

PAST PAPERS

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| Faculty | Department / Section/Division |
| Not Applicable | Learning Resource Centre |

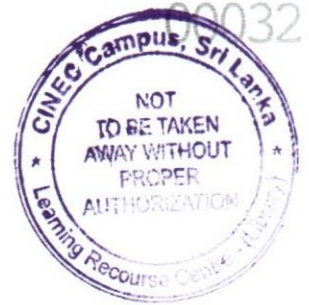
Past Papers

Faculty of Humanities & social Sciences
Department of Logistics & Transportation

Bsc.(Hons) Logistic & Transportation
(Year 2 – Semester I)
2014 - 2022

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| Document Control & Approving Authority | Senior Director – Quality Management & Administration |
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Faculty of Management and Social Sciences
Department of Logistics & Transport
BSc Hons in Logistics and Transportation
Course CODE: COM551

Year 2 Semester I

SEMESTER END EXAMINATION

Intermediate Economics – LTIE2202

- This paper consists of SEVEN questions on SIX (06) 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: 2022.09.26

Pass mark: 50%

Time: 02 Hours

Question 01 (compulsory)

Please tick (X) the correct answer

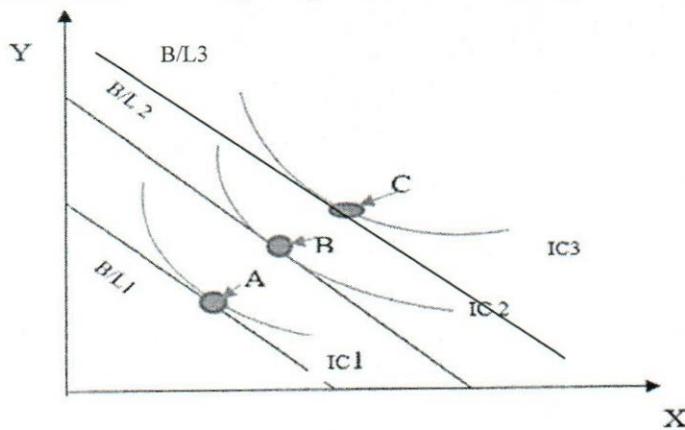
1. Indifference curve is explained behavior of,
 - (a) Seller
 - (b) Buyer
 - (c) Market
 - (d) Government
2. Which one is incorrect about slope of Budget line,
 - (a) It is downward sloping
 - (b) It is equal to price ratios of two inputs
 - (c) As price of two goods change its slope also change.
 - (d) It is equal to income of consumer.



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3. Which one of following assumption of IC analysis which revealed that consumers are choice by considering marginal benefits and Marginal cost?
- Scale of preferences
 - Continuity
 - Transitivity
 - Rational

Refer the following diagram, answer the question 4,5 and 6



4. A curve which combine A,B and C is named as,
- Price consumption curves
 - Income consumption curve
 - Engel curve
 - Demand Curve
5. With help of curve mentioned part 4, can drive,
- Engel curve
 - Demand curve
 - Utility curve
 - None of above



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6. Demand curve Product X and Y being a
 - (a) Normal product to consumer
 - (b) Inferior product to consumer
 - (c) Both are being substitute to each other
 - (d) Both are complements

7. When price of a product falls, more of it is purchased because of
 - (a) The substitution effect
 - (b) The income effect
 - (c) Neither substitution effect nor income effect
 - (d) Both the substitution and income effects

8. Which one of the following is incorrect at producers' equilibrium?
 - (a) Slope of the ISO-Quant is equal to the slope of the Iso-Cost.
 - (b) Marginal rate of technical substitution is negative.
 - (c) The highest Iso -Quant tangent to the given budget line of consumer.

 - (d) Producers maximize the benefit at the equilibrium.

9. Which one of following is belongs to Expansionary Fiscal policy
 - (a) Increase in personal income tax by government
 - (b) Increase in government expenditure.
 - (c) Increase in interest rate.
 - (d) Increase in money demand.

10. Transaction motive demand is,
 - (a) to do planned, certain transactions
 - (b) to do unplanned, uncertain transaction
 - (c) to do speculation investment
 - (d) to do planned, uncertain transaction.

(20Marks)



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11. behavior of long run cost of a production firm is explained by Law of diminishing marginal returns.
 True [] False []
12. Price Consumption Curve is a graph that connect point of consumer's equilibrium as price of one product change while price of other remain constant.
 True [] False []
13. Selling treasury bills in open market is belongs to contractionary monetary policy
 True [] False []
14. The Iso - cost line is depends upon only the total outlay.
 True [] False []
15. Nash equilibrium is the best decision for both payers when there is no co-operation between players.
 True [] False []

(05 Marks)

Question 02

- (a) What are the properties of indifference curve and its usefulness (09 Marks)
- (b) What do you mean by Consumer's equilibrium? Explain the condition require for that. (06 Marks)
- (c) Illustrate behavior of following products using consumer's equilibrium,
 a. X and Y Substitute to each other
 b. X and Y Compliment to each other (10 Marks)

Question 03

- (a) Explain reasons for law of demand using consumer's equilibrium (07 Marks)



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- (b) Derive a price consumption curve for a product X (in Horizontal axis) which has elastic demand. (06 Marks)
- (c) Distinguish between Normal, Inferior and Giffen products using price effect with appropriate diagrams (12 Marks)

Question 04

- (a) Explain the concept of Marginal Rate of Technical Substitution with an example (05 Marks)
- (b) What is mean by Producer's equilibrium? And explain that ways of change in equilibrium. (10 Marks)
- (c) Explain the term "Economic region of production". (04 Marks)
- (d) Explain the Law of Production in Long run using production expansion path (06 Marks)

Question 05

- (a) Derive the IS curve and LM curve (10 Marks)
- (b) You are given following information about a country. Where C- consumption, Y- national income, Yd- disposable income, i- interest rate, T- taxes, I- investment, G- government expenditure, Ms- real money supply, Md- real money demand.

$$C = 40 + 0.75Y_d$$

$$T = 80$$

$$I = 140 - 10i$$

$$G = 100$$

$$M_s = 85$$

$$M_d = 0.2Y - 5i$$

What are the short run equilibrium values of national income, interest rate, disposable income, consumption and Investment? (15 Marks)



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Question 06

- (a) Briefly explain about Game Theory (05 Marks)
 (b) You are given following game. The payoffs of game represent the profits of each firm.

| | | Firm 2 | | | |
|--------|---------------|-----------|-----|---------------|-----|
| | | Advertise | | Not Advertise | |
| Firm 1 | Advertise | 10 | 10 | 100 | -50 |
| | Not Advertise | -50 | 100 | 50 | 50 |

- I. Define each strategies of game (04 Marks)
- II. Find dominate strategy for Firm 1 and 2 (04 Marks)
- III. What is the Nash Equilibrium of above game? (02 Marks)
- IV. Show the above game in extensive form (05 Marks)
- V. Explain the meaning of repeat game using above (05 marks)

Question 07

Write short notes on any Four (4) of the following

- (a) Properties of Isoquant
- (b) Demand for Money
- (c) Expansionary Fiscal Policy
- (d) Contractionary Monetary Policy
- (e) Production expansion path and total cost curve

(05X 4= 20Marks)

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



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BSc Hons in Logistics and Transportation
Course CODE: COM551

Year 2 Semester I

SEMESTER END EXAMINATION

Maritime Law – LTML2206

- 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: 2022.09.24

Pass mark: 50%

Time: 02 Hours

Question 01 (Compulsory)

“Today, maritime law is considered as extremely vital for any type of occurrence on open water. Maritime laws are of extreme value and significance for governments, corporations, and individuals. They are the laws which ensure the appropriate behavior of people and organizations. In addition to that, preventing the degradation of the marine environment from land-based activities by facilitating the realization of the duty of States to preserve and protect the marine environment is another crucial area which is to be discussed in the modern world politics.....”
Critically examine the idea of the above statement by introducing the importance of maritime law in the modern world context. (25 Marks)

Question 02

- a) What is covered by marine insurance? (3 Marks)
- b) Why is marine insurance important? (5 Marks)
- c) What are the principles of insurance? (2 marks)



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- d) Which principle is referring to the practice of substitution of a person or group by another in cases of debt claims in insurance? Identify the principle and explain it with your own words. (5 marks)
- e) What are the consequences of the lack of an Insurable Interest? (5 marks)
- f) Mason vs. Sainsbury (1782) 3 Doug KB 61) briefly explain the case facts. (5 marks)

Question 03

- a) "The ship must have that degree of fitness which an ordinary careful and prudent owner would require his vessel to have at the commencement of her voyage having regard to all the probable circumstances of it. To that extent the shipowner...undertakes absolutely that she is fit, and ignorance is no excuse. If the defect existed, the question to be put is, would a prudent owner have required that it should be made good before sending his ship to sea had he known of it? If he would, the ship was not seaworthy...Critically examine the above statement. (15 Marks)
- b) How do they determine the seaworthiness of a vessel? (5 Marks)
- c) Hongkong Fir Shipping v Kawasaki Kisen Kaisha [1962] 2 QB 26, CA. Explain the case facts about the concept of seaworthiness. (5 Marks)

Question 04

- a) Alternative dispute resolution (ADR), or external dispute resolution (EDR), typically denotes a wide range of dispute resolution processes and techniques. Evaluate above statement (20 marks)
- b) Select any method from alternative dispute resolution (ADR) and explain. (5 marks)

Question 05

Write short notes of the following topics.

(5*5 Marks)

- a) Charter Party agreements.
- b) Bill of lading (BOL)



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- c) Demurrage Costs
- d) Contract of affreightment
- e) freight

Question 06

a) "The doctrine of deviation is a particular aspect of contracts of carriage of goods by sea. A deviation is a departure from the "agreed route" or the "usual route", and it can amount to a series of breaches of contract" justify the above statement. (10 Marks)

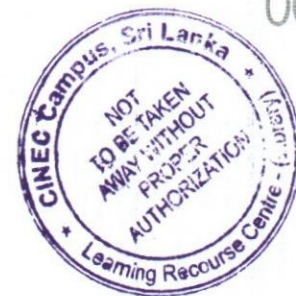
b) Ship registration is the process by which a ship is documented and given the nationality of the country to which the ship has been documented. The nationality allows a ship to travel internationally as it is proof of ownership of the vessel. Critically examine the above statement. (15 Marks)

Question 07

"Salvors" are seamen and engineers who carry out salvage to vessels that they do not own, and who are not members of the vessel's original crew. When salvaging large ships, they may use cranes, floating dry docks, and divers to lift and repair submerged or grounded ships, preparing them to be towed by a tugboat. The goal of the salvage may be to repair the vessel at a harbor or dry dock, or to clear a channel for navigation. Salvage operations may also aim to prevent pollution or damage to the marine environment. Additionally, the vessel or valuable parts of the vessel or its cargo may be recovered for resale, or for scrap.

Why is marine salvage so important in the field of international trade and how does it protect the marine environment? Explain your answer by classifying the different types of marine salvage methods. (25 marks)

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



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Year 2 Semester I

SEMESTER END EXAMINATION

Transport and Logistics Policy – LTTP2204

- This paper consists of SEVEN questions on FOUR (04) 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: 2022.09.22

Pass mark: 50%

Time: 02 Hours

Question 01 - Compulsory

“According to the recent statistics, both passenger and Freight transportation in Sri Lanka are dominated by Road transportation, where it depicts over 90% of utilization for both passenger and Freight. On the other hand, an underutilization of the rail transportation is a significant issue in Sri Lanka. An important suggestion to make in this circumstance is the shift from Road to Rail.”

- Critically comment on the above statement. (05 Marks)
- Do you think that the modal shift from road to rail would have been a good solution to the prevailing fuel crisis in Sri Lanka? Express your view. (08 Marks)
- Explain two (02) suggestions as policy reforms, that can be suggested to uphold the rail transportation system in Sri Lanka (12 Marks)



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

Question 02

- (a) Define the terms accessibility and mobility (05 Marks)
- (b) Explain two (02) strategies that can be proposed to implement to reduce vehicle ownership in Sri Lanka as an indirect approach to reduce the road congestions. (10 Marks)
- (c) Write a brief essay on any of the following topics
- Introducing of a BRT system to improve the public bus transportation in Sri Lanka
 - The importance of using ITS to manage the traffic in Sri Lanka
- (10 Marks)

Question 03

- (a) Briefly explain the policy cycle. (05 Marks)
- (b) Briefly explain the contemporary transport planning process (05 Marks)
- (c) Briefly explain the difference between Transport Policy and Transport Planning (05 Marks)
- (d) Explain the importance of incorporating Sustainable Development Goals to the goals of developing transport systems with five (05) points (05 Marks)
- (e) Compare and contrast the theories of contiguous accessibility and topological accessibility (05 Marks)

Question 04

- (a) Write a brief newspaper article on any one of the following topics. (Note : - The topics are only for the purpose of giving the description , hence the students may use an appropriate format of writing the article also a different headline)



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 Department of Logistics & Transport
 BSc Hons in Logistics and Transportation
 Course CODE: COM551

- (i) The need of a central regulatory authority to improve the quality of public bus transportation in Sri Lanka
- (ii) 'Paratransit' , a transport system to be centrally regulated to improve it's quality and standard

(10 Marks)

- (b) Identify and explain three (03) environmental problems that has aroused because of transportation and explain the relevant mitigation strategies to be suggested as policies, in order to implement to overcome them. Write in the perspective of Sri Lanka.

(15 Marks)

Question 05

- (a) Traffic Congestion, especially in urban areas have caused many negative externalities, thus, it has become an important concern over transport and logistics system performance. In mitigating congestion, the need of Demand Side Strategies and Supply Side strategies have a significant focus.

"To mitigate congestion in Sri Lanka, a balanced approach of supply and demand side strategies has to be adopted"

Critically comment on the above statement with possible three (03) demand side strategies to be implemented in Sri Lanka

(15 Marks)

- (b) "The number of road accidents and thus the fatalities in Sri Lanka have steadily increased over the past years. Major causes for these have being identified as poor condition of transport infrastructure, undisciplined behaviour of road users, drivers, riders, passengers and pedestrians, poor training and poor testing systems, adaptation of outdated technologies and inadequate and inconsistent enforcement of laws."

Critically comment on the above statement. Illustrate your arguments with two (02) appropriate examples and suggestions to overcome the issue

(10 Marks)



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

Question 06

- (a) One of the important measures that the National Logistics Policies of the countries like Thailand, South Korea and Indonesia adapted was "The inclusion of Capacity Building through knowledge and skills development within Logistics sector."
 Explain the significance of adapting such measures and their relevance in formulating a National Logistics Policy in Sri Lanka, with two (02) factors. (10 Marks)
- (b) Briefly describe the Logistics Cycle and the influence of policies (05 Marks)
- (c) "The typical centroid in the Freight and Logistics Sector of Sri Lanka is considered to be 'Pettah', within which almost all freight related activities are done as a central location. With this scenario, the Central Business District, Colombo, has become more congested and paving the way to many negative externalities. "

Critically comment on the above statement. Illustrate your arguments with appropriate suggestions to overcome the issue with two (02) factors. (10 Marks)

Question 07

- (a) Explain the importance of an International Freight Transport Policy to Sri Lanka, benchmarking with the best practices of the European Union Freight Transport Policy. (10 Marks)
- (b) The Urban Freight Transport Policy in Netherlands has its special focus on six (06) distinct policy measures. Explain the importance of adapting such measures, in developing the Urban Freight Transportation System in Sri Lanka by suggesting three (03) best practices to be adhered in the Sri Lankan context. (15 Marks)

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



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

Year 2 Semester I

SEMESTER END EXAMINATION

Transport and Logistics Policy – LTTP2204

- This paper consists of SEVEN questions on FOUR (04) 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: 2022.09.22

Pass mark: 50%

Time: 02 Hours

Question 01 – Compulsory

“According to the recent statistics, both passenger and Freight transportation in Sri Lanka are dominated by Road transportation, where it depicts over 90% of utilization for both passenger and Freight. On the other hand, an underutilization of the rail transportation is a significant issue in Sri Lanka. An important suggestion to make in this circumstance is the shift from Road to Rail.”

- (i) Critically comment on the above statement. (05 Marks)
- (ii) Do you think that the modal shift from road to rail would have been a good solution to the prevailing fuel crisis in Sri Lanka? Express your view. (08 Marks)
- (iii) Explain two (02) suggestions as policy reforms, that can be suggested to uphold the rail transportation system in Sri Lanka (12 Marks)



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

Question 02

- (a) Define the terms accessibility and mobility (05 Marks)
- (b) Explain two (02) strategies that can be proposed to implement to reduce vehicle ownership in Sri Lanka as an indirect approach to reduce the road congestions. (10 Marks)
- (c) Write a brief essay on any of the following topics
- (i) Introducing of a BRT system to improve the public bus transportation in Sri Lanka
- (ii) The importance of using ITS to manage the traffic in Sri Lanka (10 Marks)

Question 03

- (a) Briefly explain the policy cycle. (05 Marks)
- (b) Briefly explain the contemporary transport planning process (05 Marks)
- (c) Briefly explain the difference between Transport Policy and Transport Planning (05 Marks)
- (d) Explain the importance of incorporating Sustainable Development Goals to the goals of developing transport systems with five (05) points (05 Marks)
- (e) Compare and contrast the theories of contiguous accessibility and topological accessibility (05 Marks)

Question 04

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Faculty of Management and Social Sciences
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 Course CODE: COM551

- (i) The need of a central regulatory authority to improve the quality of public bus transportation in Sri Lanka
- (ii) 'Paratransit' , a transport system to be centrally regulated to improve it's quality and standard
- (10 Marks)
- (b) Identify and explain three (03) environmental problems that has aroused because of transportation and explain the relevant mitigation strategies to be suggested as policies, in order to implement to overcome them. Write in the perspective of Sri Lanka.
- (15 Marks)

Question 05

(a) Traffic Congestion, especially in urban areas have caused many negative externalities, thus, it has become an important concern over transport and logistics system performance. In mitigating congestion, the need of Demand Side Strategies and Supply Side strategies have a significant focus.

"To mitigate congestion in Sri Lanka, a balanced approach of supply and demand side strategies has to be adopted"

Critically comment on the above statement with possible three (03) demand side strategies to be implemented in Sri Lanka

(15 Marks)

(b) "The number of road accidents and thus the fatalities in Sri Lanka have steadily increased over the past years. Major causes for these have being identified as poor condition of transport infrastructure, undisciplined behaviour of road users, drivers, riders, passengers and pedestrians, poor training and poor testing systems, adaptation of outdated technologies and inadequate and inconsistent enforcement of laws."

Critically comment on the above statement. Illustrate your arguments with two (02) appropriate examples and suggestions to overcome the issue

(10 Marks)



Faculty of Management and Social Sciences
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Question 06

- (a) One of the important measures that the National Logistics Policies of the countries like Thailand, South Korea and Indonesia adapted was "The inclusion of Capacity Building through knowledge and skills development within Logistics sector."

Explain the significance of adapting such measures and their relevance in formulating a National Logistics Policy in Sri Lanka, with two (02) factors. (10 Marks)

- (b) Briefly describe the Logistics Cycle and the influence of policies (05 Marks)

- (c) "The typical centroid in the Freight and Logistics Sector of Sri Lanka is considered to be 'Pettah', within which almost all freight related activities are done as a central location. With this scenario, the Central Business District, Colombo, has become more congested and paving the way to many negative externalities. "

Critically comment on the above statement. Illustrate your arguments with appropriate suggestions to overcome the issue with two (02) factors. (10 Marks)

Question 07

- (a) Explain the importance of an International Freight Transport Policy to Sri Lanka, benchmarking with the best practices of the European Union Freight Transport Policy.

(10 Marks)

- (b) The Urban Freight Transport Policy in Netherlands has its special focus on six (06) distinct policy measures. Explain the importance of adapting such measures, in developing the Urban Freight Transportation System in Sri Lanka by suggesting three (03) best practices to be adhered in the Sri Lankan context.

(15 Marks)

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



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



Year 2 Semester I

SEMESTER END EXAMINATION

Management Information Systems – LTMS2203

- This paper consists of SEVEN questions on THWELVE (12) 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: 2022.09.20

Pass mark: 50%

Time: 02 Hours

Question 01: Compulsory

1. Management information systems (MIS)

- (a) Create and share documents that support day-today office activities
- (b) Process business transactions (e.g., time cards, 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

2. Information systems that monitor the elementary activities and transactions are,

- (a) Management level system
- (b) Operational level system
- (c) Knowledge level system
- (d) Strategic level system



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3. Medical diagnosis software is an example for,

- (a) Specialized processing System
- (b) Transaction Processing System
- (c) Process Control System
- (d) Enterprise Collaboration System

4. Contemporary Information Systems that are interfacing with customers and suppliers:

- (a) Supply Chain Management system.
- (b) Customer Relationship Management System.
- (c) Both (a) and (b)
- (d) None of the above

5. Which of the following is not an example for real time system?

- (a) Bank ATMs
- (b) Radar systems
- (c) Point of Sale (POS) Systems
- (d) Payroll and billing systems

6. Which of the following is not a collaborative system/software?

- (a) Electronic mail
- (b) A web site
- (c) Google calendar
- (d) A shared spread sheet



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7. Select the correct answer.

- I. DSSs can exist at different levels of decision-making with the organization, from the CEO to the first-level managers.
 - II. DSSs are designed to take inputs regarding a known (or partially-known) decision-making process and provide the information necessary to make a decision.
 - III. A nicely designed spreadsheet that allows for input of specific variables and then calculates required outputs could be considered a combination of collaborative system and decision support system.
- (a) Only I is true
 - (b) Only III is true
 - (c) Only I and II are true
 - (d) All I, II, III are true

8. Select the wrong combination

- (a) Transaction processing system - Grocery store checkout cash register with connection to network
- (b) Management Information System - Inventory management and planning system
- (c) Decision Support System- Product demand forecasting system
- (d) Knowledge Management System - shared calendar

9. Wikis and discussion forums are tools in Learning Management Systems (LMS) where students can,



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Course CODE: COM551

- (a) Post information
- (b) Comment on information
- (c) Access information
- (d) All of the above

10. Which of the following combination is incorrect regarding operational systems?

- (a) Primary purpose - Run the business on a current basis
- (b) Type of data - Historical or point-in-time (snapshot)
- (c) Primary users - Online customers, clerks, salespersons, administrators
- (d) Scope of usage Narrow and simple updates

11. What is true about knowledge management?

- (a) A knowledge management system is not a single technology but a collection of technology based tools.
- (b) Finding the right technology to manage knowledge assets is much easier than identifying what knowledge is needed, why it is needed, and who has this knowledge.
- (c) All of the above are true.
- (d) Both (a) and (b) are false.

12. Which of the following is an example of attribute data commonly used in Geographical Information System (GIS) applications?

- (a) Business type
- (b) Market share
- (c) Longitude



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(d) Annual sales

13. Human resource information systems support the strategic, tactical, and operational use of the human resources of an organization. Select the wrong combination.

- (a) Human resource planning - Strategic level systems
- (b) Labor cost analysis and budgeting - Tactical level systems
- (c) Workforce planning/scheduling - Tactical level systems
- (d) Performance appraisal planning - Strategic level systems

14. Which is true about Worms?

- (a) Self-replicating viruses that exploit security vulnerabilities to automatically spread themselves across computers and networks.
- (b) Worms on existing programs and can only be activated when a user opens the program.
- (c) Worms vary and hide themselves in the operating system.
- (d) All of the above

15. The majority of publicly available Internet information sources are:

- (a) Structured information.
- (b) Normal information.
- (c) Unstructured information.
- (d) None of the other options.

16. Which of the following is NOT a goal of transaction processing systems?

- (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



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17. Think of a construction project going on. Who cannot be considered as a knowledge worker?

- (a) Construction Engineer
- (b) Project Manager
- (c) Laborer
- (d) Quantity Surveying Officer

18. Select the incorrect choice about Knowledge Creation Process.

- I It includes elements Context-knowledge place and knowledge assets.
 - II It is a never-ending process that upgrades itself continuously.
 - III It is a static process, starting at the individual level and expanding as it moves through communities of interaction
- (a) All I, II, and III are correct.
 - (b) Only I and II are correct.
 - (c) Only I and III are incorrect.
 - (d) Only I is incorrect.

19. What cannot be considered as a challenge faced when using of a Knowledge Management System?

- (a) Aligning knowledge management with the overall goals and business strategy
- (b) Choosing and implementing knowledge management technology
- (c) Integrating knowledge management into existing processes and information systems
- (d) Supporting employees for carrier development

20. Which of the following is incorrect regarding computer passwords?

- (a) Don't pick a password that is similar to your previous password.



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- (b) Do pick a mixture of letters and at least one number.
 - (c) Don't pick a word that you can easily remember.
 - (d) Some networks require that you change your password on some periodic basis.
21. Many multinational companies roll out standard IS applications for all to use. However, standard applications often don't account for all the differences among business partners and employees operating in other parts of the world. Which of the following is a frequent modification that is needed for standard software?
- (a) Software might need to be designed with local language interfaces to ensure the successful implementation of a new IS.
 - (b) Customization might be needed to handle date fields correctly.
 - (c) Users might also have to implement manual processes and overrides to enable systems to function correctly.
 - (d) All of the above
22. What is a disadvantage of an expert system?
- (a) Inability to solve complex problems
 - (b) Inability to deal with uncertainty
 - (c) limitations to relatively narrow problems
 - (d) Inability to draw conclusions from complex relationships
23. The bullwhip effect refers to _____
- (a) Contract penalties resulting from a supplier's inability to deliver raw materials on time
 - (b) Small forecasting errors at the end of the supply chain causing massive forecasting errors farther up the supply chain



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- (c) Pressure to use a specific SCM system by a company in a supply chain
- (d) Rising stock values due to effective SCM practices

24. Which type of flow does Supply Chain Management System not focus on?

- (a) Procurement flow
- (b) Product flow
- (c) Information flow
- (d) Financial flow

25. All the following are channels used for promotional campaigns except _____.

- (a) Twitter
- (b) Telephone
- (c) Direct mail
- (d) All of the above are used

Question 02

- (a) You have decided to open an Internet site to buy and sell used music CDs to other students. Describe upstream and downstream supply chain activities and entities involved in your new business. (04 Marks)
- (b) Describe and contrast make-to-stock and make to order business processes. (06 Marks)
- (c) Describe CRM systems and how they help to improve the activities involved in promoting and selling products to the customers as well as providing customer service and nourishing long-term relationship. (07 Marks)
- (d) Describe SCM systems and how they help to improve interorganizational business processes. (08 Marks)



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Question 03

Buzz is a social networking and messaging add-on to Gmail that many see as Google's response to Facebook. It allows users to share updates, photos, videos, and comments, organizing them all in the Gmail in-box. When Buzz went "live" on the Internet, every Gmail user was automatically enrolled.

Within hours of the launch of Buzz, cries of protest went up around the globe decrying Google's assault on user privacy. News outlets, blogs, message boards, and Twitter were inundated with negative stories about Buzz. At the heart of the privacy concern was Buzz's core functionality and integration with Gmail's address book. When Google activated Buzz, the program made links between the members of every Gmail user's address book. This linking instantly gave anyone in a user's address book visibility of all other names in the address book. Although Google allowed Gmail users to opt out of Buzz, users were unable to do so until after Buzz's initial activation.

The ramifications of such a peek into someone's address book can easily be imagined. For instance, you might not want your significant other to suddenly see all the names of your former partners in your address book. If a doctor's office used Gmail to communicate with patients, everyone in the address book would instantly know who other patients were of that doctor. A far more dangerous scenario can be imagined in authoritarian countries such as China, where dissenting citizens' address books could have been revealed to government Internet minders, allowing them to see who the dissidents had been communicating with.

- (a) Briefly explain what an ethical dilemma is. (03 Marks)
- (b) Based on the above description identify and explain in detail what type of ethical and privacy issues that can be arise because of Buzz add-on. (06 Marks)
- (c) Briefly explain two (2) technology trends that raise ethical issues using examples for each. (06 Marks)
- (d) Discuss the five (5) steps ethical analysis process relevant to above mentioned case. (10 Marks)



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Question 04

Until just a few years ago, Gary Warner did not have the kind of day job you'd expect from an antiphishing crusader. He didn't work for a security vendor or a bank, or any kind of company you'd expect to care about phishing. Warner's career as a cybersleuth began on Halloween 2000. That's when his company's Web site was defaced by an entity named Pimpshiz as part of a pro-Napster Internet graffiti campaign. "My boss came to me and said, 'Find out who did this and put them in jail,'" said Warner, who was at the time an IT staffer with Energen, a Birmingham, Alabama, oil and gas company. It was an eye-opening experience.

Since then, Warner has quietly become one of the most-respected authorities on phishing in the United States—the kind of guy that federal agents and banking IT staff call when they want to know how to catch the bad guys and shut down their credit-card-stealing Web sites. With Warner's help, authorities eventually arrested Pimpshiz, whose real name is Robert Lyttle, in connection with the defacements. Warner said that the Pimpshiz case was formative, underlining how hard it is for law enforcement to catch the bad guys on the Internet. "The experience showed me that it's not that they don't care," Warner said. "Their hands are tied by the legal process." In July of 2007, with recommendations from FBI and Secret Service agents, Warner took a job as Director of Research in Computer Forensics with the University of Alabama at Birmingham (UAB). He also began working with law enforcement, not only educating FBI and Secret Service agents on how crimes were committed, but also helping to track down the criminals and helping with takedowns.

