

PAST PAPERS

Faculty	Department / Section/Division
Not Applicable	Learning Resource Centre

Past Papers

Faculty of Management & social Sciences

Department of Logistics & Transportation

**BSc in International Transportation  
Management and Logistics**

**(Year 3 – Semester I)**

**2023**

Document Control & Approving Authority

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Faculty of Management and Social Sciences  
Department of Logistics & Transport  
BSc in International Transportation Management and Logistics  
Course CODE: COM551



Year 3 Semester I

## REPEAT EXAMINATION

### Environmental and Social Impacts of Transport and Logistics – LTEL3205

- This paper consists of SEVEN (07) questions on THREE (03) pages.
- Answer FOUR (04) 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: 2023.06.15

Pass mark: 50%

Time: 02 Hours

### Question 01 (Compulsory)

- a) "The issue of transportation and environment is paradoxical". Explain this statement in your own words. (06 Marks)
- b) "Discuss in your own words, different strategies that are practiced by nations in the modern world to reduce the environmental footprint of transport activities pertaining to every mode of transport." (09 Marks)
- c) Marine transport industry plays a vital role in linking global economies together and in aiding globalization. However, maritime transportation also has posed a significant threat to environment through its operations. Discuss in detail, the importance as well as the threats of maritime transportation to the world. (10 Marks)



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### Question 02

- a) Discuss in your own words, how freight transportation contributes to various problems such as congestion in urban context of Sri Lanka. (15 marks)
- b) Explain in detail the mitigation strategies that can be followed in the urban context to minimize the urban freight challenges. (10 marks)

### Question 03

- a) Elaborate how "Transportation conveys substantial socioeconomic benefits, but at the same time, transportation is impacting environmental systems". (08 Marks)
- b) Explain how mobility comes at a partial cost to the user and a full cost to the society and environment? (07 Marks)
- c) Explain in your own words how urbanization has led to motorization indirectly in the developing world? (10 Marks)

### Question 04

- a) What are the major ways that energy sources are utilized in transportation? (07 marks)
- b) Even though energy brings about significant benefits to human life, there are so many issues related to energy. Mention and explain 5 such issues of energy. (10 marks)
- c) Select two types of alternative energy sources and through a SWOT analysis elaborate the pros and cons that they possess. (08 marks)

### Question 05

- a) Explain the annexes of MARPOL Convention in detail. (10 marks)
- b) What are the two basic types of measures that achieve the goal of improving transport system efficiency? Explain in detail (05 marks)
- c) Elaborate in detail, transport demand management strategies that can be used to solve road transportation problems of Sri Lanka. (10 marks)



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### Question 06

- a) What are the major types of scoping techniques used in EIA? (05 marks)
- b) Identify the scoping impact of a proposed highway from Kandy to Dambulla (10 marks)
- c) Discuss the importance of conducting an EIA prior to a road construction project. (10 marks)

### Question 07

Write short notes on the below topics.

(05 \* 5 Marks= 25 Marks)

- a) Marine oil pollution
- b) Externalities of noise pollution
- c) Paradox of mobility
- d) Distribution Sprawl
- e) City Logistics

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



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Year 3 Semester I  
REPEAT EXAMINATION  
Transport Planning and Logistics Management – LTTM3208

- This paper consists of SEVEN questions on THREE (03) pages.
- Answer FOUR 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: 2023.06.14

Pass mark: 50%

Time: 02 Hours

**Question 01: (Compulsory)**

The Panama Canal, the Suez Canal, the Strait of Hormuz, and the Strait of Malacca which are key locations in the global trade of goods and commodities are very famous strategic maritime passages.

- (a) Define "Strategic Maritime Passage". (05 Marks)
- (b) Explain the significance of strategic maritime passages. (20 Marks)

**Question 02**

Explain the various surveys to be carried out in transportation planning process.

