

D'ITEMS PAST PAPER

TECHNICAL

SIR ARTHUR LEWIS COMMUNITY COLLEGE
DIVISION OF TECHNICAL EDUCATION AND MANAGEMENT STUDIES

EXAMINATION SESSION : End of Semester Examination
TUTOR : Annie Sealy-Emmanuel
PROGRAMME TITLE : Computer System Engineering
PROGRAMME CODE : 3EE-CMS-AD
COURSE TITLE : Information Systems
COURSE CODE : CMP205
CLASS : Year 2
DATE : Wednesday May 13th, 2015
COMMENCEMENT TIME : 9:00 AM
DURATION : 2 ½ Hours
ROOM : CEHI-1R-02
INVIGILATOR(S) : T. Warner, P. Beausoleil, L. Ollivierre



INSTRUCTIONS

Put your ID number ONLY in the top right-hand corner of EVERY page submitted
There are Ten (10) questions in all
Answer ALL questions
ALL writing must be done in ink
Sketches/Drawings can be done in pencil.
Hand in ALL papers at the end of the exam, including this Exam paper.

1. (a) In the context of Information Systems, define the following: (6)
(i) Data
(ii) Information
(iii) Knowledge
- (b) Define an "Information System" (2)
- (c) Two classifications of Information Systems are "Operations support" and "Management support" systems.
(i) Define these two systems (4)
(ii) Give one example in each classification. (2)
2. (a) Give three reasons why an organization may choose to create or modify and Information System. (3)
- (b) List in order, the stages in the System Development Life Cycle (SDLC) (7)
- (c) Give a deliverable at each stage (7)
3. (a) Give **two** examples of activities that are undertaken in the detailed analysis phase of system development. (2)
- (b) Two techniques for gathering requirements are "group interviews" and "questionnaires"
(i) Give two suitable situations for using group interviews (2)
(ii) Give two suitable situations for using Questionnaires (2)
- (c) Give four different kinds of information that can be obtained during requirements capture. (4)
4. (a) During the System Design stage, one of the deliverables will be outlines of different technical solutions. These technical solutions may have different "Systems boundaries" and "Automation boundaries".
Differentiate between the two types of boundaries. (4)
- (b) Briefly explain **three** other possible differences in the technical solutions at this stage. (6)
5. (a) Once all planned testing procedures have been completed satisfactorily, the system can be handed over to the client. Discuss **four** methods of changeover. (8)
- (b) Which changeover method would be most suitable for a supermarket chain implementing a new point of sale system at the checkout? Justify your answer. (4)

6. (a) There are several classes of activities which may harm information systems and supporting technology. These activities fall within classes of **viruses, worms, Trojan Horse, time bomb, logic bomb, and trapdoors**.
Briefly describe **three** of these activities (6)
- (b) Give **two** examples of how DoS attacks are carried out (2)
7. Prototyping when used in system development is based on the concept of a working model.
- (i) Give two disadvantages of using prototyping for the client (4)
- (ii) Give two advantages of using prototyping for the system developer (4)
8. (a) Documentation serves several purposes. Give **three** reasons to support developing and providing proper documentation to the client after system handover (6)
- (b) Give two guidelines to follow when developing documentation for novice users (2)
9. (a) After formal handover of the system, there is a period of “maintenance”, Describe two activities that are undertaken during “maintenance”. (4)
- (b) Briefly explain the concept of “Change control” within Information Systems. (2)
- (c) A “change request” can be triggered by Users, Managers and/or the ICT department. This is brought about by internal or external factors or both. Give two examples of external factors (2)
10. (a) With regards to Information System development, differentiate between the three types of testing (6)
- (b) Give the significance of each number of the following software version number Version 2.1.1 (3)

End of Examination!