- (a) Explain two (2) ways of committing computer crimes as explained in this case. (04 Marks)
- (b) What is phishing? Explain with examples from case. (04 Marks)
- (c) Explain which groups who can commit computer crimes are mentioned in this case. Give examples from case. (05 Marks)



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- (d) Discuss three (3) strategies for establishing a framework for security and control for a business. (12 Marks)

Question 05

- (a) List down five (5) mediating factors that affects to the two-way relationship between organizations and information technology. (05 Marks)
- (b) You have been asked to participate in the preparation of your company's strategic plan. Specifically, your task is to analyze the competitive marketplace using Porter's five forces model. Prepare your analysis, using your knowledge of a business you have an interest in working for. (10 Marks)
- (c) Based on the analysis you performed in the preceding discussion question, what possible strategies could your organization adopt to address these challenges? Critically analyze the role of information systems play in these strategies. (10 Marks)

Question 06

- (a) Briefly explain two (2) advantages and two (2) disadvantages of using an ERP system? (06 Marks)
- (b) If you were the chief information officer of a large company, would you recommend implementing an ERP system? Why or why not? (09 Marks)
- (c) How can a small business avoid experiencing "just another ERP failure"? (10 Marks)



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Question 07

Write short notes on the following topics.

(5*5 Marks)

- (a) A digital firm
- (b) Cross-functional business process enabling by information systems
- (c) Information systems vulnerabilities
- (d) Transaction Processing Systems
- (e) Business Intelligent Systems

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



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Year 2 Semester I
 SEMESTER END EXAMINATION
Financial Management and Strategies - BRMB 2304

- This paper consists of EIGHT (08) questions on SEVEN (07) pages.
- Answer FIVE (05) questions including Question No. 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.
- Formula Sheet and PV tables have been attached with the paper.

Date: 2022.09.16

Pass mark: 40%

Time: 03 Hours

Question 01 (Compulsory)

Following are the financial information related to the two mutually exclusive projects of Tonga Investment Company in USA.

Project X: Construction of a crude oil conversion plant

Project Y: Building a vehicle plant

(Rs in Millions)

| | <u>Project X</u> | <u>Project Y</u> |
|---------------------|------------------|------------------|
| Initial Investment | 8,000,000 | 7,500,000 |
| Project lifetime | 5 Years | 5 Years |
| Cash Inflow- Year 1 | 2,500,000 | 3,500,000 |
| Year 2 | 3,500,000 | 2,000,000 |
| Year 3 | 2,500,000 | 1,900,000 |
| Year 4 | 2,800,000 | 4,500,000 |
| Year 5 | 3,500,000 | 2,500,000 |
| | | |



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| | | |
|-------------------------|-----------|-----------|
| Discount rate per annum | 15 % p. a | 15% p.a |
| Average Annual Profits | 3,500,000 | 2,500,000 |

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) Profitability Index (PI)

(04 Marks x 4 = 16 Marks)

(b) What is the project that you recommend based on the above calculations to the management of the company? (04 Marks)

Question 02

- (a) Explain the main objective of financial management. (05 Marks)
- (b) Discuss how the objective that you stated in part a is differentiate from the profit maximization objective. (05 Marks)
- (c) List the challenges for the finance manager in the post covid 19 eras. (04 Marks)
- (d) What is the scope of the financial management. (03 Marks)
- (e) Briefly discuss the agency conflict with an example. (03 Marks)

Question 03

- (a) Explain the below terms .
 - (i) Time Value of money
 - (ii) Present Value
 - (iii) Future Value



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 Course CODE: BMgt 555

(iv) Annuity

(v) Effective interest rate

(02 Marks x 5 = 10 Marks)

(b) What is the importance of time value of money? (04 Marks)

(c) Mr. Smith is expecting to invest Rs. 50,000,000 today for 10 years in the below conditions.

Calculate the interest amount he receive and the total amount that he will receive once the investment gets mature at the end of the 10th year under the below circumstances. (All are independent circumstances)

- (i) Compounded annually at interest rate 12 % per annum
- (ii) Compounded Semi- annually at interest rate 12 % per annum
- (iii) Compounded bi- annually at interest rate 12 % per annum
- (iv) Compounded monthly at interest rate 12 % per annum

(06 Marks)

Question 04

(a) Your company is considering two mutually exclusive projects, A and B. Project A involves an outlay of 850 million which will generate an expected cash inflow of 40 million per year for 25 years.

Project B required for an outlay of 675 million which will produce an expected cash inflow of 30 million per year for 35 years. The company's cost of capital is 24% per annum. Calculate the NPV of each project A and B.

Propose on which project the company should be invested. Justify your proposal providing reasons. (Hint: Use annuity tables) (15 Marks)

(b) List the pros and cons of the capital budgeting techniques. (05 Marks)



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Question 05

- (a) Discuss the three types of foreign exchange risks with examples. (06 Marks)
- (b) What is the difference between buying rate and closing rate of foreign exchange. (05 Marks)
- (c) Discuss the internal and external hedging techniques to mitigate the foreign exchange risks for a business. (09 Marks)

Question 06

- (a) Define the below terms.
- (i) Cost of equity
 - (ii) Cost of preference shares'
 - (iii) Cost of debt
 - (iv) Weighted Average cost of Capital (WACC)
- (03 Marks \times 4 = 12 Marks)
- (b) Calculate the WACC by using the below information and interpret your answer.
 Assume tax rate is 28 %.

| Capital Components | Market value (Rs.Mn) | Cost |
|--------------------------|-------------------------|--------------|
| Stated Capital | 2800 | $K_e = 15\%$ |
| Preference share Capital | 1200 | $K_p = 12\%$ |
| Long Term Loans | 500 | $K_d = 18\%$ |
| Debentures | 500 | $K_d = 15\%$ |

(08 Marks)



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Question 07

- (a) What is the different types of risks faced by a business. (05 Marks)
- (b) The following estimates are available for possible Economic conditions in the near future, their respective probabilities and the rate of returns for stock A and B.

| Economic condition | Probability | Rate of Return (%) | |
|--------------------|-------------|--------------------|---------|
| | | Asset A | Asset B |
| Growth | 0.4 | 15 | 20 |
| Stagnation | 0.35 | 12 | 14 |
| Recession | 0.25 | -6 | -4 |

Based on the above information determine,

- (i) The expected rate of returns for Asset A and B separately (05 Marks)
- (ii) The Risk of Asset A and B separately (05 Marks)
- (iii) If investor expects to invest 60 % of his investment in asset A and balance in Asset B, calculate the portfolio return. (05 Marks)

Question 08

- (a) List the reasons for the business valuation. (05 Marks)
- (b) Discuss three (3) basis of equity valuation. (05 Marks)
- (c) A company paid a dividend of \$450,000 this year. The current return to shareholders of companies in the same industry is 15%, although it is expected that an additional risk premium of 5% will be applicable to the company, being a smaller and unquoted company. Compute the expected valuation of the company under below separate conditions.



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- (i) The current level of dividend is expected to continue into the foreseeable future **(05 Marks)**
- (ii) The dividend is expected to grow at a rate of 4% pa into the foreseeable future. **(05 Marks)**

----- End of the Question Paper -----

| (n) | 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 | 1 |
| 2 | 0.812 | 0.797 | 0.783 | 0.769 | 0.756 | 0.743 | 0.731 | 0.718 | 0.706 | 0.694 | 2 |
| 3 | 0.731 | 0.712 | 0.693 | 0.675 | 0.658 | 0.641 | 0.624 | 0.609 | 0.593 | 0.579 | 3 |
| 4 | 0.659 | 0.636 | 0.613 | 0.592 | 0.572 | 0.552 | 0.534 | 0.516 | 0.499 | 0.482 | 4 |
| 5 | 0.593 | 0.567 | 0.543 | 0.519 | 0.497 | 0.476 | 0.456 | 0.437 | 0.419 | 0.402 | 5 |
| 6 | 0.535 | 0.507 | 0.480 | 0.456 | 0.432 | 0.410 | 0.390 | 0.370 | 0.352 | 0.335 | 6 |
| 7 | 0.482 | 0.452 | 0.425 | 0.400 | 0.376 | 0.354 | 0.333 | 0.314 | 0.296 | 0.279 | 7 |
| 8 | 0.434 | 0.404 | 0.376 | 0.351 | 0.327 | 0.305 | 0.285 | 0.266 | 0.249 | 0.233 | 8 |
| 9 | 0.391 | 0.361 | 0.333 | 0.308 | 0.284 | 0.263 | 0.243 | 0.225 | 0.209 | 0.194 | 9 |
| 10 | 0.352 | 0.322 | 0.295 | 0.270 | 0.247 | 0.227 | 0.208 | 0.191 | 0.176 | 0.162 | 10 |
| 11 | 0.317 | 0.287 | 0.261 | 0.237 | 0.215 | 0.195 | 0.178 | 0.162 | 0.148 | 0.135 | 11 |
| 12 | 0.286 | 0.257 | 0.231 | 0.208 | 0.187 | 0.168 | 0.152 | 0.137 | 0.124 | 0.112 | 12 |
| 13 | 0.258 | 0.229 | 0.204 | 0.182 | 0.163 | 0.145 | 0.130 | 0.116 | 0.104 | 0.093 | 13 |
| 14 | 0.232 | 0.205 | 0.181 | 0.160 | 0.141 | 0.125 | 0.111 | 0.099 | 0.088 | 0.078 | 14 |
| 15 | 0.209 | 0.183 | 0.160 | 0.140 | 0.123 | 0.108 | 0.095 | 0.084 | 0.074 | 0.065 | 15 |



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Formula sheet

1) Present Value of a single 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) Future value of an ordinary annuity

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

5) Expected Return

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

6) Expected Risk of an individual asset

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

7) Expected Risk of a portfolio

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

8) Covariance between two assets

$$\sigma_{x,y} = \sum_{i=1}^n [R_x - E(R_x)][R_y - E(R_y)] P_i$$

9) Market Risk

$$\beta_i = \frac{\text{Cov}_{i,m}}{\sigma_m^2}$$



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Year 2 Semester I
 SEMESTER END EXAMINATION
 Financial Management – LTFM2201

- This paper consists of SEVEN questions on EIGHT (08) 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: 2022.09.16

Pass mark: 50%

Time: 02 Hours

Question 01

Following are the financial information related to the two mutually exclusive projects of Tonga Investment Company in USA.

Project X : Construction of a crude oil conversion plant

Project Y : Building a vehicle plant

(Rs in Millions)

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|---------------------|------------------|------------------|
| Initial Investment | 8,000,000 | 7,500,000 |
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| | | |
|-------------------------|-----------|-----------|
| Year 3 | 2,500,000 | 1,900,000 |
| Year 4 | 2,800,000 | 4,500,000 |
| Year 5 | 3,500,000 | 2,500,000 |
| Discount rate per annum | 15 % p. a | 15% p.a |
| Average Annual Profits | 3,500,000 | 2,500,000 |

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) Profitability Index (PI)

(5*4 Marks)

(b) What is the project that you recommend based on the above calculations to the management of the company ?

(5 Marks)

Question 02

- (a) Explain the main objective of financial management. (5 Marks)
- (b) Discuss how the objective that you stated in part a is differentiated from the profit maximization objective. (5 marks)
- (c) List the challenges for the finance manager in the post covid 19 era. (5 marks)



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- (d) What is the scope of the financial management. (5 marks)
- (e) Briefly discuss the agency conflict with an example. (5 marks)

Question 03

- (a) Explain the below terms. (3*5 marks)

- (i) Time Value of money
- (ii) Present Value
- (iii) Future Value
- (iv) Annuity
- (v) Effective interest rate

- (b) What is the importance of time value of money? (4 Marks)

- (c) Mr. Smith is expecting to invest Rs. 50,000,000 today for 10 years in the below conditions.

Calculate the interest amount he receives and the total amount that he will receive once the investment gets mature at the end of the 10th year under the below circumstances. (All are independent circumstances)

- (i) Compounded annually at interest rate 12 % per annum
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- (iv) Compounded monthly at interest rate 12 % per annum

(6 Marks)



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Question 04

(a) Your company is considering two mutually exclusive projects, A and B. Project A involves an outlay of 850 million which will generate an expected cash inflow of 40 million per year for 25 years.

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Propose on which project the company should be invested. Justify your proposal providing reasons. (Hint: Use annuity tables)

(20 marks)

(b) List the pros and cons of the capital budgeting techniques .

(5 marks)

Question 05

(a) Discuss the three types of foreign exchange risks with examples. (10 Marks)

(b) What is the difference between buying rate and closing rate of foreign exchange.

(5 Marks)

(c) Discuss the internal and external hedging techniques to mitigate the foreign exchange risks for a business. (10 Marks)



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Question 06

(a) Define the below terms.

- (i) Cost of equity
- (ii) Cost of preference shares'
- (iii) Cost of debt
- (iv) Weighted Average cost of Capital (WACC)

(4*4 marks)

(b) Calculate the WACC by using the below information and interpret your answer. Assume tax rate is 28 %.

| Capital Components | Market value (Rs.Mn) | Cost |
|--------------------------|-------------------------|--------------|
| Stated Capital | 2800 | $K_e = 15\%$ |
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| Long Term Loans | 500 | $K_d = 18\%$ |
| Debentures | 500 | $K_d = 15\%$ |

(9 marks)



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Question 07

- (a) What is the different types of risks faced by a business. (10 Marks)
- (b) The following estimates are available for possible Economic conditions in the near future, their respective probabilities and the rate of returns for stock A and B.

| Economic condition | Probability | Rate of Return (%) | |
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| | | Asset A | Asset B |
| Growth | 0.4 | 15 | 20 |
| Stagnation | 0.35 | 12 | 14 |
| Recession | 0.25 | -6 | -4 |

Based on the above information determine,

- (i) The expected rate of returns for Asset A and B separately (5 marks)
- (ii) The Risk of of Asset A and B separately (5 marks)
- (iii) If investor expects to invest 60 % of his investement in assest A and balance in Assest B , calculate the portfolio retrun. (5 marks)

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



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Formula sheet

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| 2 | 0.812 | 0.797 | 0.783 | 0.769 | 0.756 | 0.743 | 0.731 | 0.718 | 0.706 | 0.694 | 2 |
| 3 | 0.731 | 0.712 | 0.693 | 0.675 | 0.658 | 0.641 | 0.624 | 0.609 | 0.593 | 0.579 | 3 |
| 4 | 0.659 | 0.636 | 0.613 | 0.592 | 0.572 | 0.552 | 0.534 | 0.516 | 0.499 | 0.482 | 4 |
| 5 | 0.593 | 0.567 | 0.543 | 0.519 | 0.497 | 0.476 | 0.456 | 0.437 | 0.419 | 0.402 | 5 |
| 6 | 0.535 | 0.507 | 0.480 | 0.456 | 0.432 | 0.410 | 0.390 | 0.370 | 0.352 | 0.335 | 6 |
| 7 | 0.482 | 0.452 | 0.425 | 0.400 | 0.376 | 0.354 | 0.333 | 0.314 | 0.296 | 0.279 | 7 |
| 8 | 0.434 | 0.404 | 0.376 | 0.351 | 0.327 | 0.305 | 0.285 | 0.266 | 0.249 | 0.233 | 8 |
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| 10 | 0.352 | 0.322 | 0.295 | 0.270 | 0.247 | 0.227 | 0.208 | 0.191 | 0.176 | 0.162 | 10 |
| 11 | 0.317 | 0.287 | 0.261 | 0.237 | 0.215 | 0.195 | 0.178 | 0.162 | 0.148 | 0.135 | 11 |
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| 15 | 0.209 | 0.183 | 0.160 | 0.140 | 0.123 | 0.108 | 0.095 | 0.084 | 0.074 | 0.065 | 15 |



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

5) Expected Return

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

6) Expected Risk of an individual asset

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

7) Expected Risk of a portfolio

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

8) Covariance between two assets

$$\sigma_{x,y} = \sum_{i=1}^n [R_x - E(R_x)][R_y - E(R_y)] P_i$$

9) Market Risk

$$\beta_i = \frac{\text{Cov}_{i,m}}{\sigma_m^2}$$



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Year 2 Semester I

SEMESTER END EXAMINATION

Air Cargo and Passenger Transportation – LTAT2205

- This paper consists of SEVEN questions on FOUR (04) 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: 2022.09.14

Pass mark: 50%

Time: 02 Hours

Question 01 (Compulsory)

- (a) Compare All cargo carriers and Belly cargo carriers under the following categories:
- Cost of service
 - Dimensions and type of cargo
 - Flight schedules and network (09 Marks)
- (b) Ascent Logistics Pvt. Ltd. is going to ship some cargo from Colombo to Manila, Italy. The shipment consists of 04 boxes, each weighing 21 kg, and each measuring 11 x 21 x 31 inches. Find the chargeable weight. (05 Marks)
- (c) Explain general commodity rate, Specific commodity rate and Classification Commodity rate with examples. (06 Marks)
- (d) ULDs are expensive assets that are considered as aircraft parts. List advantages of ULDs. (05 Marks)



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Question 02

- (a) Most of the major airlines today have codeshare agreements with other airlines. The main motivation of codeshare agreements is to boost business for airlines by increasing the number of flights that passengers have access to. Explain how codeshare agreements work with an example. (08 Marks)
- (b) Differentiate between Low cost carriers and Full service carriers. (09 Marks)
- (c) Aviation's global economic impact is estimated at \$2.7 trillion, equivalent to 3.6% of world gross domestic product (GDP). Its contribution includes direct, indirect, induced and tourism catalytic impacts. Briefly explain these impacts with examples. (08 Marks)

Question 03

- (a) Explain each of the following with an example.
- Hazard
 - Consequence of a hazard
 - Safety Risk
- (13 Marks)
- (b) Safety management is a core business function of air transport that must be delivered through a dedicated management system. Explain initiatives taken by airlines for safety management to balance protection and production goals. (12 Marks)

Question 04

- (a) Explain the weight buildup of an aircraft with the aid of a diagram. (07 Marks)
- (b) The six basic flight instruments in the cockpit are categorized into two as pitot-static instruments and gyroscopic instruments. Briefly explain 1(one) instrument from each category. (06 Marks)
- (c) Explain the 3(three) axis of rotation of an aircraft (09 Marks)
- (d) List down 6(six) fuel components of block fuel. (03 Marks)



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Question 05

- (a) An Air Service Agreement (ASA) is to be signed between New Zealand and China. Newzeal Airways is an airline whose home state is New Zealand. Identify which freedom of air is given by each example. (07 Marks)

| | | |
|------|---|--|
| I. | A flight from New Zealand to China, flown by Newzeal Airways | |
| II. | A flight between China and Russia, flown by Newzeal Airways without operating to New Zealand. | |
| III. | A flight between Shanghai (China) and Beijing (China), flown by Newzeal Airways. | |
| IV. | A flight from New Zealand to China and from China to Russia, flown by Newzeal Airways. | |
| V. | A flight from Australia to China, through New Zealand flown by Newzeal Airways. | |
| VI. | A flight from New Zealand to Shanghai (China) and from Shanghai (China) to Beijing (China), flown by Newzeal Airways. | |
| VII. | A flight from New Zealand to Russia, flown by Newzeal Airways, overflying China. | |

- (b) Briefly explain the Chicago Convention. (06 Marks)
- (c) Describe the advantages and disadvantages of adopting an open skies policy for air transportation in Sri Lanka. (12 Marks)

Question 06

Skyway airline is a major airline of Australia. The table depicts the passenger movements of the airline performed by the B777 aircraft of the airline with a seat capacity of 310 seats. Airline operates two flights daily to KUL originating from MEL.

Note: Consider a calendar month as 31 days

| Sector length | MEL-KUL (4500 Km) | |
|---------------|-------------------|------------|
| | MEL-KUL | KUL-MEL |
| | Passengers | Passengers |
| APR | 10200 | 10200 |
| MAY | 12200 | 10020 |



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| | | |
|-----|-------|-------|
| JUN | 11200 | 10520 |
| JUL | 10200 | 11050 |
| AUG | 12000 | 10020 |

- (a) What will be the ASK by Skyway airline in MEL-KUL for the month of **August** for **round trips**? (04 Marks)
- (b) What will be the RPK by Skyway airline in MEL-KUL for the month of **August** for **round trips**? (04 Marks)
- (c) What will be the passenger load factor by Skyway airline in MEL-KUL for the month of **August** for **round trips**? (03 Marks)
- (d) Explain why a high load factor and high yield are not ideal indicators of an airlines success and profitability. (08 Marks)
- (e) Briefly explain 2(two) aircraft related performance indicators. (06 Marks)

Question 07

- (a) Explain the air passenger rights applicable in the event of a flight delay, flight cancellation, denied boarding, delayed, lost or damaged baggage in the context of EC Regulation 261. (08 Marks)
- (b) Explain the change in civil aviation management that occurred when the state functions were transferred into public corporations or limited liability companies with the use of a diagram. (08 Marks)
- (c) The Covid-19 pandemic has had a significant impact on the air transportation industry. Identify measures adopted by the aviation industry in response to Covid-19. (09 Marks)

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



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Year 2 Semester I

SEMESTER END EXAMINATION

Port Management – LTPM2207

- 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: 2022.09.12

Pass mark: 50%

Time: 02 Hours

Question 01 (Compulsory)

- | | |
|--|------------|
| a) What are the salient features of the Port of Galle? | (5 Marks) |
| b) What are the salient features of the Port of Trincomalee? | (5 Marks) |
| c) "Port is known as Heart of the Nation" Explain Why? | (5 Marks) |
| d) List Navigational Facilities? | (10 Marks) |

Question 02

- | | |
|--|------------|
| a) Explain what is a Sea Port on your own words? | (10 Marks) |
| b) What are the activities involved in Ship Turnaround Time (Ship Time in Port)? | (5 Marks) |
| c) What is Truck Turnaround Time? | (5 Marks) |
| d) What is Service Marketing Triangle? | (5 Marks) |

Question 03

- | | |
|---|------------|
| a) What are the Powers of SLPA as per the SLPA Act? | (10 Marks) |
| b) Explain how Sri Lanka Ports Authority was formed? | (5 Marks) |
| c) What are the Objectives & Duties of SLPA? | (5 Marks) |
| d) What is Port Marketing and list out marketing tools to promote the port? | (5 Marks) |



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Question 04

- a) Who are the port customers & list out their expectations (10 Marks)
 b) Name commercial ports in Sri Lanka? (5 Marks)
 c) What are the salient facilities of the Port of Colombo? (10 Marks)

Question 05

- a) List out Logistics Division Functions? (10 Marks)
 b) Why measure business performance? (5 Marks)
 c) Describe types of performance measures? (5 Marks)
 d) Name port related Value-added Logistic services? (5 Marks)

Question 06

- a) What are the Navigational Charges (6 Marks)
 b) Name main Tariff items in the SLPA Tariff 2022? (9 Marks)
 c) Describe Colombo Port Expansion Project (Colombo South Harbour) & salient features? (10 Marks)

Question 07

Port of Hambantoata

- a) Explain the current Port Management? (5 Marks)
 b) What are the Navigational Facilities? (5 Marks)
 c) What are the Cargo Handling Facilities? (5 Marks)
 d) Describe Tank Farm (Liquid Bulk Handling) Facilities? (10 Marks)

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



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Course CODE: COM551

Year 2 Semester I

SEMESTER END EXAMINATION

Port Management – LTPM2207

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- You may use appropriate graphs, diagrams, equation/s to prove or justify the answers.
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Date: 2022.09.12

Pass mark: 50%

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Question 01 (Compulsory)

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Question 02

- | | |
|--|------------|
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Question 03

- | | |
|---|------------|
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Question 04

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Question 05

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Question 07**Port of Hambantoata**

- a) Explain the current Port Management? (5 Marks)
- b) What are the Navigational Facilities? (5 Marks)
- c) What are the Cargo Handling Facilities? (5 Marks)
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-----END OF THE QUESTION PAPER-----



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Year 2 Semester I

REPEAT EXAMINATION

Maritime Law – LTML2206

- 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: 2022.08.29

Pass mark: 50%

Time: 02 Hours

Question 01 (Compulsory)

“Today, maritime law is considered as extremely vital for any type of occurrence on open water. Maritime laws are of extreme value and significance for governments, corporations, and individuals. They are the laws which ensure the appropriate behavior of people and organizations”.

Critically evaluate above passage with examples.

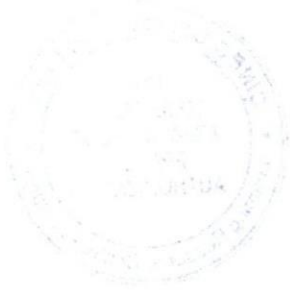
(25 Marks)

Question 02

“Seaworthiness classifies whether a ship has passed the required tests and safety checks to be able to sail without any mishaps. It determines whether or not the ship has been properly assessed, outfitted and maintained in accordance with admiralty law”

- (a) Do you agree with the above statement? Justify your answer.
- (b) Who has the right to claim compensations throughout this concept? (Explain it with your own examples and relevant case laws)

(25 Marks)



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Question 03

"The Hague-Visby Rules is a set of international rules for the international carriage of goods by sea. They are a slightly updated version of the original Hague Rules which were drafted in Brussels in 1924".

In your opinion, why Hague Visby rules are important?
Justify your answer explaining at least 4 Articles of HVR. (25 Marks)

Question 04

In shipping, the parties in disagreements are most often by some form of contract, for an example a charterparty or a contract for service. Furthermore, maritime dispute settlement deals with both general and specific issues of the settlement of maritime disputes.

Discuss about maritime disputes and dispute resolution methods with relevant case laws regarding maritime disputes. (25 Marks)

Question 05

(a) Provide your critical explanation on the importance of the principle which is "requiring the highest standard of good faith" during disclosure of all material facts before the policy inception? (15 Marks)

(b) Which principle is referring to the practice of substitution of a person or group by another in cases of debt claims in insurance? Identify the principle and explain it with your own words. (10 Marks)

Question 06

Write short notes in following 5 selected areas.

- (a) Concept of freight
- (b) Hague Visby Rules
- (c) Nationality of ships



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- (d) Flag state
- (e) UNCLOS
- (f) MARPOL convention

(5x5 marks)

Question 07

Briefly discuss the following cases.

- (a) Hongkong fir shipping vs Kawasaki case
- (b) Kopitoff vs Wilson Case
- (c) Freeman vs Taylor (1831) 8
- (d) International Packers vs Ocean Steamship and Co. (1955)2 Lloyd's Rep 218
- (e) Kish vs Taylor (1912) AC 604

(5x5 Marks)

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



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Year 2 Semester I

REPEAT EXAMINATION

Transport and Logistics Policy – LTTP2204

- 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: 2022.08.26

Pass mark: 50%

Time: 02 Hours

Question 01

- (a) "As per the recent statistics, the rural and estate sector population accounts for more than 75% in Sri Lanka. With this fact, it is essential to consider the improvements of the transport system, in order to provide better access for their basic needs. Hence, it is important to pay attention on rural and estate sector transport developments"

Explain the importance of developing transport system in rural and estate sector in Sri Lanka, highlighting three (03) problems and possible strategies to be suggested as policy reforms. (15 Marks)

- (b) "It is evident that the Road sector in Sri Lanka plays a very vital role in satisfying the demands of customers through freight transportation. Besides the lack of resources for the improvements of road infrastructure, it is essential to pay a higher attention



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on other regulatory instruments focusing on managing the freight transport demand.
“

Critically comment on the above statement. Explain the importance of using measures of road pricing policies in Sri Lanka, with suitable examples (10 Marks)

Question 02

- (a) Briefly explain the policy cycle. (05 Marks)
- (b) Briefly explain the contemporary transport planning process (05 Marks)
- (c) Briefly explain the difference between Transport Policy and Transport Planning (05 Marks)
- (d) Explain with appropriate examples, the importance of incorporating SD goals with Transportation systems (05 Marks)
- (e) Compare and contrast the theories of contiguous accessibility and topological accessibility (05 Marks)

Question 03

- (a) Briefly explain the importance of focusing on a Logistics policy in comparison with focusing on a transport policy (05 Marks)
- (b) One of the important measures that the National Logistics Policies of Thailand, South Korea and Indonesia adapted was “The inclusion of Capacity Building through knowledge and skills development within Logistics sector.”



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Explain the importance of such measures and their relevance in formulating a National Logistics Policy in Sri Lanka (10 Marks)

(c) "The typical centroid in the Freight and Logistics Sector in Sri Lanka is considered to be Pettah, within which almost all freight related activities are done. With this scenario, the CBD has become more congested and having many negative externalities. "

Critically comment on the above statement. Illustrate your arguments with appropriate suggestions to overcome the issue

(10 Marks)

Question 04

(a) According to the recent statistics, both passenger and Freight transportation in Sri Lanka are dominated by Road transportation, where it depicts over 90% of utilization for both passenger and Freight. On the other hand, an underutilization of the rail transportation can be identified in Sri Lanka. An important suggestion to make in this circumstance is the shift from Road to Rail

Critically comment on the above statement. Explain with possible 03 (three) suggestions as policy reforms, that can be given to uphold the rail transportation system in Sri Lanka (15 Marks)

(b) Explain two (02) strategies that can be proposed to implement to reduce vehicle ownership in Sri Lanka as an indirect approach to reduce the road congestions.

