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Serial No.....

Institute of Certified Management Accountants of Sri Lanka
Managerial Level
May 2018 Examination

Examination Date : 13th May 2018 **Number of Pages :** 05
Examination Time: 1.30 p.m. – 4.30 p.m. **Number of Questions:** 06

Instructions to Candidates

1. Time allowed is **three (3) hours**.
2. Total: **100 Marks**.
3. Answer **all** questions in Part I and II.
4. Part I: - Section A: Managing Projects and Section B: Information Systems &
 Part II: - Section A: Managing Projects and Section B: Information Systems
5. Candidates are allowed to use non-programmable calculators.
6. The answers should be in **English Language**.

<u>Subject</u>	<u>Subject Code</u>
Managing Projects & Information Systems	(MPI / ML 3 - 303)

PART I

Question No. 01 (20 Marks)

Answer all parts of 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...**

Section A - Managing Projects

- (1) In a project, if a certain activity is scheduled to begin one week before the preceding activity is finished then it is an example of:
 - (a) Start-to-Start
 - (b) Finish-to-Start
 - (c) Start-to-Finish
 - (d) Finish-to-Finish
- (2) Work Breakdown Structure (WBS) is used to identify:
 - (a) the communication structure and current availability of all individuals in the project.
 - (b) preceding and succeeding activities of a project.
 - (c) responsibilities of each internal stakeholder.
 - (d) the scope of the project.
- (3) A planned undertaking of related activities to reach an objective that has a beginning and an end best defines:
 - (a) task development
 - (b) activity plan
 - (c) project
 - (d) task schedule

- (4) Which one of the following would not usually be considered a project?
- (a) Manufacturing cars in a factory.
 - (b) Development of a software package.
 - (c) Designing a new product.
 - (d) Installation of new machinery in an existing manufacturing plant.
- (5) In order to create the WBS it is necessary to decompose tasks into smaller units. How do you know that you have finished creating the WBS?
- (a) Keep decomposing tasks until you reach an amount of work that is small enough to reliably estimate required resources and duration.
 - (b) Keep decomposing tasks until you reach an amount of work that can be accomplished in one hour.
 - (c) Keep decomposing work until you reach an amount of work that can be accomplished in your organization's basic work unit.
 - (d) Keep decomposing work until you reach a predetermined number of hierarchy levels to keep the WBS balanced.

Section B–Information Systems

- (6) _____ impedes the establishment of an information system by integrating data from different sources of an organization.
- (a) Batch processing
 - (b) Data redundancy
 - (c) Data independence
 - (d) Online processing
- (7) Three activities in an information system to produce the information that organizations need to make decisions are:
- (a) input, output, and feedback
 - (b) data, information, and analysis
 - (c) input, processing, and output
 - (d) data analysis, processing, and feedback
- (8) To monitor the status of internal operations and the firm's relations with the external environment, managers need _____ systems.
- (a) decision-support
 - (b) knowledge
 - (c) transaction processing
 - (d) management information
- (9) Transaction brokers
- (a) generate revenue from advertising or from directing buyers to sellers.
 - (b) save users money and time by processing online sales transactions.
 - (c) facilitate a digital environment where buyers and sellers can establish prices for products.
 - (d) provide online meeting places where people with similar interests can communicate.
- (10) _____ tools are used to analyze large unstructured data sets, such as e-mail, memos, survey responses, etc., to discover patterns and relationships.
- (a) Text mining
 - (b) In-memory
 - (c) Clustering
 - (d) Classification

(10 × 2 Marks = Total 20 Marks)

PART II**Section A: Managing Projects****Answer all questions****Question No. 02 (20 Marks)**

A charity organization is planning to build a large water tank in a rural village in Polonnaruwa District. The objective of the project is to provide clean drinking water to the villagers. They are planning to obtain water for the project from a nearby reservoir. They will use large electric water pumps to pump water from the reservoir to the proposed water tank.

You are required to:

- (a) Identify four stakeholders of this project. **(04 Marks)**
- (b) What is a GANTT chart? Explain the importance of developing a GANTT chart in project management? **(06 Marks)**
- (c) Develop a communication plan for this project. You are required to identify at least four reports to be delivered to different stakeholders, their frequency and medium, i.e. oral/written etc. **(06 Marks)**
- (d) Explain the difference between top down approach and bottom up approach in estimating the cost of a project. **(04 Marks)**

(Total 20 Marks)**Question No. 03 (20 Marks)**

- (a) The Youth Club of Colombo (TYCC) is planning an event to raise money to provide a computer centre for a rural school located in Jaffna district. The organizers of the project have identified eight tasks to be performed under this project and their immediate predecessors. They are given in the following table. You are required to construct a network diagram for this project.

