



PAST PAPERS

<i>Faculty</i>	<i>Department / Section/Division</i>
<i>Not Applicable</i>	<i>Learning Resource Centre</i>

Past Papers

Faculty of Humanities & social Sciences
Department of Logistics & Transportation

**Bsc in International Transportation Management
and Logistic Transportation**

**(Year 2 – Semester I)
2016 -2023**

<i>Document Control & Approving Authority</i>	<i>Senior Director – Quality Management & Administration</i>
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Faculty of Management and Social Sciences
Department of Logistics & Transport
BSc in International Transportation Management and Logistics
Course CODE: COM550

Year 2 Semester I

SEMESTER END EXAMINATION

Introduction to Law – ILAW0331

- This paper consists of EIGHT questions on TWO (02) pages.
- Answer FIVE Questions including Question 01.
- Only non-programmable calculators are allowed.
- You may use appropriate graphs, diagrams, equation/s to prove or justify the answers.
- If you have any doubt as to the interpretation of the wording of a question, make your own decision, but clearly state it on the script.
- Write legibly

Date: 2023.03.29

Pass mark: 50%

Time: 03 Hours

Question 01 - Compulsory

- (a) What are the basic elements of a valid contract in law? (10 marks)
- (b) Write a case note *Carlill v Carbolic Smoke Ball Company* [1892]. (10 marks)

Question 02

- (a) Explain the influence of western laws into the Sri Lankan legal systems. (10 marks)
- (b) What are the types of personal laws in Sri Lanka? (10 marks)

Question 03

- (a) Compare and Contrast between Criminal Law and Civil Law. (10 marks)
- (b) Explain the sources of laws. (10 marks)

Question 04

Explain the Court Hierarchy of Sri Lanka.

(20 marks)

Question 05

(a) Compare and Contrast between Common Law system and Civil Law system.

(10 marks)

(b) As opposed to the Common Law system and Civil Law system, what are the other types of legal systems in the world?

(10 marks)

Question 06

Law may be classified in various different ways. Explain the most important classification of law with examples.

(20 marks)

Question 07

Write 4 short notes from any of the following topics.

- (a) Alternate Dispute Settlement.
- (b) Bilateral and Unilateral offer.
- (c) Injunction.
- (d) Invitation to treat.
- (e) Recession.
- (f) Specific performance.
- (g) *Stare decisis*.
- (h) Three branches of the government.

(5×4 marks)

-----END OF THE QUESTION PAPER-----



Faculty of Management and Social Sciences
Department of Logistics & Transport
BSc in International Transportation Management and Logistics
Course CODE: COM550

Year 2 Semester I

SEMESTER END EXAMINATION

Transport and Logistics Policy – TLOP0311

- This paper consists of EIGHT questions on THREE (03) pages.
- Answer FIVE Questions including Question 01.
- Only non-programmable calculators are allowed.
- You may use appropriate graphs, diagrams, equation/s to prove or justify the answers.
- If you have any doubt as to the interpretation of the wording of a question, make your own decision, but clearly state it on the script.
- Write legibly

Date: 2023.03.23

Pass mark: 50%

Time: 03 Hours

Question 01: (Compulsory)

Read the below case study well and answer the given questions.

The newest long-term strategy of the Ministry of Transport and Communications Finland, Transport 2030, was completed in March 2007. On the basis of the strategy the Ministry submitted a government transport policy to Parliament in April 2008. The main objective of transport policy is people's well-being in Finland. Essential journeys and business-related transport operations are carried out both nationally and internationally every day, providing people with a good quality of life, making business competitive and injecting life into the regions. Travel and transport are safe and the transport system is ecologically, socially and economically sustainable. Accessibility is an important goal of Finnish transport policy. People have to get to school and work, go to their hobbies and activities, go shopping and meet friends every day. The aim of the policy is that the transport system offers everyone a reasonable service and is easy to use. Everyday travel for work and, increasingly, for leisure should function well, smoothly, without delays and safely. At the same time, the objective is to have a travel culture where short journeys are made more and more on foot or by bicycle. In urban areas daily travel is easy using public transport. It is very important for the whole journey chain to be successful.

Good accessibility helps business to function and contributes to the quality of life. Large urban areas, particularly the capital and its metropolitan area, act as the drivers for the success of Finland's national economy. The municipalities and state government ensure that transport systems in the major urban areas continue to function as the cities expand. Connections to regional centers and the capital also function well. There are also good connections from the regions to airports, ports and border-crossing points. The regions' internal transport systems meet the needs of business and provide accessibility to daily services: journeys are easy and transport operations are flexible.

Public transport in Finland promotes the achievement of numerous social objectives. It furthers regional and social equality in respect of transport and reduces the reliance on private cars. The Government subsidizes the transport services to hold down the prices of commuter tickets. The Government also subsidizes the costs of some flight and train connections on those routes where there are only a small number of passengers. By law, municipalities are responsible for planning and providing transport services if such services are needed for education purposes and for reasons of health and social services. Students, pensioners and conscripts are entitled to fare reductions. Workers get some deduction in taxation for the monthly costs of commuting between their homes and places of work. This is important for those who are living in rural areas.

- (a) What is the initial step before creating goals, objectives & strategies within a transport planning process? (01 Mark)
- (b) Define "Accessibility". (01 Mark)
- (c) What are the tools to overcome problems and achieve objectives? Mention types of them as well. (14 Marks)
- (d) What are the actions taken by the explained policy to build-up quality of life of people in Finland? (03 Marks)
- (e) Currently what is mostly recognized to develop by a country from below two? (Logistics policy or Transport policy) (01 Mark)

Question 02

Urban and rural communities are extremely different and each have their own way of doing life—including their preferred modes of transportation. When designing for an urban and rural population, planners will need to consider the types of public transport that will best suit the needs of the community.

- (a) Define Mobility. (04 Marks)
- (b) Discuss transport problems in rural and urban areas separately. (16 Marks)

Question 03

Transportation planning is the process of looking at the current state of transportation in the region, designing for future transportation needs, and combining all of that with the elements of budgets, goals and policies.

- (a) Mention four major transport policy objectives other than transportation planning objectives. (04 Marks)
- (b) Evaluate transport planning objectives relating to environment, safety, economy, integration, accessibility & social inclusion. (16 Marks)

Question 04

Explain key impacts and indicators in the evaluation of transportation-land use relationship.

(20 Marks)

Question 05

Smart mobility integrates all modes of transportation via wireless communications and applies real-time data analytics and machine learning to make transportation safer and more efficient. Mention five restraints to mobility and discuss the need of smart mobility.

(20 Marks)

Question 06

Transport planning usually addresses specific problems or broad transport concerns at a local level and has been traditionally a preoccupation of lower-tier governments (state, county, municipal).

- (a) Define "transport planning process". (04 Marks)
- (b) Explain stages in transport planning. (16 Marks)

Question 07

Explain how a transport policy progression towards accessibility. (20 Marks)

Question 08

Select two topics as per your preference and give brief summary of each selected topic. (2*10 Marks)

- (a) Logistics Policy.
- (b) Impediments to Rail Freight Transportation.
- (c) The Avoid-Shift-Improve Approach.
- (d) Components of transport.

-----END OF THE QUESTION PAPER-----

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Faculty of Management and Social Sciences
Department of Logistics & Transport
BSc Hons in Logistics and Transportation
Course CODE: COM550

Year 2 Semester I

SEMESTER END EXAMINATION

Introduction to Logistics – LOGI0346

- This paper consists of EIGHT (08) questions on FIVE (05) pages.
- Answer FIVE (05) Questions including Question 01.
- Only non-programmable calculators are allowed.
- You may use appropriate graphs, diagrams, equation/s to prove or justify the answers.
- If you have any doubt as to the interpretation of the wording of a question, make your own decision, but clearly state it on the script.
- Write Legibly.