(10 Marks)



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Question 05

(a) Traffic Congestion, especially in urban areas have caused many negative externalities, thus, it has become an important concern over transport and logistics system performance. In mitigating congestion, the need of Demand Side Strategies and Supply Side strategies have a significant focus.

“To mitigate congestion in Sri Lanka, a balanced approach of supply and demand side strategies has to be adopted”

Critically comment on the above statement with possible demand side strategies to be implemented in Sri Lanka

(15 Marks)

(b) Para-transit can be termed as “Transportation service that supplements larger public transit systems by providing individualized rides without fixed routes or timetables” According to the recent statistics, in Sri Lanka, it accounts predominantly for over 300,000 three wheelers.

Explain as to why there should be a central regulatory control to para-transit system in Sri Lanka.

(10 Marks)

Question 06

(a) “The number of road accidents and fatalities in Sri Lanka has steadily increased over the past years. Major causes for this have identified as poor condition of transport infrastructure, undisciplined behaviour of road users, drivers, riders, passengers and pedestrians, poor training and poor testing systems, adaptation of outdated technologies and inadequate and inconsistent enforcement of laws.”



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Critically comment on the above statement. Illustrate your arguments with appropriate examples and suggestions to overcome the issue

(15 Marks)

(b) Explain two (02) environmental problems in Sri Lanka that causes via land transportation and explain possible policy suggestions to overcome those problems

(10 Marks)

Question 07

(a) Explain the importance of an International Freight Transport Policy to Sri Lanka, benchmarking with the best practices of the European Union Freight Transport Policy.

(10 Marks)

(b) The freight transport policy in Japan has a specific focus on Inland and ocean freight transportation and developments of ports. Explain the importance of adapting measures used in Japan in developing the inland and ocean freight transportation. Compare and contrast between the best practices in Sri Lanka and Japan.

(15 Marks)

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

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Year 2 Semester I

REPEAT EXAMINATION

Air Cargo and Passenger Transportation – LTAT2205

- This paper consists of SEVEN questions on FOUR (04) 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: 2022.08.25

Pass mark: 50%

Time: 02 Hours

Question 01 (Compulsory)

- (a) Aviation's global economic impact is estimated at \$2.7 trillion, equivalent to 3.6% of world gross domestic product (GDP). Its contribution includes direct, indirect, induced and tourism catalytic impacts. Briefly explain these impacts with examples. (15 Marks)
- (b) Explain the change in civil aviation management of Sri Lanka that occurred when the state functions were transferred into public corporations or limited liability companies. (10 Marks)

Question 02

- (a) Compare All cargo carriers and Belly cargo carriers under the following categories:
- Cost of service
 - Dimensions and type of cargo
 - Flight schedules and network (15 Marks)
- (b) Briefly explain the role of a freight forwarder. (05 Marks)

(c) Explain what is an airway bill.

(05 Marks)

Question 03

(a) Aeroflo airline is a major airline of France. The table depicts the passenger movements of the airline performed by the B747 aircraft of the airline with a seat capacity of 250 seats. Airline operates two flights daily to Shanghai airport (PVG) in China originating from Paris Charles de Gaulle Airport (CDG) France.

Note: Consider a calendar month as 31 days.

| Sector length | CDG-PVG (9300 Km) | |
|---------------|-------------------|------------|
| | CDG-PVG | PVG-CDG |
| Sector | Passengers | Passengers |
| APR | 12500 | 12500 |
| MAY | 13500 | 13200 |
| JUN | 13800 | 12000 |
| JUL | 12000 | 13500 |
| AUG | 13900 | 13700 |

- i. What will be the ASK by Aeroflo airline in CDG-PVG for the month of **August** for **round trips**? (04 Marks)
- ii. What will be the RPK by Aeroflo airline in CDG-PVG for the month of **August** for **round trips**? (04 Marks)
- iii. What will be the passenger load factor by Aeroflo airline in CDG-PVG for the month of **August** for **round trips**? (02 Marks)
- iv. Explain why a high load factor is not an ideal indicator of an airline's success and profitability. (06 Marks)



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- (b) Describe the advantages and disadvantages of adopting an open skies policy for air transportation in Sri Lanka. (09 Marks)

Question 04

- (a) Explain each of the following with an example.
- Hazard
 - Consequence of a hazard
 - Safety Risk
- (10 Marks)
- (b) SHELL Model is widely used in the air transport industry to understand the human contribution to safety and to support the human operational performance necessary to achieve the system's production goals. Explain with examples the relationship of each element in the SHELL Model in the context of an airline. (15 Marks)

Question 05

- (a) Explain how codeshare agreements work with an example. (06 Marks)
- (b) There are different business models in the airline industry. What are these business models? Identify the unique characteristics of these business models with examples of airlines for each model. (12 Marks)
- (c) List down the phases of flight and briefly explain any 1(one) of the flight phases. (07 Marks)

Question 06

- (a) Bizwiz Company Pvt. Ltd. is going to ship some cargo from Shanghai to Jakarta, Indonesia. The shipment consists of 06 boxes, each weighing 17 kg, and each measuring 25 x 55 x 75 cm. Find the chargeable weight. (06 Marks)



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- (b) Explain general commodity rate, Specific commodity rate and Classification Commodity rate. (09 Marks)
- (c) Briefly explain factors affecting air freight rates. (10 Marks)

Question 07

- (a) The six basic flight instruments in the cockpit are categorized into two as pitot-static instruments and gyroscopic instruments. Briefly explain 1(one) instrument from each category. (10 Marks)
- (b) List down 6(six) fuel components of block fuel. (06 Marks)
- (c) Explain the weight buildup of an aircraft with the aid of a diagram. (09 Marks)

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



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Year 2 Semester I

REPEAT EXAMINATION

Port Management – LTPM2207

- 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: 2022.08.24

Pass mark: 50%

Time: 02 Hours

Question 01 - (Compulsory)

- Name the two Private Container Terminals in the Port of Colombo? (4 Marks)
- Name the three SLPA managed Container Terminals in the Port of Colombo (6 Marks)
- What are the Navigational Facilities at Port of Colombo? (6 Marks)
- What are the Cargo Handling Facilities available at the Port of Colombo? (5 Marks)
- What are the salient features of the Port of Galle? (4 Marks)

Question 02

- Name commercial ports in Sri Lanka? (5 Marks)
- Name the two Port Management Companies that manage the Port of Hambantota? (4 Marks)
- What are the Navigational Facilities at Port of Hambantota? (6 Marks)
- What are the Cargo Handling Facilities available at the Port of Hambantota? (5 Marks)
- List out Tank Farm (Liquid Bulk Handling) Facilities at the Port of Hambantota? (5 Marks)

Question 03

- What is the primary function of a Sea Port? (5 Marks)
- What is the difference between a Port & a Harbor? (10 Marks)
- "Port is known as Heart of the Nation" Explain Why? (10 Marks)



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 Course CODE: COM551

Question 04

- a) List Logistics Facilities at the Port of Colombo? (5 Marks)
 b) Why Port of Colombo expanded and build a new Harbour? (5 Marks)
 c) What are the salient features of the Port of Trincomalee? (5 Marks)
 d) Name main Tariff items in the SLPA Tariff 2022? (10 Marks)

Question 05

- a) Why measure business performance? (5 Marks)
 b) Describe Colombo Port Expansion Project (Colombo South Harbour) with salient features? (10 Marks)
 c) What is Port Marketing and list out marketing tools to promote the port? (10 Marks)

Question 06

- a) Explain When & How Sri Lanka Ports Authority was formed? (15 Marks)
 b) What are the Objectives & Duties of SLPA? (10 Marks)

Question 07

- a) Name port related Value-added Logistic services? (7 Marks)
 b) What are the Functions of the SLPA Logistics Division? (10 Marks)
 c) Name Port Customers & list out their expectations? (8 Marks)

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



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 Course CODE: COM551

Year 2 Semester I

REPEAT EXAMINATION

Intermediate Economics – LTIE2202

- 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: 2022.08.23

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

- (a) Indifference curve is use for illustration of consumer behavior in economics.
 Explain that meaning of Indifference curve, its properties and usefulness of it. (15 Marks)
- (b) What do you meant by consumer's equilibrium? Which conditions should be fulfilled for that situation? (10 Marks)

Question 02

- (a) Derive a Demand curve for product X using price consumption Curve which has elastic demand. (10 Marks)
- (b) Define the price effect with appropriate examples (07 Marks)
- (c) Explain the difference between Normal product and Inferiors with Price effect.
 Use the appropriate diagrams (08 Marks)



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Question 03

- (a) Define the term Producer's Equilibrium with conditions (08 Marks)
 (b) What do you mean by "Production Expansion Path"? explain with appropriate examples (07 Marks)
 (c) Explain the Law of Production in Long run using production expansion path (10 Marks)

Question 04

- (a) Explain each component of gross domestic production in an open economy. (09 Marks)
 (b) Drive the IS curve for an economy (05 Marks)
 (c) Drive the LM curve for an economy (05 Marks)
 (d) Which factors influence to shifting IS curve (06 Marks)

Question 05

- (a) You are given the following a set of information on money & goods market of a open economy,

$$C = 1000 + 0.5Y_d$$

$$T = 600$$

$$I = 500 - 100i$$

$$G = 600$$

$$M_s = 2500$$

$$(M/P)_d = 5Y - 1000i$$

$$NX = 200$$

Where C- consumption, Y- national income, Y_d - disposable income, i - interest rate, T- taxes, I- investment, G- government expenditure, M_s - real money supply, $(M/p)_d$ - real money demand, NX - net exports and P- Price levels.

- (i) Determine the equilibrium interest rate, income, Investment, disposable income and nominal money demand (18 Marks)
 (ii) Assume that G increases by 100. By how much will Y increase in short run equilibrium? Shows that the new IS curve and equilibrium in a diagram (07 Marks)



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Question 06

You are given following game. The payoffs of game represent the profits of each firm.
 Explain game between two firms. (25 Marks)

| | | Firm 2 | | | |
|--------|-------------|--------|---|-------------|----|
| | | None | | New product | |
| Firm 1 | None | 4 | 4 | 3 | 16 |
| | New Product | 6 | 3 | 2 | 2 |

Question 07

Write short notes on any Five (5) of the following

- Income Consumption Curve
- Expansionary Fiscal policy
- Liquidity preference
- Open market operations
- Properties of Iso-quant
- Dominant Strategy

(05x 05 Marks)



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Year 2 Semester I
 REPEAT EXAMINATION
 Financial Management – LTFM2201

- This paper consists of SEVEN questions on NINE (09) 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: 2022.08.22

Pass mark: 50%

Time: 02 Hours

Question 01

Tradeway Finance expect to invest in the two mutually exclusive projects in the beginning of the Financial Period. Project X is "building a housing complex" and project Y is "construction of a supercenter".

(Rs in Millions)

| | <u>Project X</u> | <u>Project Y</u> |
|---------------------|------------------|------------------|
| Initial Investment | 10,500,000 | 10,000,000 |
| Project life time | 5 Years | 5 Years |
| Cash Inflow- Year 1 | 600,000 | 1,250,000 |
| Year 2 | 2,400,000 | 4,500,000 |
| Year 3 | 4,675,000 | 1,500,000 |



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| | | |
|-------------------------|-----------|------------|
| Year 4 | 6,825,000 | 3,500,000 |
| Year 5 | 2,400,000 | 4,500,000 |
| Discount rate per annum | 10% p.a | 20% |
| Average Annual Profits | 2,500,000 | 1,,000,000 |

Required,

(a) Calculate the followings based on the above information for project A and Project B.

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

(5*4 Marks)

(b) Give your recommendations for the project to be undertaken based on the above calculations.

(5 Marks)

Question 02

(a) The **Financial Management** can be broken down into four major decisions or functions of **finance**. Clearly explain the **four main decisions** of Financial Management.

(12.5 Marks)

(b) What is meant by "Agency Conflict"? Explain what are the remedies available.



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(12.5 Marks)

Question 03

(a) Briefly explain the concept of **Time Value of Money** and its importance.

(10 Marks)

(b) Mr. Perera needs to select one of the following payment schemes once he retires.

Scheme 01: An annuity with 8 annual payments of RS 115,000 with first payment at the end of the first year.

Scheme 02: Take a lumpsum amount of Rs. 10 Million today.

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

(08 Marks)

(c) Ashenika wants to invest her money worth RS 250,000 in a bank that promises to pay 14% interest rate compounded monthly. At the end of the 8th year, how much would be there in her account?

(07 Marks)

Question 04

Your company is considering two mutually exclusive projects, J and K.

Project J

Project J involves an outlay of 2,000 million which will generate an expected cash inflow of 40 million per year for 25 years.

Project K



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This involves for an outlay of 400 million which will produce an expected cash inflow of 45 million per year for 30 years.

The company's cost of capital is 10% per annum.

Calculate the NPV of each project J and K.

- (a) Propose on which project the company should be invested. Justify your proposal providing reasons. (Hint: Use annuity tables)
- (b) Explain the advantages and disadvantages of NPV analysis.

(25 Marks)

Question 05

- (a) What is the meaning of Weighted Average cost of Capital (WACC). (5 Marks)
- (b) Calculate the WACC and interpret your answer. Assume that tax rate is 30%.

| Capital Components | Market value (Rs.Mn) | Cost |
|--------------------------|-------------------------|--------------|
| Stated Capital | 1,000 | $K_e = 20\%$ |
| Preference share Capital | 800 | $K_p = 12\%$ |
| Long Term Loans | 200 | $K_d = 15\%$ |
| Debentures | 200 | $K_d = 10\%$ |

(20 Marks)



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Question 06

“At its core, Financial Management is the practice of making a business plan and then ensuring all departments on track.” What is the importance of financial management for a business and what are the challenges FM will face in the modern business environment.

(25 Marks)

Question 07

Explain FIVE from the below terms in finance.

- (a) Future Value
- (b) Annuity
- (c) Bonds & Debentures
- (d) Compounded Interest
- (e) Business Risks
- (f) Discounting Factor

(25 Marks)

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



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Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
 n = number of periods until payment

| Periods (n) | Discount rate (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 | 1 |
| 2 | 0.980 | 0.961 | 0.943 | 0.925 | 0.907 | 0.890 | 0.873 | 0.857 | 0.842 | 0.826 | 2 |
| 3 | 0.971 | 0.942 | 0.915 | 0.889 | 0.864 | 0.840 | 0.816 | 0.794 | 0.772 | 0.751 | 3 |
| 4 | 0.961 | 0.924 | 0.888 | 0.855 | 0.823 | 0.792 | 0.763 | 0.735 | 0.708 | 0.683 | 4 |
| 5 | 0.951 | 0.906 | 0.863 | 0.822 | 0.784 | 0.747 | 0.713 | 0.681 | 0.650 | 0.621 | 5 |
| 6 | 0.942 | 0.888 | 0.837 | 0.790 | 0.746 | 0.705 | 0.666 | 0.630 | 0.596 | 0.564 | 6 |
| 7 | 0.933 | 0.871 | 0.813 | 0.760 | 0.711 | 0.665 | 0.623 | 0.583 | 0.547 | 0.513 | 7 |
| 8 | 0.923 | 0.853 | 0.789 | 0.731 | 0.677 | 0.627 | 0.582 | 0.540 | 0.502 | 0.467 | 8 |
| 9 | 0.914 | 0.837 | 0.766 | 0.703 | 0.645 | 0.592 | 0.544 | 0.500 | 0.460 | 0.424 | 9 |
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Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
 n = number of periods

| Periods (n) | Discount rate (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 | 1 |
| 2 | 1.970 | 1.942 | 1.913 | 1.886 | 1.859 | 1.833 | 1.808 | 1.783 | 1.759 | 1.736 | 2 |
| 3 | 2.941 | 2.884 | 2.829 | 2.775 | 2.723 | 2.673 | 2.624 | 2.577 | 2.531 | 2.487 | 3 |
| 4 | 3.902 | 3.808 | 3.717 | 3.630 | 3.546 | 3.465 | 3.387 | 3.312 | 3.240 | 3.170 | 4 |
| 5 | 4.853 | 4.713 | 4.580 | 4.452 | 4.329 | 4.212 | 4.100 | 3.993 | 3.890 | 3.791 | 5 |
| 6 | 5.795 | 5.601 | 5.417 | 5.242 | 5.076 | 4.917 | 4.767 | 4.623 | 4.486 | 4.355 | 6 |
| 7 | 6.728 | 6.472 | 6.230 | 6.002 | 5.786 | 5.582 | 5.389 | 5.206 | 5.033 | 4.868 | 7 |
| 8 | 7.652 | 7.325 | 7.020 | 6.733 | 6.463 | 6.210 | 5.971 | 5.747 | 5.535 | 5.335 | 8 |
| 9 | 8.566 | 8.162 | 7.786 | 7.435 | 7.108 | 6.802 | 6.515 | 6.247 | 5.995 | 5.759 | 9 |
| 10 | 9.471 | 8.983 | 8.530 | 8.111 | 7.722 | 7.360 | 7.024 | 6.710 | 6.418 | 6.145 | 10 |
| 11 | 10.37 | 9.787 | 9.253 | 8.760 | 8.306 | 7.887 | 7.499 | 7.139 | 6.805 | 6.495 | 11 |
| 12 | 11.26 | 10.58 | 9.954 | 9.385 | 8.863 | 8.384 | 7.943 | 7.536 | 7.161 | 6.814 | 12 |
| 13 | 12.13 | 11.35 | 10.63 | 9.986 | 9.394 | 8.853 | 8.358 | 7.904 | 7.487 | 7.103 | 13 |
| 14 | 13.00 | 12.11 | 11.30 | 10.56 | 9.899 | 9.295 | 8.745 | 8.244 | 7.786 | 7.367 | 14 |
| 15 | 13.87 | 12.85 | 11.94 | 11.12 | 10.38 | 9.712 | 9.108 | 8.559 | 8.061 | 7.606 | 15 |



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Formula sheet

1) Present Value of a single 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) Future value of an ordinary annuity

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

5) Expected Return

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

6) Expected Risk of an individual asset

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

7) Expected Risk of a portfolio

$$\sigma_p^2 = W_1^2 \sigma_1^2 + W_2^2 \sigma_2^2 + 2W_1 W_2 Cov_{1,2}$$



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8) Covariance between two assets

$$\sigma_{x,y} = \sum_{i=1}^n [R_x - E(R_x)][R_y - E(R_y)]P_i$$

9) Market Risk

$$\beta_i = \frac{Cov_{i,m}}{\sigma_m^2}$$



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Year 2 Semester I

REPEAT EXAMINATION

Human Resource Management – HRMG0262

- This paper consists of EIGHT questions on NINE (09) 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: 2022.08.20

Pass mark: 50%

Time: 03 Hours

Question 01:(Compulsory)

SELECT MOST APPROPRIATE ANSWER OUT OF THE GIVEN CHOICES.

1. Employee productivity is;
 - (a) Employee outputs /Employee inputs
 - (b) Employee inputs /Employee outputs
 - (c) Number of units/ Employees
 - (d) Employees/ Number of units
2. 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



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3. HR Management important to all managers to avoid;
 - (a) Hire a correct person
 - (b) Hire the wrong person for the job
 - (c) Hire the bad skilled worker
 - (d) Hire the person who doesn't with correct knowledge

4. What are the main two components of a job
 - (a) Job Description and Job Specification
 - (b) Job content and job context
 - (c) Job Design and Job Analysis
 - (d) Job and Job Holder

5. If there is an inefficiency between personal ability and current job demand, then there is a need of
 - (a) Human Resource Planning
 - (b) Induction
 - (c) Training
 - (d) Development

6. Advantage of "Observation" as a method of collection data in Job Analysis
 - (a) A deeper understanding of the job
 - (b) First-hand information regarding characteristics and activities
 - (c) It is possible to collect data about many jobs
 - (d) It is not time consuming



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

8. Job Analysis Is a process of examining jobs in order to identify
 - (a) the results that are expected by job holder
 - (b) the results that are expected by customer
 - (c) the results that are expected to be achieved
 - (d) the results that are expected by supplier

9. Three purposes of performance evaluation
 - (a) Administrative, Development, Information
 - (b) Administrative, Training, Information
 - (c) Planning, Development, Information
 - (d) Administrative, Planning, Information

10. Induction comes after;
 - (a) Selection
 - (b) Recruitment
 - (c) Job Analysis
 - (d) Hiring



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11. 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

12. Importance of Recruitment in HRM
 - (a) To discover qualified people; To attract an adequate number of job applicants
 - (b) To discover qualified people Job commitment; To ensure optimum use of human resource currently employed
 - (c) To ensure optimum use of human resource currently employed; To attract an adequate number of job applicants
 - (d) To attract an adequate number of job applicants; To get the right person for the job vacancy

13. Third stages of Schein's Socialization Model
 - (a) Commencement
 - (b) Entry
 - (c) Mutual Acceptance
 - (d) Agreement



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14. Recruitment process starts from;
- (a) Identify Job Vacancies
 - (b) Identify the surpluses
 - (c) Familiarize with the nature and the type of the organization
 - (d) Identify jobs available to be analyzed
15. Most important factor to be considered when prepare a safety program is
- (a) Investigation of all accidents
 - (b) Review of accident prevention measures
 - (c) Training which includes safety as a part
 - (d) Careful selection of new employees to eliminate those who are physically or mentally unsuitable
16. Selection is a;
- (a) Negative function
 - (b) Positive function
 - (c) Corrective function
 - (d) Effective function
17. An adequate and effective procedure must be developed by the to handle and settle grievances of its employees
- (a) employees
 - (b) supervisors



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- (c) management
- (d) quality circle

18. First step of Human Resource Planning (HRP)

- (a) Estimate Supply of HR
- (b) Forecast Future Needs for HR
- (c) Decide Strategies
- (d) Compare the Forecasted Demand of HR with Supply

19. Performance Management will;

- (a) Prove evidence
- (b) Collect evidence
- (c) Distribute evidence
- (d) Hide evidence

20. Forecasting technique which can be used to predict future requirement of HR

- (a) Succession planning
- (b) Internal HR audit
- (c) Skill inventory
- (d) Delphi Method

(01 Mark*20 = 20 Marks)



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Question 02

Mr. Perera heard the alarm ringing but did not move. The thought of facing another day at work was too much. "May be I will call and say that I am sick." He thought, but then he thought otherwise. "I stayed away 2 days last week, and if I am going to be absent anymore I may run the risk of losing my job." Just then his wife walked in and said "Come on, X it's a nice day. Get up and have the breakfast with the children before you leave for work. I hate to see you missing breakfast."

Perera got annoyed. "What difference does breakfast make? I just hate to go to work. The work is so boring now, you just go in, sit down and then leave at the end of the day. The repetitive work is the thing I cannot stand most."

"Oh come on honey, things can't be that bad. Look at the positive side- the pay is good, and you are quite senior now after 12 years of service in a large company." said Perera's wife.

"The work is still hard, but it's the boredom and repetition that annoy me." responded Perera. "I feel like I am wasting my time at this stage of my life. I think I will look for another job."

"Well" his wife said, "I will not tell you what to do; that is your decision, but don't forget that the children are getting old now, and we will have to pay extra school fees next month when the next term commences. Why don't you think about another job again next year?"

Perera thought, "She is probably right. We do need the money and it is a bad time to be short. I guess I will have to think about another job little later."

You are required to identify the problems and suggest suitable solutions to those problems.

(20 Marks)



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Source: Adapted from professional part III Examination-October 1993, the Institute of Chartered Accountants of Sri Lanka

Question 03

- (a) Define the term "Job Design"? (02 Marks)
- (b) What are the factors to be considered in order to achieve the objectives of job design? (04 Marks)
- (c) Briefly explain the Job - Person Fit concept in HRM. (06 Marks)
- (d) "It is possible to adopt job enrichment for any job available in the organization." Discuss. (08 Marks)

Question 04

- (a) Identify five main characteristics of Jobs which should be identified in Job Analysis. (05 Marks)
- (b) Briefly explain the two methods of collecting data for Job analysis. (06 Marks)
- (c) Differentiate the Job description and Job Specification. (09 Marks)

Question 05

- (a) Identify three objectives of Human Resource Planning (HRP). (03 Marks)
- (b) One importance of HRP is controlling the cost of employee. Briefly explain. (05 Marks)
- (c) Identify four main steps of HRP and explain two steps briefly. (12 Marks)



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Question 06

- (a) Define the term "Job Recruitment". (02 Marks)
- (b) Identify the importance of recruitment. (08 Marks)
- (c) Briefly explain the recruitment process. (10 Marks)

Question 07

- (a) Define the term "Selection" in Human Resource Management. (02 Marks)
- (b) Briefly explain the importance of "Selection". (06 Marks)
- (c) There are four main outcomes of the "Selection" process. Discuss. (12 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-----

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Course CODE: COM550



Year 2 Semester I

REPEAT EXAMINATION

Introduction to Logistics – LOGI0346

- This paper consists of EIGHT questions on SIX (06) pages.
- Answer FIVE Question 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: 2022.08.18

Pass mark: 50%

Time: 03 Hours

Question 01 (Compulsory)

The Question consists of 10 Multiple Choice Questions (MCQs). Select the most appropriate answer and write the letter of the correct answer in your answer script.

(02*10 Marks)

1. Which of the below statement/s correctly mention the factors that encourage global logistics?
 - I. Demand for foreign products.
 - II. Manufacturers aiming for economies of scale.
 - III. Changing practices in logistics.
 - a) (I) only.
 - b) (I) and (II) only.
 - c) All of the above.
 - d) None of the above
2. Which of the following accurately describes about **Pre-stage I** of evolution of Logistical organizations.



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- a) Organizational responsibility for logistics was dispersed throughout the firm.
 - b) Emergence of physical distribution management happened.
 - c) Upward positioning of logistical chief.
 - d) Organizations are matrix in structure.
3. Which of the following is NOT a material handling principle in a warehouse?
- a) The work principle.
 - b) The ergonomic principle.
 - c) The automation principle.
 - d) Storage principle.
4. Which of the below is a type of a logistics relationship?
- a) Horizontal Relationships
 - b) Vertical Relationships
 - c) Full Collaborations
 - d) All of the above
5. Which of the following accurately demonstrate the correct order of purchasing cycle?
- a) Identify need, Outline procurement plan, select suppliers, Issue RFQ, Tender evaluation, Contract terms and conditions, Supply chain management, Warehouse management, Asset management.
 - b) Outline procurement plan, Identify need, Issue RFQ, Contract terms and conditions, Supply chain management, Warehouse management, Asset management, Tender evaluation.
 - c) Issue RFQ, Tender evaluation, Contract terms and conditions, Outline procurement plan, Supply chain management, Identify need, Warehouse management, Asset management.
 - d) None of the above.



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6. What's not a reason for the companies to buy from outside rather than making in-house?

- a) Lack of experience and expertise.
- b) Supplier's specialized know-how.
- c) To protect proprietary technology.
- d) Tap onto a pool of talents.

7. "An agreement between a supplier and a retailer granting the retailer exclusive rights within a specific geographic area to carry the supplier's product".

Which of the following distribution method best describes the above scenario?

- a) Selective distribution
- b) Mass distribution
- c) Exclusive distribution.
- d) None of the above.

8. Choose the most suitable transport mode for the below given scenario.

Saman needs to export tea to one of his customers in Australia and for this purpose Saman had to entered into an individual contracts with transport service provider for road movement (in seller's country) , carrier for sea movement as well as rail/ road movement in buyer's country.

The transport mode that Saman has chosen is;

- a) Intermodal transport.
- b) Multimodal transport.
- c) Both Intermodal and multimodal transport.
- d) Intramodal transport mode.



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9. What's not a type of vessel used in marine transportation?
- a) Bulk Services.
 - b) Tramp services.
 - c) Liner services.
 - d) Break bulk services.
10. "Assigning an arrival and service time for each stop, with drivers being assigned shifts that adhere to working hours"

Which of the delivery principles are described in the above statement?

- a) Route scheduling.
- b) Vehicle routing.
- c) Milk runs.
- d) Consolidation of orders.

Question 02

Coco - Expo is a new venture which has recently being started by Sunil to export coconut related products such as virgin coconut oil and coconut fiber to markets like USA and EU. Since the firm is newly formulated it has a very limited investment capability. However, thinking that there would be a huge demand for the products in future, Sunil is going to invest in a private warehouse to store all the coconut based products.

- a) Do you agree with Sunil's decision? As a student who is learning Introduction to Logistics module, give your opinion with reasons regarding the most suitable warehousing facility that Sunil should invest in. (06 marks)
- b) Explain the time and place utility function of warehousing. (03 marks)
- c) Inventory is classified into various groups based on their functionality. What are the classifications of inventory? Explain.



