitors the progress of various activities undertaken while implementing the strategy and if deviation exists, starts the corrective actions. There are four areas in which strategic control involves.
- Premise control
 - Implementation control
 - Strategic surveillance and
 - Special alert control
- i. **Premise control:** A strategy may be based on certain premises related to environment and industry factors. The environmental factors are beyond the control of a company and they exercise considerable influence over the success of the strategy. These factors differ among industries. The premise control is designed to check systematically and continuously whether or not the premises set during the planning and implementation process are still valid.
- The premise control enables the strategist to take corrective action at the right time rather than continuing with a strategy based on invalid assumptions. The responsibility for premise control can be assigned to the corporate planning staff that can identify key assumption and keep a regular check on their validity.
- ii. **Implementation control:** The implementation of a strategy results in a series of steps, plans programs, projects, investment, and moves undertaken over a period of time and the resources are allocated for implementing these. Strategic control continually evaluates the performance of implemented strategy and identifies the gap of actual performance comparing with objectives. It evaluates whether the plans, programs, and projects are actually guiding the organization towards its predetermined objectives or not. If it is felt to revise, they have to be revised. In this manner, strategic control leads to strategic rethinking.
- iii. **Strategic surveillance:** Strategic surveillance aims at a more generalized and overarching control. It is designed to monitor a broad range of events inside and outside the company that are likely to threaten the course of the company's strategy. After the examination of assumptions and evaluation of implemented strategy, the strategic control adjusts the strategies according to new requirements. This is done because of the dynamic environments and gap identified while implementing strategy, likely to threaten the course of the firm's strategy.
- iv. **Special alert control:** Special alert control is a mechanism for a quick response and urgent reassessment of the strategy in the light of sudden and unexpected events. It can be exercised through the formulation of contingency plans and assigning the responsibility of handling unforeseen events to teams constituted for the purpose of unexpected product launch. Industrial disaster, natural catastrophe are the examples of such unforeseen events.

5. Write short notes on the following:

(5×3=15 marks)

a) Strategic advantage profile

- b) *Organizational resources*
- c) *ETOP*
- d) *Measures of corporate performance*
- e) *Rational decision-making*

Answer

- a) Strategic advantage profile (SAP) is misnomer, as it contains not only advantage factors (strengths) but disadvantage factors (weaknesses) too. Strategic advantage profile (SAP) is a method of internal analysis that helps diagnose key strengths & weaknesses, and strategic advantages of the company. SAP is a tool for providing a picture of the most critical factors which can be S-W in the future. SAP depends upon subjective factors such as the strategist's characteristics, the strategist's job, and the strategist's environment, i.e. that affects the diagnosis of strengths & weaknesses, i.e. SAP. For preparing SAP, identify & analyse strategically important relevant key factors (*i.e. most critical internal factors*) and diagnose them as strengths & weaknesses.

An example of SAP of a hypothetical company has been exhibited here. Here plus (+) sign indicates strength, minus (-) sign indicated weakness.

The manager should utilize strengths: To capitalize upon opportunities, to convert threats into opportunities, to strengthen weakness by rearrangement or reallocation of its resources or withdraw, to safeguard weaknesses from external threats. All this is possible when ETOP is combined with SAP to form SWOT analysis.

Exhibit: SAP of XYZ Ltd

<i>Internal area</i>	<i>Competitive strengths & weaknesses</i>
Marketing	+ Strong brand image ++ Highly motivated sales force -Low promotional budget - Weak distribution channel
R & D	- No R & D performed + R & D support from parent US company
Operations	+ Efficient and reliable sourcing for raw materials - Old & outdated facilities + Access to economies of scale
Finance	-Excessive liquidity position + High credit worthiness - High cost of capital
Human resources	- Union members complain frequently -Frequent employee turnover + Regular employee training

- b) For effective strategic management, following different resources are essential. These resources are called as organizational resources.
- a. Available resources: Resources which are currently available in the organization are called available resources. Machinery, human resources, capital, raw materials, land and building, stocks available, intellectual capabilities, etc. are such available resources. Such resources are

classified in to threshold resources and unique resources which create core competencies and competitive advantages.

