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Serial No.....

Society of Certified Management Accountants of Sri Lanka

Professional II Stage Pilot paper

Instructions to candidates:

1. Time allowed is **three (3) hours**.
2. Answer **Question-1 in Section A** and **Question-4 in section B** which are **compulsory and answer Question -2 or Question- 3 from Section A and Question -5 or Question -6 from Section B**.
3. Answers should be entirely in the **English language**.

<u>Subject</u>	<u>Subject Code</u>
Internal Control and Risk Management	(ICR)

Section A

Answer to **Question-1** which is **compulsory and Answer Question 2 or Question 3**.

All the questions (1, 2 and 3) are based on the scenario and data described below:-

Sri Lanka Travels & Tours Limited (SLTL) has recently introduced a new computer system to handle its on-line travel bookings where customers can select a combination of flights, accommodation and insurance packages. Customers enquire into the availability of travel from their home or office computer and the system reserves their holiday requirements, for which the customer pays by credit card.

SLTL's system is integrated with a major international booking system to ensure that travel sold is properly booked, with data being transferred via electronic data interchange (EDI). SLTL therefore operates as a 'front office' for larger booking agencies.

SLTL's competitive advantage is its reputation for giving excellent customer service that has been built up over many years of manual operations. The introduction of the new computer system automates that process, is seen by the board and senior management to be far more cost-effective, and has enabled SLTL to reduce its staffing level significantly. The computer implementation was managed in the main by SLTL's IT Manager and has been considered a big success, despite some teething problems.

SLTL's internal audit function has been subcontracted to M&S, a firm of external accountants who are CMA members. M&S are well acquainted with SLTL's needs, having provided a range of IT consultancy services to SLTL, including involvement in the feasibility study for the purchase of the new computer system. However, there was no internal audit involvement after the initial feasibility study. M&S have recently completed an internal audit which has included a review of SLTL's new computer system.

M&S's report to SLTL's board has identified the following strengths and weaknesses:

Strengths	Weaknesses
(a) Excellent data security and authorization of changes to master files	(a) Systems design problem leading to loss of some on-line customer bookings
(b) Excellent operator training and systems documentation	(b) Inadequate control over conversion of manual systems to new computer system resulting in some duplication and some losses of data (now resolved)
(c) Excellent EDI links to international booking system.	(c) Failure to adequately test and accept the system prior to live-running.
(d) The project was delivered to budget and to the expected timescale, although some issues of quality were not achieved (see weaknesses).	(d) While the project management of the implementation was largely successful due to the IT Manager, no Steering Committee was established to oversee the project.
-	(e) No post-implementation review carried out.

Question-1 (25 Marks)

Evaluate M&S's audit report of management control in Sri Lanka Travels & Tours Ltd's new computer system against best practice for information systems development and make any necessary recommendations to the board. **(Total 25 Marks)**

Answer either question 2 or 3

Question-2 (25 Marks)

(a) **Recommend** an Internal Audit approach that will provide assurance to the board that information system controls are adequate. **(10 Marks)**

(b) **Advise** the board of Sri Lanka Travels & Tours Limited as to its corporate governance responsibilities for reviewing internal control and reporting on compliance. **(15 Marks)**

(Total 25 Marks)

Question-3 (25 Marks)

Advise the newly appointed Chief Executive of Sri Lanka Travels & Tours Limited the role of Management Accountants (and how this role has changed over the last few years) in relation to Internal Control. **(Total 25 Marks)**

End of Section A

Section B

Answer to *Question-4* which is compulsory and Answer *Question 5* or *Question 6*.

Question-4 (30 Marks)

- (a) (1) Danawardena bought some stocks for Rs. 34 a share and a year later he sold it for Rs. 61 share. During the year he received a cash dividend of Rs. 1.50 a share. Compute his holding period return and holding period yield on this investment. *(4 Marks)*
- (2) The rate of return computed in problem (a) (1) is nominal rate of return. Assuming that the rate of inflation during the year was 4 %, compute the real rate of return on this investment. *(4 Marks)*
- (3) During the past years, Danawardena had two stocks that had the following annual rate of returns.

Year	Stock X	Stock Y
2001	0.18	0.08
2002	0.07	0.04
2003	0.12	0.09
2004	-0.03	-0.03
2005	-0.01	-0.02
2006	0.06	0.08

- (I) Compute the arithmetic mean annual rate of return for each stock. Which stock is more desirable by this measure?
- (II) Compute the standard deviation of the annual rate of return for each stock. By this measure which stock is more preferable?
- (III) Compute the coefficient of variation for each stock. By this relative measure of risk which stock is desirable?
- (IV) Compute the geometric mean rate of return for each stock.

(8 Marks)

- (b) Danawardena is now considering acquiring shares of common stocks in the Almex and Gamex. His rates of return expectations depend on the state of the economy by the end of the year as follows:

State of the economy (GDP growth)	Probability	Possible rates of return	
		Almex	Gamex
Higher than 10%	0.30	-0.10	0.08
Higher than 8% to 10%	0.10	0.00	0.06
Average 5% to 8%	0.30	0.10	0.10
Below 5%	0.30	0.25	0.20

The market values of each stock at the end of the year would be Rs. 200,000 and Rs. 300,000 for Almex and Gamex respectively.

Compute the expected return and risk on this portfolio. Do you consider Almex or Gamex resent greater risk? Discuss your reasoning. **(10 Marks)**

- (c) Some financial theorists consider the variance of the distribution of expected rates of return to be a good measure of uncertainty. Discuss the reasoning behind this measure of risk and its purpose **(4 Marks)**

(Total 30 Marks)

State any assumptions that you made.

Answer either question 5 or 6

Question-5 (20 Marks)

- (a) An investor holds a 30 day forward contract on a stock purchased at a price of Rs. 25. Ten days later, a 20-day contract with the same settlement date is written on the commodity and purchased at a forward price of Rs. 35. At what price could you liquidate your contract at the 20-day contract was written? Assume the yield to maturity on a 20-day treasury bill at day 10 is 0.10.

(6 Marks)

- (b) The market value of a risk less 10-year zero coupon bond promising Rs. 1000 with a 10% yield to maturity is currently Rs. 385.54. Yield on one year zeros are currently 9%. The investor wishes to enter into a forward contract to sell the 10-year zeros in one year at the forward price. What should the forward price be on your contract?

(7 Marks)

- (c) You are manager of a stock portfolio for a financial institution, and about 20% of the stock portfolio that you manage is in British stocks. You expect the British stock market to perform well over the next year, and plan to sell the stocks one year from now (and will convert the British pounds received to dollars at that time). However, you are concerned that the British pound may depreciate against the dollar over the next year.

Explain how you could use a forward contract to hedge the exchange rate risk associated with your position in British stocks.

(7 Marks)

(Total 20 Marks)

Question-6 (20 Marks)

- (a) Describe the components of business risk, and how the components affect the variability of operating earnings. **(10 marks)**

- (b) Analyze the risks inherent in hedge funds. **(10 marks)**

(Total 20 marks)

End of Section B

End of Question Paper