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- d) Bullwhip effect is a commonly known phenomenon in the Supply chain. (06 marks)
 Illustrate what exactly is Bullwhip effect in your own words. (05 marks)

Question 03

- a) As a student learning Introduction to Logistics module, differentiate between purchasing and procurement to one of your friends who doubt the difference between those two. (06 marks)
- b) Elaborate the benefits that a company would realize through buying from outside rather than producing in-house. (06 marks)
- c) Even though it is said that purchasing is an extra cost to the business, many organizations have realized benefits of purchasing. Briefly explain two such benefits of purchasing. (04 marks)
- d) Distinguish between vertical and horizontal logistics relationships. (04 marks)

Question 04

- a) "Emergence of global logistics has happened as a result of globalization." Elaborate this statement in your own words. (06 marks)
- b) Explain the possible scenarios in which global logistics can occur in your own words. (10 marks)
- c) What do you think are the factors that have encouraged businesses to engage in global logistics? (04 marks)

Question 05

- a) Distinguish between centralized and decentralized logistics models. (05 marks)



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- b) Elaborate in your own words, how inbound and outbound logistics occur in an organization. (05 marks)
- c) Explain the type of Logistics systems with examples. (05 marks)
- d) What are the three major types of supply chains? (05 marks)

Question 06

- a) Transportation seems to be a mandatory element for the sustainability of Logistics industry. Demonstrate the role of transportation in Logistics with at least 150 words. (05 marks)
- b) What's the difference between vehicle routine and scheduling? (04 marks)
- c) Explain the types of scheduling principles. (06 marks)
- d) What's forecasting by product lifecycle? Describe each stage with relative examples. (05 marks)

Question 07

- a) Explain ABC analysis using a practical example. (03 marks)
- b) What are the types of Logistics relationships? (04 marks)
- c) There're 6 types of 3PL services. Explain **any two** types in your own words. (04 marks)
- d) Distinguish between centralized and decentralized Logistics models. (05 marks)
- e) What are alliances? Explain your answer with real world examples. (04 marks)

Question 08

Write short notes on below topics (4* 05 marks)

- a) Make to stock supply chains.
- b) Pipeline inventory.
- c) Inventory carrying cost.
- d) Independent Demand.

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



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Year 2 Semester I

REPEAT EXAMINATION

Quality Management – QTMG0265

- 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: 2022.08.17

Pass mark: 50%

Time: 03 Hours

Question 01: (Compulsory)

Quality is identified with the organizational culture and it is called TQM culture. Define Total quality management (TQM) and explain the main principles applied in TQM cultures with examples applied into the logistics and transport industry. (20 Marks)

Question 02

Write short notes on the followings quality tools with examples

- (a) 5S
- (b) Six sigma
- (c) JIT
- (d) 5why method

(4*05 Marks)

Question 03



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In a warehouse, poor application of FIFO method has been a problem which was always complaint by the customers. The warehouse manager had formed a quality circle and asked the employees to manage the matter.

As an expert of quality administration, you are required to instruct them on fish-born diagrams and force field analysis. You may draw the diagrams by assuming the possible root causes areas and possible solutions. (20 Marks)

Question 04

- (a) Define the term "Quality management" (04 Marks)
- (b) Garvin proposes eight critical dimensions of quality serves as a framework for strategic analysis. It includes Performance, features, reliability, conformance, durability, serviceability, aesthetics, and perceived quality. Discuss the application of these using examples. (16 Marks)

Question 05

Quality management systems are tended to fail due to many reasons in some organizations. Discuss on five major reasons for the above situation. (20 Marks)

Question 06

Draw a process map for the following steps relevant to a warehouse. You are free enough to design relevant tasks in the process map as per the information given below.

- (a) Good receipt/in bound
- (b) Preliminary investigation
- (c) Sending the items with good condition to relevant places and keep the doubt items in the special holding area.
- (d) Call for quality teams for waive off action
- (e) Select some goods and reject some
- (f) Goods storing / Good disposal
- (g) Temperature controlling
- (h) Internal auditing
- (i) External auditing
- (j) First in first out basis good issuing/out bound (20 Marks)



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Question 07

Select an organizational environment by yourself and draw a system map including main, supportive and management processes. (20 Marks)

Question 08

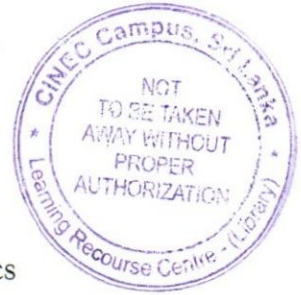
"New trends in quality address the issues and challenges of the modern world"

Do you agree with the above statement? Justify your views referring five (05) new quality trends today. (20 Marks)

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



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Year 2 Semester I

REPEAT EXAMINATION

Transport and Logistics Policy – TLOP0311

- This paper consists of EIGHT questions on FOUR (04) 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: 2022.08.19

Pass mark: 50%

Time: 03 Hours

Question 01 (Compulsory)

Transportation within the context of commerce, is the movement of goods from one location to another. Transportation is the driver of logistics. Logistics service providers and relevant authorities face challenges when developing a new transport & logistics policy in a new operating environment.

- (a) What is a transport & logistics policy? (05 Marks)
- (b) Discuss the key challenges in developing a transport & logistics policy.
(at least 3 challenges should be explained in separate paragraphs.) (15 Marks)

Question 02

Components of transport can be classified based on various methods. One method explains four core essential components; they are

A. Modes



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B. Infrastructures

C. -----

D. -----

- (a) Identify "C" & "D". (05 Marks)
- (b) Briefly explain above A, B, C & D separately. (15 Marks)

Question 03

Maritime Transport is essential for sustainable trade & development. National Maritime Transport Policy is the articulation of more concrete guidelines or principles that will support the government or nation to achieve its maritime vision. A well-structured & deplumated national maritime transport policy can give a country, the tools it needs to become an effective participant in maritime sector. Review Sri Lanka's National Transportation Policy's principles for the development of maritime sector of Sri Lanka.

(20 Marks)

Question 04

Trading activities of most global business organizations go through the logistics cycle. It may include various other ancillary activities such as transporting, packaging, packing, labelling, etc., to name a few. A logistics policy is a mandate that determines how these activities are going to proceed. It could be about transportation, warehouse operations, customs, infrastructure development, and trade.

- (a) What is a logistics policy as per your knowledge? (05 Marks)
- (b) Elaborate logistics cycle including its major activities. (15 Marks)



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Question 05

Policy instruments are the tools to overcome problems and achieve objectives. They involve in conventional transport methods, attitudinal changes & information-technological changes.

- (a) What are the types of policy instruments? (05 Marks)
- (b) Explain three instruments out of above answer. (15 Marks)

Question 06

Transport planning is the process of regulating and controlling the provision of transport to facilitate the efficient operation of the economic, social and political life of the country at the lowest social cost.

- (a) Define "transport planning process". (05 Marks)
- (b) Discuss the stages in transport planning. (15 Marks)

Question 07

"X" is the ability and level of ease of moving goods and services. "Y" is the people's overall ability to reach services and activities. Congestion Management Systems are the trend in "X" due to the lack of funds and the land constraints to keep expanding the transit system infinitely. "Y" focuses on travel time, travel cost, travel options, comfort, and risk while addressing the needs of all within the community. "X" and "Y" are considered the "Ying and Yang" of transportation. The goal is to increase the overall capability of the transit system while not compromising efficiency and ease of access.

- (a) Identify "X" & "Y". (05 Marks)
- (b) Discuss transport problems in rural and urban areas separately. (15 Marks)



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Question 08

Select four topics as per your preference and give brief summary of each selected topic.

- (a) The Avoid-Shift-Improve Approach. (05 Marks)
- (b) Logistics Cycle. (05 Marks)
- (c) Problems in Transport Policies. (05 Marks)
- (d) Logistics Policy. (05 Marks)
- (e) Impediments to Rail Freight Transportation. (05 Marks)

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



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Year 2 Semester I

SEMESTER END EXAMINATION

Air Cargo and Passenger Transportation – LTAT2205

- 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: 2020.09.14

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

- (a) Differentiate between Low cost carriers and Full service carriers. (08 Marks)
- (b) SriLankan airlines is a member of the prestigious Oneworld global airline alliance. List down the advantages of alliances taking SriLankan airlines as an example. (04 Marks)
- (c) Explain how codeshare agreements work with an example. (05 Marks)
- (d) Aviation's global economic impact is estimated at \$2.7 trillion, equivalent to 3.6% of world gross domestic product (GDP). Its contribution includes direct, indirect, induced and tourism catalytic impacts. Briefly explain these impacts with examples. (08 Marks)

Question 02

- (a) Briefly explain each of the following with an example.
- i. Hazard
 - ii. Consequence of a hazard
- (06 Marks)



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 Course CODE: COM551

- (b) Safety risk is the assessment of the consequences of a hazard taking as reference the worst foreseeable situation. Safety risk can be expressed in terms of predicted probability and severity'. Explain. (09 Marks)
- (c) SHELL Model is widely used in the air transport industry to understand the human contribution to safety and to support the human operational performance necessary to achieve the system's production goals. Explain with examples the relationship of each element in the SHELL Model in the context of an airline. (10 Marks)

Question 03

Skywin airline is a domestic US carrier that operates a fleet of 6 aircraft between major cities in the country. The type of aircraft, number of passengers, aircraft capacity, city pairs and distance are given below. Assume that the aircraft operates for all the 30 days in a month and assume that all passengers are revenue passengers.

| Aircraft | No. of passengers | Capacity | City-pair | Distance | Frequency |
|-----------------|-------------------|----------|-----------|----------|-------------|
| Boeing 737-800 | 180 | 202 | JFK - ORD | 1190 km | Daily twice |
| Boeing 737-800 | 190 | 210 | JFK - MIA | 1753 km | Daily once |
| Boeing 737-800 | 220 | 240 | JFK - ATL | 1222 km | Daily once |
| Airbus A330-300 | 380 | 390 | JFK - LAX | 1115 km | Daily twice |
| Boeing 777 | 390 | 410 | JFK - SFO | 2161 km | Daily once |
| Airbus A330-400 | 285 | 295 | JFK - CLT | 1150 km | Daily twice |

- (a) What will be the ASK per month for Boeing aircraft of Skywin airline? (05 marks)
- (b) What will be the RPK per month for Boeing aircraft of Skywin airline? (05 marks)



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- (c) What will be the passenger load factor per month for Boeing aircraft of Skywin airline? (03 marks)
- (d) Explain why a high load factor and high yield are not ideal indicators of an airlines success and profitability. (06 Marks)
- (e) Briefly explain 2(two) aircraft related performance indicators. (06 Marks)

Question 04

- (a) Identify reasons for ratification of the Montreal Convention. (05 Marks)
- (b) Explain the EC Regulation 261 emphasizing on consumer rights related to flight delays, flight cancellations, denied boarding and delayed, lost or damaged baggage. (10 Marks)
- (c) The Covid-19 pandemic has had a significant impact on the air transportation industry. Identify measures adopted by the aviation industry in response to Covid-19. (10 Marks)

Question 05

- (a) The six basic flight instruments in the cockpit are categorized into two as pitot-static instruments and gyroscopic instruments. Briefly explain 1(one) instrument from each category. (06 Marks)
- (b) List down 6(six) fuel components of block fuel. (03 Marks)
- (c) Explain the weight buildup of an aircraft with the aid of a diagram. (06 Marks)
- (d) Sri Lankan Airline's aircraft A320-232, registered 4RABG has the following weight build up. Assume the aircraft operates in maximum structural loads for a flight from CMB to DXB. Using the information given below;



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| MEW | DOW | MZFW | MLW | MTOW |
|-----------|-----------|-----------|-----------|-----------|
| 41,250 kg | 43,680 kg | 63,350 kg | 65,450 kg | 72,500 kg |

- I. Calculate the payload. (03 Marks)
- II. Find fuel consumed for the flight. (03 Marks)
- III. If weight of taxi fuel is 500 kg, find the block fuel component. (04 Marks)

Question 06

- (a) Explain the change in civil aviation management that occurred when the state functions were transferred into public corporations or limited liability companies with the use of a diagram. (10 Marks)
- (b) An Air Service Agreement (ASA) is to be signed between France and China. Majestic Airways is an airline whose home state is France. Identify which freedom of air is given by each example in the table given below. (07 Marks)

| | | |
|------|---|--|
| I. | A flight between Shanghai (China) and Beijing (China), flown by Majestic Airways. | |
| II. | A flight from France to Russia, flown by Majestic Airways, overflying China. | |
| III. | A flight from Germany to China, through France flown by Majestic Airways. | |
| IV. | A flight from France to Russia, flown by Majestic Airways, with a stop in China for refueling. | |
| V. | A flight from France to Shanghai (China) and from Shanghai (China) to Beijing (China), flown by Majestic Airways. | |
| VI. | A flight from China to France, flown by Majestic Airways. | |
| VII. | A flight between China and Russia, flown by Majestic Airways without operating to France. | |

- (c) Identify the advantages and disadvantages of adopting an open skies policy for air transportation in Sri Lanka. (08 Marks)



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Course CODE: COM551

Question 07

- (a) Briefly explain 2(two) documents needed for international air cargo transportation. (04 Marks)
- (b) Differentiate between the air cargo business models of 'All cargo carriers' and 'Belly cargo carriers'. (10 Marks)
- (c) Ascent Logistics Pvt. Ltd. is going to ship some cargo from Colombo to Manila, Italy. The shipment consists of 05 boxes, each weighing 19 kg, and each measuring 11 x 21 x 31 inches. Find the chargeable weight. (05 Marks)
- (d) Explain general commodity rate, Specific commodity rate and Classification Commodity rate. (06 Marks)

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



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Year 2 Semester I

SEMESTER END EXAMINATION

Air Cargo and Passenger Transportation – LTAT2205

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Date: 2020.09.14

Pass mark: 50%

Time: 02 Hours

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- (b) Safety risk is the assessment of the consequences of a hazard taking as reference the worst foreseeable situation. Safety risk can be expressed in terms of predicted probability and severity'. Explain. (09 Marks)
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| IV. | A flight from France to Russia, flown by Majestic Airways, with a stop in China for refueling. | |
| V. | A flight from France to Shanghai (China) and from Shanghai (China) to Beijing (China), flown by Majestic Airways. | |
| VI. | A flight from China to France, flown by Majestic Airways. | |
| VII. | A flight between China and Russia, flown by Majestic Airways without operating to France. | |

- (c) Identify the advantages and disadvantages of adopting an open skies policy for air transportation in Sri Lanka. (08 Marks)



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Question 07

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- (c) Ascent Logistics Pvt. Ltd. is going to ship some cargo from Colombo to Manila, Italy. The shipment consists of 05 boxes, each weighing 19 kg, and each measuring 11 x 21 x 31 inches. Find the chargeable weight. (05 Marks)
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-----END OF THE QUESTION PAPER-----

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Course CODE: COM551

Year 2 Semester I

SEMESTER END EXAMINATION

Transport and Logistics Policy – LTTP2204

- This paper consists of SEVEN questions on FOUR (04) 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: 2020.09.11

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

- (a) What is meant by a Transport Policy? Distinguish between a Transport policy and a Transport Plan (05 Marks)
- (b) Transportation plays a significant role in a country for the development of its society and its economy.
Explain the impact of transportation towards a country's society and economy with reference to the contexts of Sri Lanka and China as two examples. (10 Marks)
- (c) Congestion specially in urban areas have caused for many negative externalities, thus, it has become an important concern in all transport and logistics aspects. In mitigating congestion, the need of demand side strategies and traveler choice strategies have a significant focus.
Explain how the congestion in the Colombo Metropolitan area can be mitigated using three (03) suitable strategies (10 Marks)



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Course CODE: COM551

Question 02

- (a) Briefly describe accessibility and mobility with relevant examples (05 Marks)
- (b) Explain the two (02) spatial categories of accessibility (05 Marks)
- (c) List down and explain three (03) challenges for urban transportation and explain three (03) appropriate strategies to overcome those challenges (15 Marks)

Question 03

- (a) List down and briefly explain five (05) issues in rural transportation sector in Sri Lanka (05 Marks)
- (b) Explain with three (03) reasons as to why there should be a central policy regulator for the bus transportation in Sri Lanka? (10 Marks)
- (c) One of the significant current issues identified in the Land Transport System in Sri Lanka is "Centralization of Land Transport System (Both Road and Rail) within the Colombo CBD (Central Business District) and is road dominated without efficient linkages to other modes. This arises the need of modernizing the transport system to meet the new economic challenges in the 21st century"
Express your comments on the above statement and illustrate three (03) suggestions to overcome the future consequences (10 Marks)



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Question 04

- (a) Briefly explain the significance of a Logistics policy for a country (05 Marks)
- (b) List down five (05) different areas concerned under the boarder policies of Customs in Sri Lanka (05 Marks)
- (c) One of the important measures that the National Logistics Policy of Indonesia adapted was 'The inclusion of human resources, new Information and Communication technologies as factors when formulating the National Logistics Policy'
 Explain the importance of such measures and their relevance to the National Logistics Policy in Sri Lanka (10 Marks)
- (d) Illustrate and briefly explain the Logistics cycle and it's relevance to the policy (05 Marks)

Question 05

- (a) List down five (05) strategies that are adopted under the development plans of Sri Lanka Railways in the National Transport Policy (05 Marks)
- (b) "The typical centroid in the Freight and Logistics Sector in Sri Lanka is considered to be Pettah, within which almost all freight related activities are done. With this scenario, the CBD has become more congested and having negative externalities. "
 Critically comment on the above statement. Give your arguments to support the comments (10 Marks)
- (c) Briefly explain with four (04) points : the importance of having 'Transport System performance measures over the threats of major accidents, terrorist attacks and natural disasters' included in a National Transport Policy as analysis measures (10 Marks)



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Question 06

- (a) Explain the contemporary transport planning process (05 Marks)
- (b) One of the extensive problems that currently facing through transportation is the environmental impacts from transportation. Discuss four (04) of such environmental impacts, with the possible regulations that could be suggested in reducing such impacts (10 Marks)
- (c) 'Public consultation in doing the transport planning process specially when doing the strategic/long term transport projects are highly important'
Justify your answer by giving three (03) relevant reasons (10 Marks)

Question 07

- (a) Briefly explain the importance of a freight transport policy to a country (05 Marks)
- (b) The focus on development of freight transportation policies in Japan is directed towards developing its port network. Explain three (03) suitable benchmarks to be adapted in a Freight Transport Policy in Sri Lanka as in the Japan's Freight Transportation Policy (10 Marks)
- (c) There are many regulatory instruments that is adopted to monitor and control freight transportation. Describe how 'Road Pricing Policies' can be used as an efficient measure to control freight transportation movements in Sri Lanka (10 Marks)

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



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Year 2 Semester I

SEMESTER END EXAMINATION

Transport and Logistics Policy – LTTP2204

- This paper consists of SEVEN questions on FOUR (04) pages.
- Answer FOUR questions including Question 01.
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- Write legibly.

Date: 2020.09.11

Pass mark: 50%

Time: 02 Hours

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- (b) Transportation plays a significant role in a country for the development of its society and its economy.
Explain the impact of transportation towards a country's society and economy with reference to the contexts of Sri Lanka and China as two examples. (10 Marks)
- (c) Congestion specially in urban areas have caused for many negative externalities, thus, it has become an important concern in all transport and logistics aspects. In mitigating congestion, the need of demand side strategies and traveler choice strategies have a significant focus.
Explain how the congestion in the Colombo Metropolitan area can be mitigated using three (03) suitable strategies (10 Marks)



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Question 02

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Express your comments on the above statement and illustrate three (03) suggestions to overcome the future consequences (10 Marks)



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Question 04

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- (c) One of the important measures that the National Logistics Policy of Indonesia adapted was 'The inclusion of human resources, new Information and Communication technologies as factors when formulating the National Logistics Policy'
 Explain the importance of such measures and their relevance to the National Logistics Policy in Sri Lanka (10 Marks)
- (d) Illustrate and briefly explain the Logistics cycle and it's relevance to the policy (05 Marks)

Question 05

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- (b) "The typical centroid in the Freight and Logistics Sector in Sri Lanka is considered to be Pettah, within which almost all freight related activities are done. With this scenario, the CBD has become more congested and having negative externalities. "
 Critically comment on the above statement. Give your arguments to support the comments (10 Marks)
- (c) Briefly explain with four (04) points : the importance of having 'Transport System performance measures over the threats of major accidents, terrorist attacks and natural disasters' included in a National Transport Policy as analysis measures (10 Marks)



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Question 06

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- (b) One of the extensive problems that currently facing through transportation is the environmental impacts from transportation. Discuss four (04) of such environmental impacts, with the possible regulations that could be suggested in reducing such impacts (10 Marks)
- (c) 'Public consultation in doing the transport planning process specially when doing the strategic/long term transport projects are highly important'
Justify your answer by giving three (03) relevant reasons (10 Marks)

Question 07

- (a) Briefly explain the importance of a freight transport policy to a country (05 Marks)
- (b) The focus on development of freight transportation policies in Japan is directed towards developing its port network. Explain three (03) suitable benchmarks to be adapted in a Freight Transport Policy in Sri Lanka as in the Japan's Freight Transportation Policy (10 Marks)
- (c) There are many regulatory instruments that is adopted to monitor and control freight transportation. Describe how 'Road Pricing Policies' can be used as an efficient measure to control freight transportation movements in Sri Lanka (10 Marks)

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



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Year 2 Semester I

SEMESTER END EXAMINATION

Financial Management – LTFM2201

- This paper consists of SEVEN questions on EIGHT (08) 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: 2020.09.09

Pass mark: 50%

Time: 02 Hours

Question 01 (COMPULSORY)

Nestle Lanka (PLC), one of a famous business organization in fast moving consumer goods industry (FMCG) is considering purchasing of a new machine to alleviate bottlenecks in its production facilities at a cost of LKR 100,000. The useful life of the machine is expected to be 4 years. Additional information are given as follows.

The company expects demand for Products to be 12,000 units in year one and will be increased by 10% in the second year onwards. Each Product sells for LKR 7.00 and this price is expected to be constant in all four years. Cost of goods sold will be LKR 25,000 per year from year one onwards. Selling general and administration expenses (including depreciation) will be 30,000 per year starting from year one onwards. Cost of goods sold and selling, general and administration expenses are expected to be increased by 5% from year 2 onwards in each year. The machine is depreciated under straight-line method. Therefore, depreciation is constant in all years

In the fourth year, the new machine would be sold for LKR 20,000.



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Nestle normally expects a payback within two years and its after-tax cost of capital is 10% per annum (Discount rate)

The company pays corporation tax at 30%.

Required:

- (a) Calculate the payback period of the machine (05 Marks)
- (b) Calculate the Net Present value and the profitability index of the machine. (15 Marks)
- (c) Based on the answers received above, indicate whether the new project can be accepted or not (05 Marks)

Question 02

- (a) Investment and financing decisions are considered as two sides of the same coin. Clearly explain (05 Marks)
- (b) Briefly explain the factors affecting on a company's dividend decision (03 Marks)
- (c) "Aligning the interests between owners and the managers will lead to minimize the principal agent problem". Clearly explain the short term strategies to be taken to minimize the principal agent problem (04 Marks)
- (d) What do you mean by a country's financial system? Draw the system and briefly explain each component of Sri Lankan financial system with appropriate examples (13 Marks)

Question 03

- (a) "Investors prefer to have money today rather than in the future. If they have to delay the receipt of money, they expect a premium. What are the main reasons that make them to expect such a premium? (05 Marks)
- (b) Compute the present value of a perpetuity of LKR 100, if the discount is 10% (05 Marks)



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- (c) XYZ Ltd has borrowed LKR 500,000 to be repaid in five equal annual installments at a rate of 16% per annum. Compute the amount of annual installment (05 Marks)
- (d) Mr. Lakmal invested LKR 10,000 today. How long will it take to double his investment under an annual interest rate of Rs. 10% per annum. (05 Marks)
- (e) Assume today as 1/1/2020. Mr. X will receive LKR 20,000 at the end of each year up to five years. Calculate the present value of this cash flow, if discount rate is 10% (05 Marks)

Question 04

- (a) Mr. Sahan has purchased 50 shares from dialog PLC as at 01st of January 2020 at LKR 100 per share. As at 30th April 2020 he sold his shares for LKR 6500. During the holding period, the company paid LKR 250 as total amount of dividends.
- (i) Calculate the total gain as a percentage (2.5 Marks)
- (ii) Calculate the annualized return as a percentage (2.5 Marks)
- (b) The returns of stocks X and Y under different Economic conditions are as follows.

Table 4.01

| State of the Economy | Probability | Returns of X (%) | Returns of Y (%) |
|----------------------|-------------|------------------|------------------|
| 1 | 0.15 | -18.8 | 18.2 |
| 2 | 0.25 | 17.4 | -15.7 |
| 3 | 0.35 | 16.3 | 14.6 |
| 4 | 0.25 | 14.1 | 17.9 |

- (i) Calculate the expected return and the standard deviation of the portfolio, if investor has invested 75% of his capital in asset X and 25% of the capital in asset Y (20 Marks)



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Question 05

- (a) Clearly explain the factors affecting on a company's capital structure with appropriate examples (08 Marks)
- (b) A newly established company has determined its capital structure as follows.

Table 5.01

| | Value in LKR |
|-------------------------------|--------------|
| Common shares (10,000 shares) | 100,000 |
| Preference shares | 50,000 |
| Debentures at 12% interest | 200,000 |

- The annual dividend per common share is expected to be LKR 8 per share and there will be a 5% growth rate of dividend. The market price per share is LKR 100
- The market price of a preference share is LKR 50. Company is expecting to pay LKR 5 as dividend per share.
- Tax rate is expected to be 25%.

Required,

Calculate the Weighted average cost of capital (WACC) of the company

(10 Marks)

- (c) The Financial Manager of Abans (PLC) engaged in manufacturing spare parts, has found following information on its fixed operating costs, variable costs and sales revenue.

Table 5.02

| | |
|--|-----------|
| Sales revenue (In LKR) | 1,200,000 |
| Variable Operating expenses (LKR) | 600,000 |
| Fixed operating expenses (LKR) | 200,000 |
| Earnings before Interest and Tax (EBIT) | |

Required,

Calculate the operating leverage of the company and explain the importance of calculating the degree of operating leverage (DOL) (07 Marks)



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Question 06

- (a) The investment required in a project is LKR 1,500,000. Interest on debenture capital is 12% and the tax rate is 50%. Face value of share is LKR 100. Two alternatives are being given on acquiring capital.

Alternative 1: Raising the whole amount by equity share. So, shares to be issued would be $LKR\ 1,500,000 / 100 = 15,000$ shares.

Alternative 2: Raising LKR 500,000 by issuing debentures and LKR 1,000,000 by equity. The number of equity shares would be $1,000,000 / 100 = 10,000$ shares.

