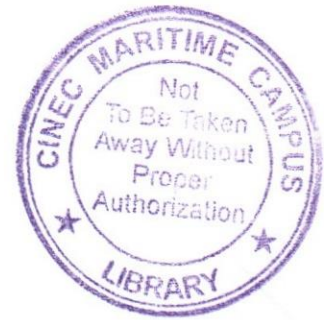




Year 2 Semesters I

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 A (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)



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

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



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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

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-----

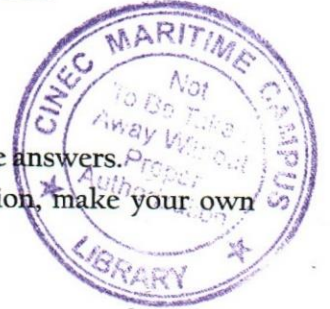


Year 2 Semester I

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-----



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



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Year 2 Semesters I

REPEAT EXAMINATION

Financial Management LTFM2201

- This paper consists of SEVEN questions on Seven (07) pages.
- Answer Any 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.

Date: 2018.12.17

Pass mark: 50%

Time: 02 Hours

Question 01 (COMPULSORY)

WD is a listed company which operates private hospitals in a number of different countries in Europe and North America. Each hospital is owned and managed by a separate subsidiary company that is wholly owned by WD. The parent company is located and listed in Country F which is in Europe and within the eurozone.

WD is currently considering purchasing a hospital in Country G. Country G is in a fairly unstable region of the world and this would be the first time that WD has run a hospital outside Europe and North America. Under WD's ownership, the hospital would seek to treat new patients such as foreigners living in the country and wealthy local business owners. A new wholly owned subsidiary company would be set up by WD in Country G to acquire and run the hospital. The currency of Country G is the G\$.

The project team is currently evaluating the proposed purchase, looking at the financial appraisal and the wider implications.

Proposed acquisition

WD expects to pay G\$ 55 million for the hospital. WD plans to spend G\$ 10 million to upgrade the facilities to an acceptable standard plus G\$ 5 million for new medical equipment. It should be assumed that all these payments would be made on 1st of



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January 2019 (Assume as Year 0). The life time of the project is expected to be 5 years and the annual depreciation is assumed to be G\$ 10 Million per year. The expected residual value of the project at the end of the fifth year is assumed to be G\$ 23 Million.

Projected operating cash flows for the target hospital at the end of each year are as follows:

Table 1.01

Year	1	2	3	4	5
Sales Receipt (G \$ Million)	29	32	25	38	37
Purchase payments (G \$ Million)	7	7	8	10	12
Other cash outflows (G \$ Million)	5	5	5	5	5

Other required information

- Assume all cash flows arise at the end of a year unless stated otherwise.
- Assume that EUR/G\$ = 1.000 on 1st December 2019 and that the G\$ is expected to depreciate against the EUR at a rate of 1.9% a year from that date.
- The corporate income tax rate is 25% in country G
- The discount rate appropriate for all local projects are estimated as 10%

Required,

- calculate the Net Present Value of the project, by initially converting all G\$ Cash flows in to Euro (Hint: Option 01) (20 Marks)
- Briefly explain the importance of properly evaluating the new project to be undertaken in country G. (05 Marks)

Question 02

- Quality medicine company ltd, is considering replacing its plant cooling unit. The existing unit has recently died and no salvage value. From the 2 competing cooling units determined to be purchased, Deep cool has a long life, but a higher initial cost than the cheaper unit, "Fresh Cool". Following data are available for the two units.

Unit	Initial cost	Annual net cash out flows	Life time
Fresh Cool	RS 100,000	RS 50,000	3 years
Deep Cool	RS 158,000	RS 56,000	5 years



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Marginal cost of capital (Discount rate) is 19%. Which cooling unit should be purchased by the company. Explain why? (15 Marks)

(b) MM Company has received proposals of the following investment projects. At present the company is facing a financial difficulty due to which their investment budget has been restricted to Rs. 2,000,000.

The company is going to select one or more investment proposals subject to this initial investment budget.

Project	Initial Investment	PV of Future cash flows (Rs.)	PI
A	500,000	650,000
B	500,000	610,000
C	500,000	580,000
D	500,000	560,000
E	1,000,000	1,500,000
F	1,000,000	1,200,000

Each of the above projects has a 7-year life cycle and they are indivisible.

Required

- Rank the above projects according to NPV and PI techniques.
- Based on your rankings made, select the most appropriate investment mix for MM Company. (10 Marks)

Question 03

- "A Financial Market is a market in which people trade financial securities and derivatives such as futures and options". Briefly explain the importance of financial markets including the different classifications of them." (06 Marks)
- "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)
- Clearly explain the importance of working capital management decision to enhance the value of an organization (06 Marks)



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- (d) Clearly explain investment decisions taken by the financial manager to enhance the value of the business (07 Marks)

Question 04

- (a) What do you mean by "Time value of money". Briefly explain. (05 Marks)
- (b) Ms. Anuradha is expecting to buy a washing machine. There are two options of which she can make the payment
Option 1: the current price of the washing machine is RS 49,000 and if she purchases it today, the company gives a discount of 10%
Option 2: she can purchase it through her Sampath credit card with the agreement of paying a monthly installment worth RS 1375, up to 3 years.
If Interest rate is 5% and is compounded monthly, clearly indicate which option is better for Ms. Anuradha in terms of paying for the washing machine. (05 Marks)
- (c) Mr. Charlie took a mortgage loan to finance the purchase of his house for RS 5,000,000 to be repaid in ten annual installments. The annual interest rate is 10% which is compounded semiannually.
(i) Compute the annual installment (2.5 Marks)
(ii) Calculate the interest and the principle payments at the end of 2nd year (2.5 Marks)
- (d) Mr. Donald is expecting to have RS 120,000 in his bank account after 3 years. To achieve the purpose, how much should he invest in his bank account at the end of **each year**, if the interest rate 12% compounded annually. (05 Marks)
- (e) Ms. Ferry has invested RS 50,000 in his savings account. How long will it take to double the investment if interest rate is 10% compounded annually. (05 Marks)

Question 05

- (a) Briefly explain the relationship between expected return and the risk of an investment, with appropriate graphs (05 Marks)



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(b) Following share prices are given in WX (PLC), for three years.

Table 5.01

Year	Prices (RS)
2014	100
2015	200
2016	100

Required,

By calculating the average return, clearly give your comment on the accuracy of the answer you have received. (05 Marks)

(c) suppose an investor is having the future returns on two investment securities called A and B

Table 5.01

State of the Economy	Probability	Returns (%)	
		A	B
Declining	0.15	-18.8	18.2
Average	0.25	17.4	-15.7
Good	0.35	16.3	14.6
Excellent	0.25	14.1	17.9

If Investor is selecting to invest in both the assets with a weight of 50% in Asset A and 50% of Assets B,

(i) Calculate the expected return of the portfolio (7.5 Marks)

(ii) Calculate the expected risk (Standard Deviation) of the Portfolio (7.5 Marks)

Question 06

(a) Clearly explain how operating leverage will have an influence on the profits of an organization (05 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 550,000
Debentures at 12% interest	RS 650,000



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- The expected Treasury Bill rate is considered to be 5%. The market risk (β) is expected to be 1.5 and the return in the market (R_m) is 15%.
- 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) To carry out a project on inventory management, a famous logistics company needs RS 200,000. Now the company is considering following 2 plans to raise funds

- Plan 01: choice of issuing 1000 equity shares at RS 100 each and borrowing another RS 100,000 at 10% interest
- Plan 02: choice of issuing 2000 shares at RS 100 each
- Corporate tax rate is 35%

Required,

- Determine indifferent point of EBIT for the plan (03 Marks)
- The Earnings per share (EPS) at the indifferent point of EBIT (03 Marks)
- By using a graph, clearly explain the best plan for the company if EBIT becomes RS 30,000. (04 Marks)

Question 07

(a) Clearly explain how, "flexible budgeting can be used at the budget planning stage to test the effects of alternative activity levels" (05 Marks)

(b) The following data are available in a manufacturing company for a year

Table 3.01

	In RS 000's
Fixed expenses	
Wages and salaries	950
Rent, Rates and taxes	660
Depreciation	740
Other administrative expenses	650
Semi Variable expenses (At 50% capacity level)	



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Maintenance and repairs	350
Indirect labour	790
Sales Department salaries	380
Sundry administrative expenses	280
Variable expenses (At 50% capacity Level)	
Material	2170
labour	2040
Other direct expenses	790

Assume that the fixed expenses remain constant for all levels of production, semi variable expenses remain constant between 45% to 65% of capacity, increasing by 10% between 70% to 100%

Table 3.02

Sales at various capacity level	In RS 000's
50% capacity	10,000
75% capacity	15,000
100% capacity	20,000

Prepare Flexible budgets for the year and forecast the profits at 50%, 75% and 100% capacity level. (20 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
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



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 annuity

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

4) Future value of an 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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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: 2018.07.17

Pass mark: 50%

Time: 02 Hours

Question 01 (Compulsory)

- (a) What is Port Operations? (05 Marks)
- (b) List out port facilities under each Port Operation? (20 Marks)

Question 02

What are the Ports that are under Sri Lanka Ports Authority and describe each Port with facilities available on your own words?