- b. Threshold resources: Fundamental resources required for the basic functioning of the organization are called threshold resources. Without the threshold resources, organizations cannot perform their basic functions. Organizations should develop threshold resources in continuous basis. For developing human resources, organizations focus on regular job design, training and development, and effective maintenance programs. Similarly, organizations constantly invest on research and development or acquiring advance technology.
- c. Unique resources: Critical and valued resources which create competitive advantage to the organization are called unique resources. They are called unique as they cannot easily be copied by other competitors. Unique resources are developed at long times which are the success factor of the organization. Such resources are valuable, inimitable, rare and non-substitutable.
- c) Business environment is an aggregate of all the conditions and events that affect the development, performance and outcomes of a business organization.

ETOP is a technique for diagnosing external environment. Its main objective is to assess the relative opportunities and threats arising from the environment. Its preparation involves dividing the external environments into different sectors and sub-sectors. After this, the impact of each sector and sub-sector on the organization is analysed in terms of opportunity and threat. The management is able to know where the organization stands with respect to its environment through ETOP. It is useful in formulating strategies to take advantage from grabbing opportunities and mitigating threats. Recall, an opportunity is the favourable condition in the environment and threat is unfavourable.

- d) Performance is the end result of any activity. Performance is measured on ground of standard, cost, quality, and speed. Performance may be categorized into financial performance, market performance, and shareholders value performance. Basically, performance could be measured through two criteria i.e. quantitative criteria and qualitative criteria. Quantitative criteria of performance may include operating income, profitability, growth in net profit, return on capital employed cash flows, earning per share, and other performance which can be measured and expressed in numerals. On the other hand, qualitative criteria is used to measure the performance of an organization which are of quality in nature and cannot be measured and expressed in figure. Qualitative criteria of performance includes quality of products or services, development of new product or service, customer satisfaction, management-employee relationships, human resource attractiveness, employee commitment and satisfaction.
- e) Here, the decision-maker makes the choice, in full awareness of all available feasible alternatives, to maximize benefits. The basic assumptions of this approach are: Decision-maker is rational, unbiased, has knowledge of all alternative solutions to the existing problem, can evaluate and rank based on the analysis of each alternative, is a self-disciplined person to choose the best alternative. Following steps are followed in rational decision-making process.

i. Identification of an issue

-Recognize & define decision situation/issue, *e.g. problem, opportunity*. For this, diagnose & pinpoint symptoms and causes leading to the issue clearly and precisely, i.e. its causes & relationship to other factors, *e.g. falling profit, lagging sales, rising cost, customer complaint, machine failure, losing market share*. Pinpoint the gap between what we want to happen & what is likely to occur if no action is taken, e.g., buying a company car as our problem.

ii. Identification of decision criteria

Decision criteria to buy a company car may be *engine size, car size, car maker nationality, navigation facility, ac facility, car price, durability, after sales services, comfort*, etc.

iii. Allocation of weights to criteria

All decision criteria may not be equally important, hence each selected criteria in step 2 will be given weights as per priority, e.g., 10 for price, 8 for comfort, 5 for durability, 3 for fuel economy.

iv. **Development of alternatives (Courses of effective action to solve the problem)**

Then the decision maker lists the alternatives that could succeed in resolving the problem, e.g. *Toyota Camry, Volkswagen Golf, Hyundai Elantra, Ford Focus, Kia soul, BMW 335etc.* No attempt is made in this step to appraise these alternatives, only to list them.

v. **Analysis of alternatives and selection of the right alternative**

Once the alternatives identified, the decision maker must critically analyse & evaluate each alternative by appraising it against the criteria. The strengths and weaknesses of each alternative become evident as they're compared with the criteria and weights established in steps 2 and 3. Finally, select the best alternative considering the weighted criteria, i.e. alternative scoring highest.

vi. **Implementation of the alternative**

Even after we choose the optimum alternative; the decision may still fail if it's not implemented properly. Decision implementation includes conveying the decision to those affected and getting their commitment to it. Implementation of a decision sometimes may be obstructed by people's resistance to change (*due to feeling of insecurity, inconvenience, fear of unknown*).

6.

a) *As a strategist, how do you analyse the external environment of your organization. Elaborate the steps.* **5 marks**

b) *Explain the role of a Chief Executive Officer in strategy implementation.* **5 marks**

Answer

a) I would follow the following 4 distinct steps while analysing external environment.

i) **Scanning**

ii) **Monitoring**

iii) **Forecasting**

iv) **Assessing**

i) Scanning

Environment scanning is the first part of external environment analysis, i.e. observing external environment to collect relevant information & its trend.