- (i) Calculate the indifferent point of EBIT (05 Marks)
 - (ii) Calculate Earnings per share (EPS) at indifferent point of EBIT (05 Marks)
 - (iii) By using appropriate graphs, explain importance of calculating indifferent point of EBIT to move towards option 01 or option 02 (05 Marks)
 - (iv) Calculate Financial Leverage under each option (05 Marks)
- (b) Clearly explain importance of determining an optimal capital structure in a business organization (05 Marks)

Question 07

Teddy international ltd plans to produce marker pens in the upcoming year ending in 2021. Following forecasted production information are given for you

Table 7.01

| | Teddy bears | |
|--|-------------|-------------|
| | Large | medium |
| Cotton (Material requirement per unit) | 1.5 Meters | 0.75 meters |
| satin (Material requirement per unit) | 0.5 meters | 2 Meters |
| Direct Manufacturing Labour | 1.5 hours | 1 hour |



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| | | |
|----------------------------------|---------------|-------------|
| Expected Sales units | 25,000 | 15,000 |
| Selling price | LKR 1,850 | LKR 1,650 |
| Target ending inventory in units | 500 | 1000 |
| Beginning inventory in units | 1200 | 750 |
| Beginning inventory | LKR 1,560,000 | LKR 937,500 |

Table 7.02

| Direct materials | | |
|---------------------|---------------|---------------|
| | Cotton | Satin |
| Beginning inventory | 15,000 Meters | 12,000 Meters |
| Ending inventory | 20,000 Meters | 15,000 Meters |

Other required information

1. Direct material

Cotton LKR 175 per meter

Satin LKR 190 per meter

2. Direct labour

Direct manufacturing labour LKR 550 per hour

3. Manufacturing overhead cost

Manufacturing overheads will be LKR 160 for a medium teddy bear and LKR 240 for a large teddy bear (Based on Activity based costing)

4. Other expenses



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Distribution expenses are estimated to be 10% of sales and marketing expenses are estimated to be 5% of sales

Based on the information given above, Prepare

- (a) Sales budget
- (b) Production budget
- (c) Material Usage budget
- (d) Material Purchase budget
- (e) Direct labour budget
- (f) Cost of sales budget
- (g) Budgeted income statement

(25 Marks)

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

Formula sheet

1) Present Value of a single 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) Future value of an ordinary annuity

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

5) Expected Return

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

6) Expected Risk of an individual asset

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

7) Expected Risk of a portfolio

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

8) Covariance between two assets

$$\sigma_{x,y} = \sum_{i=1}^n [R_x - E(R_x)][R_y - E(R_y)] P_i$$

9) Market Risk

$$\beta_i = \frac{\text{Cov}_{i,m}}{\sigma_m^2}$$



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Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
 n = number of periods until payment

| Periods (n) | Discount rate (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 | 1 |
| 2 | 0.980 | 0.961 | 0.943 | 0.925 | 0.907 | 0.890 | 0.873 | 0.857 | 0.842 | 0.826 | 2 |
| 3 | 0.971 | 0.942 | 0.915 | 0.889 | 0.864 | 0.840 | 0.816 | 0.794 | 0.772 | 0.751 | 3 |
| 4 | 0.961 | 0.924 | 0.888 | 0.855 | 0.823 | 0.792 | 0.763 | 0.735 | 0.708 | 0.683 | 4 |
| 5 | 0.951 | 0.906 | 0.863 | 0.822 | 0.784 | 0.747 | 0.713 | 0.681 | 0.650 | 0.621 | 5 |
| 6 | 0.942 | 0.888 | 0.837 | 0.790 | 0.746 | 0.705 | 0.666 | 0.630 | 0.596 | 0.564 | 6 |
| 7 | 0.933 | 0.871 | 0.813 | 0.760 | 0.711 | 0.665 | 0.623 | 0.583 | 0.547 | 0.513 | 7 |
| 8 | 0.923 | 0.853 | 0.789 | 0.731 | 0.677 | 0.627 | 0.582 | 0.540 | 0.502 | 0.467 | 8 |
| 9 | 0.914 | 0.837 | 0.766 | 0.703 | 0.645 | 0.592 | 0.544 | 0.500 | 0.460 | 0.424 | 9 |
| 10 | 0.905 | 0.820 | 0.744 | 0.676 | 0.614 | 0.558 | 0.508 | 0.463 | 0.422 | 0.386 | 10 |
| 11 | 0.896 | 0.804 | 0.722 | 0.650 | 0.585 | 0.527 | 0.475 | 0.429 | 0.388 | 0.350 | 11 |
| 12 | 0.887 | 0.788 | 0.701 | 0.625 | 0.557 | 0.497 | 0.444 | 0.397 | 0.356 | 0.319 | 12 |
| 13 | 0.879 | 0.773 | 0.681 | 0.601 | 0.530 | 0.469 | 0.415 | 0.368 | 0.326 | 0.290 | 13 |
| 14 | 0.870 | 0.758 | 0.661 | 0.577 | 0.505 | 0.442 | 0.388 | 0.340 | 0.299 | 0.263 | 14 |
| 15 | 0.861 | 0.743 | 0.642 | 0.555 | 0.481 | 0.417 | 0.362 | 0.315 | 0.275 | 0.239 | 15 |
| (n) | 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 | 1 |
| 2 | 0.812 | 0.797 | 0.783 | 0.769 | 0.756 | 0.743 | 0.731 | 0.718 | 0.706 | 0.694 | 2 |
| 3 | 0.731 | 0.712 | 0.693 | 0.675 | 0.658 | 0.641 | 0.624 | 0.609 | 0.593 | 0.579 | 3 |
| 4 | 0.659 | 0.636 | 0.613 | 0.592 | 0.572 | 0.552 | 0.534 | 0.516 | 0.499 | 0.482 | 4 |
| 5 | 0.593 | 0.567 | 0.543 | 0.519 | 0.497 | 0.476 | 0.456 | 0.437 | 0.419 | 0.402 | 5 |
| 6 | 0.535 | 0.507 | 0.480 | 0.456 | 0.432 | 0.410 | 0.390 | 0.370 | 0.352 | 0.335 | 6 |
| 7 | 0.482 | 0.452 | 0.425 | 0.400 | 0.376 | 0.354 | 0.333 | 0.314 | 0.296 | 0.279 | 7 |
| 8 | 0.434 | 0.404 | 0.376 | 0.351 | 0.327 | 0.305 | 0.285 | 0.266 | 0.249 | 0.233 | 8 |
| 9 | 0.391 | 0.361 | 0.333 | 0.308 | 0.284 | 0.263 | 0.243 | 0.225 | 0.209 | 0.194 | 9 |
| 10 | 0.352 | 0.322 | 0.295 | 0.270 | 0.247 | 0.227 | 0.208 | 0.191 | 0.176 | 0.162 | 10 |
| 11 | 0.317 | 0.287 | 0.261 | 0.237 | 0.215 | 0.195 | 0.178 | 0.162 | 0.148 | 0.135 | 11 |
| 12 | 0.286 | 0.257 | 0.231 | 0.208 | 0.187 | 0.168 | 0.152 | 0.137 | 0.124 | 0.112 | 12 |
| 13 | 0.258 | 0.229 | 0.204 | 0.182 | 0.163 | 0.145 | 0.130 | 0.116 | 0.104 | 0.093 | 13 |
| 14 | 0.232 | 0.205 | 0.181 | 0.160 | 0.141 | 0.125 | 0.111 | 0.099 | 0.088 | 0.078 | 14 |
| 15 | 0.209 | 0.183 | 0.160 | 0.140 | 0.123 | 0.108 | 0.095 | 0.084 | 0.074 | 0.065 | 15 |



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Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
 n = number of periods

| Periods (n) | Discount rate (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 | 1 |
| 2 | 1.970 | 1.942 | 1.913 | 1.886 | 1.859 | 1.833 | 1.808 | 1.783 | 1.759 | 1.736 | 2 |
| 3 | 2.941 | 2.884 | 2.829 | 2.775 | 2.723 | 2.673 | 2.624 | 2.577 | 2.531 | 2.487 | 3 |
| 4 | 3.902 | 3.808 | 3.717 | 3.630 | 3.546 | 3.465 | 3.387 | 3.312 | 3.240 | 3.170 | 4 |
| 5 | 4.853 | 4.713 | 4.580 | 4.452 | 4.329 | 4.212 | 4.100 | 3.993 | 3.890 | 3.791 | 5 |
| 6 | 5.795 | 5.601 | 5.417 | 5.242 | 5.076 | 4.917 | 4.767 | 4.623 | 4.486 | 4.355 | 6 |
| 7 | 6.728 | 6.472 | 6.230 | 6.002 | 5.786 | 5.582 | 5.389 | 5.206 | 5.033 | 4.868 | 7 |
| 8 | 7.652 | 7.325 | 7.020 | 6.733 | 6.463 | 6.210 | 5.971 | 5.747 | 5.535 | 5.335 | 8 |
| 9 | 8.566 | 8.162 | 7.786 | 7.435 | 7.108 | 6.802 | 6.515 | 6.247 | 5.995 | 5.759 | 9 |
| 10 | 9.471 | 8.983 | 8.530 | 8.111 | 7.722 | 7.360 | 7.024 | 6.710 | 6.418 | 6.145 | 10 |
| 11 | 10.37 | 9.787 | 9.253 | 8.760 | 8.306 | 7.887 | 7.499 | 7.139 | 6.805 | 6.495 | 11 |
| 12 | 11.26 | 10.58 | 9.954 | 9.385 | 8.863 | 8.384 | 7.943 | 7.536 | 7.161 | 6.814 | 12 |
| 13 | 12.13 | 11.35 | 10.63 | 9.986 | 9.394 | 8.853 | 8.358 | 7.904 | 7.487 | 7.103 | 13 |
| 14 | 13.00 | 12.11 | 11.30 | 10.56 | 9.899 | 9.295 | 8.745 | 8.244 | 7.786 | 7.367 | 14 |
| 15 | 13.87 | 12.85 | 11.94 | 11.12 | 10.38 | 9.712 | 9.108 | 8.559 | 8.061 | 7.606 | 15 |
| (n) | 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 | 1 |
| 2 | 1.713 | 1.690 | 1.668 | 1.647 | 1.626 | 1.605 | 1.585 | 1.566 | 1.547 | 1.528 | 2 |
| 3 | 2.444 | 2.402 | 2.361 | 2.322 | 2.283 | 2.246 | 2.210 | 2.174 | 2.140 | 2.106 | 3 |
| 4 | 3.102 | 3.037 | 2.974 | 2.914 | 2.855 | 2.798 | 2.743 | 2.690 | 2.639 | 2.589 | 4 |
| 5 | 3.696 | 3.605 | 3.517 | 3.433 | 3.352 | 3.274 | 3.199 | 3.127 | 3.058 | 2.991 | 5 |
| 6 | 4.231 | 4.111 | 3.998 | 3.889 | 3.784 | 3.685 | 3.589 | 3.498 | 3.410 | 3.326 | 6 |
| 7 | 4.712 | 4.564 | 4.423 | 4.288 | 4.160 | 4.039 | 3.922 | 3.812 | 3.706 | 3.605 | 7 |
| 8 | 5.146 | 4.968 | 4.799 | 4.639 | 4.487 | 4.344 | 4.207 | 4.078 | 3.954 | 3.837 | 8 |
| 9 | 5.537 | 5.328 | 5.132 | 4.946 | 4.772 | 4.607 | 4.451 | 4.303 | 4.163 | 4.031 | 9 |
| 10 | 5.889 | 5.650 | 5.426 | 5.216 | 5.019 | 4.833 | 4.659 | 4.494 | 4.339 | 4.192 | 10 |
| 11 | 6.207 | 5.938 | 5.687 | 5.453 | 5.234 | 5.029 | 4.836 | 4.656 | 4.486 | 4.327 | 11 |
| 12 | 6.492 | 6.194 | 5.918 | 5.660 | 5.421 | 5.197 | 4.988 | 4.793 | 4.611 | 4.439 | 12 |
| 13 | 6.750 | 6.424 | 6.122 | 5.842 | 5.583 | 5.342 | 5.118 | 4.910 | 4.715 | 4.533 | 13 |
| 14 | 6.982 | 6.628 | 6.302 | 6.002 | 5.724 | 5.468 | 5.229 | 5.008 | 4.802 | 4.611 | 14 |
| 15 | 7.191 | 6.811 | 6.462 | 6.142 | 5.847 | 5.575 | 5.324 | 5.092 | 4.876 | 4.675 | 15 |

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Year 2 Semester I

SEMESTER END EXAMINATION

Financial Management – LTFM2201

- This paper consists of SEVEN questions on EIGHT (08) 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: 2020.09.09

Pass mark: 50%

Time: 02 Hours

Question 01 (COMPULSORY)

Nestle Lanka (PLC), one of a famous business organization in fast moving consumer goods industry (FMCG) is considering purchasing of a new machine to alleviate bottlenecks in its production facilities at a cost of LKR 100,000. The useful life of the machine is expected to be 4 years. Additional information are given as follows.

The company expects demand for Products to be 12,000 units in year one and will be increased by 10% in the second year onwards. Each Product sells for LKR 7.00 and this price is expected to be constant in all four years. Cost of goods sold will be LKR 25,000 per year from year one onwards. Selling general and administration expenses (including depreciation) will be 30,000 per year starting from year one onwards. Cost of goods sold and selling, general and administration expenses are expected to be increased by 5% from year 2 onwards in each year. The machine is depreciated under straight-line method. Therefore, depreciation is constant in all years

In the fourth year, the new machine would be sold for LKR 20,000.



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Nestle normally expects a payback within two years and its after-tax cost of capital is 10% per annum (Discount rate)

The company pays corporation tax at 30%.

Required:

- (a) Calculate the payback period of the machine (05 Marks)
- (b) Calculate the Net Present value and the profitability index of the machine. (15 Marks)
- (c) Based on the answers received above, indicate whether the new project can be accepted or not (05 Marks)

Question 02

- (a) Investment and financing decisions are considered as two sides of the same coin. Clearly explain (05 Marks)
- (b) Briefly explain the factors affecting on a company's dividend decision (03 Marks)
- (c) "Aligning the interests between owners and the managers will lead to minimize the principal agent problem". Clearly explain the short term strategies to be taken to minimize the principal agent problem (04 Marks)
- (d) What do you mean by a country's financial system? Draw the system and briefly explain each component of Sri Lankan financial system with appropriate examples (13 Marks)

Question 03

- (a) "Investors prefer to have money today rather than in the future. If they have to delay the receipt of money, they expect a premium. What are the main reasons that make them to expect such a premium? (05 Marks)
- (b) Compute the present value of a perpetuity of LKR 100, if the discount is 10% (05 Marks)



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- (c) XYZ Ltd has borrowed LKR 500,000 to be repaid in five equal annual installments at a rate of 16% per annum. Compute the amount of annual installment (05 Marks)
- (d) Mr. Lakmal invested LKR 10,000 today. How long will it take to double his investment under an annual interest rate of Rs. 10% per annum. (05 Marks)
- (e) Assume today as 1/1/2020. Mr. X will receive LKR 20,000 at the end of each year up to five years. Calculate the present value of this cash flow, if discount rate is 10% (05 Marks)

Question 04

- (a) Mr. Sahan has purchased 50 shares from dialog PLC as at 01st of January 2020 at LKR 100 per share. As at 30th April 2020 he sold his shares for LKR 6500. During the holding period, the company paid LKR 250 as total amount of dividends.
- (i) Calculate the total gain as a percentage (2.5 Marks)
- (ii) Calculate the annualized return as a percentage (2.5 Marks)
- (b) The returns of stocks X and Y under different Economic conditions are as follows.

Table 4.01

| State of the Economy | Probability | Returns of X (%) | Returns of Y (%) |
|----------------------|-------------|------------------|------------------|
| 1 | 0.15 | -18.8 | 18.2 |
| 2 | 0.25 | 17.4 | -15.7 |
| 3 | 0.35 | 16.3 | 14.6 |
| 4 | 0.25 | 14.1 | 17.9 |

- (i) Calculate the expected return and the standard deviation of the portfolio, if investor has invested 75% of his capital in asset X and 25% of the capital in asset Y (20 Marks)



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Question 05

- (a) Clearly explain the factors affecting on a company's capital structure with appropriate examples (08 Marks)
- (b) A newly established company has determined its capital structure as follows.

Table 5.01

| | Value in LKR |
|-------------------------------|--------------|
| Common shares (10,000 shares) | 100,000 |
| Preference shares | 50,000 |
| Debentures at 12% interest | 200,000 |

- The annual dividend per common share is expected to be LKR 8 per share and there will be a 5% growth rate of dividend. The market price per share is LKR 100
- The market price of a preference share is LKR 50. Company is expecting to pay LKR 5 as dividend per share.
- Tax rate is expected to be 25%.

Required,

Calculate the Weighted average cost of capital (WACC) of the company

(10 Marks)

- (c) The Financial Manager of Abans (PLC) engaged in manufacturing spare parts, has found following information on its fixed operating costs, variable costs and sales revenue.

Table 5.02

| | |
|--|-----------|
| Sales revenue (In LKR) | 1,200,000 |
| Variable Operating expenses (LKR) | 600,000 |
| Fixed operating expenses (LKR) | 200,000 |
| Earnings before Interest and Tax (EBIT) | |

Required,

Calculate the operating leverage of the company and explain the importance of calculating the degree of operating leverage (DOL) (07 Marks)



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Question 06

- (a) The investment required in a project is LKR 1,500,000. Interest on debenture capital is 12% and the tax rate is 50%. Face value of share is LKR 100. Two alternatives are being given on acquiring capital.

Alternative 1: Raising the whole amount by equity share. So, shares to be issued would be $LKR\ 1,500,000 / 100 = 15,000$ shares.

Alternative 2: Raising LKR 500,000 by issuing debentures and LKR 1,000,000 by equity. The number of equity shares would be $1,000,000 / 100 = 10,000$ shares.

- (i) Calculate the indifferent point of EBIT (05 Marks)
 - (ii) Calculate Earnings per share (EPS) at indifferent point of EBIT (05 Marks)
 - (iii) By using appropriate graphs, explain importance of calculating indifferent point of EBIT to move towards option 01 or option 02 (05 Marks)
 - (iv) Calculate Financial Leverage under each option (05 Marks)
- (b) Clearly explain importance of determining an optimal capital structure in a business organization (05 Marks)

Question 07

Teddy international ltd plans to produce marker pens in the upcoming year ending in 2021. Following forecasted production information are given for you

Table 7.01

| | Teddy bears | |
|--|-------------|-------------|
| | Large | medium |
| Cotton (Material requirement per unit) | 1.5 Meters | 0.75 meters |
| satin (Material requirement per unit) | 0.5 meters | 2 Meters |
| Direct Manufacturing Labour | 1.5 hours | 1 hour |



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| | | |
|----------------------------------|---------------|-------------|
| Expected Sales units | 25,000 | 15,000 |
| Selling price | LKR 1,850 | LKR 1,650 |
| Target ending inventory in units | 500 | 1000 |
| Beginning inventory in units | 1200 | 750 |
| Beginning inventory | LKR 1,560,000 | LKR 937,500 |

Table 7.02

| Direct materials | | |
|---------------------|---------------|---------------|
| | Cotton | Satin |
| Beginning inventory | 15,000 Meters | 12,000 Meters |
| Ending inventory | 20,000 Meters | 15,000 Meters |

Other required information

1. Direct material

Cotton LKR 175 per meter

Satin LKR 190 per meter

2. Direct labour

Direct manufacturing labour LKR 550 per hour

3. Manufacturing overhead cost

Manufacturing overheads will be LKR 160 for a medium teddy bear and LKR 240 for a large teddy bear (Based on Activity based costing)

4. Other expenses



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Distribution expenses are estimated to be 10% of sales and marketing expenses
are estimated to be 5% of sales

Based on the information given above, Prepare

- (a) Sales budget
- (b) Production budget
- (c) Material Usage budget
- (d) Material Purchase budget
- (e) Direct labour budget
- (f) Cost of sales budget
- (g) Budgeted income statement

(25 Marks)

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

Formula sheet

1) Present Value of a single 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) Future value of an ordinary annuity

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

5) Expected Return

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

6) Expected Risk of an individual asset

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

7) Expected Risk of a portfolio

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

8) Covariance between two assets

$$\sigma_{x,y} = \sum_{i=1}^n [R_x - E(R_x)][R_y - E(R_y)] P_i$$

9) Market Risk

$$\beta_i = \frac{\text{Cov}_{i,m}}{\sigma_m^2}$$



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Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
 n = number of periods until payment

| Periods (n) | Discount rate (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 | 1 |
| 2 | 0.980 | 0.961 | 0.943 | 0.925 | 0.907 | 0.890 | 0.873 | 0.857 | 0.842 | 0.826 | 2 |
| 3 | 0.971 | 0.942 | 0.915 | 0.889 | 0.864 | 0.840 | 0.816 | 0.794 | 0.772 | 0.751 | 3 |
| 4 | 0.961 | 0.924 | 0.888 | 0.855 | 0.823 | 0.792 | 0.763 | 0.735 | 0.708 | 0.683 | 4 |
| 5 | 0.951 | 0.906 | 0.863 | 0.822 | 0.784 | 0.747 | 0.713 | 0.681 | 0.650 | 0.621 | 5 |
| 6 | 0.942 | 0.888 | 0.837 | 0.790 | 0.746 | 0.705 | 0.666 | 0.630 | 0.596 | 0.564 | 6 |
| 7 | 0.933 | 0.871 | 0.813 | 0.760 | 0.711 | 0.665 | 0.623 | 0.583 | 0.547 | 0.513 | 7 |
| 8 | 0.923 | 0.853 | 0.789 | 0.731 | 0.677 | 0.627 | 0.582 | 0.540 | 0.502 | 0.467 | 8 |
| 9 | 0.914 | 0.837 | 0.766 | 0.703 | 0.645 | 0.592 | 0.544 | 0.500 | 0.460 | 0.424 | 9 |
| 10 | 0.905 | 0.820 | 0.744 | 0.676 | 0.614 | 0.558 | 0.508 | 0.463 | 0.422 | 0.386 | 10 |
| 11 | 0.896 | 0.804 | 0.722 | 0.650 | 0.585 | 0.527 | 0.475 | 0.429 | 0.388 | 0.350 | 11 |
| 12 | 0.887 | 0.788 | 0.701 | 0.625 | 0.557 | 0.497 | 0.444 | 0.397 | 0.356 | 0.319 | 12 |
| 13 | 0.879 | 0.773 | 0.681 | 0.601 | 0.530 | 0.469 | 0.415 | 0.368 | 0.326 | 0.290 | 13 |
| 14 | 0.870 | 0.758 | 0.661 | 0.577 | 0.505 | 0.442 | 0.388 | 0.340 | 0.299 | 0.263 | 14 |
| 15 | 0.861 | 0.743 | 0.642 | 0.555 | 0.481 | 0.417 | 0.362 | 0.315 | 0.275 | 0.239 | 15 |
| (n) | 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 | 1 |
| 2 | 0.812 | 0.797 | 0.783 | 0.769 | 0.756 | 0.743 | 0.731 | 0.718 | 0.706 | 0.694 | 2 |
| 3 | 0.731 | 0.712 | 0.693 | 0.675 | 0.658 | 0.641 | 0.624 | 0.609 | 0.593 | 0.579 | 3 |
| 4 | 0.659 | 0.636 | 0.613 | 0.592 | 0.572 | 0.552 | 0.534 | 0.516 | 0.499 | 0.482 | 4 |
| 5 | 0.593 | 0.567 | 0.543 | 0.519 | 0.497 | 0.476 | 0.456 | 0.437 | 0.419 | 0.402 | 5 |
| 6 | 0.535 | 0.507 | 0.480 | 0.456 | 0.432 | 0.410 | 0.390 | 0.370 | 0.352 | 0.335 | 6 |
| 7 | 0.482 | 0.452 | 0.425 | 0.400 | 0.376 | 0.354 | 0.333 | 0.314 | 0.296 | 0.279 | 7 |
| 8 | 0.434 | 0.404 | 0.376 | 0.351 | 0.327 | 0.305 | 0.285 | 0.266 | 0.249 | 0.233 | 8 |
| 9 | 0.391 | 0.361 | 0.333 | 0.308 | 0.284 | 0.263 | 0.243 | 0.225 | 0.209 | 0.194 | 9 |
| 10 | 0.352 | 0.322 | 0.295 | 0.270 | 0.247 | 0.227 | 0.208 | 0.191 | 0.176 | 0.162 | 10 |
| 11 | 0.317 | 0.287 | 0.261 | 0.237 | 0.215 | 0.195 | 0.178 | 0.162 | 0.148 | 0.135 | 11 |
| 12 | 0.286 | 0.257 | 0.231 | 0.208 | 0.187 | 0.168 | 0.152 | 0.137 | 0.124 | 0.112 | 12 |
| 13 | 0.258 | 0.229 | 0.204 | 0.182 | 0.163 | 0.145 | 0.130 | 0.116 | 0.104 | 0.093 | 13 |
| 14 | 0.232 | 0.205 | 0.181 | 0.160 | 0.141 | 0.125 | 0.111 | 0.099 | 0.088 | 0.078 | 14 |
| 15 | 0.209 | 0.183 | 0.160 | 0.140 | 0.123 | 0.108 | 0.095 | 0.084 | 0.074 | 0.065 | 15 |



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Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
 n = number of periods

| Periods (n) | Discount rate (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 | 1 |
| 2 | 1.970 | 1.942 | 1.913 | 1.886 | 1.859 | 1.833 | 1.808 | 1.783 | 1.759 | 1.736 | 2 |
| 3 | 2.941 | 2.884 | 2.829 | 2.775 | 2.723 | 2.673 | 2.624 | 2.577 | 2.531 | 2.487 | 3 |
| 4 | 3.902 | 3.808 | 3.717 | 3.630 | 3.546 | 3.465 | 3.387 | 3.312 | 3.240 | 3.170 | 4 |
| 5 | 4.853 | 4.713 | 4.580 | 4.452 | 4.329 | 4.212 | 4.100 | 3.993 | 3.890 | 3.791 | 5 |
| 6 | 5.795 | 5.601 | 5.417 | 5.242 | 5.076 | 4.917 | 4.767 | 4.623 | 4.486 | 4.355 | 6 |
| 7 | 6.728 | 6.472 | 6.230 | 6.002 | 5.786 | 5.582 | 5.389 | 5.206 | 5.033 | 4.868 | 7 |
| 8 | 7.652 | 7.325 | 7.020 | 6.733 | 6.463 | 6.210 | 5.971 | 5.747 | 5.535 | 5.335 | 8 |
| 9 | 8.566 | 8.162 | 7.786 | 7.435 | 7.108 | 6.802 | 6.515 | 6.247 | 5.995 | 5.759 | 9 |
| 10 | 9.471 | 8.983 | 8.530 | 8.111 | 7.722 | 7.360 | 7.024 | 6.710 | 6.418 | 6.145 | 10 |
| 11 | 10.37 | 9.787 | 9.253 | 8.760 | 8.306 | 7.887 | 7.499 | 7.139 | 6.805 | 6.495 | 11 |
| 12 | 11.26 | 10.58 | 9.954 | 9.385 | 8.863 | 8.384 | 7.943 | 7.536 | 7.161 | 6.814 | 12 |
| 13 | 12.13 | 11.35 | 10.63 | 9.986 | 9.394 | 8.853 | 8.358 | 7.904 | 7.487 | 7.103 | 13 |
| 14 | 13.00 | 12.11 | 11.30 | 10.56 | 9.899 | 9.295 | 8.745 | 8.244 | 7.786 | 7.367 | 14 |
| 15 | 13.87 | 12.85 | 11.94 | 11.12 | 10.38 | 9.712 | 9.108 | 8.559 | 8.061 | 7.606 | 15 |
| (n) | 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 | 1 |
| 2 | 1.713 | 1.690 | 1.668 | 1.647 | 1.626 | 1.605 | 1.585 | 1.566 | 1.547 | 1.528 | 2 |
| 3 | 2.444 | 2.402 | 2.361 | 2.322 | 2.283 | 2.246 | 2.210 | 2.174 | 2.140 | 2.106 | 3 |
| 4 | 3.102 | 3.037 | 2.974 | 2.914 | 2.855 | 2.798 | 2.743 | 2.690 | 2.639 | 2.589 | 4 |
| 5 | 3.696 | 3.605 | 3.517 | 3.433 | 3.352 | 3.274 | 3.199 | 3.127 | 3.058 | 2.991 | 5 |
| 6 | 4.231 | 4.111 | 3.998 | 3.889 | 3.784 | 3.685 | 3.589 | 3.498 | 3.410 | 3.326 | 6 |
| 7 | 4.712 | 4.564 | 4.423 | 4.288 | 4.160 | 4.039 | 3.922 | 3.812 | 3.706 | 3.605 | 7 |
| 8 | 5.146 | 4.968 | 4.799 | 4.639 | 4.487 | 4.344 | 4.207 | 4.078 | 3.954 | 3.837 | 8 |
| 9 | 5.537 | 5.328 | 5.132 | 4.946 | 4.772 | 4.607 | 4.451 | 4.303 | 4.163 | 4.031 | 9 |
| 10 | 5.889 | 5.650 | 5.426 | 5.216 | 5.019 | 4.833 | 4.659 | 4.494 | 4.339 | 4.192 | 10 |
| 11 | 6.207 | 5.938 | 5.687 | 5.453 | 5.234 | 5.029 | 4.836 | 4.656 | 4.486 | 4.327 | 11 |
| 12 | 6.492 | 6.194 | 5.918 | 5.660 | 5.421 | 5.197 | 4.988 | 4.793 | 4.611 | 4.439 | 12 |
| 13 | 6.750 | 6.424 | 6.122 | 5.842 | 5.583 | 5.342 | 5.118 | 4.910 | 4.715 | 4.533 | 13 |
| 14 | 6.982 | 6.628 | 6.302 | 6.002 | 5.724 | 5.468 | 5.229 | 5.008 | 4.802 | 4.611 | 14 |
| 15 | 7.191 | 6.811 | 6.462 | 6.142 | 5.847 | 5.575 | 5.324 | 5.092 | 4.876 | 4.675 | 15 |



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Year 2 Semester I

SEMESTER END EXAMINATION

Management Information Systems – LTMS2203

- This paper consists of SEVEN questions on EIGHT (08) 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: 2020.09.07

Pass mark: 50%

Time: 02 Hours

Question 01 (Compulsory)

select the correct answer from the choices given

- (01) Management information systems (MIS) use to
- (a) Capture and reproduce the knowledge of an expert problem solver.
 - (b) Create and share documents that support day-today office activities.
 - (c) Use the transaction data to produce information needed by managers to run the business.
 - (d) Process business transactions (e.g., timecards, payments, orders, etc.)
 - (e) None of the above.
- (02) An information system that supports the planning and assessment needs of executive management is
- (a) ERP
 - (b) TPS



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- (c) DSS
 - (d) ESS
 - (e) MIS
- (03) The general transformation cycle for information is:
- (a) Data to information to knowledge
 - (b) Information to data to knowledge
 - (c) Data to knowledge to information
 - (d) Knowledge to data to information
 - (e) None of the above
- (04) E-business is a term used to describe:
- (a) The use of electronic communications for all business processes.
 - (b) Any electronically mediated communication between an organization and its stakeholders.
 - (c) An organization using electronic media to sell direct to its customers.
 - (d) An organization using electronic media to purchase from to its suppliers
 - (e) None of the above.
- (05) Which of the following is/are NOT an IT infrastructure component?
- (a) IT Department.
 - (b) Computer Hardware.
 - (c) Operating Systems.
 - (d) Data Management and Storage.
 - (e) Networking and Telecommunications
- (06) Which of the following is/are NOT a current trend in software platforms?
- (a) Open-source software
 - (b) HTML5
 - (c) Web services and service-oriented architecture
 - (d) Flash
 - (e) Applications on the Cloud



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- (07) Which functional role does IT NOT play in SCM?
- (a) Collaboration and coordination.
 - (b) Decision support for supply chain planning.
 - (c) Transaction execution.
 - (d) Performance measurement and reporting.
 - (e) Supply chain restructuring.
- (08) Select the system which collects data from different firm functions and stores data in single central data repository.
- (a) ESS
 - (b) TPS
 - (c) DSS
 - (d) ERP
 - (e) MIS
- (09) Which of following role is NOT in Mintzberg's managerial roles?
- (a) Disseminator
 - (b) Figurehead
 - (c) Knowledge worker
 - (d) Entrepreneur
 - (e) Negotiator
- (10) Select the computer crime
- (a) Worms
 - (b) Cybervandalism
 - (c) Trojan horses
 - (d) Spyware
 - (e) Viruses



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- (11) which of following is NOT a type of general control which is used for information security control?
- (a) Software controls.
 - (b) Hardware controls.
 - (c) Computer networking control.
 - (d) Data security controls.
 - (e) Implementation controls.
- (12) Which of following is NOT a role in information systems department.
- (a) Chief Information Officer (CIO).
 - (b) Programmers.
 - (c) Resource Handler.
 - (d) Systems analysts.
 - (e) Information systems managers.
- (13) Select the technology use for information system security.
- (a) Phishing
 - (b) Big data
 - (c) Firewall
 - (d) Spyware
 - (e) Cloud computing
- (14) What is the FALSE sentence about important dimensions of knowledge?
- (a) Knowledge is a firm asset.
 - (b) Knowledge has a location.
 - (c) Knowledge is situational.
 - (d) Knowledge is visible.
 - (e) Knowledge has different forms.
- (15) Select the knowledge management value chain correct order.
- (a) Knowledge storage, Knowledge dissemination, Knowledge application, Knowledge acquisition



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- (b) Knowledge acquisition, Knowledge storage, Knowledge dissemination, Knowledge application
 - (c) Knowledge acquisition, Knowledge dissemination, Knowledge application, Knowledge storage
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- (19) Which is not a typical business function?
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 - (c) Manufacturing
 - (d) Accounting
 - (e) Benefits and Compensation
- (20) The person who ensures that systems are developed on time, within budget, and with acceptable quality is a
- (a) Systems designer
 - (b) Project manager
 - (c) Systems owner
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 - (e) System builder



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Question 02

- (a) "Firms invest heavily in information systems to achieve strategic business objectives". Identify and briefly explain four (04) different business objectives of Information Systems. (08 Marks)
- (b) What are complementary assets? Why are complementary assets important for information systems to provide value for an organization? (07 Marks)
- (c) "Information systems can have a positive economic impact on organizations". Do you agree? Explain your answer. (10 Marks)

Question 03

- (a) Explain What a Supply Chain Management system is? (05 Marks)
- (b) Explain Push-Based model and Pull-Based model in Supply Chain Management Systems. (08 Marks)
- (c) Explain how Customer Relationship Management systems can add value to business. (12 Marks)

Question 04

- (a) Define the term "IT Infrastructure". What are the components of IT Infrastructure? (05 Marks)
- (b) Briefly explain 5 contemporary hardware platform trends use in current industries. (10 Marks)
- (d) Explain challenges of managing IT infrastructure in organization and how to overcome those challenges. (10 Marks)

Question 05

- (a) Explain what is meant by "Knowledge Workers". (05 Marks)
- (b) Identify and explain three major types of knowledge in organizations. (10 Marks)
- (c) Explain the different stages in Knowledge Management Value Chain. (10 Marks)



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Question 06

- (a) Define the term "Software Vulnerability". (05 Marks)
- (b) Name and describe 03 malicious software. (06 Marks)
- (c) Discuss what are the contemporary security challenges and vulnerabilities exists in corporate organizations. (07 Marks)
- (d) Discuss technologies and tools which are used to ensure systems security and control. (07 Marks)

Question 07

Briefly describe the followings. (05*5 Marks)

- (a) Bullwhip effect
- (b) Total cost of ownership.
- (c) Cloud Computing.
- (d) Decision support systems.
- (e) IT Governance.