(25 Marks)

Question 03

- (a) Why measure port performance? (10 Marks)
- (b) What are the types of port performance measures? (15 Marks)

Question 04

- (a) Describe Sri Lanka Ports Authority including its functions & duties? (15 Marks)
- (b) Describe the ownership and management of different container terminals in the Port of Colombo? (10 Marks)



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Question 05

- (a) List and describe modern port related value added logistic services? (15 Marks)
- (b) What is the role of the Navigation Division coming under the Harbour Master? (10 Marks)

Question 06

- (a) What is service port marketing and how to promote port business? (15 Marks)
- (b) What are the types of port performance measures? (10 Marks)

Question 07

- (a) What is port tariff and describe? (10 Marks)
- (b) Who are the port customers and list out their expectations? (15 Marks)

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

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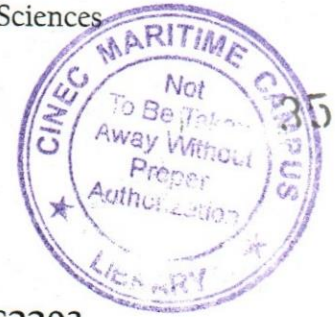
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Year 2 Semester I

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.

Date: 2018.07.07

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

- (a) Discuss the benefits and drawbacks of outsourcing an organization's Information Systems (IS) application developments. (16 Marks)
- (b) Explain how businesses can improve its Customer Relationship by using Social Media related IS developments. (09 Marks)

Question 02

- (a) Explain what is meant by "Organizational Learning". (04 Marks)
- (b) Explain the different stages in Knowledge Management Value Chain. (12 Marks)
- (c) Identify and briefly explain three major types of knowledge in organizations. (09 Marks)



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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) Explain on IT infrastructure. What are the components of IT infrastructure? (05 Marks)
- (b) How organizations/ firms should deal with platform and infrastructure change? (05 Marks)
- (c) Explain on Total Cost of Ownership of Technology Assets? (05 Marks)
- (d) Explain the use of web services? Provide categories of web services. (10 Marks)

Question 05

- (a) What is a computer network? List down main requirements to build a computer network. (08 Marks)
- (b) Explain the Client/Server model? Describe the role of each. Use diagram for explaining. (05 marks)
- (c) What is a Network topology? Explain main three topologies with use of diagrams. (12 Marks)



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Question 06

- (a) What is business continuity planning? Provide four methods to survive on business in a disaster situation in your description. (10 Marks)
- (b) What is an IT security policy? Explain how it supports to maintain a good IT infrastructure in an organization. (05 Marks)
- (c) What is Public key encryption? Explain using diagram. (05 marks)
- (d) What is Authentication? List at least five Authentication methods. (05 Marks)

Question 07

Write short notes for the following.

- (a) Bullwhip effect (05 Marks)
- (b) Professional code of conduct (05 Marks)
- (c) Testing phase of Software Development Life Cycle (05 Marks)
- (d) Fair Information Practices (05 Marks)
- (e) Intranet (05 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 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: 2018.07.10

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

- (a) Managing 7 Rights effectively and efficiently will definitely make the supply chain easier. Briefly explain the 7 Rights (06 Marks)
- (b) Define the logistics policy and explain the logistics policy cycle with suitable examples. (09 Marks)
- (c) "Government regulations and procedures affect all elements of the logistics system". Explain the above statement using an example related to Sri Lanka. (10 Marks)

Question 02

- (a) Briefly explain THREE policy objectives of domestic transport policy in Sri Lanka (06 Marks)
- (b) To plan for park and ride and pick up facilities at major public transport terminals such as railway stations, bus terminals and airports is a one major objective of policy on private vehicles. Discuss THREE impacts of park and ride concept (09 Marks)



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- (c) Increasing energy consumption in transportation has become a huge problem. Explain THREE initiatives that can be taken to mitigate/reduce the impact of mentioned problem (10 Marks)

Question 03

- (a) Briefly explain accessibility and mobility with examples. (05 Marks)
- (b) Discuss THREE issues Sri Lanka railway is currently facing and make suggestions to reduce or mitigate those issues (10 Marks)
- (c) Identify THREE reasons as to why we need some degree of regulatory control for Para transit. (10 Marks)

Question 04

- (a) Briefly explain Rural and urban transport (05 Marks)
- (b) Subsidies can be utilized as an effective tool in the transport industry. Explain how can subsidies be utilized (10 Marks)
- (c) Explain THREE reasons of having an effective policy regulator needed for bus transport? (10 Marks)

Question 05

- (a) List down regulators and actors of freight transport (06 Marks)
- (b) Explain THREE freight transport policy measures that can be used to reduce the traffic congestion cause by freight vehicles with suitable examples. (09 Marks)
- (c) "Efficiency improvement in freight transport will lead to increase the national income of the country." Explain the above statement with suitable examples (10 Marks)



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Question 06

- (a) Briefly explain American & India transport models (06 Marks)
- (b) Sri Lanka Railway is a self-regulated industry. Build an argument whether self-regulations is good or bad with suitable examples. (09 Marks)
- (c) Discuss four impediments to Land transport Policy (10 Marks)

Question 07

- (a) Coastal shipping is one possible way of transportation. Discuss the applicability of coastal shipping to Sri Lankan transport industry. (25 Marks)

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



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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: 2018.07.05

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

Please tick (X) the correct answer

1. Along the indifference curve,
 - (a) Marginal Utility remains constant.
 - (b) MRS remain constant
 - (c) Satisfaction remains constant
 - (d) Not all above.
2. If a consumer is choosing the bundle of goods that maximizes utility subject to a budget constraint, then the
 - (a) Rate at which the consumer is willing to substitute between goods is equal to the market rate of exchange between goods.
 - (b) Marginal Rate of technical substitution is equal to the market rate of exchange between goods.
 - (c) Marginal rate of substitution of two goods is equal to the price ratio of two goods.
 - (d) All of above.



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3. Income consumption curve of a luxury is
 - (a) Positively sloped
 - (b) Backward bending
 - (c) Downward sloping straight line
 - (d) Showing constant income effect

4. Which of the following is the best definition of "production function"?
 - (a) The relationship between market price and quantity supplied.
 - (b) The relationship between the firm's total revenue and the cost of production.
 - (c) The relationship between the quantity of inputs and the firm's marginal cost of production.
 - (d) The relationship between the quantities of inputs needed to produce a given level of output.

5. An Isocost line define by,
 - (a) Combination of input required to produce a constant quantity of output
 - (b) Combination of labour required to maintain a constant quantity of capital.
 - (c) Combinations of inputs required to incur constant cost
 - (d) Combinations of inputs required to earn a constant level of profit

6. The production function: $y = L^a K^b$ will have increasing returns to scale when:
 - (a) $a+b > 0.25$
 - (b) $a+b > 1$
 - (c) $a < 1$
 - (d) $b > 0.5$

7. Which would be an implicit cost for a firm? The cost:
 - (a) of worker wages and salaries for the firm.
 - (b) paid for leasing a building for the firm.
 - (c) paid for production supplies for the firm.
 - (d) of wages foregone by the owner of the firm.