Date: 2023.03.21

Pass mark: 50%

Time: 03 Hours

Question 01 (Compulsory)

Select the most suitable answer for the below questions.

1. Which of the following best defines "Inbound Logistics"?
 - a. Moving materials into the organization from suppliers.
 - b. Moving materials out to customers.
 - c. Moving materials Within the organization.
 - d. None of the above.
2. What's considered as a factor that encourage global logistics?
 - a. Relationships.
 - b. Greater demand for suppliers.
 - c. Homogenous markets.
 - d. Extended lead times.
3. Emergence of global logistics has happened as a result of?
 - a. Demand.
 - b. Urbanization.

- c. Diversity.
 - d. Globalization.
4. Which of the following can be considered as a warehouse design consideration?
- a. Fixed vs. Variable Locations.
 - b. Trade Offs.
 - c. Build up Vs built out.
 - d. All of the above.
5. Which of the following includes the correct process of forecasting?
- a. Determine the purpose of the forecast, Establish a time horizon, Obtain clean and analyze appropriate data, Make the forecast, Monitor the forecast.
 - b. Determine the purpose of the forecast, Obtain clean and analyze appropriate data, Establish a time horizon, Make the forecast, Monitor the forecast.
 - c. Obtain clean and analyze appropriate data, Determine the purpose of the forecast, Establish a time horizon, Make the forecast, Monitor the forecast.
 - d. Monitor the forecast, Obtain clean and analyze appropriate data, Determine the purpose of the forecast, Establish a time horizon, Make the forecast.
6. Which of the following is correct about inventory counting.
- i. Cycle counting is the most simple and easy process.
 - ii. Physical counting is the most complex procedure.
 - iii. When doing physical counting the operations of the business should be temporally shut down.
 - iv. Cycle counting can be done at any time when business processes are still happening.
- a. Only (i) b. Both (i) and (ii) c. Only (iii) and (iv) d. All the statements
7. Which of the following is incorrect about Re-Order Point (ROP)?
- a. It tells you when to place an order so you won't run out of stock.
 - b. The ROP is the minimum inventory or stock level for a specific product that triggers the reordering of more inventory when reached.
 - c. ROP is the maximum level of inventory that a business needs to order.
 - d. Reorder points ensure that you don't fall behind on your next batch of inventory.
8. Which of the following best defines inventory ordering cost?
- a. It is the amount that a business spends on holding inventory over a period of time.

- b. These are essentially costs incurred every time you place an order from your supplier.
 - c. It is the lost income and expense associated with a shortage of inventory.
 - d. None of the above.
9. Which of the following is incorrect about inventory?
- a. Inventory is the term for the goods available only for sale.
 - b. Inventory or stock refers to the goods and materials that a business holds for the ultimate goal of resale, production or utilization.
 - c. Inventory is the raw materials, component parts, work-in process, or finished products that are held at a location in the supply chain for the purpose of selling.
 - d. None of the above.
10. What's not a scheduling principle from below?
- a. Simplified Delivery System.
 - b. The Petal method.
 - c. ARC or Circumferel principle.
 - d. The savings method.

(10*2 Marks)

Question 02

"Dairy Berry" is a company which produce **ice cream** and who has sustained in the business for many years. However, with the increasement of the profits, they have realized the need of increasing the production furthermore. However, the company does not like to take a risk of bigger investments and responsibilities as well.

- a) As a student learning Introduction to Logistics module, advice the manager of the "Dairy Berry" company the most suitable warehouse type for the business at the moment. (07 Marks)
- b) The manager of the company also opposes the idea of storing the goods in a warehousing facility. Describe the importance of warehousing to the manager. (06 Marks)
- c) Furthermore, the manager confuses between Cross Docking and warehousing. Explain the company about Cross Docking and its advantages. (07 Marks)

Question 03

- a) Explain the below types of Logistics systems with examples.
- i. Balanced systems
 - ii. Heavy inbound systems.
 - iii. Heavy outbound systems. (03 Marks*3)
- b) "The warehousing facility in the supply chain should have a named significant place". Do you agree or disagree? Explain in your own words. (06 Marks)
- c) It is often said that warehousing facility generates short haul transportation routes. Explain this statement with examples. (05 Marks)

Question 04

"Conscious Paper" is a newly formulated recycled paper company in the local market and wishes to extend their market by entering into the global market. But the company lacks knowledge on this regard as it was formulated recently.

- a) Mention explain the company about 4 factors that may be helpful for them to encourage global logistics. (08 Marks)
- b) As "Conscious Paper" is unaware about the challenges that they may face, they seek advice regarding the challenges that they may have to face by entering into the global market. Mention and describe the major two challenges that the companies face by entering into global markets. (04 Marks)
- c) However, the company is focused on selling their products to many international markets and their initial goal is distributing their product in the entire Asian Region. Decide the most suitable distribution strategy applicable to this scenario and reason out your answer. (04 Marks)
- d) The company was suggested to do "Offshore manufacturing" as a cost saving option in the future. Explain the company, about the meaning of "Offshore manufacturing". (04 Marks)

Question 05

Achala is a businessman who has started his business recently. However, during the month of December he noticed that he has too much of inventory which are not moving out of the business. Amidst the higher inventory levels in the business, he ordered another quantity of inventory in the month of January too and realized his inventory costs are gradually rising.

- a) Imagine that you are appointed as a consultant to his business and explain Achala, Exthe major goal of inventory management. (06 Marks)

- b) However, his friend Majeewa, faces an out of stock situation in his business and seek advices regarding the need of holding inventory in the business. Advice Majeewa in this regard. (06 Marks)
- c) With the peak demand for the products produced by Nimal's company, company suddenly faces the risk of stock out situation. Explain Nimal about the importance of keeping a "Safety/ buffer stock" and "Shorter lead times". (08 Marks)

Question 06

- a) Why do you think transportation is playing an important role in logistics? (08 Marks)
- b) Kawya works for the procurement department of ABC Company as an intern and wishes to learn about the procurement cycle. As her immediate supervisor, explain her the activities in the procurement cycle. (07 Marks)
- c) Distinguish between vertical and horizontal logistics relationships. (05 Marks)

Question 07

- a) Distinguish between centralized and decentralized Logistics models. (06 Marks)
- b) Explain briefly, each stage of evolution of Logistical organizations. (06 Marks)
- c) Explain with examples, reasons for the organizations to buy from outside (outsourcing). (08 Marks)

Question 08

Write short notes on the below topics (4*5 Marks)

- a. Purchasing Vs. Procurement.
- b. Types of inventory.
- c. Bullwhip effect.
- d. Intermodal transportation Vs. Multimodal Transportation.

-----END OF THE QUESTION PAPER-----



Faculty of Management and Social Sciences
Department of Logistics & Transport
BSc in International Transportation Management and Logistics
Course CODE: COM550

Year 3 Semester I

SEMESTER END EXAMINATION

Environmental and Social Impacts of Transport and Logistics – ESTL0309

- This paper consists of EIGHT questions on THREE (03) pages.
- Answer FIVE (05) Questions including Question 01.
- Only non-programmable calculators are allowed.
- You may use appropriate graphs, diagrams, equation/s to prove or justify the answers.
- If you have any doubt as to the interpretation of the wording of a question, make your own decision, but clearly state it on the script.
- Write Legibly.