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

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Course CODE: COM551

Year 2 Semester I

SEMESTER END EXAMINATION

Management Information Systems – LTMS2203

- This paper consists of SEVEN questions on EIGHT (08) 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: 2020.09.07

Pass mark: 50%

Time: 02 Hours

Question 01 (Compulsory)

select the correct answer from the choices given

- (01) Management information systems (MIS) use to
- (a) Capture and reproduce the knowledge of an expert problem solver.
 - (b) Create and share documents that support day-today office activities.
 - (c) Use the transaction data to produce information needed by managers to run the business.
 - (d) Process business transactions (e.g., timecards, payments, orders, etc.)
 - (e) None of the above.
- (02) An information system that supports the planning and assessment needs of executive management is
- (a) ERP
 - (b) TPS



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- (c) DSS
 - (d) ESS
 - (e) MIS
- (03) The general transformation cycle for information is:
- (a) Data to information to knowledge
 - (b) Information to data to knowledge
 - (c) Data to knowledge to information
 - (d) Knowledge to data to information
 - (e) None of the above
- (04) E-business is a term used to describe:
- (a) The use of electronic communications for all business processes.
 - (b) Any electronically mediated communication between an organization and its stakeholders.
 - (c) An organization using electronic media to sell direct to its customers.
 - (d) An organization using electronic media to purchase from to its suppliers
 - (e) None of the above.
- (05) Which of the following is/are NOT an IT infrastructure component?
- (a) IT Department.
 - (b) Computer Hardware.
 - (c) Operating Systems.
 - (d) Data Management and Storage.
 - (e) Networking and Telecommunications
- (06) Which of the following is/are NOT a current trend in software platforms?
- (a) Open-source software
 - (b) HTML5
 - (c) Web services and service-oriented architecture
 - (d) Flash
 - (e) Applications on the Cloud



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- (07) Which functional role does IT NOT play in SCM?
- (a) Collaboration and coordination.
 - (b) Decision support for supply chain planning.
 - (c) Transaction execution.
 - (d) Performance measurement and reporting.
 - (e) Supply chain restructuring.
- (08) Select the system which collects data from different firm functions and stores data in single central data repository.
- (a) ESS
 - (b) TPS
 - (c) DSS
 - (d) ERP
 - (e) MIS
- (09) Which of following role is NOT in Mintzberg's managerial roles?
- (a) Disseminator
 - (b) Figurehead
 - (c) Knowledge worker
 - (d) Entrepreneur
 - (e) Negotiator
- (10) Select the computer crime
- (a) Worms
 - (b) Cybervandalism
 - (c) Trojan horses
 - (d) Spyware
 - (e) Viruses



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- (11) which of following is NOT a type of general control which is used for information security control?
- (a) Software controls.
 - (b) Hardware controls.
 - (c) Computer networking control.
 - (d) Data security controls.
 - (e) Implementation controls.
- (12) Which of following is NOT a role in information systems department.
- (a) Chief Information Officer (CIO).
 - (b) Programmers.
 - (c) Resource Handler.
 - (d) Systems analysts.
 - (e) Information systems managers.
- (13) Select the technology use for information system security.
- (a) Phishing
 - (b) Big data
 - (c) Firewall
 - (d) Spyware
 - (e) Cloud computing
- (14) What is the FALSE sentence about important dimensions of knowledge?
- (a) Knowledge is a firm asset.
 - (b) Knowledge has a location.
 - (c) Knowledge is situational.
 - (d) Knowledge is visible.
 - (e) Knowledge has different forms.
- (15) Select the knowledge management value chain correct order.
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Question 02

- (a) "Firms invest heavily in information systems to achieve strategic business objectives". Identify and briefly explain four (04) different business objectives of Information Systems. (08 Marks)
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- (a) Explain What a Supply Chain Management system is? (05 Marks)
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- (a) Explain what is meant by "Knowledge Workers". (05 Marks)
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Question 06

- (a) Define the term "Software Vulnerability". (05 Marks)
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Briefly describe the followings. (05*5 Marks)

- (a) Bullwhip effect
- (b) Total cost of ownership.
- (c) Cloud Computing.
- (d) Decision support systems.
- (e) IT Governance.

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



Year 2 Semester I

REPEAT EXAMINATION

Management Information Systems – LTMS2203

- 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.
- All the answers are needed to be in detail with examples, diagrams and logical arguments

Date: 2020.01.17

Pass mark: 50%

Time: 02 Hours

Question 01 (Compulsory)

- (a) Through a diagram explain how an 'Enterprise Resource Planning (ERP)' system is useful towards an organization? (10 Marks)
- (b) Explain what a 'Customer Relationship Management (CRM)' is? (05 Marks)
- (c) Explain what a 'Knowledge Management System (KMS)' is? (05 Marks)
- (d) Explain what a 'Decision Support System (DSS)' is? (05 Marks)



Question 02

- (a) Explain 'LAN, MAN, WAN, CAN, PAN' networks using diagrams (10 Marks)
- (b) What is 'Client / Server Architecture'? (05 Marks)
- (c) Discuss 'Network Topologies' (10 Marks)

Question 03

- (a) How is a 'Primary Key' different from a 'Foreign Key'? Explain with an example (10 Marks)
- (b) Explain 'Web Mining' and 'Text Mining'? (05 Marks)
- (c) Can 'Database Management System' be better than 'Traditional File Environment'? Explain (10 Marks)

Question 04

- (a) What is a 'Business Challenge'? How can Information System be useful in solving 'Business Challenges'? (10 Marks)
- (b) Explain the relationship between an 'Organization' and 'Information Technology'? (05 Marks)
- (c) Discuss briefly about 'Organizational Culture' (10 Marks)



Question 05

- (a) What does 'Intellectual Property' mean? Explain it through challenges faced. (10 Marks)
- (b) What is 'Virtualization'? Explain the use of it. (05 Marks)
- (c) Explain how 'Professional Codes of Conduct' is useful towards its members? (10 Marks)

Question 06

- (a) Why are Information Systems vulnerable to 'destruction, error, and abuse'? (10 Marks)
- (b) What are the 'Global Supply chain Issues' and explain how those are managed through Information Technology. (05 Marks)
- (c) How is 'Fuzzy Logic' different from 'Neural Networks'? How are those important towards decision making in the modern Management Information Systems? (10 Marks)

Question 07

- (a) What is an 'Autonomic Computing'? (10 Marks)
- (b) What is the difference between a 'Data Centre' and a 'Data Recovery Centre'? (05 Marks)
- (c) Define 'IT infrastructure' and how is it useful towards 'logistics'? (10 Marks)

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



Year 2 Semesters I

REPEAT EXAMINATION

Financial Management LTFM2201

- This paper consists of SEVEN questions on ELEVEN (11) 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:2020.01.23

Pass mark: 50%

Time: 02 Hours

Question 01 (COMPULSORY)

Company TY owns a number of motor vehicle retail showrooms in its home country, Country Y (The currency of the country is Y\$). It has grown rapidly in recent years, largely by acquiring land and building new showrooms.

The directors of TY are currently considering a number of possible new sites for further expansion. One or more of these sites may be developed up to a maximum overall capital budget of Y\$ 100 million. One of the sites being considered is located in a neighbouring country, Country J (Currency of that country is J\$). If selected, this would be the first showroom to be opened in a foreign country.

Four possible sites have been identified and the data are given below



Table 1.01

| Project (Local Projects) | Initial Investment | net cash inflow at the end of each year for a 10-year period | Project net present value (NPV) | payback period (Without discounting) | Profitability index |
|--|----------------------------------|--|---------------------------------|--------------------------------------|---------------------|
| | Y\$ Million | Y\$ Million | Y\$ Million | Years | |
| A | 50 | 12 | 25.35 | To be calculated | To be calculated |
| B | 100 | 20 | 25.58 | To be calculated | To be calculated |
| C | 75 | 15 | 19.18 | To be calculated | To be calculated |
| | | | | | |
| Foreign Project (To be started in Country J) | Initial Investment (J\$ Million) | net cash inflow at the end of each year for a 10-year period (J\$ Million) | Project net present value (NPV) | payback period (Without discounting) | Profitability index |
| D | 80 | 20 | To be calculated | 4 Years | To be calculated |

Note that projects A, B and C are located in TY's home country, Country Y and project D is located in neighbouring Country J.

Additional data,

- Local projects are discounted based on the rate of 9.5%
- The risk-free interest rate is 2% in Country Y and 4% in Country J.
- The spot rate is currently Y\$/J\$ 2.2900 (that is, Y\$ 1 = J\$ 2.2900)
- Each project has a 10-year term

A separate decision has yet to be made about how best to finance the selected project or projects.



Required,

- (i) Calculate the payback period and Profitability indexes for all three local projects
(05 Marks)
- (ii) An appropriate J\$ based discount rate to use in calculating the Net Present Value (NPV) of project D
(05 Marks)
- (iii) Calculate project D's NPV stated in terms of Y\$. (Hint: use any option you prefer)
(10 Marks)
- (iv) Profitability index for Project D
(03 Marks)
- (v) Advise the directors of LB on: The project or combination of projects which is expected to maximize shareholder wealth (Hint : There is a capital rationing situation)
(02 Marks)

Question 02

Modern enterprise Ltd is considering the purchase of a new computer system for its research and development division, which would cost USD 3 million. The operation and maintenance costs (excluding depreciation) are expected to be 0.7 million per annum. It is estimated that the useful life of the system would be 6 years, at the end of which the disposal value is expected to be zero.

The tangible benefits expected from the system in the form of reduction in design and draftsmanship costs would be USD 1.2 million per annum. The disposal of used drawing office equipment and furniture initially is anticipated to net USD 0.9 million.

The effective tax rate is 35 per cent. The average cost of capital (Discount rate) of the company 12 percent.

After appropriate analysis of cash flows (Net Present Value) advise the company of the financial viability of the proposal. (25 Marks)



Question 03

- (a) There is an inseparable relationship between financial management and other functions of an organization such as production, marketing, Human Resource Management etc.". Explain this statement (08 Marks)
- (b) "Aligning the interests between owners and the managers will lead to minimize the principal agent problem". Clearly explain the short term and the long-term strategies to be taken to minimize the principal agent problem (08 Marks)
- (c) Financial statements are prepared to provide different information for users. What are the different types of information that users can obtain by assessing these statements (09 Marks)

Question 04

- (a) "The importance of the concept of time value of money is influenced on consumers today than in any other time period, in Sri Lanka". Do you agree with the statement? Argue on that. (05 Marks)
- (b) Ms. Nimsha is expecting to buy a car. There are two options of which she can make the payment
Option 1: Paying total sum today, worth RS 2,500,000
Option 2: Paying RS 60,000 per month for 5 years.
If Interest rate is 12% and is compounded monthly, clearly indicate which option is better for Ms. Nimsha in terms of paying for the car. (05 Marks)
- (c) Ms. Gishana took a mortgage loan to finance the purchase of her house for RS 5,000,000 to be repaid in ten semiannual installments. The annual nominal interest rate is 10% which is compounded semiannually.
(i) Compute the semiannual installment (2.5 Marks)
(ii) Calculate the interest and the principle payments at the end of first year (at the end of the payment of 02nd installment) (2.5 Marks)
- (d) Mr. Sameera is expecting to invest RS 100,000 in his bank account today. Calculate how long will it take to increase his initial investment up to RS 500,000 under an annual interest of 10% (05 Marks)



- (e) Mr. Pathum invested RS 50,000 today for her new project on floral decorations. If the annual cash flow at the end of each year due to this project is RS 10,000 spread for an indefinite period of time, calculate the Net Present value of the project (Assume the discount rate as 10%) (05 Marks)

Question 05

- (a) Mr. Madhawa has purchased 100 shares from dialog PLC as at 01st of January 2018 at Rs 11 per share. As at 30th April 2018 he sold his shares for RS 1500. During the holding period, the company paid RS 250 as total amount of dividends.
- (i) Calculate the total gain as a percentage (02 Marks)
- (ii) Calculate the annualized return as a percentage (02 Marks)

- (b) The returns of stocks X and Y under different Economic conditions are as follows.

Table 5.01

| Economic condition | Probability | Returns of X (%) | Returns of Y (%) |
|--------------------|-------------|------------------|------------------|
| Growth | 0.5 | 20 | 22 |
| Normal | 0.3 | 15 | 15 |
| Recession | 0.2 | 10 | 05 |

- (i) Calculate the expected return and the standard deviation of each stock (04 Marks)
- (ii) If you are to select one stock for investment, what would you choose? Justify your answer (03 Marks)
- (c) suppose an investor has a portfolio of two common stocks A and B in equal proportions with the following risk and return characteristics
- Expected return of A (ER_A) = 18%
 - Expected return of B (ER_B) = 28%
 - Standard Deviation of A (STD_A) = 15%
 - Standard Deviation of A (STD_B) = 20%
 - Returns of these stocks have a negative correlation of -0.2
- (i) Calculate the expected return of the portfolio (07 Marks)
- (ii) Calculate the expected risk (Standard Deviation) of the Portfolio (07 Marks)



Question 06

- (a) Clearly explain four factors affecting on a company's capital structure with appropriate examples (07 Marks)
- (b) A newly established company has determined its capital structure as follows.

Table 6.01

| | |
|-------------------------------|--------------|
| Common shares (10,000 shares) | RS 1,000,000 |
| Preference shares | RS 500,000 |
| Debentures at 12% interest | RS 1,200,000 |

- The annual dividend per common share is expected to be RS 8 per share and there will be a 5% growth rate of dividend. The market price per share is RS 120.
- The market price of a preference share is RS 50. Company is expecting to pay a RS 5 dividend per share.
- Tax rate is expected to be 25%.

Required,

Calculate the Weighted average cost of capital of the company (10 Marks)

- (c) The Financial Manager of Demo (PLC), engaged in manufacturing spare parts has found following information on its fixed costs, variable costs and sales revenue.

Table 6.02

| | |
|---|------------|
| Sales revenue | RS 800,000 |
| Variable Operating expenses | RS 400,000 |
| Fixed operating expenses | RS 200,000 |
| Earnings before Interest and Tax (EBIT) | |

Required,

Calculate the operating leverage of the company if the sales revenue will be reduced by 10% due to the reduction of demand for spare parts. (Assume variable costs are also changing with the change of sales revenue) (04 Marks)

- (d) Clearly explain on how operating leverage will be influencing on the decisions taken by the financial manager. (04 Marks)



Question 07

- (a) Rupal (Pvt) Ltd is a company engaged in advertising and marketing in Sri Lanka. They are planning to construct a new advertising firm in Rajagiriya. The cost of the new project is expected to be RS 10 million. Financial manager plans for acquiring funds for the new project as follows.

Plan 01 - collect the total funds through Equity. (The expected number of shares to be issued is 40,000)

Plan 02 - Collect the RS 5 Million through Equity (The expected number of shares to be issued is 20,000) and collect remaining through debt with an interest rate of 8%.

The tax rate of the company is 35%. The expected earnings before interest and tax of the company is RS one million per annum through this project and the existing branches of company are smoothly running their operations.

- (i) Calculate the earnings per share under each plan. (05 Marks)
- (ii) Calculate the indifferent point of EBIT (05 Marks)
- (iii) By using an appropriate graph, indicate which plan is the best for acquiring funds for LT (Pvt) Ltd to run the project. (07 Marks)

- (b) Huawei (Pvt) Ltd is a smart phone manufacturer in China. The budgeted sales of smart phones (Huawei Y5 Lite brand) for the first four months in the next year (2020) are given as follows.

Table 7.01

| | January | February | March | April |
|----------------------|---------|----------|-------|-------|
| Sales (smart phones) | 15 | 20 | 25 | 30 |

Other relevant data:

- The selling price of a smart phone is Yuan 503
- To produce one smart phone, 0.5 kilo grams of metal are required.
- The target month end finished smart phones inventory is 25% of budgeted next month sales
- End Finished smart phones inventory for December 2019 is expected as 08 units

Required: Prepare the following budgets for the first 3 months of the next year



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- (i) Sales revenue budget (04 Marks)
(ii) Production Budget (in Units) (04 Marks)

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



Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
 n = number of periods until payment

| Periods (n) | Discount rate (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 | 1 |
| 2 | 0.980 | 0.961 | 0.943 | 0.925 | 0.907 | 0.890 | 0.873 | 0.857 | 0.842 | 0.826 | 2 |
| 3 | 0.971 | 0.942 | 0.915 | 0.889 | 0.864 | 0.840 | 0.816 | 0.794 | 0.772 | 0.751 | 3 |
| 4 | 0.961 | 0.924 | 0.888 | 0.855 | 0.823 | 0.792 | 0.763 | 0.735 | 0.708 | 0.683 | 4 |
| 5 | 0.951 | 0.906 | 0.863 | 0.822 | 0.784 | 0.747 | 0.713 | 0.681 | 0.650 | 0.621 | 5 |
| 6 | 0.942 | 0.888 | 0.837 | 0.790 | 0.746 | 0.705 | 0.666 | 0.630 | 0.596 | 0.564 | 6 |
| 7 | 0.933 | 0.871 | 0.813 | 0.760 | 0.711 | 0.665 | 0.623 | 0.583 | 0.547 | 0.513 | 7 |
| 8 | 0.923 | 0.853 | 0.789 | 0.731 | 0.677 | 0.627 | 0.582 | 0.540 | 0.502 | 0.467 | 8 |
| 9 | 0.914 | 0.837 | 0.766 | 0.703 | 0.645 | 0.592 | 0.544 | 0.500 | 0.460 | 0.424 | 9 |
| 10 | 0.905 | 0.820 | 0.744 | 0.676 | 0.614 | 0.558 | 0.508 | 0.463 | 0.422 | 0.386 | 10 |
| 11 | 0.896 | 0.804 | 0.722 | 0.650 | 0.585 | 0.527 | 0.475 | 0.429 | 0.388 | 0.350 | 11 |
| 12 | 0.887 | 0.788 | 0.701 | 0.625 | 0.557 | 0.497 | 0.444 | 0.397 | 0.356 | 0.319 | 12 |
| 13 | 0.879 | 0.773 | 0.681 | 0.601 | 0.530 | 0.469 | 0.415 | 0.368 | 0.326 | 0.290 | 13 |
| 14 | 0.870 | 0.758 | 0.661 | 0.577 | 0.505 | 0.442 | 0.388 | 0.340 | 0.299 | 0.263 | 14 |
| 15 | 0.861 | 0.743 | 0.642 | 0.555 | 0.481 | 0.417 | 0.362 | 0.315 | 0.275 | 0.239 | 15 |
| (n) | 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 | 1 |
| 2 | 0.812 | 0.797 | 0.783 | 0.769 | 0.756 | 0.743 | 0.731 | 0.718 | 0.706 | 0.694 | 2 |
| 3 | 0.731 | 0.712 | 0.693 | 0.675 | 0.658 | 0.641 | 0.624 | 0.609 | 0.593 | 0.579 | 3 |
| 4 | 0.659 | 0.636 | 0.613 | 0.592 | 0.572 | 0.552 | 0.534 | 0.516 | 0.499 | 0.482 | 4 |
| 5 | 0.593 | 0.567 | 0.543 | 0.519 | 0.497 | 0.476 | 0.456 | 0.437 | 0.419 | 0.402 | 5 |
| 6 | 0.535 | 0.507 | 0.480 | 0.456 | 0.432 | 0.410 | 0.390 | 0.370 | 0.352 | 0.335 | 6 |
| 7 | 0.482 | 0.452 | 0.425 | 0.400 | 0.376 | 0.354 | 0.333 | 0.314 | 0.296 | 0.279 | 7 |
| 8 | 0.434 | 0.404 | 0.376 | 0.351 | 0.327 | 0.305 | 0.285 | 0.266 | 0.249 | 0.233 | 8 |
| 9 | 0.391 | 0.361 | 0.333 | 0.308 | 0.284 | 0.263 | 0.243 | 0.225 | 0.209 | 0.194 | 9 |
| 10 | 0.352 | 0.322 | 0.295 | 0.270 | 0.247 | 0.227 | 0.208 | 0.191 | 0.176 | 0.162 | 10 |
| 11 | 0.317 | 0.287 | 0.261 | 0.237 | 0.215 | 0.195 | 0.178 | 0.162 | 0.148 | 0.135 | 11 |
| 12 | 0.286 | 0.257 | 0.231 | 0.208 | 0.187 | 0.168 | 0.152 | 0.137 | 0.124 | 0.112 | 12 |
| 13 | 0.258 | 0.229 | 0.204 | 0.182 | 0.163 | 0.145 | 0.130 | 0.116 | 0.104 | 0.093 | 13 |
| 14 | 0.232 | 0.205 | 0.181 | 0.160 | 0.141 | 0.125 | 0.111 | 0.099 | 0.088 | 0.078 | 14 |
| 15 | 0.209 | 0.183 | 0.160 | 0.140 | 0.123 | 0.108 | 0.095 | 0.084 | 0.074 | 0.065 | 15 |



Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
 n = number of periods

| Periods (n) | Discount rate (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 | 1 |
| 2 | 1.970 | 1.942 | 1.913 | 1.886 | 1.859 | 1.833 | 1.808 | 1.783 | 1.759 | 1.736 | 2 |
| 3 | 2.941 | 2.884 | 2.829 | 2.775 | 2.723 | 2.673 | 2.624 | 2.577 | 2.531 | 2.487 | 3 |
| 4 | 3.902 | 3.808 | 3.717 | 3.630 | 3.546 | 3.465 | 3.387 | 3.312 | 3.240 | 3.170 | 4 |
| 5 | 4.853 | 4.713 | 4.580 | 4.452 | 4.329 | 4.212 | 4.100 | 3.993 | 3.890 | 3.791 | 5 |
| 6 | 5.795 | 5.601 | 5.417 | 5.242 | 5.076 | 4.917 | 4.767 | 4.623 | 4.486 | 4.355 | 6 |
| 7 | 6.728 | 6.472 | 6.230 | 6.002 | 5.786 | 5.582 | 5.389 | 5.206 | 5.033 | 4.868 | 7 |
| 8 | 7.652 | 7.325 | 7.020 | 6.733 | 6.463 | 6.210 | 5.971 | 5.747 | 5.535 | 5.335 | 8 |
| 9 | 8.566 | 8.162 | 7.786 | 7.435 | 7.108 | 6.802 | 6.515 | 6.247 | 5.995 | 5.759 | 9 |
| 10 | 9.471 | 8.983 | 8.530 | 8.111 | 7.722 | 7.360 | 7.024 | 6.710 | 6.418 | 6.145 | 10 |
| 11 | 10.37 | 9.787 | 9.253 | 8.760 | 8.306 | 7.887 | 7.499 | 7.139 | 6.805 | 6.495 | 11 |
| 12 | 11.26 | 10.58 | 9.954 | 9.385 | 8.863 | 8.384 | 7.943 | 7.536 | 7.161 | 6.814 | 12 |
| 13 | 12.13 | 11.35 | 10.63 | 9.986 | 9.394 | 8.853 | 8.358 | 7.904 | 7.487 | 7.103 | 13 |
| 14 | 13.00 | 12.11 | 11.30 | 10.56 | 9.899 | 9.295 | 8.745 | 8.244 | 7.786 | 7.367 | 14 |
| 15 | 13.87 | 12.85 | 11.94 | 11.12 | 10.38 | 9.712 | 9.108 | 8.559 | 8.061 | 7.606 | 15 |
| (n) | 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 | 1 |
| 2 | 1.713 | 1.690 | 1.668 | 1.647 | 1.626 | 1.605 | 1.585 | 1.566 | 1.547 | 1.528 | 2 |
| 3 | 2.444 | 2.402 | 2.361 | 2.322 | 2.283 | 2.246 | 2.210 | 2.174 | 2.140 | 2.106 | 3 |
| 4 | 3.102 | 3.037 | 2.974 | 2.914 | 2.855 | 2.798 | 2.743 | 2.690 | 2.639 | 2.589 | 4 |
| 5 | 3.696 | 3.605 | 3.517 | 3.433 | 3.352 | 3.274 | 3.199 | 3.127 | 3.058 | 2.991 | 5 |
| 6 | 4.231 | 4.111 | 3.998 | 3.889 | 3.784 | 3.685 | 3.589 | 3.498 | 3.410 | 3.326 | 6 |
| 7 | 4.712 | 4.564 | 4.423 | 4.288 | 4.160 | 4.039 | 3.922 | 3.812 | 3.706 | 3.605 | 7 |
| 8 | 5.146 | 4.968 | 4.799 | 4.639 | 4.487 | 4.344 | 4.207 | 4.078 | 3.954 | 3.837 | 8 |
| 9 | 5.537 | 5.328 | 5.132 | 4.946 | 4.772 | 4.607 | 4.451 | 4.303 | 4.163 | 4.031 | 9 |
| 10 | 5.889 | 5.650 | 5.426 | 5.216 | 5.019 | 4.833 | 4.659 | 4.494 | 4.339 | 4.192 | 10 |
| 11 | 6.207 | 5.938 | 5.687 | 5.453 | 5.234 | 5.029 | 4.836 | 4.656 | 4.486 | 4.327 | 11 |
| 12 | 6.492 | 6.194 | 5.918 | 5.660 | 5.421 | 5.197 | 4.988 | 4.793 | 4.611 | 4.439 | 12 |
| 13 | 6.750 | 6.424 | 6.122 | 5.842 | 5.583 | 5.342 | 5.118 | 4.910 | 4.715 | 4.533 | 13 |
| 14 | 6.982 | 6.628 | 6.302 | 6.002 | 5.724 | 5.468 | 5.229 | 5.008 | 4.802 | 4.611 | 14 |
| 15 | 7.191 | 6.811 | 6.462 | 6.142 | 5.847 | 5.575 | 5.324 | 5.092 | 4.876 | 4.675 | 15 |



Formula sheet

1) Present Value of a single 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) Future value of an ordinary annuity

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

5) Expected Return

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

6) Expected Risk of an individual asset

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

7) Expected Risk of a portfolio

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

8) Covariance between two assets

$$\sigma_{x,y} = \sum_{i=1}^n [R_x - E(R_x)][R_y - E(R_y)] P_i$$

9) Market Risk

$$\beta_i = \frac{\text{Cov}_{i,m}}{\sigma_m^2}$$



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Year 2 Semester I

REPEAT EXAMINATION

Maritime Law - LTML2206

- This paper consists of SEVEN questions on FOUR (04) 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: 2020.01.15

Pass mark: 50%

Time: 02 Hours

Question 01 (Compulsory)

“Carriage of Good by Sea” is one of the main modes of carriage involved in International Trade. It is commonly executed in accordance with contract for the international sale of goods”

Explain the above in the context of;

- | | |
|--------------------------------------|------------|
| (a) Contract of Affreightment | (05 Marks) |
| (b) Common and Private Carries | (05 Marks) |
| (c) Absolute and Statutory Liability | (05 Marks) |
| (d) Seaway Bills | (05 Marks) |
| (e) Lay Time And Demurrage | (05 Marks) |

Question 02

“Ship’s nationality forms integral part in the shipping industry. This avoids complications arising out of safety and security, Modern day international law regime requires ship registration a must”.