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8. Which one of following not a component of GDP of a country
- (a) Investment spending
 - (b) Income receipts on Export goods
 - (c) Income receipts on factor services
 - (d) Private sector consumption
9. 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.
10. In game theory, a choice that is optimal for a firm no matter what its competitors do is referred to as
- (a) the dominant strategy.
 - (b) the game-winning choice.
 - (c) pareto efficient.
 - (d) Nash equilibrium.
11. Marginal Utility increases at a constant rate.
True [] False []
12. Price effect is always positive for inferior.
True [] False []
13. Within economic region of production, marginal productivity of factors is positive.
True [] False []
14. When marginal cost is greater than average cost, average cost is falling.
True [] False []
15. Money Supply together with taxes describes by fiscal policy.
True [] False []

(2*10 Marks)

(1*5 Marks)



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Question 02

- (a) Explain the meaning of Indifference curve (04 Marks)
- (b) What are the properties of Indifference curve? Explain (05 Marks)
- (c) Distinguish between Luxuries, necessities and inferiors using income consumption curve (06 Marks)
- (d) Derive a Demand curve for product X using price consumption Curve which has elastic demand. (06 Marks)
- (e) Explain the difference between Normal product and inferiors with price effect (04 Marks)

Question 03

- (a) Explain the concept of Marginal Rate of Technical Substitution with example (05 Marks)
- (b) At producer's equilibrium "Marginal production ratio of two inputs is equal to the price ration of input" explain. (05 Marks)
- (c) What do you mean by "Production Expansion Path"? (05 Marks)
- (d) Explain the term "Economic region of production". (04 Marks)
- (e) Explain the Law of Production in Long run using production expansion path (06 Marks)



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Question 04

- (a) Explain each component of gross domestic production in an open economy. (07 Marks)
- (b) ~~Drive~~ ^{Derive} the IS curve (06 Marks)
- (c) ~~Drive~~ ^{Derive} the LM curve (06 Marks)
- (d) Describe and show graphically the government's possible policies
- (i) If it wants to increase output keeping the level of interest rate constant.
- (ii) If it wants to lower the interest rate keeping income level constant. (06 Marks)

Question 05

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

$$C = 1000 + 0.5Y_d$$

$$T = 600$$

$$I = 500 - 100i$$

$$G = 600$$

$$M_s = 5000$$

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

$$P = 2$$

$$NX = 200$$

Where C- consumption, Y- national income, Y_d - disposable income, i - interest rate, T- taxes, I- investment, G- government expenditure, M_s - 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 (15 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 (06 Marks)
- (iii) If money supply increased by 1000, what would be the new level of income and interest rate (04 Marks)



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Question 06

- (a) Consider the following two-player game: Two cars face each other and begin driving (quickly) toward each other. The player who swerves first loses 1 point, the other player wins 1 point. If both players swerve, then each receives 0 points. If neither player swerves, a very bad crash occurs and both players lose 10 points. Assuming that the strategies for Player 1 are in the rows, while the strategies for Player 2 in the Colum. Explain the best strategy for both players in non-cooperative game. (10 Marks)
- (b) Explain the game between two firms in Research and Development. Payoffs are representing profits of the firm.

		Firm B			
		R& D Project		Not R& D project	
Firm A	R& D Project	15	45	85	-10
	Not R& D project	-10	85	30	70

- (i) Explain each strategy of the game (06 Marks)
(ii) Find out the dominate strategies (04 Marks)
(iii) Find out the Nash equilibrium of the game (02 Marks)
(iv) Show above game in extensive form (03 Marks)

Question 07

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

(5x5 Marks)

- (a) Opportunity Cost
(b) Expansionary Fiscal policy
(c) Demand for Money
(d) Price Effect
(e) Income Consumption Curve
(f) Properties of Iso Quant

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



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Year 2 Semester I
SEMESTER END EXAMINATION
Intermediate Economics - LTIE2202
MCQ Answer Sheet

- Cross (x) the relevant box according to your answer

Date: 2018.07.05

Pass mark: 50%

Time: 02 Hours

Question 011. A B C D2. A B C D3. A B C D4. A B C D5. A B C D6. A B C D7. A B C D8. A B C D9. A B C D10. A B C D11. T F12. T F13. T F14. T F15. T F

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Year 2 Semester I

SEMESTER END EXAMINATION

Air Cargo and Passenger Transportation – LTAT2205

- 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: 2018.08.17

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

- (a) Identify two flight controls that pilots make use to maneuver the aircraft (05 marks)
- (b) What are the three main axis of rotation of an aircraft and four forces that act on the surface of an aircraft? (06 marks)
- (c) List down the types of fuel included in the fuel component of the aircraft weight build up (06 marks)
- (d) Define what is safety? (08 marks)

Question 02

- (a) Explain and discuss the transition of Civil Aviation Authority from the Department of Civil Aviation and the change in Civil Aviation Management occurred when the State Functions were transferred into public corporations or limited liability company/companies with a use of a diagram (15 marks)
- (b) What are different characteristics of air cargo? (05 marks)
- (c) ULDs are expensive assets that are considered as aircraft parts. List advantages of ULDs (05 marks)



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Question 03

- (a) Airline industry is an oligopolistic market. Explain characteristics of an oligopolistic market in detail with the use of examples (08 marks)
- (b) Explain 3 types of special air cargo with examples (05 marks)
- (c) List four types of air cargo carriers based on their air cargo business model (07 mark)
- (d) Briefly explain the role of a freight forwarder (05 marks)

Question 04

- (a) Explain the different types of airline business models in air transport industry and their characteristics (10 marks)
- (b) List down different types of security threats for aviation (05 marks)
- (c) Explain the weight buildup of an aircraft with the use of applicable diagrams (10 marks)

Question 05

JetBlue is a domestic US carrier that operates a fleet of 5 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 365 days in a year and assume that all passengers are revenue passengers.

Aircraft	No. of passengers	Capacity	City-pair	Distance	Frequency
Boeing 737-800	190	210	LHR - ORD	2000 km	Daily once
Boeing 737-800	200	220	JFK - MIA	1800 km	Daily twice
Boeing 737-800	210	250	LHR - ATL	1500 km	Daily once
A330 - 300	380	350	JFK - LAX	1300 km	Daily once
A330 - 300	410	325	LHR - SFO	4200 km	Daily once

- (a) Explain what is the load factor of an aircraft and the yield? (05 marks)
- (b) What will be the ASK per year for JetBlue airline? (07 marks)



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- (c) What will be the RPK per year for JetBlue airline? (07 marks)
(d) What will be the passenger load factor per year for JetBlue airline? (06 marks)

Question 06

SHELL model and Reasons Model are tools used in air transport industry to understand the human factors present in the system which impact on safety. Further these models can be used to support minimize human error to achieve system's production goals. Select either one of these models and explain using a real life or a composite examples how these models can provide inputs to airlines/service providers to establish a safe air transportation system. (25 marks)

Question 07

- (a) ABC Company is going to ship some cargo from Doha to Abu Dhabi, UAE. The shipment consists of 8 boxes, each weighing 20 kgs, and each measuring 12*15*22 inches. Find the chargeable weight. (10 marks)
(b) Briefly explain general commodity rate, Specific Commodity rate, Classification commodity rate. (05 marks)
(c) Explain factors affecting air freight rates (10 marks)

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



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Year 2 Semester I REPEAT EXAMINATION

Management Information Systems – LTMS2203

- 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: 2017.II.02

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

- (a) What exactly is an information system? What are its management, organization, and technology components? (15 Marks)
- (b) How do supply chain management systems coordinate an organization's relationship with suppliers? (10 Marks)

Question 02

- (a) Explain what a Customer Relationship Management System is. (05 Marks)
- (b) Discuss the business value of Customer Relationship Management systems (10 Marks)
- (c) Discuss the challenges posed by enterprise applications (10 Marks)

Question 03

- (a) Identify and explain the Six candidate ethical principles. (15 Marks)
- (b) Discuss how have information systems affected everyday life. (10 Marks)

Signature

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Question 04

- (a) List down Six activities of Systems Development Life Cycle. (06 Marks)
- (b) Explain Business Process Management (BPM) and steps in BPM. (12 Marks)
- (c) Explain how information systems facilitates the rationalization of business procedures. (07 Marks)

Question 05

- (a) Explain how IT infrastructure supports to expand businesses globally? (15 Marks)
- (b) Briefly discuss three technology drivers of infrastructure evolution? (06 Marks)
- (c) Compare and contrast two main IP versions. (04 Marks)

Question 06

- (a) Introduction of information systems to the global Internet leads to various information security issues. Explain various vulnerabilities and threats exist on Internet. (15 Marks)
- (b) Briefly describe the impact of security breaches in business? (10 Marks)

Question 07

- (a) Write short notes for the following.
 - (i) Agile development
 - (ii) Extranet
 - (iii) Balanced scorecard method
 - (iv) Bullwhip effect
 - (v) Churn rate(25 Marks)

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

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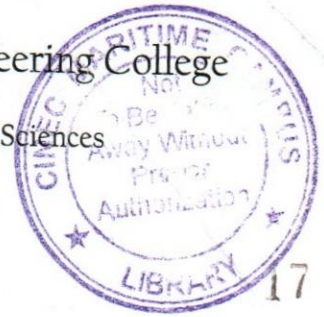
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Year 2 Semester I

REPEAT EXAMINATION

Maritime Law – LTML 2206

- 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: 2017.11.01

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

The Hauge Visby Rules (The Hague-Visby Rules - The Hague Rules as Amended by the Brussels Protocol 1968) plays a very important part with regards to contracts for carriages of goods by sea. Briefly Explain the duties and obligations imposed on a carrier under Article III of the said Rules.