Date: 2023.03.20

Pass mark: 50%

Time: 03 Hours

Question 01 (Compulsory)

In the following map, indicate by drawn lines and the distances from coast the following limits of Sri Lanka:

- a) Territorial Waters
- b) Contiguous Zone
- c) Exclusive Economic Zone'



Note: the maximum length of 268 miles and a maximum width of 139 miles.

(20 Marks)

Question 02

You are extremely financially stable with power in hand. Your vision it is to declare and establish a major part of a public park in a populated area with a cemetery.

Discuss how would you consider working on this task.

(20 Marks)

Question 03

Write a report on "the damages and losses which may have had likely to incur to inshore and off shore (waters and air) environment by transportation of good by sea referring to at least 3 of following case histories having referred and briefly discussed of how they relate.

- Torrey Canyon - 1967
- The Erica - 1999

- The Prestige - 2002
- The Exxon Valdez - 1989
- Rena disaster - 2011 - New Zealand
- Amaco Cardiz - 1978

(20 Marks)

Question 04

Explain in details, how would the maritime transportation effect to impact or pollute the marine environment? (20 Marks)

Question 05

List down 8 threats to the marine and coastal environment you could anticipate upon a spillage of 50% of crude oil cargo from a fully laden ULCC. (20 Marks)

Question 06

- i. Give an elaborated and summarized view the on MERPOL Convention.
 - ii. How would you describe Green house gases (GHG) of the atmosphere?
- (20 Marks)

Question 07

In the logistic field, discuss, what do you understand by the terms Multimodal, Intermodal and Intramodal transportation? the pros & cons with in each, and the facts and the facts one may consider on deciding on the modes. (20 Marks)

Question 08

Along with a brief description to below, list down 6 threats each may contribute to damage the marine environment.

- a) Dry Cargo Ships
- b) Tankers ships
- c) RoRo ships
- d) Passenger Ships

(20 Marks)

-----END OF THE QUESTION PAPER-----



Faculty of Management and Social Sciences
 Department of Logistics & Transport
 BSc in International Transportation Management and Logistics
 Course CODE: COM550

Year 2 Semester I

SEMESTER END EXAMINATION

Financial Management – FMGT0304

- This paper consists of EIGHT questions on NINE (09) pages.
- Answer FIVE (05) Questions including Question 01.
- Only non-programmable calculators are allowed.
- You may use appropriate graphs, diagrams, equation/s to prove or justify the answers.
- If you have any doubt as to the interpretation of the wording of a question, make your own decision, but clearly state it on the script.
- Write Legibly.

Date: 2023.03.19

Pass mark: 50%

Time: 03 Hours

Question 01 (Compulsory)

XYZ expect to invest in the two mutually exclusive projects in the beginning of the Financial Period. Project X is “building a shopping complex” and project Y is “building a Public Playground”.

Table 1.1

(Rs in Millions)

	Project X	Project Y
Initial Investment	20,000,000	35,000,000
Project life time	6 Years	6 Years
Cash Inflow		
Year 1	2,600,000	3,250,000
Year 2	3,400,000	2,500,000
Year 3	2,135,000	30,500,000
Year 4	10,615,000	10,100,000
Year 5	12,400,000	11,400,000
Year 6	11,000,000	20,000,000
Discount rate per annum	10% p.a	10% p.a
Average Annual Profits	4,500,000	2,000,000

Required,

(a) Calculate the followings based on the above information for project X and Project Y.

- (i) Payback Period (PB)
- (ii) Accounting Rate of Return (ARR)
- (iii) Net Present Value (NPV)
- (iv) Internal Rate of Return (IRR)
- (v) Profitability Index (PI)

(3 Marks for each x 5 = 15 Marks)

(b) Give your recommendations **separately** based on the above calculations. (Explain the decision in terms of every technique) (05 Marks)

Question 02

(a) "FM is nothing but managerial decision making on asset mix, capital mix and profit allocation". Explain.

(10 Marks)

(b) What is meant by "Agency Conflict"? How can this problem be solved?

(10 Marks)

Question 03

(a) Discuss what is **Cost of Capital** and its three elements. (05 Marks)

(b) Explain **Systematic Risk** and **Unsystematic Risk** (Use a graph.) (05 Marks)

(c) Ron PLC is a company listed in the Colombo Stock Exchange and the following information is extracted from the financial statements of Ron PLC:

(i) Ron PLC has 10 million ordinary voting shares in issue which are issued at Rs.50/- per share. The shares are currently trading at Rs.45/- per share and the company paid a dividend of Rs.10/- per share for the last financial year. The dividends are expected to grow by 6% per annum.

(ii) The company has issued 8 million debentures with a coupon rate of 10% per annum, at Rs.100/- per debenture. The current market price of a debenture is Rs.95/- and the redemption will happen in 4 years. (Hint: Discount Rates; 5%,10%)

(iii) The company is liable to pay income tax at the rate of 24%.

Calculate the **Weighted Average Cost of Capital (WACC)** using the market values.

(10 Marks)

Question 04

(a) Mr Nimal plans to borrow RS 45,000,000 to buy a machine at 11% interest rate per annum compounded annually for 5 years,

- (i) Calculate the annual payment of installment.
- (ii) Calculate the principle payment and the interest payment separately for the fourth year.

(10 Marks)

(b) Mrs Jayasekara is going to retire from the organization she works in and she is given two options to receive the employment benefit.

Option A: An annuity with 15 annual payments of RS 120,000 with first payment at the end of the first year.

Option B: Take a lump sum amount of Rs. 8 Million today.

If interest rate is 12%, which scheme would you recommend?

(05 Marks)

(c) Wishma wants to invest his money worth RS 400,000 in a bank that promises to pay 11% interest rate compounded monthly. At the end of the 5th year, how much would be there in Wishma's account?

(05 Marks)

Question 05

"Hela shoe", a company that makes two types of shoes; Superior and Middle. Details needed to prepare the budget for "Hela shoe" for 2022 are as follows.

Table 5.1 Content of each product unit

	Product	
	Superior	Middle
Leather	2 ft.	1 ft.
Rubber	1 kg	0.8 kg

Direct Manufacturing Labour	5 hours	2 hours
Expected Sales units	20,000	50,000
Selling price	RS 5,000	RS 1,800
Target ending inventory in units	2,000	800
Beginning inventory in units	1,000	600
Beginning inventory in value	RS 2,850,000	RS 717,600

Direct material		
	Leather	Rubber
Beginning inventory	60,000 ft.	30,000 Kg
Ending inventory	80,000 ft.	20,000 Kg

Direct material

Leather RS 100 per foot

Rubber RS 70 per kg

Direct labour

Direct manufacturing labour RS 500 per hour

Manufacturing overhead cost

Manufacturing overheads will be RS 80 for a unit of "Superior" and 40 for a unit of "Middle"

Other expenses

Distribution expenses are estimated to be 8% of sales and marketing expenses are estimated to be 4% of sales.

Prepare;

1. Sales budget
2. Production budget
3. Material Usage budget
4. Material Purchase budget
5. Direct labour budget
6. Cost of sales budget
7. Budgeted income statement

(20 Marks)

Question 06

Part A

- (a) What are the two types of "Capital Rationing"? Explain using appropriate examples. (06 Marks)
- (b) Rextan (Pvt) Ltd has capital of Rs. 50 million available for investment in the forthcoming period, at a cost of capital of 14%. Capital will be freely available in the future.

Details of five projects under consideration are as follows.

All projects are independent and divisible.

Table 6.1

Project	Investment Required (Rs Mn)	Present Value of inflows at 14% (Rs Mn)
XY11	40	50
FT00	10	12
HJ91	18	25
HP34	26	30
LM90	6	10

Required

Calculate which projects should be undertaken and the NPV that will result?

