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Serial No.....

Institute of Certified Management Accountants of Sri Lanka
Operational Level
October 2017 Examination

Examination Date : 04th November 2017 **Number of Pages :** 05
Examination Time: 1.30 p.m. – 4.30 p.m. **Number of Questions:** 07

Instructions to Candidates

1. Time allowed is **three (3) hours**.
2. Total: **100 Marks**.
3. Answer **all** questions in Part I and **four (4)** questions from Part II selecting **two (2)** questions from each of the Sections **A** and **B**.
4. Section **A**: Operations Management and Section **B**: Information Systems Management.
5. The answers should be in **English Language**.

<u>Subject</u>	<u>Subject Code</u>
Operations and Information Systems Management	(OIM / OL 3 - 203)

PART I

Question No. 01 (20 Marks)

Answer all parts of the Question No.1. Select the most correct answer to each part of the question. Write the number of the part of the question and the selected answer by stating the relevant English letter, in your answer booklet. E.g. **(1) (relevant English letter), (2) (relevant English letter) etc...**

- (1) Three companies – A, B and C are involved in producing sugar, medical research activities and passenger transport services respectively. Which one of the following correctly indicates transformation process adopted by three companies?
 - (a) Material processing, information processing and customer processing
 - (b) Customer processing, information processing and material processing
 - (c) Information processing, manufacturing processing and customer processing
 - (d) Manufacturing processing, service processing and information processing
- (2) A reputed company delivers goods and services to their customers well in time as promised and the company does not cancel a single order given to any customer. This improves internal operation of the company. This competitive priority is known as an improvement of ?
 - (a) Quality
 - (b) Flexibility
 - (c) Cost
 - (d) Dependability
- (3) A company wants to eliminate cost that does not contribute to value and performance of the products while same operational level of the product is maintained. What is type of design technique followed by the company?
 - (a) Quality function Deployment (QFD)
 - (b) Taguchi method
 - (c) Value engineering
 - (d) Total quality Management

- (4) Quality defectives have been noticed after receiving customer complaints about garments manufactured by Asiri garment (pvt) Ltd . At an examination, it was revealed that low quality fabric, short comings related to current technology used , trained skilled labour issues are some of core reasons for low quality issue. What type of a statistical tool noted below is well suited to analyse this quality issue?
- Cause- and- effect diagram
 - Flow chart
 - Control chart
 - Scatter diagram
- (5) Information is used for **two purposes** in any supply chain. Select the most suitable one given below?.
- Ascertaining demand and assessing supply details
 - Taking orders & meeting customer expectations
 - Forecasting customer demand and making viable decisions
 - Co-ordinating daily activities and forecasting and planning to meet future demand.
- (6) Which one of the following is **not considered** as a strategic use of Information Technology?
- To improve infrastructure management
 - Use to lower cost of customers
 - Use of IT to focus products and service at selected markets
 - Use of IT to diversify and integrate into other products / service range
- (7) Fill the blanks with suitable words.
- uses web technologies to integrate people, information and processes in an organization as well as the extended enterprise.
- An enterprise information portal
 - An enterprise resource planning
 - An enterprise application integration
 - An artificial intelligence
- (8) Banking sector provides state of Art Technology to meet individual and business requirement through information technology. This can be treated as a benefit arising from
- Supply Chain Management system (SCM) and IT
 - Enterprise Resources Planning (ERP) and IT
 - Knowledge management system and IT
 - Value Chain Analysis (VCA) and IT
- (9) What is a disadvantage of a smart card?
- It can store multiple type of information
 - Fees applied with the use of a card
 - It is individually encrypted
 - Data in a smart card cannot be erased or removed
- (10) Fire walls, encryption, security codes and security monitors are considered as
- Tools of security defences
 - System control tools
 - Physical control tools
 - Mobile phone tools.

(10 × 2 Marks = Total 20 Marks)

End of Part I

PART II

Section A: Operations Management

Answer any two (2) questions

Question No. 02 (20 Marks)

Board of Investment (BOI) has signed an agreement with Global Recycling Company (GRC) representing an investment US\$ 300 million. GRC will manufacture the commercially viable organic fertilizer for large scale horticulture, intercropping and plantation crops. It is expected to bring in a large sum of export earnings to Sri Lanka while providing employment in a state of art manufacturing facility, with the latest technical knowledge and development opportunities to the suitably talented youths.

You are required to:

- (a) Recommend with reasons a suitable layout plan for manufacturing facility for GRC? **(05 Marks)**
- (b) Briefly explain four reasons for need of a lay out decision for this plant? **(08 Marks)**
- (c) BOI has given three locations namely A, B, and C for setting up the plant. The company has ranked each location on their importance to financial and operational benefits as noted below.