(25 Marks)

Question 02

"A ship that is considered seaworthy is always considered cargo worthy"

Do you agree? Explain your answer.

(25 Marks)



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Question 03

The International Convention for the Safety of Life at Sea (SOLAS) is an international maritime treaty which requires Signatory flag states to ensure that ships flagged by them comply with minimum safety standards in construction, equipment and operation.

Point Out any of the three key elements of the Convention.

(25 Marks)

Question 04

Name the different types of Charter Parties

(05 Marks)

What is the Difference between a Time Charter and a Voyage Charter

(10 Marks)

Briefly Explain the duties of a charterer regarding a charter party contract (10 Marks)

Question 05

The International Convention for the Prevention of Pollution from Ships (MARPOL) is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes. The MARPOL Convention was adopted in 1973 at IMO. The Protocol of 1978 was adopted in response to a spate of tanker accidents in 1976-1977. Explain contents of the MARPOL with reasons behind imposing them.

(25 Marks)



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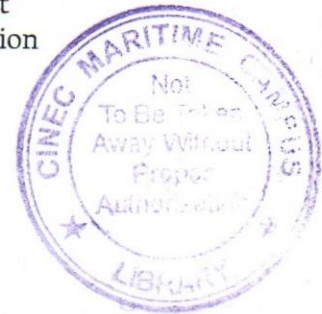
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Question 06

Write Short Notes in following

- (a) Carrier, Shipper and Operator
- (b) Carriage of Goods by Sea Act, No. 21 of 1982, Sri Lanka
- (c) Claused Bill of Lading
- (d) Flotsam, Jetsam and Lagan
- (e) Mareva Injunction

(25 Marks)

Question 07

Write Short Notes in following

- (a) Bunker Clause in a Charter Party
- (b) Concept of freight
- (c) Clean Bill of Lading
- (d) Rotterdam Rules
- (e) Hong Kong Fir Shipping Co Ltd v Kawasaki Kisen Kaisha Ltd

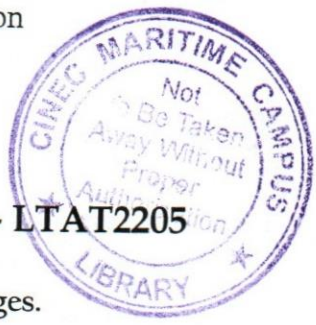
(25 Marks)

-----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 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
- Supporting documents will be provided.

Date: 2017.11.01

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

- (a) Name the three axis of rotation of an aircraft (03 Marks)
- (b) List down four (04) pioneers in the aviation industry with their contribution. (04 Marks)
- (c) Explain the difference between a merger and an airline alliance (05 Marks)
- (d) What are categorized as dangerous goods in the context of airline industry? (05 Marks)
- (e) Distinguish between a narrow body and a wide body aircraft (08 Marks)

Question 02

- (a) Airline industry is an oligopolistic market. Explain the characteristics of an oligopolistic market in detail (15 Marks)
- (b) Explain the difference between a full service carrier, low cost carrier and a value based carrier with relevant examples from the airline industry. (10 Marks)



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Question 03

(a) List down the types of fuel included in the fuel component of the aircraft weight build up (05 Marks)

(b) SHELL model is a tool used in the air transport industry in understanding the human contribution to safety and to support the human operational performance necessary to achieve system's production goals.

Explain the elements of the SHELL model in the context of an airline in detail

(20 Marks)

Question 04

(a) What are the different characteristics of air cargo? (05 Marks)

(b) Define what is an airway bill (05 Marks)

(c) ULDs are expensive assets that are considered as aircraft parts. List down the advantages of ULDs (05 Marks)

(d) Briefly explain the role of a freight forwarder (05 Marks)

(e) Identify the four (04) forces of an aircraft (05 Marks)

Question 05

(a) Explain what is Chicago Convention and its implications. (10 Marks)

(b) Identify the freedoms of the air used when granting traffic rights to States. Explain in detail on the nine (09) freedoms of the air (15 Marks)

Question 06

(a) Briefly explain the following:

(i) General Commodity Rate

(ii) Specific Commodity Rate

(iii) Classification Commodity Rate (05 Marks)

(b) Explain in detail the factors affecting air freight rates (10 Marks)

(c) Alpha Pvt. Ltd. is going to ship some cargo from Bali, Indonesia to Abu Dhabi, UAE. The shipment consists of 04 boxes, each weighting 10kgs, and each measuring 12*15*22 inches. Find the chargeable weight. (10 Marks)



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Question 07

- (a) Calculate the following performance indicators of the air transport industry with the aid of information provided in Appendix A (10 Marks)
- (i) Calculate the ASKs for CMB-MAA and CMB-KUL for one round trip in month of January
 - (ii) Calculate the RPKs for MAA-CMB sector for a round trip in month of May
- (b) The types of dangerous goods have certain special handling requirements. What are these requirements? Explain in brief. (15 marks)

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



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APPENDIX A

FLY SMILES is the national flag carrier of Sri Lanka. Airline comprise of a fleet of 15 aircraft operating into destinations in Central Asia originating from Colombo. The table depicts the passenger movements of the airline performed by the Airbus aircraft of the airline with a seat capacity of 250 seats. Airline operates one flight daily to MAA originating from CMB and two flights daily to KUL from CMB.

Note: Consider a calendar month as 30 days

Sector length	MAA-CMB (500 km)				KUL-CMB (600 km)			
	CMB-MAA		MAA-CMB		CMB-KUL		KUL-CMB	
Sector	Pax	Cargo (000 Kg)	Pax	Cargo (000 Kg)	Pax	Cargo (000 Kg)	Pax	Cargo (000 Kg)
JAN	9600	250	10200	200	9450	200	9000	200
FEB	9000	300	9600	300	9600	160	9450	150
MAR	9900	150	9000	175	9600	250	9000	300
APR	9600	220	9000	200	10200	275	9600	175
MAY	10200	275	9450	150	9450	300	9000	250



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Year 2 Semester I

REPEAT EXAMINATION

Transport and Logistics Policy - LTTP2204

- 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: 2017.10.31

Pass mark: 50%

Time: 03 Hours

Question 01: (Compulsory)

- (a) What is Logistics Policy? (05 Marks)
- (b) Explain the logistics policy cycle with suitable examples. (10 Marks)
- (c) Explain the concept of "Voluntary Corporation" and how it will be impacted to reduce the cost. (10 Marks)

Question 02

Focusing mainly on maritime and air transport, discuss how Sri Lanka is geographically located in a strategic position in the world's transport system

(25 Marks)

Question 03

- (a) Who are the regulators and actors of freight transportation? List them down (06 Marks)
- (b) Discuss THREE policy measures in freight transport with suitable examples (09 Marks)
- (c) "Improvements of the quality of freight transport service will affect the national income" Explain the above statement with suitable examples (10 Marks)



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Question 04

- (a) Explain the term "Accessibility". (05 Marks)
- (b) Briefly discuss the relationship of increased capacity with better mobility, using suitable examples. (08 Marks)
- (c) Discuss in detail, the problems associated with transportation in Sri Lanka (12 Marks)

Question 05

- (a) Discuss four impediments to Land Transport Policy (05 Marks)
- (b) "Subsidies cannot be eliminated from public transport".
Discuss this statement, giving the reasons (10 Marks)
- (d) "Why an effective policy regulator for bus transport is needed?"
Explain with Three (03) reasons (10 Marks)

Question 06

- (a) Explain the American and China transport models. (10 Marks)
- (b) Explain how intermodal transportation can be contributed to the development of transport industry in Sri Lanka (15 Marks)