(10 Marks)

Part B

- (a) An investor is considering buying a Rs.1,000/= perpetual bond which is currently selling for Rs.900/-. It provides a 14.5% annual coupon rate and his required rate of return is 11%.

Advise him whether it should be bought or not?

(04 Marks)

Question 07

- (1) What is meant by "return" of an asset in Risk Analysis? (04 Marks)
- (2) Janz sold 100 shares at Rs. 40 each. These shares were bought 4 months ago, at RS 30 each. During the holding period company paid a total of RS.400 as dividends.

Calculate the rate of return and the annualized return for the investment.

(04 Marks)

- (3) Ajay (Pvt) Ltd is a well-known Furniture company in Sri Lanka. They are going to invest the excess cash in different investment assets. Following estimates are available for possible Economic conditions in near future related to the assets and the rate of return for Assets "R" and "M".

Economic condition	Probability	Rate of Return	
		Asset "R"	Asset "M"
Recession	0.1	2.4	1.1
Normal	0.4	3.7	2.9
Boom	0.5	-2.2	-1.7

Based on the above information, determine,

- The expected rate of returns for Asset "R" and "M" separately.
- The variance and the Standard deviation of Asset "R" and "M" separately.

If investor is expecting to invest 20% of the capital on Asset "R" and remaining 80% for asset "M",

- Calculate the **expected return** of the portfolio.
- Calculate the **standard deviation** of the portfolio.

(12 Marks)

Question 08

Explain any **four** of the below terms.

- Overtrading and Under trading
- Bonds & Debentures
- Budgets
- Time Value of Money
- Capital Budgeting Techniques

(4 x5 Marks Each)

-----END OF THE QUESTION PAPER-----

Formula sheet

1) Present Value of Future Cash flows

$$PV = FV (1+r)^{-n}$$

2) Future value of present cash flows

$$FV = PV (1+r)^n$$

3) Present value of an ordinary annuity

$$PV = \text{Cash Flow} * \left(\frac{1 - (1+r)^{-n}}{r} \right)$$

4) Expected Return

$$E(R) = \sum_{i=1}^n R_i P_i$$

5) Expected Risk for assets

$$\sigma^2 = \sum_{i=1}^n [R_i - E(R)]^2 P_i$$

6) Expected Risk of a portfolio

$$\sigma_P^2 = W_1^2 \sigma_1^2 + W_2^2 \sigma_2^2 + 2W_1 W_2 \text{Cov}_{1,2}$$

PRESENT VALUE TABLE

Present value of \$1, that is $(1+r)^{-n}$ where r = interest rate; n = number of periods until payment or receipt.

Periods (n)	Interest rates (r)									
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621
6	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467
9	0.914	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.350
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239
16	0.853	0.728	0.623	0.534	0.458	0.394	0.339	0.292	0.252	0.218
17	0.844	0.714	0.605	0.513	0.436	0.371	0.317	0.270	0.231	0.198
18	0.836	0.700	0.587	0.494	0.416	0.350	0.296	0.250	0.212	0.180
19	0.828	0.686	0.570	0.475	0.396	0.331	0.277	0.232	0.194	0.164
20	0.820	0.673	0.554	0.456	0.377	0.312	0.258	0.215	0.178	0.149

Periods (n)	Interest rates (r)									
	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694
3	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579
4	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482
5	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402
6	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335
7	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279
8	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233
9	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194
10	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162
11	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135
12	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112
13	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093
14	0.232	0.205	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078
15	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.079	0.065
16	0.188	0.163	0.141	0.123	0.107	0.093	0.081	0.071	0.062	0.054
17	0.170	0.146	0.125	0.108	0.093	0.080	0.069	0.060	0.052	0.045
18	0.153	0.130	0.111	0.095	0.081	0.069	0.059	0.051	0.044	0.038
19	0.138	0.116	0.098	0.083	0.070	0.060	0.051	0.043	0.037	0.031
20	0.124	0.104	0.087	0.073	0.061	0.051	0.043	0.037	0.031	0.026

Cumulative present value of \$1 per annum, Receivable or Payable at the end of each year for n years $\frac{1-(1+r)^{-n}}{r}$

Periods (n)	Interest rates (r)									
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145
11	10.368	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495
12	11.255	10.575	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814
13	12.134	11.348	10.635	9.986	9.394	8.853	8.358	7.904	7.487	7.103
14	13.004	12.106	11.296	10.563	9.899	9.295	8.745	8.244	7.786	7.367
15	13.865	12.849	11.938	11.118	10.380	9.712	9.108	8.559	8.061	7.606
16	14.718	13.578	12.561	11.652	10.838	10.106	9.447	8.851	8.313	7.824
17	15.562	14.292	13.166	12.166	11.274	10.477	9.763	9.122	8.544	8.022
18	16.398	14.992	13.754	12.659	11.690	10.826	10.059	9.372	8.756	8.201
19	17.226	15.679	14.324	13.134	12.085	11.158	10.336	9.604	8.950	8.365
20	18.046	16.351	14.878	13.590	12.462	11.470	10.594	9.818	9.129	8.514

Periods (n)	Interest rates (r)									
	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528
3	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106
4	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589
5	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991
6	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326
7	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605
8	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837
9	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031
10	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192
11	6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.486	4.327
12	6.492	6.194	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439
13	6.750	6.424	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533
14	6.982	6.628	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611
15	7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675
16	7.379	6.974	6.604	6.265	5.954	5.668	5.405	5.162	4.938	4.730
17	7.549	7.120	6.729	6.373	6.047	5.749	5.475	5.222	4.990	4.775
18	7.702	7.250	6.840	6.467	6.128	5.818	5.534	5.273	5.033	4.812
19	7.839	7.366	6.938	6.550	6.198	5.877	5.584	5.316	5.070	4.843
20	7.963	7.469	7.025	6.623	6.259	5.929	5.628	5.353	5.101	4.870



Faculty of Management and Social Sciences
Department of Logistics & Transport
BSc in International Transportation Management and Logistics
Course CODE: COM550

Year 2 Semester I
SEMESTER END EXAMINATION
Quality Management – QTMG0265

- This paper consists of EIGHT questions on FIVE (05) pages.
- Answer FIVE (05) Questions including Question 01.
- Only non-programmable calculators are allowed.
- You may use appropriate graphs, diagrams, equation/s to prove or justify the answers.
- If you have any doubt as to the interpretation of the wording of a question, make your own decision, but clearly state it on the script.
- Write Legibly.

Date: 2023.03.15

Pass mark: 50%

Time: 03 Hours

Question 01 (Compulsory)

- (i) Define "Quality Management" as per ISO definition (02 Marks)
- (ii) Briefly explain four (04) principles of Lean management. (08 Marks)
- (iii) Six-sigma is a famous methodology especially in the field of medical, auto and aerospace. Explain the practice with its historical background. (10 Marks)

Question 02

Briefly explain the following quality tools briefly

- (i) Kaizen
- (ii) 5S
- (iii) Fishbone diagrams
- (iv) Quality Circles (04*05 Marks)

Question 03

“Inspection” plays a great role in any manufacturing and service organization. Discuss its application with the nature of a quality inspector and types of inspection.

(20 Marks)

Question 04

Write an essay on “New trends in quality” for the reference of Sri Lanka Standards Institution (SLSI)

(20 Marks)

Question 05

Draw a process map for the following steps;

- (i) Client inquiry
- (ii) Requesting a date and time for an appointment
- (iii) Client negotiation (in 03 days)
- (iv) Taking specifications on the client project
- (v) Internal communication
- (vi) Store final data in server
- (vii) Inspection for errors/yes/no
- (viii) If Yes, correct them
- (ix) Confirmation from the client/yes/no
- (x) Project execution/project withdrawal

(20 Marks)

Question 06

Supplier quality assurance is a critical aspect of the quality assurance process of any organization. Discuss any 05 criterion in supplier quality assurance.

