APRIL 2021
EBS 366
LABORATORY MANAGEMENT AND
SAFETY
2 HOURS 30 MINUTES

CANDIDATE'S INDEX NUMBER:
SIGNATURE:

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
SCHOOL OF EDUCATIONAL DEVELOPMENT AND OUTREACH
INSTITUTE OF EDUCATION

COLLEGES OF EDUCATION
FOUR-YEAR BACHELOR OF EDUCATION (B.ED)
THIRD YEAR, END-OF-FIRST SEMESTER EXAMINATION, APRIL, 2021

APRIL 6, 2021   LABORATORY MANAGEMENT AND   2:00 PM – 2:30 PM
                                      SAFETY

This paper consists of two sections, A and B. Answer ALL the questions in Section A and
FOUR questions from Section B. Section A will be collected after the first 30 minutes.

SECTION A
Answer ALL the questions in this Section.

For items 1 to 20, each stem is followed by four options lettered A to D. Read each item
carefully and circle the letter of the correct or best option.

1. Strong Passwords, backup systems and shredding of sensitive information for part of the
   .... domain.
   A. electronic
   B. information
   C. operational
   D. physical or architectural

2. Security measures that are implemented in the daily activities of workers such as screening of
   workers and inspection of badges would be enforcing the .... domain.
   A. electronic
   B. information
   C. operational
   D. physical or architectural

3. When the Lab manager is able to make sure that all authorized persons have access to particular
   information at the required time, he or she is operating under the principle of ....
   A. access.
   B. availability.
   C. confidentiality.
   D. integrity.

4. In cost estimation for the lab tools, equipment and accessories, you ought to identify the ....
   A. cost of items and location.
   B. unit cost and period of expiration.
   C. units, unit cost and total cost.
   D. none of the above.

5. An integrated security system that emphasizes physical or architectural domain focuses on ....
   A. access control systems.
   B. alarm systems.
   C. controlled doors/windows access.
   D. security guards.

6. To warrant that sensitive information is **not** tampered with on computer or while in transmission, one must operate under the principle of ....
   A. access.
   B. availability.
   C. confidentiality.
   D. integrity.

7. The best way for lab personnel to make inputs into the running of the lab is through ....
   A. appraisals.
   B. mentoring progress.
   C. organizing meetings.
   D. writing of memos.

8. The ability to clearly define what has to be done and how to do them for personnel of the lab is a skill which we collectively identify as .... skills.
   A. analytical
   B. communication
   C. interpersonal
   D. management

9. The fact that decision making cuts across the various units of an organization or taking place in various organizations defines its importance in the sense of ....
   A. motivation.
   B. objective attainment.
   C. pervasive function.
   D. resource utilization.

10. The installation of CCTV cameras at the lab comes under the .... domain of security.
    A. electronic
    B. information
    C. operational
    D. physical or architectural

11. Any weakness identified in a lab resource that could be exploited by cyber criminals is termed as ....
    A. attack.
    B. risk.
    C. threat.
    D. vulnerability.

12. Video surveillance systems are usually used to supplement locks for documenting access and continuous monitoring by security personnel for the following reasons **except** ....
    A. authenticate system users and grant them access.
    B. prevent crime by recognizing unusual activity in real time.
    C. validate entry authorization by verifying the identity of the worker.
    D. verify identity of unauthorized personnel after unauthorized access.

13. The intentional blocking of particular Internet site to hinder access is termed in computing as ....
    A. Demise of Service.
    B. Denial of Service.
    C. Domain of Service.
    D. Loss of Service.

14. The actions which protect sensitive information from unauthorized people is considered under the principle of ....
    A. access.
    B. availability.
    C. confidentiality.
    D. integrity.

15. Processes of ensuring that lab resources are kept safe from people falls under ....
    A. computer management.
    B. computer safety.
    C. computer security.
    D. systems protection.

16. Efficient laboratory security system is expected to achieve the following **except** ....
    A. arrest perpetrators.
    B. delay crime activity.
    C. detect security breach.
    D. respond to security breach.

17. A very powerful threat to steal people's login credential such as username and password can be called ....
    A. Bluesnarfing.
    B. Keylogger.
    C. Phishing.
    D. Rootkit.

18. A key factor in setting up a lab is not only cost of items, but you need to also consider .... at the implementation stage.
    A. competent instructors
    B. ergonomics
    C. networking
    D. the kind of equipment to use

19. Decisions made out of the facts and figures available follows the .... process.
    A. intuitive
    B. procedural
    C. reasoning
    D. structural

20. The stage where the decision maker looks at 'the consider the feasibility of possible solutions' happens at what stage of the Decision-Making processes?
    A. Analysis of Problem.
    B. Developing an Alternative Course of Action.
    C. Evaluation of Alternative Course of Action.
    D. Review of Decision.

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SECTION B
Answer FOUR questions from this Section.

1. State and explain **four** Computer Security Threats.   [10 Marks]

2. Briefly explain the following: [10 Marks]
   a. Information Security
   b. Application Security
   c. Computer Security
   d. Network Security
   e. Cyber Security

3. Briefly explain the following Stages of Decision Making: [10 Marks]
   a. Problem Identification
   b. Selection of best Alternative
   c. Implementation of Solution
   d. Review of Decision

4. State **four** challenges Decision-makers face when making decision.   [10 marks]

5. A typical computer lab at an academic institution is an organizational unit responsible for providing users with access to workstations. Such lab may comprise one or more computer rooms located at various points on the campus. Sometimes access to workstations is unrestricted.
   a. Briefly explain What a Computer Laboratory is.   [2 marks]
   b. Identify **four** factors that make Computer Laboratories relevant or beneficial to the students?   [4 marks]
   c. What are some **four** useful things that students can do at the Computer Laboratory?
                                                                           [4 marks]

6. Computer labs are subject to various kinds of malicious activities ranging from cyber criminals launching denial of service attacks on major commercial websites to users damaging the equipment. Every year these activities cost academic institutions and the general public millions of dollars. To get the situation under control and protect themselves against accusations of negligence, lab managers need to establish a secure lab environment.

   a. Identify any **four** Skills Lab Managers should have.   [4 Marks]

   b. State any **three** duties of Computer Lab Manager.   [3 marks]

   c. Name **at least three** factors that can be used to prevent Computer Vision Syndromes in our laboratory.   [3 marks]