Question 07

- (a) Increasing energy consumption in transportation has now become an important area to be addressed. Explain three (03) initiatives that can be taken to mitigate or reduce the impact of this problem. (10 Marks)
- (b) South American countries have successfully implemented BRT systems. If a BRT system is to be implemented in Sri Lanka, give your proposal regarding the investment of the BRT system (15 Marks)

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



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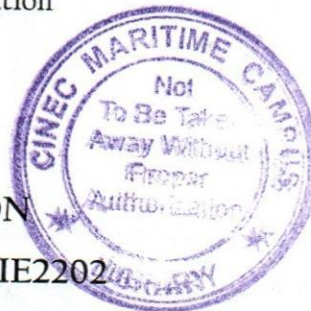
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Year 2 Semester I

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: 2017.10.30

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

- (a) What do you mean by price effect? Explain. (10 Marks)
- (b) Suppose that a consumer has income, $M=1000$ and price of $X = 20$ while Price of $Y = 20$. Using those information show the price effect of decrease in price of X to 10 while price of Y and income remain constant. (hint: product X which is a Normal Product to Consumer) (15 Marks)

Question 02

- (a) "The slope of the budget line is the negative of the ratio of the prices of two goods". Do you agree? Explain with example. (10 Marks)
- (b) There are two types of products named X and Y . The 20% increase in price of product X will decrease the quantity demanded of Product X by 10% while decrease the demand for Product Y by 10%. Explain the nature of goods and shows the relevant Price Consumption Curve. (15 Marks)



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Question 04

- (a) Explain the term "Accessibility". (05 Marks)
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- (d) "Why an effective policy regulator for bus transport is needed?"
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- (a) Increasing energy consumption in transportation has now become an important area to be addressed. Explain three (03) initiatives that can be taken to mitigate or reduce the impact of this problem. (10 Marks)
- (b) South American countries have successfully implemented BRT systems. If a BRT system is to be implemented in Sri Lanka, give your proposal regarding the investment of the BRT system (15 Marks)

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



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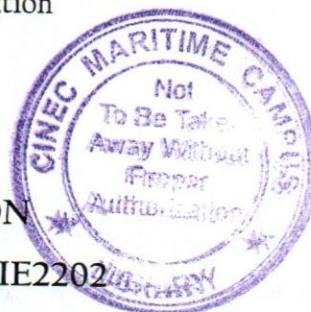
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Year 2 Semester I

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: 2017.10.30

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

- (a) What do you mean by price effect? Explain. (10 Marks)
- (b) Suppose that a consumer has income, $M=1000$ and price of $X = 20$ while Price of $Y = 20$. Using those information show the price effect of decrease in price of X to 10 while price of Y and income remain constant. (hint: product X which is a Normal Product to Consumer) (15 Marks)

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- (a) "The slope of the budget line is the negative of the ratio of the prices of two goods". Do you agree? Explain with example. (10 Marks)
- (b) There are two types of products named X and Y . The 20% increase in price of product X will decrease the quantity demanded of Product X by 10% while decrease the demand for Product Y by 10%. Explain the nature of goods and shows the relevant Price Consumption Curve. (15 Marks)



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Question 03

- (a) Explain Producer's equilibrium (06 Marks)
- (b) What do you mean by "Production Expansion Path"? (06 Marks)
- (c) Explain the term "Economic region of production". (06 Marks)
- (d) Explain the behavior of traditional cost curves in Short run (07 Marks)

Question 04

- (a) Explain each component of gross domestic production in an open economy. (08 Marks)
- (b) Explain the concept of "Liquidity Preference" (07 Marks)
- (c) Drive the IS curve (05 Marks)
- (d) Drive the LM curve (05 Marks)

Question 05

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

$$C = 120 + 0.5Y_d$$

$$T = 40$$

$$I = 100 - 10i$$

$$G = 50$$

$$M_s = 600$$

$$(M/P)_d = Y - 20i$$

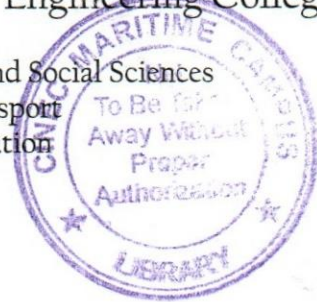
$$P = 2$$

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

- (i) Determine the equilibrium interest rate & income (08 Marks)
- (ii) Assume that G increases to 200. By how much will Y increase in short run equilibrium? (05 Marks)
- (iii) Calculate value for savings, investment, disposable income and consumption at equilibrium level mentioned in part (i). (12 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)

Table 6.01

		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

- (a) Indifference Curve.
- (b) Expansionary Fiscal policy
- (c) Liquidity preference
- (d) Open market operation
- (e) Multipliers
- (f) Dominant Strategy.

(5*5 Marks)

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



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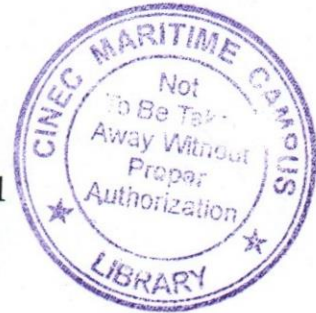
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Year 2 Semester I

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.
- Required tables and formulae sheet is attached to the question paper.

Date: 2017.10.30

Pass mark: 50%

Time: 02 Hours

Question 01 (COMPULSORY)

B - SL
C - USA

NCBM is a large educational institute in Sri Lanka. Because of their successful strategies and planning, the institute has been expanded to many different countries.

Proposed project on opening a new branch in USA

NCBM is considering expanding its operations in USA. Because the managers think it as a value addition as the online and open education gives them enormous potentials.

The project is to be appraised over a Five-Year time horizon. An initial investment of USD 30 Million is required on 01st of November 2017 (starting date). The investment will be depreciated by USD 5 Million annually during this period. The revenues are expected to be USD 10 Million at the end of the first year and to grow 5% a year thereafter for the remaining four years. The estimated cost excluding depreciation is expected to be 25% of revenues.

The tax rate is expected to be 15% from the profit before tax.

Further information related to the project is given as follows

Depreciation rate - 5



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- The risk-free rate in USA is expected to be 4%, while the risk-free rate in Sri Lanka is expected to be 12%.
- The local projects are normally discounted at 10% rate
- The spot exchange rate between two countries are expected to be USD 1 = LKR 155
- Assume cash flows other than initial investment; occur at the end of each year

Required:

- (a) Calculate an appropriate WACC for the project to be conducted in USA
(05 Marks)
- (b) Calculate the Net Present Value (NPV) of the project based on the USD Cash flows, and finally denote the value in terms of local currency (LKR)
(17 Marks)
- (c) Evaluate your results and advice NCBM whether the project is accepted or ignored
(03 Marks)

Question 02

- (a) "Generally, individuals show a time preference for money". Give reasons for such a preference
(05 Marks)
- (b) You make a fixed deposit worth RS 100,000 in Sampath bank. The annual interest rate is 12%. How much total amount will you receive after five years if the interest rate is compounded,
 - (i) Annually
 - (ii) Semi Annually
 - (iii) Quarterly
 - (iv) Monthly
 - (v) Continuously
(5*2 Marks)
- (c) Your father took a mortgage loan to finance the purchase of his house for RS 6,000,000 to be repaid in ~~ten~~ annual installments, for an annual interest rate of 10%.
 - (i) Compute the annual installment
(05 Marks)
 - (ii) Calculate the interest and the principle payments at the end of 2nd year
(05 Marks)



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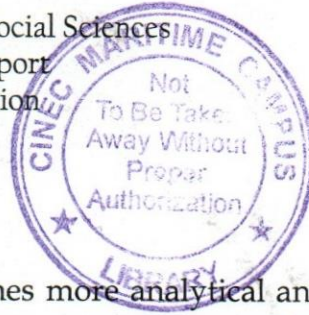
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Question 03

(a) Clearly explain how, "Zero based budgeting becomes more analytical and time consuming than other budgeting methods (05 Marks)

(b) The following data are available in F PLC, a food manufacturer as at 31st March 2017.