(20 Marks)

Question 07

- (a) Apply Western Electric Rules to the control charts given below. Would these rules result in any out-of-control signals? (10 Marks)

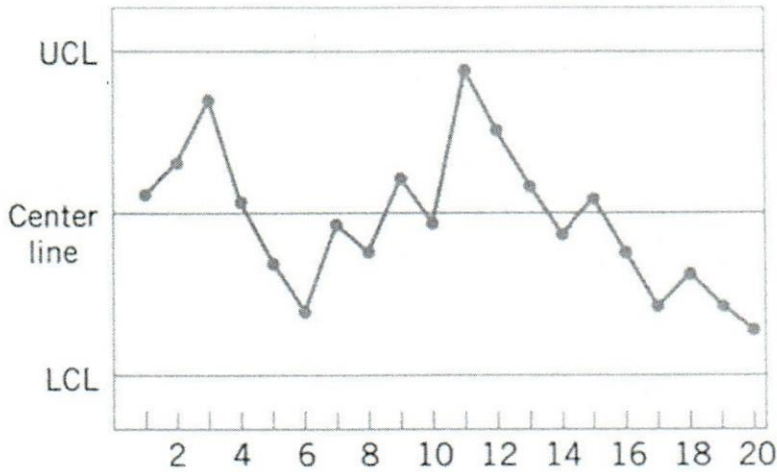


Figure 1

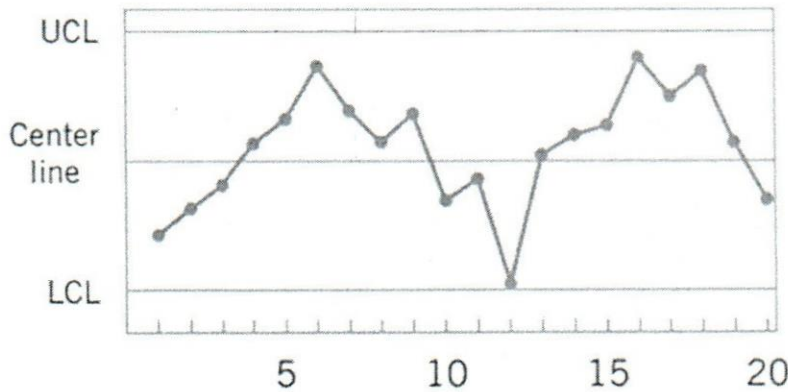


Figure 2

- (b) Explain what are chance and assignable causes of variability? What part do they play in the operation and interpretation of a Shewhart control chart? (05 Marks)
- (c) Discuss the relationship between a control chart and statistical hypothesis testing. (05 Marks)

Question 08

- (a) A manufacturing process produces 750 parts per hour. A sample part is selected about every half-hour, and after five parts are obtained, the average of these five measurements is plotted on an control chart.

Is this an appropriate sampling scheme if the assignable cause in the process results in an instantaneous upward shift in the mean that is of very short duration? If your answer is no, propose an alternative procedure. (05 Marks)

- (b) In a filling process, the weight of a Glucose packet is an important quality characteristic. The data given below are 20 such samples, each with 5 Glucose packets.

Sample No.	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Mean	Standard Deviation
1	49	52	44	46	48	X1	3.03
2	44	46	44	47	49	X2	2.12
3	44	43	47	49	47	X3	2.45
4	48	46	45	47	51	X4	2.30
5	50	46	44	41	50	X5	3.90
6	49	46	49	46	45	47.00	1.87
7	47	46	47	48	50	47.60	1.52
8	46	48	49	46	51	48.00	2.12
9	46	44	47	42	48	45.40	2.41
10	50	51	46	48	45	48.00	2.55
11	46	48	45	47	51	47.40	2.30
12	45	48	52	51	48	48.80	2.77
13	44	49	45	45	47	46.00	2.00

14	45	48	46	47	43	45.80	1.92
15	51	46	48	49	52	49.20	Y1
16	52	47	44	46	45	46.80	Y2
17	49	46	48	50	47	48.00	Y3
18	46	47	48	52	51	48.80	Y4
19	49	46	47	51	50	48.60	Y5
20	46	43	44	43	42	43.60	1.52

- (i) Find X_1, X_2, X_3, X_4, X_5 and Y_1, Y_2, Y_3, Y_4, Y_5 (05 Marks)
- (ii) Calculate 3- σ trial control limits for S- Chart. (05 Marks)
- (iii) Calculate 3- σ trial control limits for \bar{X} - Chart. (05 Marks)

-----END OF THE QUESTION PAPER-----

APPENDIX VI

Factors for Constructing Variables Control Charts

Observations in Sample, <i>n</i>	Chart for Averages				Chart for Standard Deviations						Chart for Ranges					
	Factors for Control Limits		Factors for Center Line		Factors for Control Limits			Factors for Center Line			Factors for Control Limits					
	<i>A</i>	<i>A</i> ₂	<i>A</i> ₃	<i>c</i> ₄	<i>Uc</i> ₄	<i>B</i> ₃	<i>B</i> ₄	<i>B</i> ₅	<i>B</i> ₆	<i>d</i> ₂	<i>Ud</i> ₂	<i>d</i> ₃	<i>D</i> ₁	<i>D</i> ₂	<i>D</i> ₃	<i>D</i> ₄
2	2.121	1.880	2.659	0.7979	1.2533	0	3.267	0	2.606	1.128	0.8865	0.853	0	3.686	0	3.267
3	1.732	1.023	1.954	0.8862	1.1284	0	2.568	0	2.276	1.693	0.5907	0.888	0	4.358	0	2.574
4	1.500	0.729	1.628	0.9213	1.0854	0	2.266	0	2.088	2.059	0.4857	0.880	0	4.698	0	2.282
5	1.342	0.577	1.427	0.9400	1.0638	0	2.089	0	1.964	2.326	0.4299	0.864	0	4.918	0	2.114
6	1.225	0.483	1.287	0.9515	1.0510	0.030	1.970	0.029	1.874	2.534	0.3946	0.848	0	5.078	0	2.004
7	1.134	0.419	1.182	0.9594	1.0423	0.118	1.882	0.113	1.806	2.704	0.3698	0.833	0.204	5.204	0.076	1.924
8	1.061	0.373	1.099	0.9650	1.0363	0.185	1.815	0.179	1.751	2.847	0.3512	0.820	0.388	5.306	0.136	1.864
9	1.000	0.337	1.032	0.9693	1.0317	0.239	1.761	0.232	1.707	2.970	0.3367	0.808	0.547	5.393	0.184	1.816
10	0.949	0.308	0.975	0.9727	1.0281	0.284	1.716	0.276	1.669	3.078	0.3249	0.797	0.687	5.469	0.223	1.777
11	0.905	0.285	0.927	0.9754	1.0252	0.321	1.679	0.313	1.637	3.173	0.3152	0.787	0.811	5.535	0.256	1.744
12	0.866	0.266	0.886	0.9776	1.0229	0.354	1.646	0.346	1.610	3.258	0.3069	0.778	0.922	5.594	0.283	1.717
13	0.832	0.249	0.850	0.9794	1.0210	0.382	1.618	0.374	1.585	3.336	0.2998	0.770	1.025	5.647	0.307	1.693
14	0.802	0.235	0.817	0.9810	1.0194	0.406	1.594	0.399	1.563	3.407	0.2935	0.763	1.118	5.696	0.328	1.672
15	0.775	0.223	0.789	0.9823	1.0180	0.428	1.572	0.421	1.544	3.472	0.2880	0.756	1.203	5.741	0.347	1.653
16	0.750	0.212	0.763	0.9835	1.0168	0.448	1.552	0.440	1.526	3.532	0.2831	0.750	1.282	5.782	0.363	1.637
17	0.728	0.203	0.739	0.9845	1.0157	0.466	1.534	0.458	1.511	3.588	0.2787	0.744	1.356	5.820	0.378	1.622
18	0.707	0.194	0.718	0.9854	1.0148	0.482	1.518	0.475	1.496	3.640	0.2747	0.739	1.424	5.856	0.391	1.608
19	0.688	0.187	0.698	0.9862	1.0140	0.497	1.503	0.490	1.483	3.689	0.2711	0.734	1.487	5.891	0.403	1.597
20	0.671	0.180	0.680	0.9869	1.0133	0.510	1.490	0.504	1.470	3.735	0.2677	0.729	1.549	5.921	0.415	1.585
21	0.655	0.173	0.663	0.9876	1.0126	0.523	1.477	0.516	1.459	3.778	0.2647	0.724	1.605	5.951	0.425	1.575
22	0.640	0.167	0.647	0.9882	1.0119	0.534	1.466	0.528	1.448	3.819	0.2618	0.720	1.659	5.979	0.434	1.566
23	0.626	0.162	0.633	0.9887	1.0114	0.545	1.455	0.539	1.438	3.858	0.2592	0.716	1.710	6.006	0.443	1.557
24	0.612	0.157	0.619	0.9892	1.0109	0.555	1.445	0.549	1.429	3.895	0.2567	0.712	1.759	6.031	0.451	1.548
25	0.600	0.153	0.606	0.9896	1.0105	0.565	1.435	0.559	1.420	3.931	0.2544	0.708	1.806	6.056	0.459	1.541