(25 Marks)

**Question 03**

Modal split can be carried out as part of trip generation whereby the number of trips made by a given mode is related to the characteristics of zone of origin. It means that transport trips are generated separately from private transport trips.

- (a) Define modal split.

(05 Marks)

(b) Explain in brief the factors affecting modal split.

(20 Marks)

#### Question 04

Short-term planning involves the current allocation of the port's resources and services. The resulting decisions aim to solve practical problems related to efficient cargo handling, vessel turnaround, and reasonable utilization of port facilities. Within short-term planning, a distinction can be made between operational and tactical planning. The former usually refers to a time horizon of one year. The latter refers to a planning horizon of one to three years. An important feature of short-term planning is that the time span is too short to allow major changes in the supply of port services, such as by infrastructural investments aimed at increasing port capacity). Medium-term planning involves both financial and strategic planning, often reported through business plans. The budgeting for the annual allocation of the port's resources to specific activities is part of the financial planning process. Strategic plans, which are usually prepared every three to five years, aim to allocate port resources to different activities and meet specific marketing and financial objectives. This assumes a competitive environment in which the allocation of resources will affect the structure and level of demand. Long-term planning demands a more fundamental and visionary approach, in most cases embodied in the development of port master plans or strategic port plans. The output is a physical plan (including capital budgeting) for the future development of port infrastructure and other capabilities and capacities with a ten to 30 years planning horizon.

Read the above paragraph carefully.

(a) Identify three different types of port planning by port authorities.

(05 Marks)

(b) Describe about practical planning project of a port in Sri Lanka.

(20 Marks)

#### Question 05

Like many civil engineering sectors, the private sector can be involved in transportation project delivery, which can include design and construction, project management such as maintenance and operations, and project financing, namely raising capital. Describe the challenges faced by contemporary transportation infrastructure financing.

(25 Marks)

#### Question 06

A transport terminal is composed of a set of intermodal infrastructures taking advantage of a geographical location, conferring a higher level of accessibility to local, regional, and global markets.

(a) What are the three general functions fulfilled by transport terminals within transport systems? (05 Marks)

(b) Explain the general functions of a transport terminal thoroughly. (20 Marks)

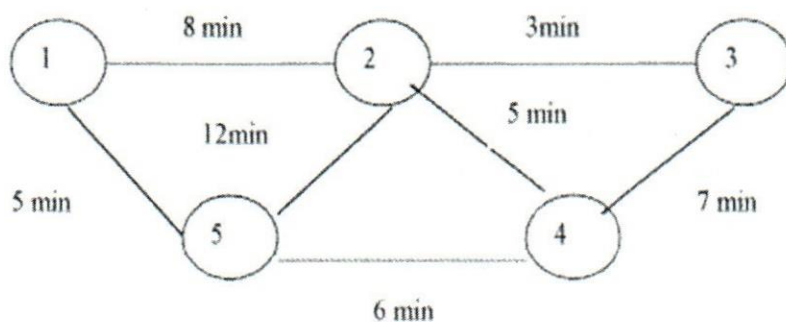
### Question 07

Assign the vehicle trips shown in the following O-D trip table to the network, using the all-or-nothing assignment technique. To summarize your results, list all of the links in the network and their corresponding traffic volume after loading.

Origin-Destination Trip Table:

From/to	Trips between Zones				
	1	2	3	4	5
1	-	100	100	200	150
2	400	-	200	100	500
3	200	100	-	100	150
4	250	150	300	-	400
5	200	100	50	350	-

Highway Network:



(25 Marks)

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



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Year 3 Semester I  
REPEAT EXAMINATION  
**Production and Operations Management – LTPM3207**

- This paper consists of SEVEN (07) questions on TWELVE (12) pages.
- Answer FOUR (04) 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: 2023.06.13

Pass mark: 50%

Time: 02 Hours

**Question 01 (Compulsory)**

1. Business Operations overlap with,
  - (a) Finance, Marketing
  - (b) Finance, Human Resource
  - (c) Marketing, Human Resource
  - (d) Human Resource, Accounting
  