Table 3.01

	In RS 000's
Fixed expenses	
Wages and salaries	850
Rent, Rates and taxes	560
Depreciation	640
Other administrative expenses	550
Semi Variable expenses (At 50% capacity level)	
Maintenance and repairs	250
Indirect labour	690
Sales Department salaries	280
Sundry administrative expenses	180
Variable expenses (At 50% capacity Level)	
Material	1170
labour	1040
Other direct expenses	190

Assume that the fixed expenses remain constant for all levels of production, semi variable expenses remain constant between 45% to 65% of capacity, increasing by 10% between 70% to 100%

Table 3.02

Sales at various capacity level	In RS 000's
50% capacity	10,000
75% capacity	15,000
100% capacity	20,000

Prepare Flexible budgets for the year and forecast the profits at 50%, 75% and 100% capacity level. (20 Marks)



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Question 04

- (a) Clearly define the terms, "Firm Specific Risk" and the "Market Risk".
(07 Marks)
- (b) The Closing Price of a company share last year was RS 70. The dividend per share was RS 7 during the year. the current year closing price is RS 77. Calculate the percentage return on the share, decomposing it into the dividend yield and capital gain yield.
(06 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

Table 4.01

	Asset A	Asset B
Expected Return	17%	27%
Standard Deviation	14%	19%

Returns of these stocks have a negative correlation of -0.2

- (i) Calculate the expected return of this portfolio (06 Marks)
- (ii) Calculate the risk of the portfolio (Standard Deviation) (06 Marks)

Question 05

- (a) "Financial Management is a managerial activity concerned with analyzing, planning and controlling of the firm's financial resources to enhance the value of business". Clearly explain the decisions in Financial Management. (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 role of Financial Intermediaries in relation to the flow of funds from surplus to deficit parties (06 Marks)
- (d) Explain the components of Sri Lankan Financial system with examples (07 Marks)



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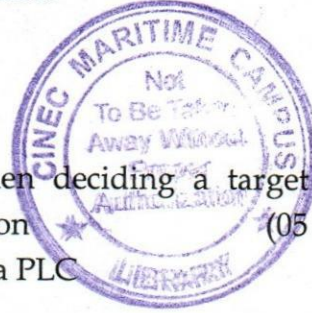
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Question 06

- (a) Clearly explain the factors to be considered when deciding a target capital structure by the Financial Manager of an organization (05 Marks)
- (b) Following information is related to the Nestle Lanka PLC



Nestle Lanka PLC
Income Statement
For the Year ended 31st March 2016

	RS Million
Revenue	500
COGS	(150)
Gross Profit	350
Operating expenses	(200)
Operating profit	150
Interest	-
Earnings before Interest and taxes	150
Taxes 40%	(60)
Net Profit	90

Additional Information

For now, company is having 50,000,000 ordinary shares. The company requires additional capital of RS 300,000,000 and planning to borrow that amount with an interest rate of 10%. With the leverage company will reduce the number of Ordinary shares to 35,000,000

- (a) Calculate EPS, when the company is Unlevered?
- (b) Calculate EPS with the leverage of the company?
- (c) Calculate the indifferent point of EBIT and EPS
- (d) Draw a graph and give your opinion on what option is the best for the company (4*5 Marks)



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Question 07

- (a) "Business Risk is the uncertainty about the projections of future operating earnings". Clearly explain the way that Financial Manager can deal with the operating risk to optimize the capital structure (05 Marks)
- (b) RST Lanka PLC, a manufacturer in FMCG industry has the following capital structure at market values

Table 7.01

	RS 000'
200,000 Common stock	8,000
10% Preferred stock	2,000
14% debentures	6,000

- The market return is expected to be 10%, the Risk-free rate is expected to be 5%. And the measure of systematic risk is (β) considered as 0.9
- The company's issue price of preferred stock is RS 30. And dividend worth RS 2 is paid for a preferred stock.
- Tax rate is expected to be 25%

Required,

Calculate an appropriate WACC for the company (08 Marks)

- (c) Following information are given for two companies in the same industry.

Table 7.02

	Company A (RS 000')	Company B (RS 000')
Sales	100	100
Variable cost	40	20
Fixed cost	20	40

Required,

What would be the effect on companies' profitability if sales fluctuate by 10%? (Assume variable cost vary with the fluctuations in sales). Analyze the situation by calculating Degree of Operating leverage and give your conclusion (12 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
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



Formula sheet

1) Present Value of Future Cash flows

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

2) Future value of present cash flows

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

3) Present value of an annuity

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

5) Expected Return

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

6) Expected Risk for assets

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

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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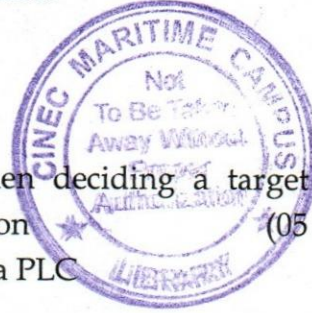
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Question 06

- (a) Clearly explain the factors to be considered when deciding a target capital structure by the Financial Manager of an organization (05 Marks)
- (b) Following information is related to the Nestle Lanka PLC



Nestle Lanka PLC
Income Statement
For the Year ended 31st March 2016

	RS Million
Revenue	500
COGS	(150)
Gross Profit	350
Operating expenses	(200)
Operating profit	150
Interest	-
Earnings before Interest and taxes	150
Taxes 40%	(60)
Net Profit	90

Additional Information

For now, company is having 50,000,000 ordinary shares. The company requires additional capital of RS 300,000,000 and planning to borrow that amount with an interest rate of 10%. With the leverage company will reduce the number of Ordinary shares to 35,000,000

- (a) Calculate EPS, when the company is Unlevered?
- (b) Calculate EPS with the leverage of the company?
- (c) Calculate the indifferent point of EBIT and EPS
- (d) Draw a graph and give your opinion on what option is the best for the company (4*5 Marks)



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Question 07

- (a) "Business Risk is the uncertainty about the projections of future operating earnings". Clearly explain the way that Financial Manager can deal with the operating risk to optimize the capital structure (05 Marks)
- (b) RST Lanka PLC, a manufacturer in FMCG industry has the following capital structure at market values

Table 7.01

	RS 000'
200,000 Common stock	8,000
10% Preferred stock	2,000
14% debentures	6,000

- The market return is expected to be 10%, the Risk-free rate is expected to be 5%. And the measure of systematic risk is (β) considered as 0.9
- The company's issue price of preferred stock is RS 30. And dividend worth RS 2 is paid for a preferred stock.
- Tax rate is expected to be 25%

Required,

Calculate an appropriate WACC for the company

(08 Marks)

- (c) Following information are given for two companies in the same industry.

Table 7.02

	Company A (RS 000')	Company B (RS 000')
Sales	100	100
Variable cost	40	20
Fixed cost	20	40

Required,

What would be the effect on companies' profitability if sales fluctuate by 10%? (Assume variable cost vary with the fluctuations in sales). Analyze the situation by calculating Degree of Operating leverage and give your conclusion (12 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
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
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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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 n = number of periods

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3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487	3
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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 Future Cash flows

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

2) Future value of present cash flows

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

3) Present value of an annuity

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

5) Expected Return

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

6) Expected Risk for assets

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

7) Expected Risk of a portfolio

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



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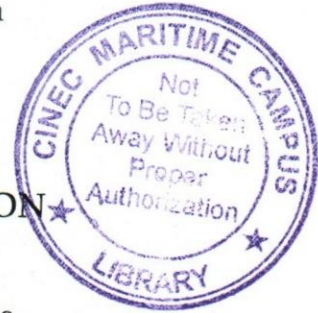
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Year 2 Semester I

SEMESTER END EXAMINATION

Maritime Law – LTML 2206

- 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: 2017.07.21

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

In 2015, estimated world seaborne trade volumes surpassed 10 billion tons - the first time in the records of United Nations Conference on Trade and Development (UNCTAD). The world fleet grew by 3.5 per cent in the 12 months to 1 January 2016 (in terms of dead-weight tons (dwt). Charter Parties and Bills of Lading form most of the documentary work in the maritime trade.

A charter party is a document of contract by which a shipowner agrees to lease, and the charterer agrees to hire, a vessel or all the cargo space, or a part of it, on terms and conditions forth in the charter party. A bill of lading is a legal document between the shipper of goods and the carrier detailing the type, quantity and destination of the goods being carried. The **bill of lading** also serves as a receipt of shipment when the goods are delivered at the predetermined destination.

Explain the following concepts in relation to Charter Parties and Bills of Lading.

- (a) Clauses in a Voyage Charter Party
- (b) Cost of Capital, Operating and Voyage in comparison with all three types of Charter Parties



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- (c) Contract of affreightment
- (d) Relationship between Charter party and Bill of lading
- (e) Three attributes of Bill of lading

(25 Marks)

Question 02

"Ship registration is primarily a requirement under international law, evolved especially after the second half of the twentieth century into an important and at times quite complex commercial decision for ship owners. This change of nature of ship registration from a legal condition to a business choice, largely effected by the absence of universally binding provisions to determine the "genuine link" between the flag state and the ship. The two types of flags have been seen to offer two distinct alternatives to ship owners."