For *n* > 25.

$$A = \frac{3}{\sqrt{n}} \quad A_3 = \frac{3}{c_4 \sqrt{n}} \quad c_4 \approx \frac{4(n-1)}{4n-3}$$

$$B_3 = 1 - \frac{3}{c_4 \sqrt{2(n-1)}} \quad B_4 = 1 + \frac{3}{c_4 \sqrt{2(n-1)}}$$

$$B_5 = c_4 - \frac{3}{\sqrt{2(n-1)}} \quad B_6 = c_4 + \frac{3}{\sqrt{2(n-1)}}$$



Faculty of Management and Social Sciences
Department of Logistics & Transport
BSc in International Transportation Management and Logistics
Course CODE: COM550

Year 2 Semester I

SEMESTER END EXAMINATION

Management Information Systems – MISY0369

- This paper consists of EIGHT questions on EIGHT (08) pages.
- Answer FIVE Questions including Question 01.
- Only non-programmable calculators are allowed.
- You may use appropriate graphs, diagrams, equation/s to prove or justify the answers.
- If you have any doubt as to the interpretation of the wording of a question, make your own decision, but clearly state it on the script.
- Write Legibly.

Date: 2023.03.12

Pass mark: 50%

Time: 03 Hours

Question 01 - Compulsory

01. What cannot be considered as major advantage experienced through implementing an automated system instead of implementing a manual system.
 - a) Speed
 - b) Real-time updates
 - c) Initial cost
 - d) Accuracy and reliability
02. Collecting information is an important process when conducting research activities and when completing projects. Either manual or automated survey strategies can be used to collect information. What can be considered as a disadvantage of collecting information based on a manual approach?
 - a) Detailed information can be collected.
 - b) Simple and easy to implement
 - c) Less capital expenditure required
 - d) Time consumption is high
03. Consider the hierarchy of a manufacturing company. Which level does not employ the knowledge workers?

- a) Director Board
- b) Operational level employees
- c) General Managers
- d) Executives

04. Select the incorrect sentence about knowledge.

- a) Knowledge is the ability to understand information
- b) Knowledge is the ability make decisions or predictions based on the information.
- c) Knowledge is generally subjective and inherently local.
- d) Knowledge is generally public and common to everyone.

05. Select the incorrect sentence about the Knowledge Management Systems (KMS)?

- a) KMS consists of organized collection of people, procedures, software, databases, and devices.
- b) KMS is used to create, store, and use the organization's knowledge and experience.
- c) Google Analytics is an example for KMS whose knowledge base offers its own predictive search engine.
- d) KMS provides a technology solutions in itself for organizational problems.

06. Which of the following contexts does not provide continuous information.

(Hint: You are the fan/student/manager/customer or whoever supposed to receive information.)

- a) Live cricket match
- b) Ongoing paper marking process in the university
- c) Ongoing production process
- d) Online-ordered (Uber Eats) delivery process happening now

07. Malware that is capable of spreading itself from one computer to another is called a;

- a) logic bomb
- b) Trojan horse
- c) virus
- d) worm

08. Which of the following is not an example for cyberbullying

- a) Pranking someone's cell phone

- b) Hacking into someone's gaming or social networking profile
- c) Bullying someone in the hallway
- d) Pretending to be someone else to spread hurtful messages online

09. What is Trojan Horse?

- a) A Trojan Horse program has the appearance of having a useful and desired function
- b) A Trojan Horse neither replicates nor copies itself, but causes damage or compromises the security of the computer.
- c) A Trojan Horse must be sent by someone or carried by another program and may arrive in the form of a joke program or software of some sort.
- d) All of the other options

10. Summary transaction data, high volume data and simple models are information inputs characteristics of;

- a) Decision Support System (DSS)
- b) Management Information System (MIS)
- c) Executive Support System (ESS)
- d) Transaction Processing System (TPS)

11. Which of the following statement is incorrect regarding batch processing

- a) A lag exists between time when the economic event occurs and when it is recorded.
- b) Generally fewer hardware, programming and training resources are required.
- c) Certain records are processed after the event to avoid operational delays.
- d) More processing capacity and quality are required.

12. What is correct according to the Porter's Generic Model?

- I. Broad target - Cost - Cost Leadership
- II. Narrow target - Cost - Cost Focus
- III. Narrow target - Offer unique value - Differentiation
- IV. Broad target - Offer unique value - Differentiation Focus

- a) Only II and IV are correct.
- b) Only I and III are correct.
- c) Only I and II are correct.
- d) Only III and IV are correct.

13. What is incorrect about competitive advantage?

- a) A competitive advantage is an attribute that enables a company to outperform its competitors.
- b) A competitive allows a company to achieve superior margins compared to its competition.
- c) A competitive generates value for the company and its shareholders.
- d) A competitive advantage must not be difficult, if not impossible, to duplicate.

14. Select the correct order of soap brands in Sri Lanka relevant to given order of competitive strategies.

Cost Leadership, Differentiation, Differentiation Focus

- a) Sunlight, Lifebuoy, Venivel
- b) Velvet, Dettol, Wonderlight
- c) Kohomba, Rani, Baby Cheramy
- d) Diva, Lux, Ayush

15. Who cannot be considered as an end user of an IS?

- a) Customers and Salespersons
- b) System Engineers and Operators
- c) Clerks and Accountants
- d) Managers and Executives

16. Which of the following cannot be considered as a popular ERP application?

- a) SAP
- b) Sage
- c) Skype
- d) Salesforce

17. A retailer purchase an inventory management system which is already designed and developed and then modify it to account for the specific products, outlets, and reports it needs to conduct its day-today business.

Select the response which explains the above situation most correctly.