Scanning entails the study of all segments in the general environment and task environment. Through scanning, the firm identifies early signals of potential changes in the environment and detects changes that are already under way; it identifies trends of change.

Internet, special software, etc. may be used to gather information.

ii) Monitoring

All variables in the external environment are not equally useful and important for the company so during monitoring stage, only the few selected environmental variables that are detrimental for the organizational success will be identified and focus is only be made on those identified variables continuously.

When monitoring, the analysts observe environmental changes on the selected variables to see if an important trend is emerging from among those spotted through scanning. In other words, monitoring is

detecting meaning through ongoing observations of environmental changes & trends on the particular selected indicators or variables.

iii) Forecasting

Monitoring gives us information on what is happening to the selected variables not about the future trend.

But for strategic planning, we need the future trend of these selected variables so as to identify opportunities or threats. Therefore, when forecasting, analysts develop feasible projections of what might happen, and how quickly it happens on selected variables, as a result of the changes and trends detected through scanning and monitoring, i.e. developing projections of anticipated outcomes based on monitored changes and trends in the past.

iv) Assessing

The relevant variables that have been forecasted will be assessed either as positive or negative for the health of the particular company. In other words, assessing means appropriately interpreting that intelligence to determine if an identified trend in the external environment is an *opportunity* or *threat*.

Determining the timing and importance of environmental changes and trends for firms' strategies and their management. Environment diagnosis is the managerial assessment and decisions of the opportunities and threats identified in the process of analyses.

b) Strategy implementation is turning strategy into actions. The role of a CEO is tremendously vital in strategy implementation which could be explained as follows:

- i. CEO has important task of managing the resources effectively.
- ii. Exploitation and maintenance of core competencies is possible if CEO is committed.
- iii. CEO has the responsibility to disseminate the information related to implementation to the implementers.
- iv. It is the duty of CEO to devise a mechanism which ensures that the organizational activities are leading to the achievement of desired outcomes.
- v. Conflict which is natural and inevitable in organizations, could be resolved only by the initiations of CEO.
- vi. CEO has the important role in organizational structure which should be appropriate to the chosen strategy.

Change is inevitable and should be responded. It is the CEO who has the responsibility to anticipate the change and manage the organization so that the change could be successfully responded.

Examiner's Commentary on Students' Performance in June 2021 Examinations

This commentary has been written to accompany the published questions and answers and is written based on the observations of evaluators. The aim is to provide constructive guidance for future candidates, giving insight into what the evaluating team is looking for, and flagging difficulties encountered by candidates who attempted these questions.

Subject: Management Information and Control System

Question No. 1

Some students have written about integrated system instead of ERP.

Question No. 2

Students have to focus on different analytical modes of DSS.

Question No. 3

Lack of knowledge on the major practical factors.

Question No. 4

Most of the students get confused on copyright and patent.

Question No. 5

Overall performance of candidates was satisfactory.

Question No. 6

Lack of Conceptual knowledge

Subject: Advanced Taxation

Question No. 1

Most of the students did not read the question carefully and failed to take appropriate assumption regarding loss of working hours.

Question No. 2

- a) Few students attempt it and few provide correct answer.
- b) Poor performance though attempted by all.

Question No. 3

Average performance as some of the students failed to categorise it properly.

Question No. 4

- a. TP calculation is good. In case of SP Reduction, student could not give decision.
- b. Mistake in partial /extra load /unload. Mostly return journey revenue is wrong.

Question No. 5

Overall performance of candidates was satisfactory.

Question No. 6

- a. Average performance as some of the students failed to categorize it properly
- b. Lack of Conceptual knowledge.

Subject: Advanced Cost and Management Accounting

Question No. 1

Students are lacking conceptual knowledge.

Question No. 2

Overall performance of candidates was satisfactory.

Question No. 3

Overall performance of candidates was satisfactory.

Question No. 4

Fairly Answered

Question No. 5

Overall performance of candidates was satisfactory.

Question No. 6

Students required more practice.

Subject: Strategic management and decision making analysis

Question No. 1

Students should focus on how to prepare and select strategies to improve organized performance.

Question No. 2

Overall performance of candidates was satisfactory.

Question No. 3

Students need to prepare more specifically. Mostly, students' answers were found nonspecific. Poor content and lack in justification.

Question No. 4

The way of presenting answer is satisfactory. But lack of knowledge on subject matters is alarming.

Question No. 5

Overall performance of candidates was satisfactory.

Question No. 6

Overall performance of candidates was satisfactory.