Discuss the provisions governing ship registration and ship owners.

(25 Marks)

Question 03

"SALEFORM 2012 is the latest edition of the highly successful Memorandum of agreement for the sale and purchase of ships, issued by BIMCO and the Norwegian Shipbrokers Association. The agreement has been updated to reflect current S and P (sale and purchase) practice and legal developments." Define provisions of Ship Sale Form 2012

(25 Marks)

Question 04

BRICE'S definition of Salvage is that "A right in law which arises when a person, acting as a volunteer, that is without any contractual or other legal duty to act, preserves at sea any vessel, cargo, freight, or other recognised subject of salvage from danger." However the modern day context of Salvage has been changed in par with contractual rights of Pilotage and Towage. In the exercise of above rights a unique maritime right of General Average also sometimes applies. Explain the legal regime of those concepts in modern day context.

(25 Marks)



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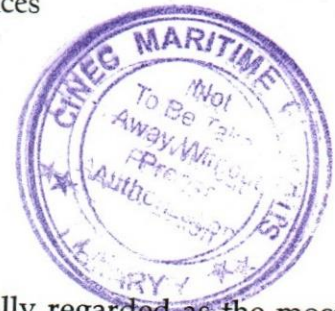
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Question 05

- (a) The SOLAS Convention in its successive forms is generally regarded as the most important of all international treaties concerning the safety of merchant ships. The first version of SOLAS was adopted at a conference of 13 countries, held in London in 1914, following the sinking of the RMS Titanic in 1912. Since then the SOLAS has been changed from time to time forming one of the most widely spread international conventions all time. Explain with modern day developments of the SOLAS. (15 Marks)
- (b) The International Convention for the Prevention of Pollution from Ships (MARPOL) is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes. The MARPOL Convention was adopted in 1973 at IMO. The Protocol of 1978 was adopted in response to a spate of tanker accidents in 1976-1977. Explain contents of the MARPOL with reasons behind imposing them. (10 Marks)

Question 06

Write Short Notes in following

- (a) Carrier, Shipper and Operator
- (b) Lifting of a Veil
- (c) Seaworthiness and Cargoworthiness
- (d) Flotsam, Jetsam and Lagan
- (e) Mareva Injunction

(25 Marks)



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Question 07

Write Short Notes in following

- (a) Bunker Clause in a Charter Party
- (b) Concept of freight
- (c) Hague Visby Rules
- (d) Rotterdam Rules
- (e) Received for shipment Bills of Lading

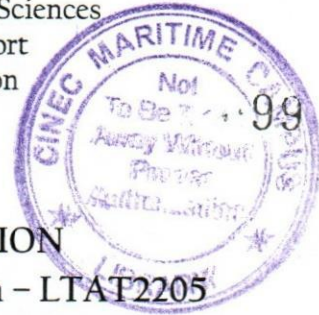
(25 Marks)

-----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 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: 2017.07.19

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

- (a) What are the three main axis of rotation of an aircraft and four forces that act on the surface of an aircraft? (06 marks)
- (b) List down two types of aerodromes that are available for an aircraft to take off and land in Sri Lanka (05 marks)
- (c) List down the types of fuel included in the fuel component of the aircraft weight build up (06 marks)
- (d) What is the difference between a narrow body and a wide body aircraft (08 marks)

Question 02

- (a) Explain the development of Civil Aviation Authority from the Department of Civil Aviation and the change in Civil Aviation Management occurred when the State Functions were transferred into public corporations or limited liability company/companies with a use of a diagram (10 marks)
- (b) What are different characteristics of air cargo? (05 marks)
- (c) Explain 3 types of special air cargo with examples (05 marks)
- (d) ULDs are expensive assets that are considered as aircraft parts. List advantages of ULDs (05 marks)



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Question 03

- (a) Airline industry is an oligopolistic market. Explain characteristics of an oligopolistic market in detail (08 marks)
- (b) What is Chicago Convention and its implications? Explain (08 marks)
- (c) List four types of air cargo carriers based on their air cargo business model (04 marks)
- (d) Briefly explain the role of a freight forwarder (05 marks)

Question 04

- (a) Explain the different types of airline business models in air transport industry and their characteristics (10 marks)
- (b) Identify the freedoms of the air used when granting traffic rights to States. Explain the 9 freedoms of the air. (15 marks)

Question 05

Skyliner is a domestic US carrier that operates a fleet of 5 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 365 days in a year and assume that all passengers are revenue passengers.

Table 5.01

Aircraft	No. of passengers	Capacity	City-pair	Distance	Frequency
Boeing 737-800	190	202	JFK - ORD	1190 km	Daily once
Boeing 737-800	200	210	JFK - MIA	1753 km	Daily twice
Boeing 737-800	210	240	JFK - ATL	1222 km	Daily once
A330 - 300	380	390	JFK - LAX	1115 km	Daily once
A330 - 300	410	410	JFK - SFO	4161 km	Daily once



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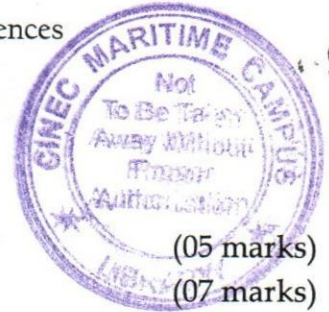
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- (a) Explain what is the load factor of an aircraft and the yield? (05 marks)
- (b) What will be the ASK per year for Skyliner airline? (07 marks)
- (c) What will be the RPK per year for Skyliner airline? (07 marks)
- (d) What will be the passenger load factor per year for Skyliner airline? (06 marks)

Question 06

SHELL model and Reasons Model are tools used in air transport industry to understand the human factors present in the system which impact on safety. Further these models can be used to support minimize human error to achieve system's production goals. Select either one of these models and explain using a real life or a composite examples how these models can provide inputs to airlines/service providers to establish a safe air transportation system. (25 marks)

Question 07

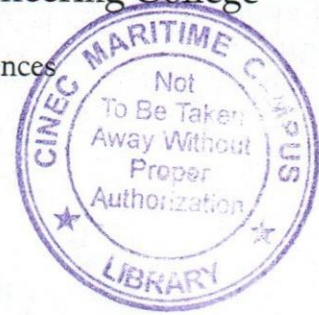
- (a) XYZ Company is going to ship some cargo from Manila to Abu Dhabi, UAE. The shipment consists of 4 boxes, each weighing 10 kgs, and each measuring 12*15*22 inches. Find the chargeable weight. (10 marks)
- (b) Briefly explain general commodity rate, Specific Commodity rate, Classification commodity rate. (05 marks)
- (c) Explain factors affecting air freight rates (10 marks)

-----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 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: 2017.07.17

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

- (a) Managing 7 Rights effectively and efficiently will definitely make the supply chain easier. Briefly explain the 7 Rights (06 Marks)
- (b) Define the logistics policy and explain the logistics policy cycle with suitable examples. (09 Marks)
- (c) "Government regulations and procedures affect all elements of the logistics system". Explain the above statement using an example related to Sri Lanka. (10 Marks)

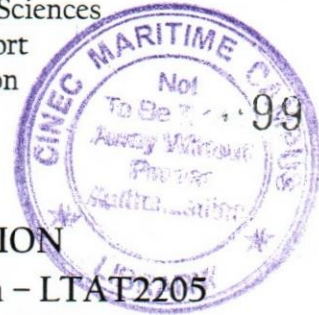
Question 02

- (a) Briefly explain THREE policy objectives of domestic transport policy in Sri Lanka (06 Marks)
- (b) To plan for park and ride and pick up facilities at major public transport terminals such as railway stations, bus terminals and airports is a one major objective of policy on private vehicles. Discuss THREE impacts of park and ride concept (09 Marks)



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Year 2 Semester I
SEMESTER END EXAMINATION

Air Cargo and Passenger Transportation – LTAT2205

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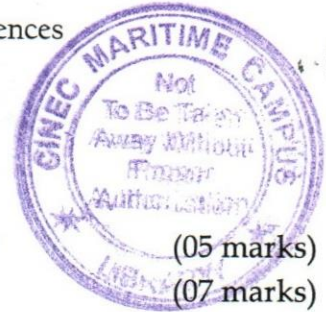
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Question 07