- a) It can be considered purely as a customized product.
- b) It can be considered purely as a standard product.
- c) It can be considered as a customized standard product.

d) It cannot be considered purely as a customized product.

18. Which of the following is NOT a goal of transaction processing system?

- a) Capture, process, and store transactions
- b) Produce a variety of documents related to routine business activities
- c) Reduce manual effort associated with processing business transactions
- d) Produce standard reports used for management decision making

19. Contemporary Information Systems that are interfacing basically with internal environment of the organization

- a) Supply Chain Management system.
- b) Customer Relationship Management system
- c) ERP Systems
- d) None of the above

20. Management information systems (MIS)

- a) create and share documents that support day-today office activities.
- b) process business transactions (e.g., timecards, payments, orders, etc.)
- c) capture and reproduce the knowledge of an expert problem solver.
- d) use the transaction data to produce information needed by managers to run the business.

(20 Marks)

Question 02

a) What is meant by term "*Competitive Advantage*"? (03 Marks)

b) Analyze any two competitive strategies in Porter's Generic Model. (08 Marks)

c) Briefly comment on three of following competitive advantages by giving examples from the real world business organizations. (09 Marks)

- I. Access to natural resources that are restricted from competitors
- II. Highly skilled labor
- III. A unique geographic location
- IV. Access to new or proprietary technology
- V. Ability to manufacture products at the lowest cost

Question 03

a) Briefly discuss on the economic impact of information systems on organizations.

(06 Marks)

b) Briefly describe any two management challenges (relevant to areas of IS knowledge) that may be faced by LMS manager of CINEC when the whole academic process suddenly started online due to Covid-19 pandemic.

(05 Marks)

c) Briefly explain following three IS activities by considering any mobile banking application used in Sri Lanka.

(09 Marks)

- I. Input of data resources
- II. Processing of data into information
- III. Output of information products

Question 04

Every day, over 1.9 billion servings of Coca-Cola products are sold in approximately 16 million retail outlets located in more than 200 countries across the globe. To accomplish this gargantuan task, Coca-Cola has long relied on a supply chain management system – an information system that manages all activities involved in raw material sourcing and procurement, conversion of raw materials to finished products, and the warehousing and delivery of finished product to customers. To increase efficiency, Coca-Cola needed a supply chain performance management application that would improve the consistency of real-time information across its vast supply chain.

In 2010, Coca-Cola hired ITC Infotech, then Coca-Cola established guiding principles for the new system: the same metrics must be used across the supply chain, with a focus on metrics that do not require manual inputting or intervention of data; the application must incorporate metric standards established by the beverage industry; and the application must provide consistent supply chain reporting that identifies production adjustments required to adapt to new business goals or changes in the marketplace. The company's goal was to gain uniformity across the company's three divisions – Coca-Cola North America, Coca-Cola International, and the Bottling Investments Group – and to establish closer supply chain cooperation with its bottling partners.

The system reports performance scores on a real-time basis in the areas of planning, production, and customer service. The system was so successful in increasing supply chain efficiency that the company decided to implement it globally.

- a) To which trend the supply chain management system of Coca-Cola belongs? Justify your answer.

(04 Marks)

- b) Critically analyze the following statement by giving evidence from the given case to verify your answer.

"When analyzing the tasks performed by the Supply Chain Management System – an information system used by Coca-Cola can be considered as a combination of two major types of information systems, rather than considering it belongs to a one type."

Do you agree with the above statement?

(08 Marks)

- c) The supply chain management system of Coca-Cola has the characteristics of following types of system. Provide examples from the case to explain how this IS holds characteristics of each type. (08 Marks)

- I. Functional business systems
- II. Cross-functional informational systems

Question 05

Employees who sign a non-compete agreement when hired, then break the agreement by leaving to work for a competitor, might want to exercise a little extra caution. Ex-employers might be able to use the Computer Fraud and Abuse Act to prosecute those suspected of stealing company intellectual property. The Act, designed to protect government computers and punish hackers, has been amended and now applies to any computer connected to the Internet, says Gregory Trimarche, a partner at the influential law and lobbying firm Greenberg Traurig.

Sensitive data can range from detailed customer and employee contact lists to internal marketing material. Trimarche considers intellectual property and trade secrets to be information that derives "independent economic value" that's not "generally known or available to the general public or competitors." An employee's know-how or talent doesn't fall into this category, but the company phone list with extensions could.

Traurig, said there's a growing trend to include a "claw-back provision" giving employers the right to terminate stock options under certain circumstances, or make the employee pay back the difference between the exercised option price and fair-market stock price. Lawyers at Greenberg Traurig "routinely" include the Computer Fraud and Abuse Act in lawsuits brought against ex-employees who jump ship to a competitor, says Trimarche. In the past several years, he's used the statute a handful of times. "It's a new tool and just now coming into common use. When you have a new statute that gives you a powerful tool, it takes time for the legal community, including judges, to get comfortable with it."

- a) What is the community explained is who can commit computer crimes?

(02 Marks)

- b) How do they commit computer crimes?

(03 Marks)

- c) Which kind of data and information are being mostly collected by those communities? Briefly explain. (05 Marks)
- d) "Laws against computer crime is a strong tool to avoid them". Critically analyze this statement by comparing the given case and Sri Lankan situation. (10 Marks)

Question 06

Goli is a computer security consultant; she enjoys the challenge of finding and fixing security vulnerabilities. Independently wealthy, she does not need to work, and so she has ample spare time in which to test the security of systems.

In her spare time, Goli does three things: First, she aggressively attacks commercial products for vulnerabilities. She is quite proud of the tools and approach she has developed, and she is quite successful at finding flaws. Second, she probes accessible systems on the Internet, and when she finds vulnerable sites, she contacts the owners to offer her services repairing the problems. Finally, she is a strong believer in high-quality pastry, and she plants small programs to slow performance in the web sites of pastry shops that do not use enough butter in their pastries. Let us examine these three actions in order.

- a) What is an ethical dilemma? (02 Marks)
- b) List down three candidate ethical principles that can be used to evaluate this case. (03 Marks)
- c) Analyze Goli's three actions using five step ethical analysis process. (15 Marks)

Question 07

- a) Briefly explain one common characteristic of the ERP systems (04 Marks)
- b) Briefly explain two steps/activities that need to be taken before the implementation an ERP system. (06 Marks)
- c) Select one type of enterprise applications that you have learnt and the discuss two challenges and two opportunities of it. (10 Marks)

Question 08

Write short notes on the following. (4*5 Marks)

- a) Dimensions of knowledge
- b) Digital Firm
- c) Management information systems
- d) Organizational and behavioral impact of information systems on organizations.

-----END OF THE QUESTION PAPER-----

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Faculty of Management and Social Sciences
Department of Logistics & Transport
BSc in International Transportation Management and Logistics
Course CODE: COM550

Year 2 Semester I

SEMESTER END EXAMINATION

Human Resources Management – HRMG0262

- This paper consists of EIGHT questions on EIGHT (08) pages.
- Answer FIVE Questions including Question 01.
- Only non-programmable calculators are allowed.
- You may use appropriate graphs, diagrams, equation/s to prove or justify the answers.
- If you have any doubt as to the interpretation of the wording of a question, make your own decision, but clearly state it on the script.
- Write Legibly.

Date: 2023.03.11

Pass mark: 50%

Time: 03 Hours

Question 01:(Compulsory)

SELECT MOST APPROPRIATE ANSWER OUT OF THE GIVEN CHOICES.

1. Two strategic goals of Human Resource Management (HRM) are;
 - (a) To improve Employee Productivity, To procure right people at the right time to do the right jobs.
 - (b) To improve Employee Productivity, Employee Development
 - (c) Employee Development, To procure right people at the right time to do the right jobs.
 - (d) To ensure Customer Compliance, To retrain the most appropriate employees within the organization.