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Discuss.

(25 Marks)

Question 03

“In actual sense, a **Bill of Leading** cannot be called a contract of carriage because it is merely an evidence of a contract. But it provides detailed information as to the goods loaded and contain certain contractual terms”

Explain the above sentence in the light of following

- (a) Relationship between a charter party of Bill of Leading
- (b) There Attributes of Bill of Leading
- (c) Shipped Bill of Leading and Received for Shipment Bill of Leading
- (d) New developments of Hague- Visby Rules on Bill of Leading
(In view of Hague Rules)
- (e) Hamburg and Rotterdam Rules on Bill of Leading

(25 Marks)

Question 04

- (a) “Seafarers are expected to avoid maritime **Casualties** at sea in order to maintain safety of navigation for all ships using the navigable waters”

Explain the above statement by giving preference to Maritime.

(12.5 Marks)

- (b) The right to **Limit Liability** is a cardinal principle that corresponds to the importance of protecting the maritime industry. It is a right of the ship owner than a mere benefit or opportunity”

Explain the above statement by giving preference to Limitation of Liability for Maritime Claims Conventions.

(12.5 Marks)



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Question 05

MV Cyclone was carrying 50,000 metric tons of Bunker C fuel oil as cargo when it faced an increment weather condition in the type of a seven storm off the coast of Galle. Due to insufficiency of its maneuvering techniques internally, the vessel started to collapse from its hull causing all its cargo and fuel oil to leak to the sea. Having received information as to the said scenario, the Government of Sri Lanka posted its Coast Guards and the officials of the Maritime Pollution Prevention Authority to take immediate and prompt action to prevent loss or damage that may cause to the marine environment and it's connected surrounding. In a further attempt, Sri Lanka Navy arrested the Master and the crew members of the said vessel consisting of 12 and handed over them to the nearest Police Station

- (a) Identify the relevant international Legal instrument that applies to the given scenario
(05 Marks)
- (b) What is the role of MPPA ?
(05 Marks)
- (c) What is the role of Coast Guard?
(05 Marks)
- (d) List the potential claims in a typical scenario
(05 Marks)
- (e) List the types of action that can be imposed against the ship owner and his crew including the Master separately
(05 Marks)

Question 06

"The term Admiralty law was described as the jurisdiction of admiral, and the administration of admiralty law proper - the local maritime law - as it become a judicial function, has passed into the hands of courts, and they now administer the admiralty law and the maritime law and sometimes admiralty and maritime law, and cases arising



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under them are cases on admiralty and maritime jurisdiction" - as per decision of *Renew v. United States* [D.C.Ga, 1 F supp 256 (259)]

- (a) From this statement what do you understand by the term "Admiralty Law" and how it is different from "Maritime Law"? (7.5 Marks)
- (b) List types of claims that can be entertained by the Admiralty High Court in Sri Lanka in accordance with the Admiralty Jurisdiction Act No. 40 of 1983 (10 Marks)
- (c) Write a short note on 'Maritime Arbitration' (7.5 Marks)

Question 07

- (a) Explain the regime of SOLAS convention and critically discuss in the modern day context. (10 Marks)
- (b) Write short notes on following (15 Marks)
 - (i) MARPOL convention
 - (ii) CLC convention
 - (iii) Bunkers convention

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



Year 2 Semester I

REPEAT EXAMINATION

Intermediate Economics – LTIE2202

- 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: 2020.01.16

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

- (a) Indifference curve is use for illustration of consumer behavior in economics.
Explain that meaning of Indifference curve, its properties and usefulness of it. (15 Marks)
- (b) What do you meant by consumer's equilibrium? Which conditions should be fulfilled for that situation? (10 Marks)

Question 02

- (a) Derive a Demand curve for product X using price consumption Curve which has elastic demand. (10 Marks)
- (b) Define the price effect with appropriate examples (07 Marks)
- (c) Explain the difference between Normal product and Inferiors with Price effect.
Use the appropriate diagrams (08 Marks)



Question 03

- (a) Define the term Producer's Equilibrium with conditions (08 Marks)
- (b) What do you mean by "Production Expansion Path"? explain with appropriate examples (07 Marks)
- (c) Explain the Law of Production in Long run using production expansion path (10 Marks)

Question 04

- (a) Explain each component of gross domestic production in an open economy. (09 Marks)
- (b) Drive the IS curve for an economy (05 Marks)
- (c) Drive the LM curve for an economy (05 Marks)
- (d) Which factors influence to shifting IS curve (06 Marks)

Question 05

- (a) You are given the following a set of information on money & goods market of a open economy,

$$C = 1000 + 0.5Y_d$$

$$T = 600$$

$$I = 500 - 100i$$

$$G = 600$$

$$M_s = 2500$$

$$(M/P)_d = 5Y - 1000i$$

$$NX = 200$$

Where C- consumption, Y- national income, Y_d - disposable income, i - interest rate, T- taxes, I- investment, G- government expenditure, M_s - real money supply, $(M/p)_d$ - real money demand, NX - net exports and P- Price levels.

- (i) Determine the equilibrium interest rate, income, Investment, disposable income and nominal money demand (18 Marks)
- (ii) Assume that G increases by 100. By how much will Y increase in short run equilibrium? Shows that the new IS curve and equilibrium in a diagram (07 Marks)



Question 06

You are given summary of the profit of two companies as a normal form of a game.

| Company A | | Company B | |
|---------------|---------|-----------|---------------|
| | | Advertise | Not Advertise |
| Advertise | 10 5 | 15 0 | |
| Not Advertise | 6 8 | 20 2 | |

- (a) Explain players, strategies and payoff of the above game. (15 Marks)
- (b) Find Nash Equilibrium of the game (05 Marks)
- (c) Represent above game from extensive form (05 Marks)

Question 07

Write short notes on any Four (4) of the following

- (a) Economic Region of Production
- (b) Expansionary Monetary Policy
- (c) Demand for Money
- (d) MRTS
- (e) Income Consumption Curve
- (f) Properties of Iso Quant

(5x5 Marks)

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



Year 2 Semester I

REPEAT EXAMINATION

Transport and Logistics Policy – LTTP2204

- 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: 2020.01.18

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

- (a) What are the negative impacts of transport on Environment? Briefly explain three impacts (05 Marks)
- (b) Briefly explain the private transport and public transport (05 Marks)
- (c) What is Intermodal transportation and how can be useful for the Sri Lanka freight transportation. (15 Marks)

Question 02

- (a) Briefly explain the Logistics Policy Cycle with suitable examples. (10 Marks)
- (b) What are the data that are using prepare the procurement policy plan and how those data will support to prepare the procurement policy plan (15 Marks)



Question 03

- (a) List the factors that affect Accessibility & Mobility and discuss those briefly. (06 Marks)
- (b) Transport activities have impacts to social and cultural development in the society. Explain (09 Marks)
- (c) "National Economic Growth is directly relate with transport activities in the country". Explain the above statement with suitable examples (10 Marks)

Question 04

- (a) Discuss four impediments to Land transport Policy (10 Marks)
- (b) Select a local or national transport project and explain how it contributes to the economic growth and the development of the country (15 Marks)

Question 05

- (a) What are the advantages and disadvantages regulated and deregulated industries? (05 Marks)
- (b) Compare and contrast the India , USSR and China Transport policy model (10 Marks)
- (c) Build an argument for and against Privatization and discuss with suitable examples (10 Marks)



Question 06

- (a) Briefly explain the THREE different planning styles of the government in freight transport (06 Marks)
- (b) Discuss THREE policy measures in Freight transport with suitable examples (09 Marks)
- (c) Explain the concept of "Voluntary Corporation" and how it will be impacted to reduce the cost. (10 Marks)

Question 07

- (a) Discuss the applicability of pricing methods to Colombo metropolitan area. (25 Marks)

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



Year 2 Semester I

REPEAT EXAMINATION

Port Management – LTPM2207

- 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: 2020.01.25

Pass mark: 50%

Time: 02 Hours

Question 01 (Compulsory)

- (a) Name commercial port/s in Sri Lanka? (05 Marks)
- (b) What are the facilities available in the Port of Colombo? (05 Marks)
- (c) What are the facilities available in the Port of Galle? (05 Marks)
- (d) What are the facilities available in the Port of Trincomalee? (05 Marks)
- (e) Name different container terminals in the Port of Colombo? (05 Marks)

Question 02

- (a) Explain what is a Sea Port? (10 Marks)
- List out sea related Navigational Facilities? (05 Marks)
- (b) List out land based Port Facilities? (05 Marks)
- (c) What are the three Port Operations? (05 Marks)

Question 03

- (a) Describe how & when Sri Lanka Ports Authority was formed? (05 Marks)
- (b) What are the objectives & duties as per the SLPA act? (10 Marks)
- (c) What are the Ports that are under Sri Lanka Ports Authority? (05 Marks)
- (d) How Ports are classified by functions? (05 Marks)



Question 04

- (a) Explain why ports are measured by their performances? (05 Marks)
- (b) Describe types of performance measures of ports? (04 Marks)
- (c) Colombo old Harbour built by British was expanded later, list reasons for this expansion. (04 Marks)
- (d) Describe Colombo Port Expansion Project with planned facilities? (04 Marks)
- (e) What are the four basic Port Management Models? (04 Marks)
- (f) List out port users? (04 Marks)

Question 05

- (a) List port related value-added logistic services? (05 Marks)
- (b) What are the functions of Sri Lanka Ports Authority Logistics Division? (10 Marks)
- (c) Describe service port marketing? (05 Marks)
- (d) List out marketing tools to promote the port? (05 Marks)

Question 06

- (a) Describe Hambantota Port Management including facilities? (10 Marks)
- (b) What are facilities available at SAGT? (07 Marks)
- (c) What are facilities available at CICT? (08 Marks)

Question 07

- (a) List out Main Tariff Items of Sri Lanka Ports Authority? (10 Marks)
- (b) Name port customers? (05 Marks)
- (c) List port customer expectations? (10 Marks)

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



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Year 2 Semester I

REPEAT EXAMINATION

Air Cargo and Passenger Transportation – LTAT2205

- 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: 2020.01.21

Pass mark: 50%

Time: 02 Hours

Question 01 (Compulsory)

- (a) Air transport can be considered as one of the major contributors of the global trade. Explain the statement with 3 examples (06 Marks)
- (b) What type of strategies that can use to mitigate noise pollution created by aviation? (04 Marks)
- (c) Airline **Passenger Rights are protected by four different ways**. Name at least 2 of them. (06 Marks)
- (d) "EU Regulation is having a considerable impact to SriLankan Airlines Operation"? Briefly explain the above statement by elaborating your knowledge in **EU Regulation**. (06 Marks)
- (e) Define the term "**Flight Disruption**" and mention three major causes for flight Disruptions? (03 Marks)



Question 02

- (a) What are the **major causes for Human Errors** in Aircraft Accidents? (05 Marks)
- (b) Briefly explain the **SHELL model** discussed in Crew Resource Management?
(07 Marks)
- (c) What are the characteristics of effective Leadership? (06 Marks)
- (d) Briefly explains the "**Human Factor**" concept in Aviation Industry? (07 Marks)

Question 03

- (a) What are the Disadvantages of air cargo transportation? Mention at least 3.
(06 Marks)
- (b) Briefly explain the need of **aviation safety and security** in modern World?
(06 Marks)
- (c) What are the "Dangerous Goods" in Airline Cargo Industry? Give two examples and explain how Airlines are handling them carefully? (06 Marks)
- (d) Mention two important Air Cargo related organizations & briefly explains their Operation? (07 Marks)

Question 04

- (a) Why it is important to have **Airline Regulations**? discuss your opinions
(06 Marks)
- (b) Mention two major **Aircraft Manufactures** & two popular **Aircraft types** produced by them?
(04 Marks)
- (c) What are the three primary **types of air cargo service** options available? Briefly explain one type with examples? (06 Marks)
- (d) What are the reasons for airlines to join or create an air cargo alliance? Provide atleast three reasons. (03 Marks)



(e) What are the Emerging Trends in Air Cargo Industry? Briefly explain.

(06 Marks)

Question 05

a) Draw a sketch of a basic aircraft and name the forces acting on the aircraft

(4Marks)

b) Name the major control surfaces involved in flying

(4Marks)

c) Name the six basic instruments in a traditional aircraft cockpit together with the purpose of its use

(12Marks)

d) What are the two ways of producing lift for aircraft heavier than air (aerodyne)?

(2Marks)

e) What are the 3 main types of the aircraft based on the commercial purpose?

(3Marks)

Question 06

Assume that, AsiaJet is one of the scheduled airlines in South Asian region. AsiaJet operates daily flights to ABC and XYX destinations in Asian region and Colombo airport (CMB) is the main hub. Below table shows, performance records of CMB-ABC and CMB-XYZ routes from 1st January to 6th January. Based on the below data answer question (a) to (f)



CMB-ABC distance - 800 km, CMB-XYZ distance - 700 km

| CMB-ABC Route | | | | | | |
|---------------|-------|-------------------|---------------|---------------------|---------------|-------------------------------|
| Flight No | Date | Operated Capacity | | Accepted passengers | | Total Passenger Revenue (USD) |
| | | Business class | Economy Class | Business class | Economy Class | |
| AJ101 | 1-Jan | 12 | 138 | 2 | 144 | 14000 |
| AJ101 | 2-Jan | 12 | 138 | 7 | 138 | 14500 |
| AJ101 | 3-Jan | 12 | 138 | 2 | 146 | 14800 |
| AJ101 | 4-Jan | 12 | 138 | 2 | 145 | 14850 |
| AJ101 | 5-Jan | 12 | 138 | 3 | 145 | 14700 |
| AJ101 | 6-Jan | 12 | 138 | 3 | 147 | 14900 |

| CMB-XYZ Route | | | | | | |
|---------------|-------|-------------------|---------------|---------------------|---------------|-------------------------------|
| Flight No | Date | Operated Capacity | | Accepted passengers | | Total Passenger Revenue (USD) |
| | | Business class | Economy Class | Business class | Economy Class | |
| AJ101 | 1-Jan | 12 | 138 | 3 | 80 | 7100 |
| AJ101 | 2-Jan | 12 | 138 | 2 | 65 | 7000 |
| AJ101 | 3-Jan | 12 | 138 | 1 | 105 | 8700 |
| AJ101 | 4-Jan | 12 | 138 | 4 | 115 | 8700 |
| AJ101 | 5-Jan | 12 | 138 | 5 | 105 | 7900 |
| AJ101 | 6-Jan | 12 | 138 | 6 | 101 | 8200 |

- (a) Why we need measures and indicators in the air transport industry (03 Marks)
- (b) Calculate business class cabin factors for each route for the period (02Marks)
- (c) Calculate economy class cabin factors for each route for the period (02Marks)
- (d) Calculate total cabin factors for each route for the period (02Marks)
- (e) Calculate RASK for each route for the period (04Marks)



- (f) Calculate YRPK for each route for the period (04Marks)
- (g) Calculate average fare for CMB-ABC and CMB-XYZ routes respectively for the period (04Marks)
- (h) Comment on CMB-ABC and CMB-XYZ routes based on your KPI knowledge (04Marks)

Question 07

- (a) According to the ICAO, Define what the 'Safety' is? (03Marks)
- (b) Explain management dilemmas involvement in Safety Management in aviation. (04Marks)
- (c) Explain the difference between the Reactive, Proactive and Predictive Safety Strategies applied in Safety Management. (06Marks)
- (d) What do you mean by 'Hazard' and give two examples in relation to airline operations. (04Marks)
- (e) Based on the ICAO, building blocks needed for the development of effective safety management system for an organization. Explain 4 of those eight building blocks (08Marks)

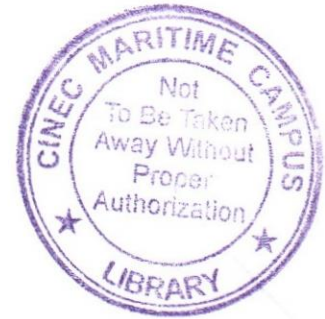
-----END OF THE QUESTION PAPER-----



Year 2 Semesters I

SEMESTER END EXAMINATION

Financial Management LTFM2201



- This paper consists of SEVEN questions on ELEVEN (11) 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:2019.09.11

Pass mark: 50%

Time: 02 Hours

Question 01 (COMPULSORY)

Company LB owns a number of motor vehicle retail showrooms in its home country, Country H (The currency of the country is H\$). It has grown rapidly in recent years, largely by acquiring land and building new showrooms.

The directors of LB are currently considering a number of possible new sites for further expansion. One or more of these sites may be developed up to a maximum overall capital budget of H\$ 100 million. One of the sites being considered is located in a neighbouring country, Country J (Currency of that country is J\$). If selected, this would be the first showroom to be opened in a foreign country.

Four possible sites have been identified and the data are given below

Table 1.01



| Project (Local Projects) | Initial Investment | net cash inflow at the end of each year for a 10-year period | Project net present value (NPV) | payback period (Without discounting) | Profitability index |
|--|----------------------------------|--|---------------------------------|--------------------------------------|---------------------|
| | H\$ Million | H\$ Million | H\$ Million | Years | |
| A | 50 | 12 | 25.35 | To be calculated | To be calculated |
| B | 100 | 20 | 25.58 | To be calculated | To be calculated |
| C | 75 | 15 | 19.18 | To be calculated | To be calculated |
| Foreign Project (To be started in Country J) | Initial Investment (J\$ Million) | net cash inflow at the end of each year for a 10-year period (J\$ Million) | Project net present value (NPV) | payback period (Without discounting) | Profitability index |
| D | 80 | 20 | To be calculated | 4 Years | To be calculated |

Note that projects A, B and C are located in LB's home country, Country H and project D is located in neighbouring Country J.

Additional data,

- Local projects are discounted based on the rate of 9.5%
- The risk-free interest rate is 2% in Country H and 4% in Country J.
- The spot rate is currently H\$/J\$ 2.2900 (that is, H\$ 1 = J\$ 2.2900)
- Each project has a 10-year term

A separate decision has yet to be made about how best to finance the selected project or projects.

Required,



- (i) Calculate the payback period and Profitability indexes for all three local projects (05 Marks)
- (ii) An appropriate **discount rate** to use in calculating the Net Present Value (NPV) of project D (05 Marks)
- (iii) Calculate project D's NPV stated in terms of H\$. (Hint: use any option you prefer) (08 Marks)
- (iv) Profitability index for Project D (02 Marks)
- (v) Advise the directors of LB on: The project or combination of projects which is expected to maximize shareholder wealth (Hint : There is a capital rationing situation) (05 Marks)

Question 02

E is a company engaged in manufacturing of Fast-moving consumer goods is now considering buying a new machine. Here is the additional information related to the project.

- The machine costs \$800.
- Over the next eight years (the life of the machine) the machine will generate annual sales of \$1,000.
- The annual cost of the goods sold (COGS) is \$400 per year and other costs such as selling, general, and administrative expenses (SG&A) are \$300 per year.
- Depreciation on the machine is straight-line over 8 years (that is, \$100 per year).
- At the end of eight years, the machine's salvage value (or terminal value) is zero.
- The firm's tax rate is 40%.
- The firm's discount rate for projects of this kind is 15%.

- (a) Should the firm buy the machine? Calculate Net Present value and provide your decision. (20 Marks)
- (b) Clearly explain the drawbacks of following investment appraisal techniques
 - (i) Payback period
 - (ii) Accounting Rate of return
 - (iii) Net present Value (05 Marks)



Question 03

- (a) "A financial intermediary is an entity that acts as the middleman between two parties in a financial transaction". clearly explain the importance of the facilitation of financial intermediaries with appropriate examples (06 Marks)
- (b) "Aligning the interests between owners and the managers will lead to minimize the principal agent problem". Clearly explain the short term and the long-term strategies to be taken to minimize the principal agent problem (06 Marks)
- (c) Clearly explain the determinants of dividend decision to be taken by a financial manager in an organization (06 Marks)
- (d) Clearly explain the relationship between Investment decisions and Financing decisions as main two financial management decisions (07 Marks)

Question 04

- (a) "The importance of the concept of time value of money is influenced on consumers today than in any other time period, in Sri Lanka". Do you agree with the statement? Argue on that. (05 Marks)
- (b) Mr. Balan is expecting to buy a car. There are two options of which he can make the payment
Option 1: Paying total sum today, worth RS 2,500,000
Option 2: Paying RS 60,000 per month for 5 years.
If Interest rate is 12% and is compounded monthly, clearly indicate which option is better for Mr. Balan in terms of paying for the car. (05 Marks)
- (c) Mr. Ranmal took a mortgage loan to finance the purchase of his house for RS 5,000,000 to be repaid in ten semiannual installments. The annual nominal interest rate is 10% which is compounded semiannually.



- (i) Compute the semiannual installment (2.5 Marks)
- (ii) Calculate the interest and the principle payments at the end of first year (at the end of the payment of 02nd installment) (2.5 Marks)
- (d) Mr. Donald is expecting to invest RS 100,000 in his bank account today. Calculate how long will it take to increase his initial investment up to RS 500,000 under an annual interest of 10% (05 Marks)
- (e) Ms. Udani invested RS 50,000 today for her new project on floral decorations. If the annual cash flow at the end of each year due to this project is RS 10,000 spread for an indefinite period of time, calculate the Net Present value of the project (Assume the discount rate as 10%) (05 Marks)

Question 05

- (a) Mr. Madhawa has purchased 100 shares from dialog PLC as at 01st of January 2018 at Rs 11 per share. As at 30th April 2018 he sold his shares for RS 1500. During the holding period, the company paid RS 250 as total amount of dividends.
- (i) Calculate the total gain as a percentage (2.5 Marks)
- (ii) Calculate the annualized return as a percentage (2.5 Marks)
- (b) The returns of stocks X and Y under different Economic conditions are as follows.

Table 5.01

| Economic condition | Probability | Returns of X (%) | Returns of Y (%) |
|--------------------|-------------|------------------|------------------|
| Growth | 0.5 | 20 | 22 |
| Normal | 0.3 | 15 | 15 |
| Recession | 0.2 | 10 | 05 |

- (i) Calculate the expected return and the standard deviation of each stock (07 Marks)
- (ii) If you are to select one stock for investment, what would you choose? Justify your answer (03 Marks)
- (c) suppose an investor has a portfolio of two common stocks A and B in equal proportions with the following risk and return characteristics
- Expected return of A (ER_A) = 18%
 - Expected return of B (ER_B) = 28%



- Standard Deviation of A (STD_A) = 15%
- Standard Deviation of B (STD_B) = 20%
- Returns of these stocks have a negative correlation of -0.2

- (i) Calculate the expected return of the portfolio (05 Marks)
(ii) Calculate the expected risk (Standard Deviation) of the Portfolio (05 Marks)

Question 06

- (a) Clearly explain the factors affecting on a company's capital structure with appropriate examples (08 Marks)
(b) A newly established company has determined its capital structure as follows.

Table 6.01

| | |
|-------------------------------|--------------|
| Common shares (10,000 shares) | RS 1,000,000 |
| Preference shares | RS 500,000 |
| Debentures at 12% interest | RS 1,200,000 |

- The annual dividend per common share is expected to be RS 8 per share and there will be a 5% growth rate of dividend. The market price per share is RS 120.
- The market price of a preference share is RS 50. Company is expecting to pay a RS 5 dividend per share.
- Tax rate is expected to be 25%.

Required,

Calculate the Weighted average cost of capital of the company (10 Marks)

- (c) The Financial Manager of Demo (PLC), engaged in manufacturing spare parts has found following information on its fixed costs, variable costs and sales revenue.

Table 6.02

| | |
|---|------------|
| Sales revenue | RS 800,000 |
| Variable Operating expenses | RS 400,000 |
| Fixed operating expenses | RS 200,000 |
| Earnings before Interest and Tax (EBIT) | |



Colombo International Nautical and Engineering College

00131

CINEC Campus

Faculty of Management, Humanities and Social Sciences

Department of Logistics & Transport

BSc in Logistics and Transportation

Course CODE: COM551

Required,

Calculate the operating leverage of the company if the sales revenue will be reduced by 10% due to the reduction of demand for spare parts. (Assume variable costs are also changing with the change of sales revenue) (04 Marks)

- (d) Clearly explain on how operating leverage will be influencing on the decisions taken by the financial manager. (03 Marks)

Question 07

- (a) LT (Pvt) Ltd is a company engaged in Logistics operations in Sri Lanka. They are planning to construct a new plant in Belihuloya in Rathnapura District. The cost of the new project is expected to be RS 500 million. The financial manager plans for acquiring funds for the new project as follows.

Plan 01 - collect the total funds through Equity. (The expected number of shares to be issued is 50 million)

Plan 02 - Collect the RS 200 Million through Equity (The expected number of shares to be issued is 20 million) and collect remaining through debt with an interest rate of 8%.

The tax rate of the company is 35%. The expected earnings before interest and tax of the company is RS 50 million through this project and the existing branches of company are smoothly running their operations.

- (i) Calculate the earnings per share under each plan. (05 Marks)
(ii) Calculate the indifferent point of EBIT (05 Marks)
(iii) By using an appropriate graph, indicate which plan is the best for acquiring funds for LT (Pvt) Ltd to run the project. (08 Marks)
- (b) ASB (Pvt) Ltd is a fashionable clothing retailer in Sri Lanka. The budgeted sales of Kids T- Shirts for the first four months in the next year (2020) are given as follows.