2. The difference between the cost of inputs and the value or price of outputs should be
  - (a) Transformation process
  - (b) Value Added
  - (c) Control
  - (d) Feedback





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3. Service operation,
  - (a) Low consumer participation
  - (b) Facility site selection dictated by the transportation facilities available
  - (c) Labor intensive
  - (d) Tangible
4. Manufacturing operations
  - (a) transform some inputs or raw materials into some outputs with systems
  - (b) transform some inputs or raw materials into some outputs with effective and efficient systems
  - (c) transform some inputs or raw materials into some outputs effectively and efficiently
  - (d) transform some tangible input or raw materials into some tangible output
5. Forecasting is
  - (a) A process of predicting a future event
  - (b) A process of guessing a future event
  - (c) A process of identifying a future event
  - (d) A process of ready for a future event
6. Short range forecast is for
  - (a) Purchasing, job scheduling, workforce levels, job assignments, production levels
  - (b) Sales and production planning, budgeting
  - (c) New product planning, facility location, research and development
  - (d) workforce levels, facility location



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7. Reverse Engineering is
- (a) The process of the dismantling and inspecting a previous product to discover product improvements
  - (b) The process of the dismantling and inspecting a competitor's product to discover product improvements
  - (c) The process of the dismantling and inspecting a previous product to discover the technique used
  - (d) The process of the dismantling and inspecting a competitor's product to discover the technique used
8. Product Standardization will not help you to
- (a) Reduce the parts in your inventory
  - (b) Reduce the training cost
  - (c) Fill the orders from inventory
  - (d) Do small production runs
9. Process selection depends on
- (a) Forecasting
  - (b) Capacity Planning
  - (c) Customers
  - (d) Suppliers
10. Reasons for product and service design
- (a) Be competitive
  - (b) Development of new product
  - (c) Be comparative
  - (d) Change the existing product



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11. Process selection decision is based on

- (a) Forecasting, Capacity Planning, Technological Change
- (b) Forecasting, Product and Service Design, Technological Change
- (c) Product and Service Design, Capacity Planning, Technological Change
- (d) Forecasting, Capacity Planning, Product and Service Design

12. Process Types are

- (a) Job Shops, Batch, Repetitive, Continuous
- (b) Make to Stock, Make to Assemble, Make to Order
- (c) Job Shops, Intermediate, Repetitive, Continuous
- (d) Make to Stock, Make to Assemble, Make to Order

13. When you modify the capacity

- (a) Facilities can be added
- (b) People can be added
- (c) Jobs can be scheduled
- (d) Machines can be allocated

14. Importance of Capacity Decision

- (a) Impacts ability to make future requirements
- (b) Involves short term commitment
- (c) Affects operating cost
- (d) Increase competitiveness



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15. Design capacity is

- (a) the maximum theoretical output of a system
- (b) the minimum theoretical output of a system
- (c) the capacity a firm expects to achieve given current operating constraints
- (d) the capacity a firm needs to achieve given current operating constraints

16. There are several policies which are considered in Aggregate Planning. They are

- (a) Workforce, Subcontracting, Hiring/Layoff
- (b) Subcontracting, Overtime, Inventory
- (c) Facilities, Backorders, Workforce
- (d) Hiring/Layoff, Overtime, Workforce

17. Aggregate planning is a

- (a) Short Range Planning
- (b) Intermediate Range Planning
- (c) Both Short Range and Intermediate Range Planning
- (d) Long Range Planning

18. One of the Aggregate Planning outputs is

- (a) Total cost of a plan
- (b) Total budget
- (c) Total capacity
- (d) Labor flexibility



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19. Product Standardization will not help you to
- (e) Reduce the parts in your inventory
  - (f) Reduce the training cost
  - (g) Fill the orders from inventory
  - (h) Do small production runs
20. Sources of ideas for product and service design
- (a) Employees, Marketing, Management Information System
  - (b) Employees, Customers, Competitors
  - (c) Marketing, Management Information System, Customers
  - (d) Competitors, Suppliers, Management information System