2. HRM is a process of and utilization of human resource in order to achieve organizational goals
- (a) suitably, productive
 - (b) suitably, optimum
 - (c) productive, optimum
 - (d) effective, efficient
3. Why is HRM Important to All Managers
- (a) To evaluate job
 - (b) To improve performance
 - (c) To improve job performance
 - (d) To evaluate job performance
4. Researches and provides information on effect of various designs on employee performance, satisfaction, and health in Job design is a responsibility of;
- (a) Human Resource (HR) Professionals
 - (b) Line Managers
 - (c) Staff Managers
 - (d) HR Managers
5. One of the main Job Designing responsibility of a staff manager is;
- (a) Monitors need for job redesign organisation-wide
 - (b) Researches and provides information on effect of various designs on employee performance, satisfaction, and health
 - (c) Actually design jobs with help from HR department and employees
 - (d) May identify experts in various kinds of redesign to help when needed

6. Unique characteristic of Human Resource (HR) is;
 - (a) HR is a factor of production
 - (b) HR can Influence on the goal
 - (c) HR value change with the time
 - (d) HR has an ability to organize into teams

7. First step of Job analysis process is;
 - (a) Familiarize with the nature and the type of the organization
 - (b) Identify jobs available and select the job(s) to be analyzed
 - (c) Develop Job Analysis Information Format
 - (d) Identify the method to Collect Data

8. Which method of data collection in Job Analysis helps to understand the job genuinely
 - (a) Interview
 - (b) Questionnaire
 - (c) Observation
 - (d) Participation

9. Main goal of HRM is to and an appropriate work force which gives the maximum contribution to the attainment of primary goals of the organization
 - (a) provide, maintain
 - (b) handle, maintain
 - (c) provide, handle
 - (d) maintain, direct

10. Two consequences of poor HRP
 - (a) Over staff, High productivity
 - (b) Low productivity, Optimum level of staff
 - (c) Over staff, Low productivity
 - (d) High productivity, Optimum level of staff

11. Which HRM function helps to determine future needs of employees
- (a) Job Analysis
 - (b) Human Resource Planning
 - (c) Job Design
 - (d) Recruitment
12. Job is;
- (a) a group of related activities and duties
 - (b) an effective and efficient utilization of work
 - (c) a group of related activities performed by a person
 - (d) an effective and efficient utilization of a person for work activities
13. Recruitment process starts from
- (a) Ascertain Job Requirement
 - (b) Identify Job Vacancies
 - (c) Consider Factors affecting Recruitment
 - (d) Receive Applications
14. Two importance of recruitment are;
- (a) To select qualified people, To attract an adequate number of job applicants
 - (b) To discover qualified people, To attract an more number of job applicants
 - (c) To discover people, To attract an adequate number of job applicants
 - (d) To discover qualified people, To attract an adequate number of job applicants
15. Simply productivity improvement means;
- (a) doing best in tomorrow
 - (b) doing best in today
 - (c) doing better on tomorrow than today
 - (d) increase the output

16. Inputs and Requirements to selection

- (a) High Standards, High Selection Ratio
- (b) High Selection Ratio, Low Budget
- (c) High Selection Ratios, Good Selectors
- (d) Good Selection Ratio, Good Selectors

17. To establish or maintain an image as a good employer is an importance of;

- (a) Selection
- (b) Recruitment
- (c) Job Design
- (d) Job Analysis

18. Objectives of Human Resource Planning;

- (a) To ensure optimum use of human resource currently employed; To get the right person for the job vacancy
- (b) To get the right person for the job vacancy; To cost the human resource component in new projects
- (c) To establish or maintain an image as a good employer; To get the right person for the job vacancy
- (d) To ensure optimum use of human resource currently employed; To cost the human resource component in new projects

19. Three stages of Schein's Socialization Model

- (a) Commencement, Socialization, Mutual Acceptance
- (b) Entry, Induction, Mutual Acceptance
- (c) Entry, Socialization, Mutual Acceptance
- (d) Entry, Socialization, Agreement

20. Steps of Induction program

- (a) Preparation, Data Collect, Follow up and Evaluation
- (b) Preparation, Conduct, Follow up and Evaluation
- (c) Preparation, Conduct, Maintain
- (d) Planning, Conduct, Follow up

(01 Mark*20 = 20 Marks)

Question 02

Umanga Product Company has recently hired a Personnel Assistant, Nirmala Piyumi. Nirmala just received a University degree in Business Administration with second class (lower) honours. Hemantha, the Personnel Manager, was extremely pleased to find someone who had some familiarity with basic management concepts and theory of personnel management and industrial relations since he was the entire Personnel Department, except for a clerk-typist.

During the interview Hemantha emphasized that he planned to have Nirmala to work as his assistant and that she would do some interviewing and be responsible for maintaining employee records. Because the company has had about 350 employees, Hemantha had been too busy to prepare anything a job description except for some scrawled notes on the back of an envelope. Everything went fine for the first week for Nirmala. On Monday of the second week, Hemantha called Nirmala into his office room and explained that there was another minor duty that he had not mentioned to her. Hemantha said, "In order to get approval to hire you from CEO, I had to agree that whoever was hired would be the relief receptionist from 11.30a.m. to 12.30p.m. every day. The reception board is usually quite busy, and we wanted to be sure someone who is capable would be the backup. "Nirmala was not happy about this assignment being sprung on her, but she agreed to try it for a while.

Within two weeks she was beginning to dread having to work the reception board an hour every day. Also, she discovered that she was expected to be the relief if the receptionist was sick or unable to work. On Wednesday and Thursday of the third week

then regular receptionist was sick, and Nirmala worked for her. On that Friday, Nirmala told Hemantha she was quitting in two weeks. When asked why, Nirmala replied, "You misrepresented the job to me. You never said anything about my receptionist duties. If you had, I probably would not have taken the job."

- (a) What is /are the problem/s being faced by the Company? (05 Marks)
- (b) Explain why the company is facing the problem/s. (07 Marks)
- (c) How do you solve the problem/s? (08 Marks)

Source: Adapted from Mathis and Jackson, 1979

Question 03

- (a) Identity three unique characteristics of HR. (03 Marks)
- (b) Briefly explain two strategic goals of HRM (06 Marks)
- (c) Explain the importance of HRM to all managers. (11 Marks)

Question 04

- (a) Briefly explain the two components of Job. (04 Marks)
- (b) What are the techniques of Job Design? Describe each technique briefly. (07 Marks)
- (c) Briefly explain the Job - Person Fit concept in HRM. (09 Marks)

Question 05

- (a) Identify three objectives of HRP. (03 Marks)
- (b) Briefly explain two forecasting techniques that can be used in HRP. (06 Marks)
- (c) Describe the last step of HRP. (11 Marks)

Question 06

- (a) Define the term "Recruitment". (03 Marks)
- (a) "Recruitment is a very important human resource management function."
Explain this statement. (06 Marks)
- (b) "It is more appropriate to fill job vacancies in an organisation internally through promotions." Do you agree with this statement or not? Why? (11 Marks)

Question 07

- (a) Identify three importance of Selection (03 Marks)
- (b) Briefly explain the four outcomes of Selection. (08 Marks)
- (c) Describe the requirements for effective Selection process. (09 Marks)

Question 08

- (a) Define the term "Hiring". (03 Marks)
- (b) Briefly explain two principles of managing probationers. (06 Marks)
- (c) Briefly explain the steps of Hiring Process. (11 Marks)

-----END OF THE QUESTION PAPER-----