Activity	Immediate predecessor(s)
A	-
B	-
C	-
D	B,C
E	C
F	A
G	D,E,F
H	F

(06 Marks)

- (b) The manager of a road construction project has identified ten activities to be performed with estimated time durations for each of the activity. They are given in the following table.

Activity	Duration (in weeks)		
	Pessimistic	Most likely	Optimistic
1-2	8	6	4
1-3	10	8	6
1-4	6	5	4
2-5	18	15	12
2-6	20	17	14

3-7	16	13	10
4-7	12	9	6
5-8	15	9	3
6-8	9	6	3
7-8	14	12	10

You are required to:

- (i) Draw the network diagram to show the activities shown in the table. **(02 Marks)**
 - (ii) Find the expected duration for each activity. **(02 Marks)**
 - (iii) Find Earliest Starting Time (EST), Latest Finish Time (LFT) and the Slack for each activity. **(08 Marks)**
 - (iv) Find the Critical Path by using values calculated in part (i). **(02 Marks)**
- (Total 20 Marks)**
End of Section A

Section B: Information Systems

Answer any two (02) questions

Question No. 04 (20 Marks)

In recent years, e-commerce started to revolutionize the business realm entirely. Importantly, modern fashion retailing industry embraced e-commerce to meet rapidly changing desires of modern day consumers. Assume you are the newly appointed marketing manager for a well-known fashion retailer established in Sri Lanka, which has few storefronts located around Colombo and recently launched a sophisticated e-commerce web presence enabling consumers to purchase electronically.

You are required to:

- (a) What is the e-commerce business model that above organization belongs? Explain. **(02 Marks)**
 - (b) What are the two potential e-commerce revenue models that suit for the organization? Discuss. **(04 Marks)**
 - (c) Discuss the importance of adopting SSL authentication for the e-commerce website of above organization. **(06 Marks)**
 - (d) The primary limitation of embracing an e-commerce web presence is consumers are unable to examine the products physically. Argue on the above statement and recommend appropriate countermeasures to overcome such issue to a greater extent. **(08 Marks)**
- (Total 20 Marks)**

Question No. 05 (20 Marks)

XYZ Super is a chain of supermarkets in Sri Lanka owned by ABC Holdings. It is one of the three largest retail operators in the island. XYZ's systems grew independently without a company-wide plan. Hence, departments including accounting, human resources and sales maintain their own systems and data files. Recently, you have been consulted by this organization to implement database management systems initially and subsequently embrace business intelligence for effective decision making.

You are required to:

- (a) Compare and contrast between relational database management systems (RDBMS) and object oriented database management systems (OODBMS). **(02 Marks)**
 - (b) Explain the importance of replacing traditional file environment with database management systems for above supermarket chain. **(04 Marks)**
 - (c) Discuss the role of data mining as a key function of business intelligence and expected types of information obtainable from data mining which enable above supermarket chain to optimize decision making. Provide suitable examples for above discussed information types. **(06 Marks)**
 - (d) Identify and critically discuss most important technologies for safeguarding information resources of above supermarket chain. **(08 Marks)**
- (Total 20 Marks)**

Question No. 06 (20 Marks)

VPS Pvt Ltd is Sri Lanka's largest ground package distribution company. They are well known for providing best service at the lowest rate and deliver approximately 100,000 parcels and documents each day around Sri Lanka. The company has been able to maintain leadership in small package delivery services despite stiff competition from EedEx and Air Express by investing heavily in new advance information systems.

You are required to:

- (a) Briefly elaborate the importance of establishing proper access control systems. **(02 Marks)**
- (b) Explain the potential usefulness of subscribing cloud computing services for above organization. **(04 Marks)**
- (c) Discuss organizational politics, organizational culture and organizational structure as important factors that can prevent above organization in fully leverage the benefits of a new information system. Support your answer with suitable examples for above factors. **(06 Marks)**
- (d) Identify and discuss the major types of information systems that serve main management groups of above organization? **(08 Marks)**

(Total 20 Marks)

End of Section B

End of Part II

End of Question Paper