### Question 02

- (a) Briefly explain the Business Operations Overlap in the industry. (07 Marks)
- (b) Identify three characteristics of Service Operation and briefly explain one. (08 Marks)
- (c) Identify three Manufacturing Operations and briefly explain each. (10 Marks)

### Question 03

- (a) A furniture manufacturer wants to predict quarterly demand for Product A for periods 15 and 16. Use below information to predict the demand. The series consists of both trend and seasonality. (15 Marks)



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**Table 1:3 - Demand**

Year	Quarter	Actual Demand
1	1	132
	2	140
	3	146
	4	153
2	1	160
	2	168
	3	176
	4	185

(b) Freight car loadings over a 12-year period at a busy port are as follows;

**Table 3:2 - Car Loadings**

Week	Number	Week	Number	Week	Number
1	220	7	350	13	460
2	245	8	360	14	475
3	280	9	400	15	500
4	275	10	380	16	510
5	300	11	420	17	525
6	310	12	450	18	541

- (i) Determine a linear trend line for freight car loadings. (03 Marks)
- (ii) Use the trend equation to predict loadings for weeks 20 and 21. (03 Marks)



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- (iii) The manager intends to install new equipment when the volume exceeds 800 loadings per week. Assuming the current trend continues, the loading volume will reach that level approximately in which week? (04 Marks)

#### Question 04

- (a) Identify the product and service activities. (07 Marks)
- (b) Briefly explain legal, environment and ethical issues of product and service design. (08 Marks)
- (c) Briefly explain three reasons for product and service design. (10 Marks)

#### Question 05

- (a) In a job shop, effective capacity is only 50% of design capacity, and actual output is 80% of effective output. What design capacity would be needed to achieve an actual output of eight jobs per week? (05 Marks)
- (b) A producer of felt-tip pens has received a forecast of demand of 30,000 pens for the coming month from its marketing department. Fixed costs of \$25,000 per month are allocated to the felt-tip operation, and variable costs are 37 cents per pen.
- (i) Find the brek-even quantity if pens sell for \$1 each. (04 Marks)
- (ii) At what price must pens be sold to obtain a monthly profit of \$15,000, assuming that estimated demand materialises? (05 Marks)



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- (c) A small firm intends to increase the capacity of a bottleneck operation by adding a new machine. Two alternatives, A and B, have been identified, and the associated costs and revenues have been estimated. Annual fixed costs would be \$40,000 for A and \$30,000 for B; variable costs per unit would be \$10 for A and \$11 for B; and revenue per unit would be \$15.
- (i) Determine each alternative's break-even point in units. (03 Marks)
- (ii) At what volume of output would the two alternatives yield the same profit? (04 Marks)
- (iii) If expected annual demand is 12,000 units, which alternative would yield the higher profit? (04 Marks)

## Question 06

For the set of tasks given below, do the following:

- (a) Develop the precedence diagram. (03 Marks)
- (b) Determine the minimum and maximum cycle times in seconds for a desired output of 500 units in a 7-hour day. Why might a manager use a cycle time of 50 seconds? (03 Marks)
- (c) Determine the minimum number of workstations for output of 500 units per day. (04 Marks)
- (d) Balance the line using the largest positional weight heuristic. Break ties with the most following tasks heuristic. Use a cycle time of 50 seconds. (10 Marks)
- (e) Calculate the percentage idle time for the line. (05 Marks)







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Holding cost	Rs. 10 per case per month
Beginning Inventory	0 units

Develop an aggregate plan using each of the following guidelines and compute the total cost for each plan. Which plan has the lowest total cost?