Factor	Rank
Raw material	0.20
Labour cost	0.15
Marketing ability	0.35
Tax benefits	<u>0.30</u>
Total	<u>1.00</u>

The GRC wants to analyse each of these alternative locations and select the most suitable one. For this purpose, each alternative is assessed in the context of factors identified and following score has been allocated. The score is given out of 10.

Score on factors

site	Raw material	labour	Marketable ability	Tax benefits
A	6	7	5	6
B	5	6	4	5
C	4	5	6	4

- Determine the most suitable location for the manufacturing facility? **(07 Marks)**
(Total 20 Marks)

Question No. 03 (20 Marks)

Agra Hotel Group (AHG) has invested Rs 500 million to build 150 rooms capacity hotel in Matara. The Group has commenced its operation in 1982 with Agra Guest House Company in Mirrissa when subject of tourism was non-existence in the area. At the beginning, their ancestral **home** was converted to a home stay unit and with more guests, they expanded business. The company has diversified hotel operations by adding restaurants, Whale watching, Boats riding and Travel agency. Company gives a top priority for customer care, quality of services, modern facilities to retain customers by adjusting changing needs of customers. AHG has implemented e-commerce and ERP Sap system for order booking, settlement of customer payment and inquiries with regard to the services and products of the company and to obtain periodical key strategic financial and non-financial information. Even though hotel industry is so competitive, Company revenue and profit has been in upward trend since last five years.

You are required to:

- (a) Briefly explain how company has implemented “**Differentiation strategy**” to diversify the operations. An effective capability can be achieved by developing capabilities **in flexibility** in specific areas. Explain such **five capabilities** developed by the company to reach current level of achievement? **(10 Marks)**
 - (b) Briefly explain **three direct responsibilities** of operations Manager of the hotel considering the above scenario? **(06 Marks)**
 - (c) Explain quality of service and customer contact is so vital in hotel sector for long term sustainability? **(04 Marks)**
- (Total 20 Marks)**

Question No. 04 (20 Marks)

Write short notes selecting any four (04) of the following.

- (i) Steps in strategic decision making process
- (ii) Supply chain management
- (iii) Safety inventory
- (iv) Cost of prevention
- (v) Service lay out

(4 × 5 Marks = Total 20 Marks)

(Total 20 Marks)

End of Section A

Section B: Information Systems Management

Answer **any two (2)** questions

Question No. 05 (20 Marks)

Micro Finance Company (MFC) was set up 20 years ago to provide credit facilities to small and medium enterprises (SMEs) and to promote saving habits among the rural and semi- urban people. With the expansion of its operation many distance locations; MFC has decided to introduce e-banking and mobile banking technology to reduce cost of operation and to facilitate their customers for their various needs. At present 50% and 20% of credit facilities granted were utilised by SMEs and low and middle income families respectively.

Board of Management believes that MFC should introduce IT based mobile banking facility, computer network and enhanced IT infrastructure to upgrade its services.

You are required to:

- (a) Explain briefly **three IT tools** that can be used to customer services via mobile banking facilities **(06 Marks)**
 - (b) MFC has decided to further develop Customer Relationship Management (CRM) with key, strategic customers to retain them in long term. .Briefly give **four (04) aims** of CRM indicating benefits to be achieved **(08 Marks)**
 - (c) It has been decided to introduce **Smart Cards** for its customers. Give three (03) advantages of using smart cards **(06 Marks)**
- (Total 20 Marks)**

Question No. 06 (20 Marks)

Housing Development Bank (HDB) was set up with an objective of providing financial facilities to low and middle income earners of the country. It has now set up branches Island wide to cater prime objective to the needy segment of the society. Board of management of the bank has decided to provide intranet and extranet facilities so as to expedite customer services and improve services of the bank continuous manner. As part of this programme, it has been decided to obtain benefits arising from this project.

You are required to:

- (a) Briefly define two concept of **intranet and extranet** identifying difference between two techniques and its impact on Business to Business(B2B) application (extranet) and internal business process (intranet) **(08 Marks)**
 - (b) Indicate **three common** features of above two communication models **(06 Marks)**
 - (c) Briefly explain how computer based executive information system (EIS) can provide useful strategic information to meet the information needs of the above bank **(06 Marks)**
- (Total 20 Marks)**

Question No. 07 (20 Marks)

Write short notes selecting any **four (4)** of the following.

- (a) Role of Management Information in an enterprise
- (b) Back- up files
- (c) An agile company
- (d) An artificial intelligence
- (e) components of an information system
- (f) Hardware evaluation factors

(4 × 5 Marks = Total 20 Marks)

End of Section B

End of Part II

End of Question Paper