Table 7.01

| | January | February | March | April |
|--------------------|---------|----------|-------|-------|
| Sales (T - Shirts) | 3000 | 4000 | 5000 | 6000 |



Other relevant data:

- The selling price of a T - shirt is RS 1250
- To produce one T- Shirt, 1.5 Meters of clothing are required.
- The target month end finished products inventory is 25% of budgeted next month sales
- End Finished products inventory for December 2019 is expected as 1500 T - shirts

Required: Prepare the following budgets for the first 3 months of the next year

- (i) Sales revenue budget (3.5 Marks)
- (ii) Production Budget (Units) (3.5 Marks)

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



Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
 n = number of periods until payment

| Periods (n) | Discount rate (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 | 1 |
| 2 | 0.980 | 0.961 | 0.943 | 0.925 | 0.907 | 0.890 | 0.873 | 0.857 | 0.842 | 0.826 | 2 |
| 3 | 0.971 | 0.942 | 0.915 | 0.889 | 0.864 | 0.840 | 0.816 | 0.794 | 0.772 | 0.751 | 3 |
| 4 | 0.961 | 0.924 | 0.888 | 0.855 | 0.823 | 0.792 | 0.763 | 0.735 | 0.708 | 0.683 | 4 |
| 5 | 0.951 | 0.906 | 0.863 | 0.822 | 0.784 | 0.747 | 0.713 | 0.681 | 0.650 | 0.621 | 5 |
| 6 | 0.942 | 0.888 | 0.837 | 0.790 | 0.746 | 0.705 | 0.666 | 0.630 | 0.596 | 0.564 | 6 |
| 7 | 0.933 | 0.871 | 0.813 | 0.760 | 0.711 | 0.665 | 0.623 | 0.583 | 0.547 | 0.513 | 7 |
| 8 | 0.923 | 0.853 | 0.789 | 0.731 | 0.677 | 0.627 | 0.582 | 0.540 | 0.502 | 0.467 | 8 |
| 9 | 0.914 | 0.837 | 0.766 | 0.703 | 0.645 | 0.592 | 0.544 | 0.500 | 0.460 | 0.424 | 9 |
| 10 | 0.905 | 0.820 | 0.744 | 0.676 | 0.614 | 0.558 | 0.508 | 0.463 | 0.422 | 0.386 | 10 |
| 11 | 0.896 | 0.804 | 0.722 | 0.650 | 0.585 | 0.527 | 0.475 | 0.429 | 0.388 | 0.350 | 11 |
| 12 | 0.887 | 0.788 | 0.701 | 0.625 | 0.557 | 0.497 | 0.444 | 0.397 | 0.356 | 0.319 | 12 |
| 13 | 0.879 | 0.773 | 0.681 | 0.601 | 0.530 | 0.469 | 0.415 | 0.368 | 0.326 | 0.290 | 13 |
| 14 | 0.870 | 0.758 | 0.661 | 0.577 | 0.505 | 0.442 | 0.388 | 0.340 | 0.299 | 0.263 | 14 |
| 15 | 0.861 | 0.743 | 0.642 | 0.555 | 0.481 | 0.417 | 0.362 | 0.315 | 0.275 | 0.239 | 15 |
| (n) | 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 | 1 |
| 2 | 0.812 | 0.797 | 0.783 | 0.769 | 0.756 | 0.743 | 0.731 | 0.718 | 0.706 | 0.694 | 2 |
| 3 | 0.731 | 0.712 | 0.693 | 0.675 | 0.658 | 0.641 | 0.624 | 0.609 | 0.593 | 0.579 | 3 |
| 4 | 0.659 | 0.636 | 0.613 | 0.592 | 0.572 | 0.552 | 0.534 | 0.516 | 0.499 | 0.482 | 4 |
| 5 | 0.593 | 0.567 | 0.543 | 0.519 | 0.497 | 0.476 | 0.456 | 0.437 | 0.419 | 0.402 | 5 |
| 6 | 0.535 | 0.507 | 0.480 | 0.456 | 0.432 | 0.410 | 0.390 | 0.370 | 0.352 | 0.335 | 6 |
| 7 | 0.482 | 0.452 | 0.425 | 0.400 | 0.376 | 0.354 | 0.333 | 0.314 | 0.296 | 0.279 | 7 |
| 8 | 0.434 | 0.404 | 0.376 | 0.351 | 0.327 | 0.305 | 0.285 | 0.266 | 0.249 | 0.233 | 8 |
| 9 | 0.391 | 0.361 | 0.333 | 0.308 | 0.284 | 0.263 | 0.243 | 0.225 | 0.209 | 0.194 | 9 |
| 10 | 0.352 | 0.322 | 0.295 | 0.270 | 0.247 | 0.227 | 0.208 | 0.191 | 0.176 | 0.162 | 10 |
| 11 | 0.317 | 0.287 | 0.261 | 0.237 | 0.215 | 0.195 | 0.178 | 0.162 | 0.148 | 0.135 | 11 |
| 12 | 0.286 | 0.257 | 0.231 | 0.208 | 0.187 | 0.168 | 0.152 | 0.137 | 0.124 | 0.112 | 12 |
| 13 | 0.258 | 0.229 | 0.204 | 0.182 | 0.163 | 0.145 | 0.130 | 0.116 | 0.104 | 0.093 | 13 |
| 14 | 0.232 | 0.205 | 0.181 | 0.160 | 0.141 | 0.125 | 0.111 | 0.099 | 0.088 | 0.078 | 14 |
| 15 | 0.209 | 0.183 | 0.160 | 0.140 | 0.123 | 0.108 | 0.095 | 0.084 | 0.074 | 0.065 | 15 |



Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
 n = number of periods

| Periods (n) | Discount rate (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 | 1 |
| 2 | 1.970 | 1.942 | 1.913 | 1.886 | 1.859 | 1.833 | 1.808 | 1.783 | 1.759 | 1.736 | 2 |
| 3 | 2.941 | 2.884 | 2.829 | 2.775 | 2.723 | 2.673 | 2.624 | 2.577 | 2.531 | 2.487 | 3 |
| 4 | 3.902 | 3.808 | 3.717 | 3.630 | 3.546 | 3.465 | 3.387 | 3.312 | 3.240 | 3.170 | 4 |
| 5 | 4.853 | 4.713 | 4.580 | 4.452 | 4.329 | 4.212 | 4.100 | 3.993 | 3.890 | 3.791 | 5 |
| 6 | 5.795 | 5.601 | 5.417 | 5.242 | 5.076 | 4.917 | 4.767 | 4.623 | 4.486 | 4.355 | 6 |
| 7 | 6.728 | 6.472 | 6.230 | 6.002 | 5.786 | 5.582 | 5.389 | 5.206 | 5.033 | 4.868 | 7 |
| 8 | 7.652 | 7.325 | 7.020 | 6.733 | 6.463 | 6.210 | 5.971 | 5.747 | 5.535 | 5.335 | 8 |
| 9 | 8.566 | 8.162 | 7.786 | 7.435 | 7.108 | 6.802 | 6.515 | 6.247 | 5.995 | 5.759 | 9 |
| 10 | 9.471 | 8.983 | 8.530 | 8.111 | 7.722 | 7.360 | 7.024 | 6.710 | 6.418 | 6.145 | 10 |
| 11 | 10.37 | 9.787 | 9.253 | 8.760 | 8.306 | 7.887 | 7.499 | 7.139 | 6.805 | 6.495 | 11 |
| 12 | 11.26 | 10.58 | 9.954 | 9.385 | 8.863 | 8.384 | 7.943 | 7.536 | 7.161 | 6.814 | 12 |
| 13 | 12.13 | 11.35 | 10.63 | 9.986 | 9.394 | 8.853 | 8.358 | 7.904 | 7.487 | 7.103 | 13 |
| 14 | 13.00 | 12.11 | 11.30 | 10.56 | 9.899 | 9.295 | 8.745 | 8.244 | 7.786 | 7.367 | 14 |
| 15 | 13.87 | 12.85 | 11.94 | 11.12 | 10.38 | 9.712 | 9.108 | 8.559 | 8.061 | 7.606 | 15 |
| (n) | 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 | 1 |
| 2 | 1.713 | 1.690 | 1.668 | 1.647 | 1.626 | 1.605 | 1.585 | 1.566 | 1.547 | 1.528 | 2 |
| 3 | 2.444 | 2.402 | 2.361 | 2.322 | 2.283 | 2.246 | 2.210 | 2.174 | 2.140 | 2.106 | 3 |
| 4 | 3.102 | 3.037 | 2.974 | 2.914 | 2.855 | 2.798 | 2.743 | 2.690 | 2.639 | 2.589 | 4 |
| 5 | 3.696 | 3.605 | 3.517 | 3.433 | 3.352 | 3.274 | 3.199 | 3.127 | 3.058 | 2.991 | 5 |
| 6 | 4.231 | 4.111 | 3.998 | 3.889 | 3.784 | 3.685 | 3.589 | 3.498 | 3.410 | 3.326 | 6 |
| 7 | 4.712 | 4.564 | 4.423 | 4.288 | 4.160 | 4.039 | 3.922 | 3.812 | 3.706 | 3.605 | 7 |
| 8 | 5.146 | 4.968 | 4.799 | 4.639 | 4.487 | 4.344 | 4.207 | 4.078 | 3.954 | 3.837 | 8 |
| 9 | 5.537 | 5.328 | 5.132 | 4.946 | 4.772 | 4.607 | 4.451 | 4.303 | 4.163 | 4.031 | 9 |
| 10 | 5.889 | 5.650 | 5.426 | 5.216 | 5.019 | 4.833 | 4.659 | 4.494 | 4.339 | 4.192 | 10 |
| 11 | 6.207 | 5.938 | 5.687 | 5.453 | 5.234 | 5.029 | 4.836 | 4.656 | 4.486 | 4.327 | 11 |
| 12 | 6.492 | 6.194 | 5.918 | 5.660 | 5.421 | 5.197 | 4.988 | 4.793 | 4.611 | 4.439 | 12 |
| 13 | 6.750 | 6.424 | 6.122 | 5.842 | 5.583 | 5.342 | 5.118 | 4.910 | 4.715 | 4.533 | 13 |
| 14 | 6.982 | 6.628 | 6.302 | 6.002 | 5.724 | 5.468 | 5.229 | 5.008 | 4.802 | 4.611 | 14 |
| 15 | 7.191 | 6.811 | 6.462 | 6.142 | 5.847 | 5.575 | 5.324 | 5.092 | 4.876 | 4.675 | 15 |

Formula sheet

1) Present Value of a single 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) Future value of an ordinary annuity

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

5) Expected Return

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

6) Expected Risk of an individual asset

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

7) Expected Risk of a portfolio

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

8) Covariance between two assets

$$\sigma_{x,y} = \sum_{i=1}^n [R_x - E(R_x)][R_y - E(R_y)] P_i$$

9) Market Risk

$$\beta_i = \frac{\text{Cov}_{i,m}}{\sigma_m^2}$$



Year 2 Semester I

SEMESTER END EXAMINATION

Port Management – LTPM2207



- 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: 2019.09.09

Pass mark: 50%

Time: 02 Hours

Question 01 (Compulsory)

- | | |
|--|------------|
| (a) What is a Sea Port? | (10 Marks) |
| (b) Name common port facilities? | (05 Marks) |
| (c) List five (5) navigational facilities? | (05 Marks) |
| (d) What is the three Port Operations? | (05 Marks) |

Question 02

- | | |
|--|------------|
| (a) Describe how & when Sri Lanka Ports Authority was formed? | (05 Marks) |
| (b) What are the objectives & duties as per the SLPA act? | (10 Marks) |
| (c) What are the Ports that are under Sri Lanka Ports Authority? | (05 Marks) |
| (d) How Ports are classified by functions? | (05 Marks) |

Question 03

- | | |
|--|------------|
| (a) Name different container terminals in the Port of Colombo? | (05 Marks) |
| (b) Name different facilities in the Port of Colombo? | (05 Marks) |
| (c) What are the cargo handling facilities in the Port of Trincomalee? | (10 Marks) |



- (d) What are the cargo handling facilities in the Port of Galle? (05 Marks)

Question 04

- (a) What are the port services & facilities related to Ships? (05 Marks)
(b) Why ports are extremely diverse? (05 Marks)
(c) Name port customers & their expectations? (10 Marks)
(d) List out port users? (05 Marks)

Question 05

- (a) List value added logistic services that can be provided in a Transshipment Hub Port? (05 Marks)
(b) List out the powers of the Sri Lanka Ports Authority act - Section 7? (10 Marks)
(c) What is the role of the Navigation Division comes under the Harbour Master? (10 Marks)

Question 06

- (a) What are the facilities available in the Port of Hambantota? (05 Marks)
(b) Why measure port performance? (10 Marks)
(c) What are the types of port performance measures? (10 Marks)

Question 07

- (a) What are different container terminals in the Port of Colombo? (05 Marks)
(b) What are facilities available at SAGT? (10 Marks)
(c) What are facilities available at CICT? (10 Marks)

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



Colombo International Nautical and Engineering College 00070

CINEC Campus

Faculty of Management, Humanities and Social Sciences

Department of Logistics & Transport

BSc (Hons) in Logistics and Transportation

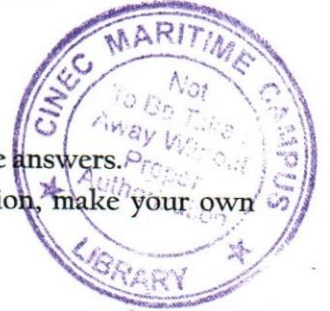
Course CODE: COM551

Year 2 Semester I

SEMESTER END EXAMINATION

Air Cargo and Passenger Transportation – LTAT2205

- 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: 2019.09.06

Pass mark: 50%

Time: 02 Hours

Question 01 (Compulsory)

- (a) Identify direct, indirect and induced impact of air transport industry
(03 Marks)
- (b) Air transport generates wider catalytic (spin-off) benefits. Identify 3 catalytic economic benefits
(03 Marks)
- (c) What type of strategies that can use to mitigate air pollution created by aviation
(04 Marks)
- (d) What is the "Contacts of Carriage"? Mention at least two type of terms/information are available in the Contract of carriage document?
(06 Marks)
- (e) Briefly explain the "EU Regulation" for Airline Passengers and its' applicability to SriLankan Airline?
(06 Marks)
- (f) Define the term "Airline Punctuality" and mention three major causes for flight Delays?
(03 Marks)



Question 02

- (a) Name five components of the "SHELL model"? (05 Marks)
- (b) Define the Term "Crew Resources Management (CRM)" and provide three examples for "Aviation Resources" discussed in CRM (06 Marks)
- (c) Identify three characteristics of an Effective Leader and explain the importance of having effective leadership skills in aviation industry? (07 Marks)
- (d) Briefly explains the "Human Factor" concept in Aviation Industry? (07 Marks)

Question 03

- (a) Explain the duty and the main responsibility of the "Air Marshal" in commercial aviation? (03 Marks)
- (b) "Aviation Safety must start from the Ground". Briefly mention at least three security procedures were implemented in an Airport to ensure the Safety of Passengers & Aircraft? (03 Marks)
- (c) List down three advantages & two disadvantages of Air Cargo Transportation? (05 Marks)
- (d) "Air Cargo industry has developed in significant speed in last three decades due to several reasons". Explain at least three reasons caused this exponential growth in the industry with examples? (06 Marks)
- (e) Name two Air Cargo related organizations & briefly explains their background, structure & functions. (08 Marks)



Question 04

- (a) Explain the "Airline Deregulation" concept in commercial aviation by providing at least two Effects of Deregulation Practice. (06 Marks)
- (b) Briefly explain the difference between "Wide-bodied Aircraft" and "Narrow-bodied Aircraft" by providing at least two examples for each. (06 Marks)
- (c) Provide a short description about following two "type of Air Cargo carries" and mention at least two examples for each. (06 Marks)
 - Integrated Express Operators :
 - Commercial service passenger airlines :
- (d) What is meant by "Alliance" in Aviation context? State at least two examples. Also provide two reasons to create or join an Alliance. (07 Marks)

Question 05

- (a) Sketch the aircraft weight build-up diagram with aircraft weights (07 Marks)
- (b) Distinguish the difference between Airline's Empty Weight and Dry Operating Weight (DOW) of aircraft. (03 Marks)
- (c) Using the information given in the table below, find out the followings

| MEW kg | AEW kg | DOW kg | TOW (except fuel)kg | Fuel kg | MTOW kg | LW kg |
|-----------|-----------|-----------|------------------------|------------|------------|----------|
| 44,000 | 46,200 | 52,000 | 74,000 | 14,000 | 91,000 | 84,000 |

- (i) Increase of weight of aircraft if any, due to Airline's choice on aircraft design (03 Marks)
- (ii) Weight of items added (except fuel) to the aircraft for flight preparation (03 Marks)
- (iii) Payload (03 Marks)
- (iv) Burn off fuel (03 Marks)
- (v) Additional Weight that aircraft can uplift including fuel, if any? (03 Marks)



Question 06

Assume that, AsiaJet is one of the scheduled airlines in South Asian region. AsiaJet operates daily flights to ABC and XYZ destinations in Asian region and Colombo airport (CMB) is the main hub. Below table shows, performance records of CMB-ABC and CMB-XYZ routes from 1st January to 6th January. Based on the below data answer question (a) to (f)

CMB-ABC distance - 800 km, CMB-XYZ distance - 700 km

| CMB-ABC Route | | | | | | |
|---------------|-------|-------------------|---------------|---------------------|---------------|-------------------------------|
| Flight No | Date | Operated Capacity | | Accepted passengers | | Total Passenger Revenue (USD) |
| | | Business class | Economy Class | Business class | Economy Class | |
| AJ101 | 1-Jan | 12 | 138 | 6 | 140 | 13500 |
| AJ101 | 2-Jan | 12 | 138 | 3 | 144 | 14000 |
| AJ101 | 3-Jan | 12 | 138 | 2 | 148 | 14200 |
| AJ101 | 4-Jan | 12 | 138 | 2 | 148 | 13850 |
| AJ101 | 5-Jan | 12 | 138 | 3 | 145 | 13700 |
| AJ101 | 6-Jan | 12 | 138 | 1 | 147 | 13900 |

| CMB-XYZ Route | | | | | | |
|---------------|-------|-------------------|---------------|---------------------|---------------|-------------------------------|
| Flight No | Date | Operated Capacity | | Accepted passengers | | Total Passenger Revenue (USD) |
| | | Business class | Economy Class | Business class | Economy Class | |
| AJ101 | 1-Jan | 12 | 138 | 3 | 90 | 8100 |
| AJ101 | 2-Jan | 12 | 138 | 2 | 75 | 7000 |
| AJ101 | 3-Jan | 12 | 138 | 1 | 115 | 8500 |
| AJ101 | 4-Jan | 12 | 138 | 4 | 120 | 8600 |
| AJ101 | 5-Jan | 12 | 138 | 5 | 105 | 8100 |
| AJ101 | 6-Jan | 12 | 138 | 6 | 98 | 8000 |

(a) Why we need measures and indicators in the air transport industry

(03 Marks)

(b) Calculate total number of passengers carried for each route for the period

(02 Marks)



- (c) Calculate business class cabin factors for each route for the period (02Marks)
- (d) Calculate total cabin factors for each route for the period (02Marks)
- (e) Calculate RASK for each route for the period (04Marks)
- (f) Calculate YRPK for each route for the period (04Marks)
- (g) Calculate average fare for CMB-ABC and CMB-XYZ routes respectively for the period (04 Marks)
- (h) Comment on CMB-ABC and CMB-XYZ routes based on your KPI knowledge (04 Marks)

Question 07

- (a) According to the ICAO, Define what the 'Safety' is? (03Marks)
- (b) Explain management dilemmas involvement in Safety Management in aviation. (04Marks)
- (c) Explain the difference between the Reactive, Proactive and Predictive Safety Strategies applied in Safety Management. (06Marks)
- (d) What do you mean by 'Hazard' and give two examples in relation to airline operations. (04 Marks)
- (e) Based on the ICAO, building blocks needed for the development of effective safety management system for an organization. Explain 4 of those eight building blocks (08 Marks)

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



- 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: 2019.09.02

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

- (a) Discuss the advantages of Electronic Data Interchange (EDI) in freight transport industry (06 Marks)
- (b) Differentiated parking charges are a smart strategy in the transport industry. Explain THREE reasons. (09 Marks)
- (c) Explain FOUR main aims of establishing freight centers (10 Marks)

Question 02

- (a) Logistics Policy is the legal aspect of regular flow of material, information and money between consumers and suppliers. Briefly explain this statement using an example. (06 Marks)
- (b) Why Logistics Policy is so important. Explain with suitable examples. (09 Marks)
- (c) What are the data that are using prepare the procurement policy plan and how those data will support to prepare the procurement policy plan (10 Marks)



Question 03

- (a) Briefly explain the mobility and accessibility indicators (05 Marks)
- (b) How does transport activity contribute to the national economic growth, Discuss with suitable example (05 Marks)
- (c) "When the restraints to mobility increase, the amount of travel decreases." Explain the restraints to the mobility with examples. (07 Marks)
- (d) Transport activities have impacts to social and cultural development in the society. Explain (08 Marks)

Question 04

- (a) Briefly explain America & USSR transport models (06 Marks)
- (b) Risk taking on innovation in a deregulated industry is very high. Discuss the above statement using an innovative transport business initiative in the current market. (09 Marks)
- (c) Select a local or national transport project and explain how it contributes to the economic growth and the development of the country. (10 Marks)

Question 05

- (a) List down the steps in transport policy planning process (05 Marks)
- (b) Explain the THREE common methods of trip assignment in transport planning (10 Marks)
- (c) Explain the "PSO" and discuss the justification for the following taxes/subsidies (10 Marks)
 - (i) Taxes on vehicles
 - (ii) Subsidies for SLTB
 - (iii) Subsidies for SLR



Question 06

As a plan of the ministry of the mega police , ferry service has started to use for the commercial passenger transportation in Colombo area.

- (a) Discuss this new initiative with advantages and disadvantages (10 Marks)
- (b) Explain, how coastal shipping can be applied for freight transport in Sri Lanka using suitable examples (15 Marks)

Question 07

With the new taxes imposed to private vehicles, prices of the vehicles have gone up in Sri Lanka. Discuss the positive & negative impact of above to the transport industry in Sri Lanka (25 Marks)

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



Colombo International Nautical and Engineering College 00052

CINEC Campus

Faculty of Management, Humanities and Social Sciences

Department of Logistics & Transport

BSc (Hons) in Logistics and Transportation

Course CODE: COM551

Year 2 Semester I

SEMESTER END EXAMINATION

Management Information Systems – LTMS2203



- 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.
- All the answers are needed to be in detail with examples, diagrams and logical arguments

Date: 2019.08.30

Pass mark: 50%

Time: 02 Hours

Question 01 (Compulsory)

ABC is a major league cricket club in Sri Lanka which started in 1880. The club has its own ground with stadiums in a prominent location in Colombo. ABC has its 80% of the revenue on selling tickets for games that are been held. Lately the club is running at a loss as tickets are not been sold adequately. ABC needs to take in revenue from games in order to stay in business. The club seeks your consultancy for the questions indicated below.

- (a) What are the reasons for the ticket sale to go down? (05 Marks)
- (b) As an individual who has learned Management Information Technology how can you assist to bring in the situation to benefit the club from the prospects of:
 - (i) Technology?
 - (ii) Management?
 - (iii) Organization? (10 Marks)



- (c) What is 'Cloud Computing'? Explain how it could be helpful towards the digital retransfer of the club? (05 Marks)
- (d) 'Crowd Management' is an essential component for a club. Especially, when it comes to a highly demanded gaming situation. Explain how crowd management could be handled through Information Technology? (05 Marks)

Question 02

- (a) Explain the terms 'Decision-support systems (DSS), Executive support systems (ESS), Management information systems (MIS)' along with an example linking the systems. (10 Marks)
- (b) Explain the roles of 'CIO, CSO, CPO, CKO' and how it is different from each other (05 Marks)
- (c) Explain what an 'Enterprise Resource Planning (ERP)' system is? Through an example explain how it is useful towards an organization. (10 Marks)

Question 03

- (a) Describe the meaning of an organization with the explanation of how a 'Two-Way relationship' is been formed between the organization and Information Technology? (10 Marks)
- (b) How is 'Virtual Company Model' different from 'Business Eco System'? (05 Marks)
- (c) Explain how Information Technology has influence between organizational 'Traditional Hierarchy' Vs. 'Flattened Hierarchy'. (10 Marks)

Question 04

- (a) What does 'Intellectual Property' mean? Explain it through challenges faced. (10 Marks)
- (b) What is 'Virtualization'? Explain the use of it. (05 Marks)
- (c) Explain how 'Professional Codes of Conduct' is useful towards its members? (10 Marks)



Question 05

- (a) What is an 'Autonomic Computing'? (10 Marks)
- (b) What is the difference between a 'Data Centre' and a 'Data Recovery Centre'? (05 Marks)
- (c) Define 'IT infrastructure' and how is it useful towards 'logistics'? (10 Marks)

Question 06

- (a) Describe how the problems of managing data resources in a 'Traditional File Environment' are solved by a 'Database Management System'. (10 Marks)
- (b) What is the difference between 'Primary Key' and 'Foreign Key' in a database? Explain through a diagram. (05 Marks)
- (c) What is 'Data Mining'? How is it different from 'Text Mining' and 'Web Mining'? (10 Marks)

Question 08

- (a) Why are Information Systems vulnerable to 'destruction, error, and abuse'? (10 Marks)
- (b) What are the 'Global Supply chain Issues' and explain how those are managed through Information Technology. (05 Marks)
- (c) How is 'Fuzzy Logic' different from 'Neural Networks'? How are those important towards decision making in the modern Management Information Systems? (10 Marks)

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



Year 2 Semester I

SEMESTER END EXAMINATION

Intermediate Economics – LTIE2202



- This paper consists of SEVEN questions on SIX (06) pages.
- Answer FOUR questions including Question 01.
- Use the MCQ answer sheet provided with the paper to answer 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: 2019.08.28

Pass mark: 50%

Time: 02 Hours

Question 01 (compulsory)

Please tick (X) the correct answer

1. Which one of following is correct about the indifference curve,
(A) The slope is called as diminishing marginal rate of technical substitution
(B) It is downward sloping straight line
(C) Can be intercepts two indifferent curves.
(D) Higher the indifferent curve higher the satisfaction.
2. Which one is incorrect about slope of Budget line,
(A) It is downward sloping
(B) It is equal to price ratios of two inputs
(C) As price of two goods change its slope also change.
(D) It is equal to income of consumer.
3. Which one of following not a fundamental assumption of IC analysis,
(A) Scale of preferences
(B) Continuity
(C) Transitivity
(D) Cardinal Utility



4. A curve which combine the equilibrium of consumer at various level of consumer income at given constant product price. This curve named as,
 - (A) Price consumption curve
 - (B) Income consumption curve
 - (C) Engel curve
 - (D) Demand curve

5. Which one is correct about law of production in short run,
 - (A) It is called as Law of economies of scale.
 - (B) It is called as Law of diminishing marginal productivity.
 - (C) It is called as Law of diminishing marginal utility.
 - (D) It is called as Law of returns to scale

6. Which one of the following is incorrect at producers' equilibrium?
 - (A) Slope of the ISO-Quant is equal to the slope of the Iso-Cost.
 - (B) Marginal rate of technical substitution is negative.
 - (C) Producers maximize the benefit at the equilibrium.
 - (D) The highest Iso -Quant tangent to the given budget line of consumer.

7. The Is curve will be shifted to the left as a result of
 - (A) Increase in personal income tax by government
 - (B) Increase in government expenditure.
 - (C) Increase in interest rate.
 - (D) Increase in money demand.

8. Which one of following is incorrect,
 - (A) Engel curve for Giffen good is downward sloping
 - (B) Price Consumption Curve is a graph that connects point of consumer's equilibrium as income changes.
 - (C) An individual demand curve is the locus of consumer equilibrium points.
 - (D) Slutsky's substitution effect takes place on different indifference curves.

9. When Average cost is greater than marginal cost,
 - (A) Average cost falling
 - (B) Average cost rising
 - (C) Average cost is at minimum
 - (D) Average cost at maximum



10. Precautionary money demand means, demand for money

- (A) to do planned, certain transactions
- (B) to do unplanned, uncertain transaction
- (C) to do speculation investment
- (D) to do planned, uncertain transaction.

(20Marks)

11. Engel curve for inferior good is downward sloping.

- True []
- False []

12. Price Consumption Curve is a graph that connect point of consumer's equilibrium as income changes.

- True []
- False []

13. Within economic region of production marginal product of factors are diminishing.

- True []
- False []

14. The Iso - cost line is depends upon only the total outlay.

- True []
- False []

15. Any point on the production expansion path being a producre's equilibrium.

- True []
- False []

(05 Marks)



Question 02

- (a) Define the term "Utility" and its application for economics (05 Marks)
- (b) What are the properties of indifference curve and its usefulness (06 Marks)
- (c) what do you meant by Consumer's equilibrium? Explain the condition require for that. (06 Marks)
- (d) Derive the Engel curve using consumer's equilibrium for product X which is luxury product for the consumer (08 Marks)

Question 03

- (a) Explain price effect of a product with examples (07 Marks)
- (b) Derive a price consumption curve for a product X (in Horizontal axis) which has elastic demand. (06 Marks)
- (c) Distinguish between Normal, Inferior and Giffen products using price effect with appropriate diagrams (12 Marks)

Question 04

- (a) What do you mean by producer's equilibrium? Explain with conditions (07 Marks)
- (b) Explain Economic region of production using appropriate diagram. (06 Marks)
- (c) Explain the concept of "Production Expansion Path" (06 Marks)
- (d) Describe the law of returns to scale using producer's equilibrium. (06 Marks)



Question 05

(a) Derive the IS curve using Keynesian cross and investment function.

(05 Marks)

(b) You are given following information about a country. Where C- consumption, Y- national income, Y_d - disposable income, i - interest rate, T- taxes, I- investment, G- government expenditure, M_s - nominal money supply, M_d - real money demand, P- price level.

$$C = 200 + 0.25Y_d$$

$$T = 200$$

$$I = 150 + 0.25Y - 1000i$$

$$G = 250$$

$$M_s = 6400$$

$$M_d = 2Y - 8000i$$

$$P = 4$$

What are the short run equilibrium values of national income, interest rate, disposable income, consumption and Investment

(13Marks)

(c) Government want to increase real GDP of a country without change in the interest rate in the country. Explain the possible policy activities should follow by the government.

(07 Marks)



Question 06

- (a) What do mean by the Game Theory and its importance (05 Marks)

You are given following game. The payoffs of game represent the profits of each firm.

Table 1

| | | Firm 2 | | | |
|--------|-------------|--------|-----|-------------|-----|
| | | None | | New product | |
| Firm 1 | None | 10 | 10 | 100 | -50 |
| | New Product | -50 | 100 | 50 | 50 |

- (a) Define each strategies of game (04 Marks)
- (b) Find dominate strategy for Firm 1 and 2 (04 Marks)
- (c) What is the Nash Equilibrium of above game? (02 Marks)
- (d) Show the above game in extensive form (05 Marks)
- (e) Explain the meaning of repeat game using above (05 marks)

Question 07

Write short notes on any FIVE (05) of the following topics.

- (a) Marginal rate of technical Substitution
- (b) Properties of Isoquant
- (c) Open Market Operations
- (d) Opportunity cost
- (e) Derivation of LM curve
- (f) Economies of scale.

(5*5 Marks)

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



Year 2 Semester I
SEMESTER END EXAMINATION
Intermediate Economics – LTIE2202
MCQ Answer Sheet



- Cross (x) the relevant box according to your answer

Date: 2019.08.28

Pass mark: 50%

Time: 02 Hours

Question 01

1. A B C D

2. A B C D

3. A B C D

4. A B C D

5. A B C D

6. A B C D

7. A B C D

8. A B C D

9. A B C D

10. A B C D

11. T F

12. T F

13. T F

14. T F

15. T F