- (a) Use level production. Supplement using overtime as needed. (05 Marks)
- (b) Use a combination of overtime (500 cases per period maximum), inventory, and subcontracting (500 cases per period maximum) to handle variations in demand. (10 Marks)
- (c) Use overtime up to 750 cases per period and inventory to handle variations in demand. (10 Marks)

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



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## Formula Sheet

### Simple Moving Average

$$F_{t+1} = \frac{D_t + D_{t-1} + \dots + D_{t-n+1}}{n}$$

$D_t$  : actual demand in period  $t$

$n$  : number of periods in the average

### 1. Weighted Moving Average

$$T_{t+1} = W_1 D_1 + W_2 D_{t-1} + \dots + W_n D_{t-n+1}$$

### 2. Exponential Smoothing

$$F_t = F_{t-1} + \alpha(A_{t-1} - F_{t-1})$$

$F_t$  = new forecast

$F_{t-1}$  = previous forecast

$\alpha$  = smoothing (or weighting) constant ( $0 \leq \alpha \leq 1$ )

### 4. Trend Projections

$$y = a + bx$$

$y$  = computed value of the variable to be predicted

$a$  = y-axis intercept

$b$  = slope of the regression line

$x$  = the independent variable

$$b = \frac{\Sigma xy - n\bar{x}\bar{y}}{\Sigma x^2 - n\bar{x}^2} \quad a = \bar{y} - b\bar{x}$$

### 5. Exponential Smoothing with Trend Adjustment

$$F_t = \alpha (A_{t-1}) + (1-\alpha) (F_{t-1} + T_{t-1})$$

$$T_t = \beta (F_t - F_{t-1}) + (1-\beta) T_{t-1}$$

$$FIT_t = F_t + T_t$$



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Year 3 Semester I

REPEAT EXAMINATION

Operational Research – LTOR3206

- This paper consists of SEVEN questions on FIVE (05) pages.
- Answer FOUR 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: 2023.06.12

Pass mark: 50%

Time: 02 Hours

**Question 01 and Question 02 are based on the case study given below.**

### Case Study

SMAK is a soft drink manufacturing company and has two bottling plants, located at different places. Each plant produces three different drinks *Vanila*, *Chocolate* and *Strawberry* flavors. The capacities of the two plants in number of bottles per day are as follows

	Vanila	Chocolate	Strawberry
Plant I	3000	1000	2000
Plant II	1000	1000	6000

A market survey indicates that during any particular month there will be a demand of 24000 bottles of Vanila, 16000 bottles of Chocolate, and 48000 bottles of Strawberry. The operating costs, per day, of running plants I and II are, respectively, Rs. 6000 and Rs.

4000. Production manager of the plants wants to know how many days the company should run each plant during the month so that the production cost is minimized while still meeting the market demand.

### Question 01 - Compulsory

Formulate the above problem as a Linear Programming Problem (25 Marks)

### Question 02

Find the optimal solution using the Graphical Method (25 Marks)

### Question 03

A firm produces three products A, B and C each of which passes through three departments: Fabrication, Finishing and packaging. Each unit of product A requires 3, 4, and 2; a unit of product B requires 5, 4 and 4; while each unit of product C requires 2, 4 and 5 hrs respectively in the three departments. Daily capacity of three departments is as follows.

- Fabrication Department - 60hrs
- Finishing Department - 72hrs
- Packaging Department - 100hrs

The unit contribution of product A, B and C are Rs. 5/=, Rs. 10/= and Rs. 8/=.

- (a) Formulate this as an LP model (05 Marks)
- (b) Find the optimum solution using Simplex method. (20 Marks)

### Question 04

Use 2 phase method and solve the following Linear Programming Problem by clearly stating the phase I objective function. (25 Marks)

$$\text{MIN } Z = 4X_1 + X_2$$

Subject to:

$$3X_1 + X_2 = 3$$

$$4X_1 + 3X_2 \geq 6$$

$$X_1 + 2X_2 \leq 4$$

$$X_1, X_2 \geq 0$$

**Question 05**

$$\text{MAX } z = 3X_1 + 6X_2 + 4X_3$$

Subject to

$$X_1 + 2X_2 + X_3 \leq 10$$

$$3X_1 + 3X_2 + 2X_3 \leq 10$$

$$X_1, X_2, X_3 \geq 0$$

- (a) Construct the dual problem, for this primal problem. (05 Marks)  
 (b) Solve the primal and dual problems using any appropriate method. (20 Marks)