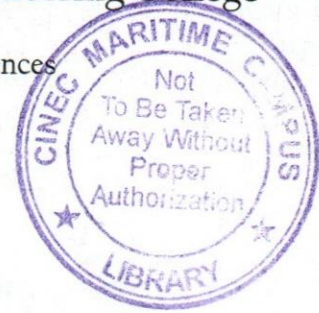
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-----END OF THE QUESTION PAPER-----



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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 THREE (03) pages.
- Answer FOUR questions including Question 01.
- Only non-programmable calculators are allowed.
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Date: 2017.07.17

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

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- (c) Increasing energy consumption in transportation has become a huge problem. Explain THREE initiatives that can be taken to mitigate/reduce the impact of mentioned problem (10 Marks)

Question 03

- (a) Briefly explain accessibility and mobility with examples. (05 Marks)
- (b) Discuss THREE issues Sri Lanka railway is currently facing and make suggestions to reduce or mitigate those issues (10 Marks)
- (c) Identify THREE reasons as to why we need some degree of regulatory control for Para transit. (10 Marks)

Question 04

- (a) Briefly explain Rural and urban transport (05 Marks)
- (b) Subsidies can be utilized as an effective tool in the transport industry. Explain how can subsidies be utilized (10 Marks)
- (c) Explain THREE reasons of having an effective policy regulator needed for bus transport? (10 Marks)

Question 05

- (a) List down regulators and actors of freight transport (06 Marks)
- (b) Explain THREE freight transport policy measures that can be used to reduce the traffic congestion cause by freight vehicles with suitable examples. (09 Marks)
- (c) "Efficiency improvement in freight transport will lead to increase the national income of the country." Explain the above statement with suitable examples (10 Marks)



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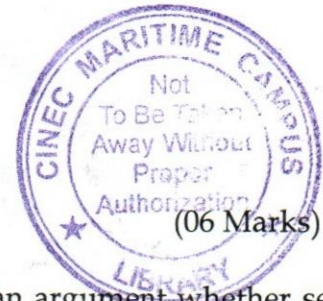
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Question 06

- (a) Briefly explain American & India transport models (06 Marks)
- (b) Sri Lanka Railway is a self-regulated industry. Build an argument whether self-regulations is good or bad with suitable examples. (09 Marks)
- (c) Discuss four impediments to Land transport Policy (10 Marks)

Question 07

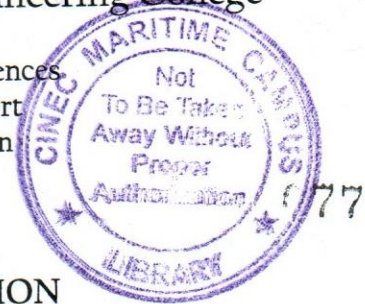
Coastal shipping is one possible way of transportation. Discuss the applicability of coastal shipping to Sri Lankan transport industry. (25 Marks)

-----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 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: 2017.07.14

Pass mark: 50%

Time: 02 Hours

Question 01 (Compulsory)

- (a) "Information systems are essential for running and managing a business today."
Explain this statement covering the major strategic business objectives of information systems. (15 Marks)
- (b) How do customer relationship management systems help firms achieve customer intimacy? (10 Marks)

Question 02

- (a) Explain the terms "Routine" and "Process". (06 Marks)
- (b) Briefly explain the term "Organization". (04 Marks)
- (c) Discuss which features of organizations managers need to know about to build and use information systems successfully? (15 Marks)

Question 03

- (a) Define the term "Ethics". (04 Marks)
- (b) Explain Three ways Intellectual Property can be protected. (09 Marks)
- (c) Discuss Four negative social consequences of Information Systems effect the quality of life. (12 Marks)



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Question 04

- (a) List down Six activities of Systems Development Life Cycle. (06 Marks)
- (b) Identify Four main Systems Conversion Strategies. (04 Marks)
- (c) Explain the term "Data Flow Diagram". (03 Marks)
- (d) Discuss Four types of structural organizational changes enabled by IT. (12 Marks)

Question 05

- (a) Identify problems with the traditional file environment (06 Marks)
- (b) Explain the term "Data Dictionary". (04 Marks)
- (c) Discuss the need of data warehousing for modern businesses. (15 Marks)

Question 06

- (a) Explain how IT infrastructure transforms business and leads their relationship to globalization? (15 Marks)
- (b) Briefly discuss three technology drivers of infrastructure evolution? (06 Marks)
- (c) List down four layers of TCP/IP reference model. (04 Marks)

Question 07

Write short notes on the following topics.

(5*5 Marks)

- (a) Prototyping
- (b) Bullwhip effect
- (c) Data warehouse
- (d) Testing
- (e) Extranet

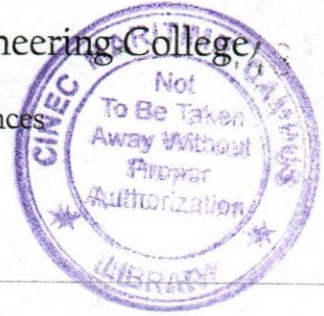
-----END OF THE QUESTION PAPER-----

Library



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Year 2 Semester I

SEMESTER END EXAMINATION

Intermediate Economics – LTIE2202

- This paper consists of SEVEN questions on SEVEN (07) 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: 2017.07.12

Pass mark: 50%

Time: 02 Hours

Question 01: (Compulsory)

Please tick (X) the correct answer

1. Indifference Curve analysis is,
 - (a) Cardinality approach
 - (b) Ordinal Approach
 - (c) Rationality approach
 - (d) Not all above.
2. Income consumption curve of an inferior commodity is
 - (a) Positively sloped
 - (b) Backward bending
 - (c) Downward sloping straight line
 - (d) Showing constant income effect
3. Which of the following is the best definition of "production function"?
 - (a) The relationship between market price and quantity supplied.
 - (b) The relationship between the firm's total revenue and the cost of production.



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- (c) The relationship between the quantities of inputs needed to produce a given level of output.
- (d) The relationship between the quantity of inputs and the firm's marginal cost of production.
4. Total cost of a firm is ,
- (a) total fixed cost plus average variable costs
 - (b) total fixed costs plus total variable costs
 - (c) total average fixed costs plus total average variable costs
 - (d) total costs plus opportunity costs
5. Which would be an implicit cost for a firm? The cost:
- (a) of worker wages and salaries for the firm.
 - (b) paid for leasing a building for the firm.
 - (c) paid for production supplies for the firm.
 - (d) of wages foregone by the owner of the firm.
6. Which one of following not a component of GDP of a country
- (a) Investment spending
 - (b) Income receipts on Export goods
 - (c) Income receipts on factor services
 - (d) Private sector consumption
7. Government wants to increase total output without change in interest rate. The possible actions are,
- (a) Use expansionary fiscal policy with contractionary monetary policy.
 - (b) Use expansionary fiscal policy with expansionary monetary policy.
 - (c) Use contractionary fiscal policy with contractionary monetary policy.
 - (d) contractionary fiscal policy with expansionary monetary policy.
8. The precautionary demand for money suggested that,
- (a) As a results of interest rate rises, the demand for money will rises
 - (b) When the activities become more uncertain, people are more likely to hold more money.
 - (c) The velocity of money is constant.
 - (d) As a results of interest rate fall, the demand for money will rises



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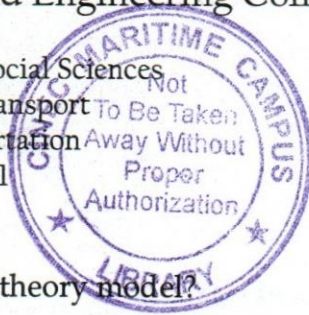
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9. Which one of the following is a part of every game theory model?
- (a) Players
 - (b) Payoffs
 - (c) Probabilities
 - (d) Strategies
10. In game theory, a choice that is optimal for a firm no matter what its competitors do is referred to as
- (a) the dominant strategy.
 - (b) the game-winning choice.
 - (c) pareto efficient.
 - (d) Nash equilibrium.

(2*10 Marks)

11. Marginal utility increases at a decreasing rate.
True [] False []
12. Substitution effect is always positive.
True [] False []
13. Within economic region of production, marginal productivity of factors is positive.
True [] False []
14. When marginal cost is greater than average cost, average cost is falling.
True [] False []
15. Government spending together with taxes describes by trade policy.
True [] False []
True [] False []

(1*5 Marks)