**Question 06**

A company has three production factories (Sources)  $S_1, S_2$  and  $S_3$  with production capacity of 7, 9 and 18 units per week respectively. These units are to be shipped to four warehouses (Destinations)  $D_1, D_2, D_3,$  and  $D_4$  with requirement of 5, 6, 7 and 14 units per week respectively. The transportation costs (in Rupees) per unit between factories to warehouses are given in the below table.

	D1	D2	D3	D4	Supply
S1	19	30	50	10	9
S2	70	30	40	60	7
S3	40	8	70	20	18
Demand	5	8	7	14	

- (a) Formulate this transportation problem as an LP model to minimize the total transportation cost. (06 Marks)  
 (b) Find initial transportation cost using Vogel's Approximation method (12 Marks)  
 (c) Find the optimum solution using any appropriate method. (07 Marks)

**Question 07**

Consider a technical support centre where personnel take telephone calls and provide services. The time between telephone calls ranges from 1 to 4 minutes, with distribution as shown in table 1. There are two technical support persons A and B. A is more

experienced and can provide services faster than B. The distributions of their service times are shown in table 2 and table 3.

Table 1: distribution of time between arrivals

Time between arrivals (in minutes)	Probability
1	0.25
2	0.40
3	0.20
4	0.15

Table 2: distribution of service time of A

Service time (in minutes)	Probability
2	0.30
3	0.28
4	0.25
5	0.17

Table 2: distribution of service time of B

Service time (in minutes)	Probability
3	0.35
4	0.25

5	0.20
6	0.20

Consider the following random numbers and simulate the above and discuss the followings;

- i. Distribution of each caller delay to get the service and the average waiting time
- ii. Probability of waiting time
- iii. Probability of waiting time for both A and B

Random numbers for arrivals: 89, 24, 56, 60, 34, 92, 45, 40, 8, 73, 15

Random numbers for A: 88, 63, 23, 94, 74, 17, 11, 41

Random numbers for B: 42, 53, 93, 24, 51, 16, 41

(25 Marks)

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





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Year 3 Semester I

REPEAT EXAMINATION

Customs and Commodity Inspection Operation – LTCO3204

- This paper consists of SEVEN (07) questions on FOUR (04) pages.
- Answer FOUR (04) 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: 2023.06.10

Pass mark: 50%

Time: 02 Hours

### Question 01 (Compulsory)

Grand International Group is a multinational company based in the USA and the rights holder of several world renowned brands including "Walker" and "Bee" brands. Great Walker Ltd is a Shoe manufacturing company based in China. They manufacture "Walker" brand Shoes according to the specified quality of Grand International Group and supply the same only to the buyers nominated by Grand International Group. Grand International Group holds 63% of shares of Great Walker Ltd and several Directors of Great Walker Ltd are also Directors of Grand International Group.

Grand Lanka Ltd is a Sri Lankan trading company registered under the Companies Act. However, Grand International Group holds 98% of shares of Grand Lanka Ltd. Several Directors including the Managing Director of Grand Lanka Ltd are also Directors of Grand International Group. Grand Lanka Ltd has been appointed by Grand

International as their Sole-Agent in Sri Lanka for the sale of "Walker" brand Shoes. In addition to the Sole-Agency Agreement Grand Lanka Ltd has also entered into an agreement with Grand International Group termed as Royalty Agreement. According to this Royalty Agreement, Grand Lanka has to pay 5% of the Ex-Work price as Royalty to Grand International Group for the "Walker" brand Shoes purchased from Great Walker Ltd.

Grand Lanka has imported a shipment of 01x20' container said to contain 5,000 pairs of "Walker" brand Shoes from Great Walker Ltd. The Ex-Work price agreed is USD 2.50 per pair of Shoes. Grand Lanka has entrusted the transportation of the said container from China to the Port of Colombo to a Freight Forwarding company namely Sea-Sky Lanka Ltd. They have issued a quotation containing the following charges.

**Charges at Origin**

Sea Freight - USD 1285

Packing Cost - USD 315

Inland Transport - USD 725

Handling Charges - USD 165

**Charges at Destination**

Terminal Handling (THC) - USD 250

Container Deposit - Rs. 5750

Container Washing - Rs. 1150

In addition to the above charges the Sea-Sky Lanka Ltd has also charged USD 150 as Bunker Adjustment Fee (BAF) and USD 110 as Currency Adjustment Fee (CAF) on the arrival of the container. The marine insurance has been obtained locally from Sri Lanka Insurance Company on payment of Rs. 16,875/= for the whole shipment. The Exchange Rate is Rs. 135.00 per US Dollar.

(a) Calculate the Cost of Transport of the subject shipment from the warehouse

of Great Walker Ltd to the Port of Colombo in USD (08 Marks)

(b) Calculate the amount of Royalty payable to Grand International Group by Grand Lanka Ltd against the subject shipment in USD (08 Marks)

(c) Calculate the Customs Value of the subject shipment in Sri Lankan Rupees (09 Marks)

### **Question 02**

what is Harmonized Commodity Description and Coding System (Harmonized System)? Explain in detail the structure of the Harmonized System. (25 Marks)

### **Question 03**

Write an essay describing the structure, functions, objectives and the legal framework of the Sri Lanka Customs. (25 Marks)

### **Question 04**

- (a) Name the documents required to clear the imported goods through Customs.
- (b) Explain in details the steps you should follow in clearing imported goods through Customs. (25 Marks)

### **Question 05**

- (a) Name the 6 methods of payments practiced in international trade
- (b) Explain in detail as to how the risk is transferred from the buyer to the seller in the above-mentioned methods of payment. and how risk become equal for both buyer and seller in Letter of Credit. (25 Marks)

### **Question 06**

- (a) Write a short essay about the World Trade Organization (WTO)
- (b) Name the six methods given in the WTO Valuation Agreement to determine the Customs Value and explain in detail the Article 1 and the Article 8 of the Schedule E of the Customs Ordinance of Sri Lanka. (25 Marks)

**Question 07**

Select 05 topics from the following topics and write 05 short essays

- (a) Customs Ordinance
- (b) Imports and Exports (Control) Act
- (c) Methods of payment in international trade
- (d) Bill of Lading/ Airway Bill
- (e) Non-Tariff Barriers
- (f) General Agreement on Tariff and Trade (GATT)
- (g) Section 10 of the Customs Ordinance of Sri Lanka

(25 Marks)

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



Faculty of Management and Social Sciences  
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 BSc Hons in Logistics and Transportation  
 Course CODE: COM551



Year 3 Semester I  
 REPEAT EXAMINATION  
 Port Planning – LTPP3203

- This paper consists of SEVEN questions on THREE (03) pages.
- Answer FOUR 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: 2023.06.09

Pass mark: 50%

Time: 02 Hours

**Question 01 (Compulsory)**

“Hambantota new port building was one of the major port project undertaken in the recent past and now managed by HIPG”

Draw the port master plan, highlight the rationale behind building a port in the South of Sri Lanka and describe Hambantota Port Project with current facilities?

(25 Marks)

**Question 02**

“Ports & cargo handling terminals upgrade, modernize, expand and build new Ports to accommodate bigger ships and growing maritime trade”

Propose your infrastructure, superstructure and other modern state of the art facilities to address above statement under following areas?

- a) Navigational Facilities? (9 Marks)
- b) Cargo Handling Terminals Facilities? (9 Marks)
- c) Value Added Logistic Facilities? (7 Marks)

**Question 03**

“Today most of the container terminal facilities are design, finance, built and operate using PPP and BOT basis with the participation of Global Port/Terminal Operators”

Describe how following Container Terminal Projects implemented in Sri Lanka as per the above statement with facilities?

- a) SAGT (7 Marks)
- b) CICT (7 Marks)
- c) CWIT (West Container Terminal) (7 Marks)
- d) Name Four Global Terminal Operators partnering above (4 Marks)

#### Question 04

Make your recommendations to build a New Mega Container Terminal under following areas? You are supposed to consider semi & full automation equipment/facilities as well.

- a) Ship to shore equipments & spreaders (8 Marks)
- b) Quay transfer handling equipments (5 Marks)
- c) Storage handling equipments (7 Marks)
- d) Gate facilities (5 Marks)

#### Question 05

Following ports & future requirements can have an impact to Sri Lankan Ports in the future.

Select one of the following, elaborate the concept/project and how it is going to impact Sri Lankan Ports?

- a. Rail connectivity between China & Europe
- b. LNG as alternate for ship fuel
- c. Chinese One Belt One Road concept
- d. Vallapadam International Transshipment Container Terminal project in Kerala State
- e. Vizinjam Port in Kerala State
- f. Global port operators influence
- g. Port of Hambantota management transfer to a Chinese Company for 99 years?

(25 Marks)

#### Question 06

- a) What is the rationale behind to expand the Port of Colombo built by British? (10 Marks)
- b) What are the salient features of Colombo Port Expansion Project/Colombo South Harbour? (15 Marks)

**Question 07**

Select TWO of the following cargo handling terminals and draw and list main terminal facilities?

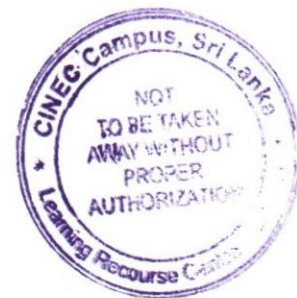
- 1) Liquid Bulk Cargo Handling Terminal
- 2) Dry Bulk Cargo Handling Terminal
- 3) Cruise Terminal
- 4) RO - RO Automobile Handling Terminal

(25 Marks)

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



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Year 3 Semester I  
 REPEAT EXAMINATION  
 International Economics – LTIE3201

- This paper consists of SEVEN questions on TWO (02) pages.
- Answer FOUR 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: 2023.06.07

Pass mark: 50%

Time: 02 Hours

**Question 01: (Compulsory)**

Explain that theory of Absolute Advantage and the Theory of Comparative Advantage using bellow information.

Country	pens	Pencils
India	8	4
Bangladesh	7	2

(25 Marks)

**Question 02**

There are two countries namely A and B and can produce two commodities of product X and Y. Us can produce product X in lower opportunity cost than country UK while UK can produce product Y in lower opportunity cost than UK. Consider the Ricardian model and derive the Offer curves for the both nations.

(25 Marks)

**Question 03**

(a) Explain the term factor abundance and factor intensity with appropriate examples (10 Marks)

(b) Illustrate H-O model and H-O-S model with appropriate example. (15 Marks)





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#### Question 04

"There are economic cost an economic benefits of import tariff" explain with appropriate diagrams and figures (25 Marks)

#### Question 05

- (a) What are the different types of economic integrations in the world. (10 Marks)
- (b) Explain way of creating trade creating custom union with appropriate example. (15 Marks)

#### Question 06

- (a) Explain that how does the exchange rate is determined in the foreign exchange market (10 Marks)
- (b) How does the BOP and National Income of a country on Exchange rate of the country? (15 Marks)

#### Question 07

Write down short note on the followings.

- (a) Dynamic Benefit of Customs Union  
(b) Factor price equalization theory  
(c) European Union  
(d) Term of trade Equilibrium  
(e) J- curve effect

(25 Marks)

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